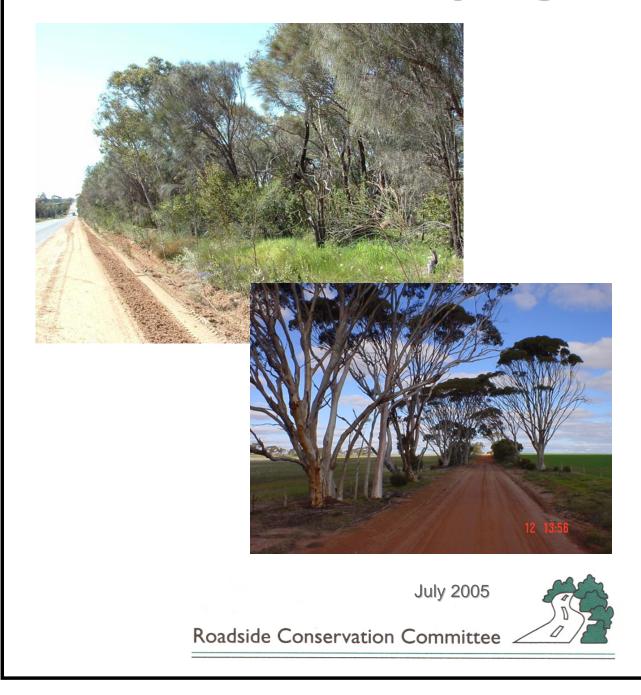
Roadside Vegetation and Conservation Values in the Shire of Dumbleyung



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Executive Summary

This report provides an overview of the conservation status of roadside remnant vegetation in the Shire of Dumbleyung. Primarily providing detailed results of the roadside survey, and accompanying management recommendations, it also briefly describes the natural environment in Dumbleyung, legislative considerations and threats to conservation values.

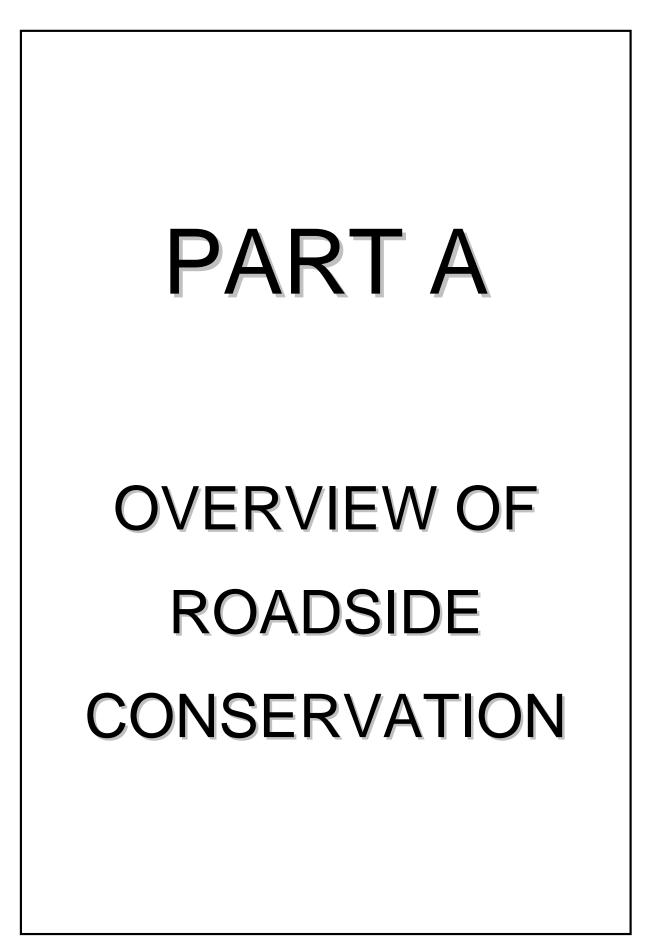
Aware of the need to conserve roadside remnants, the Shire of Dumbleyung, local community members and the Dumbleyung Land Conservation District Committee (LCDC) liaised with the Roadside Conservation Committee (RCC) in 2004 to survey roadsides in their Shire. Surveys to assess the conservation values of roadside remnants were conducted between September, October and November 2004 and February 2005. The majority, 87%, of the Shire's 1,031 km of roadsides were assessed by the RCC for their conservation status and maps produced via a Geographic Information System (GIS). Roadside locations of six nominated weeds and salt affected roadsides were also recorded and mapped onto separate clear overlays.

The survey indicated that high conservation value roadsides covered only 25% of the roadsides surveyed in the Shire, with medium-high conservation value roadsides accounting for 26%. Medium-low and low conservation value roadsides occupied 29% and 20%, respectively. A more detailed analysis of results is presented in Part C of this report.

It is envisaged that the primary purpose of the roadside survey data and roadside conservation value (RCV) map will be for use by Shire and community groups as a management and planning tool. Applications may range from prioritising work programs to formulating management strategies. Past experience has shown that this document and the accompanying maps are valuable in assisting with;

- identifying degraded areas for strategic rehabilitation or in need of specific management techniques and weed control programs;
- prioritising roadside vegetation protection and/or rehabilitation programs;
- re-establishing habitat linkages throughout the Shire's overall conservation network;
- developing regional or district fire management plans;
- identifying potential tourist routes, i.e. roads with high conservation value would provide visitors with an
 insight into the remnant vegetation of the district; and
- incorporating into Landcare or similar projects for 'whole of' landscape projects.

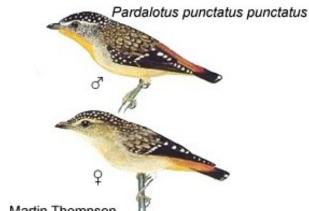
Progressive surveys of some Shires have revealed an alarming decline in the conservation status of many roadside reserves. In some cases the conservation value has declined at a rate of approximately 10% in 9 years. This trend indicates that without appropriate protection and management, roadside reserves will become veritable biological wastelands within the near future. However, proactive and innovative management of roadside vegetation has the potential to abate and reverse this general decline. Opportunities exist for the Shire of Dumbleyung to utilise the roadside conservation value map into many facets of its Landcare, tourism, road maintenance operations and Natural Resource Management (NRM) strategy documents. In addition, the RCC is available to provide assistance with the development of roadside vegetation management plans and associated documents.



1.0 Why is Roadside Vegetation Important?

Since the settlement of Western Australia by Europeans, large areas of native vegetation in the south west of the state have been cleared for agriculture, roads, settlements, and other development. The fragmentation of the more or less continuous expanse of native vegetation communities by clearing has resulted in the isolation of plant and animal populations. This results in a mosaic of man-made biogeographical islands of small native vegetation remnants.

The flora and fauna in these areas are severely disadvantaged and these habitats are typically unreliable for sustaining wildlife due to limited and scarce food resources, increased disease risk and the reduced genetic diversity caused by a diminishing gene pool. Some habitat fragments may be too small to provide the requirements for even a small population; therefore, it is essential to their survival that they have a means of dispersing throughout the landscape. The presence of native vegetation along roadsides often fulfils an important role in alleviating this isolation effect by providing connectivity between bush remnants. While many roadside reserves are inadequate in size to support many plant and animal communities, they are



Martin Thompson Martin Thompson The Spotted Pardalote (*Pardalotus punctatus punctatus*) has been recorded in the Shire of Dumbleyung. Photo by M. Thompson, Photo used with the permission of the WA Museum, FaunaBase

integral in providing connections between larger areas of potentially more suitable remnant patches. It is therefore important that all native vegetation is protected regardless of the apparent conservation value it

contains. It is important to acknowledge that even degraded roadsides have the ability to act as corridors for the dispersal of a variety of fauna.

Other important values of transport corridor remnants are that they:

- are often the only remaining example of original vegetation within extensively cleared areas;
- often contain rare and endangered plants and animals. Currently, roadside plants represent more than 80 per cent of the known populations of DRF and three species are known only to exist in roadside populations;
- provide the basis for our important wildflower tourism industry. The aesthetic appeal of well-maintained roadsides should not be overlooked, and they have the potential to improve local tourism and provide a sense of place;
- often contain sites of Aboriginal /European historic or cultural significance;
- provide windbreaks and stock shelter areas for adjoining farmland by helping to stabilise temperature and reduce evaporation.



Flora Roads are high conservation value roadside remnants. Photo D. Lamont.

- assist with erosion and salinity control, and not only in the land adjoining the road reserve; and
- provide a valuable source of seed for regeneration projects. This is especially pertinent to shrub species, as clearing and grazing beneath farm trees often removes this layer. <u>Approval of the local shire and a CALM permit are required prior to collection</u>. Guidelines for seed and timber harvesting can be found in Appendix 6.

2.0 What are the Threats?

2.1 Lack of Awareness

The general decline of the roadside environment can, in many instances, be attributed to the lack of awareness of the functional and conservation value of the roadside remnants, both by the general community and those who work in the road reserve environment. As a consequence, there is a lack of knowledge of threatening processes (such as road maintenance and inappropriate use of fire) on the sustainability of the roadside reserve as a fauna corridor and habitat area. This situation can therefore act as a catalyst for decline in environmental quality.

2.2 Roadside Clearing

Western Australia's agricultural region, also known as the Intensive Land-use Zone (ILZ), covers an area of approximately 25,091,622 ha, of which only 29.8% is covered by the original native vegetation. Of the 87 rural Local Government Authorities in this zone, 21 carry less than 10% of the original remnant vegetation, and a further 30 have less than 30% (Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. 2001).

Inappropriate road management practices, particularly the systematic and indiscriminate clearing of roadside vegetation in some areas has caused irreversible damage and impacted enormously upon the conservation value of roadsides in Western Australia. Clearing roadside vegetation reduces the viability of the roadside to act as a biological corridor, the diminished habitat width impeding the movement of wildlife throughout the surrounding landscape matrix. Roadside clearing activities have the potential to introduce and spread weeds, due to the movement and disturbance of soil, thus competing with native vegetation residing in the roadside. When coupled with poor site planning and preparation, road construction and maintenance projects can often introduce and spread weeds into previously undisturbed, weed-free roadsides. Roadsides are, in many cases, the only remaining example of remnant vegetation in agricultural areas, yet they are also at great risk due to ongoing inappropriate clearing.

Amendments to the *Environmental Protection Act* 1986 have put in place a permit application process designed to assess vegetation clearing based upon a number of clearing principles which ensure ecological, conservation and land degradation issues are considered. Under the Act clearing native vegetation requires a permit unless it is for exempt purposes. These amendments are design to provide improved protection for native vegetation, maintain biodiversity and allow for some incidental clearing activities to continue, such as day-to-day farming practices, without the need for a permit.

2.3 Fire

Although Western Australia's flora and fauna have evolved with a tolerance to pre-European fire regimes these are generally not present today. Fire in transport corridors will inevitably alter the native vegetation, but the extent of changes is dependent on a number of factors such as:

- species present;
- intensity of fire;
- frequency of fire; and
- seasonality of the fire.

The RCC's policies on fire management are:

- 1. Roadside Burning should not take place without the consent of the managing authority;
- 2. Local Government Authorities should adopt by-laws to control roadside burning;
- 3. Roadside burning should be planned as part of a total Shire/area Fire Management Plan;
- 4. Only one side of a road should be burnt in any one year;
- 5. When designing a Fire Management Plan, the two principles which must be kept in mind are the ecological management of vegetation and the abatement of fire hazard;
- 6. No firebreaks should be permitted unless the width of the roadside vegetation strip is greater than 20m;
- A firebreak on any road reserve should be permitted only when, in the opinion of the road manager, one is necessary for the protection of the roadside vegetation. The road manager shall specify the maximum width to which the break may be constructed;
- In the case of any dispute concerning roadside fire management, the Bush Fires Board should be called in to arbitrate.

If a decision is made to use fire, only one side of a road should be burnt at a time, as this will ensure retention of some of the scenic values associated with the road and also provide habitat for associated fauna.

Fire can be particularly destructive to heritage sites, whether they are of Aboriginal or European origin. Before any decision is made to burn a road verge, particularly if threatened flora is present, the proponent should be aware of all values present and the impact the fire will have. It is illegal to burn roadsides where Declared Rare Flora (DRF) is present, without written permission from the Minister for the Environment.



Before a decision is made to burn a road verge, the impact on natural, cultural and landscape values should be carefully considered. Photo D. Lamont

2.4 Weeds

Weeds are generally disturbance opportunists and as such the road verge often provides a vacant niche easily colonised. Their establishment can impinge on the survival of existing native plants, increase flammability of the vegetation and interfere with the engineering structure of the road. The effect of weed infestations on native plant populations can be severe, often with flow on effects for native fauna such as diminished habitat or food resources.

Once weeds become established in an area, they become a long-term management issue, costing considerable resources to control or eradicate. The WA Herbarium records 32 weed species in the Shire of Dumbleyung, see Appendix 4. The roadside survey recorded populations of six significant weeds, and their

locations were mapped by the RCC onto clear overlays.

The six nominated weed groups were:

- Paterson's Curse (Echium plantagineum);
- Cape Tulip (Moraea flaccida);
- Cabbage Family Weeds (includes Wild Radish);
- Bridal Creeper (Asparagus asparagoides);
- Victorian Tea Tree (Leptospermum laevigatum) and
- Dock (Rumex spp.).

Roadside populations of these weeds can be observed on the weed overlays provided with the Dumbleyung Roadside Conservation Value map (2005). The Roadside Conservation Value map and weed overlays will assist the Shire and community in planning, budgeting and coordinating strategic weed control projects. Further information on the presence of these nominated weeds is presented in Part C of this report.



Cape Tulip has become a major pastoral weed and is unpalatable to stock. Locating and destroying new plants before they become established is vital for its control.

Photocraphy by R. Knox and K.C. Richardson. Photo used with the Survey of Roadside Conservation Values in the Shire of Dumbleyung



Paterson's curse is a widespread pasture weed that is spread by seed, making roadside populations a priority for control.

Photography by R. Knox and J. Dodd Photo used with the



Wild radish can be a common weed in degraded roadsides, and is recorded under the 'Cabbage family weeds' group surveyed in Dumbleyung. Photo by K. Jackson RCC

2.5 Salinity

Salinity is one of the greatest environmental threats facing Western Australia's agricultural areas, with approximately 1.8 million hectares in the south-west agricultural region already affected to some degree. Dryland salinity has occured as a consequence of the heavy clearing undertaken in the past, namely, the removal of perennial deep-rooted native vegetation and replacement by shallow rooted annual crop vegetation, and the subsequent rising of the water table. The large amount of salt stored within the soil column in these areas of Western Australia is dissolved by the rising water and carried to the surface. Once at the surface, the water evaporates, leaving a white film of salt over the landscape, making it unproductive for current agricultural practices, and severely impacting upon the remaining native vegetation. Without significant changes to the current land use, it has been estimated that approximately 3 million hectares will be affected by salinity by 2010-2015, and 6 million hectares, or 30% of the region, affected by the time a new groundwater equilibrium is reached (Department of Agriculture WA, 2004).

The effect of salinity has not only been restricted to agriculture, but is also having a serious effect on rural townsites and the road network. The National Land and Resources Audit (2002) warned that, across Australia, some 19,800km of roads, 1,600km of railways and 306 towns are all at a high risk from dryland salinity (Department of Environment and Heritage and the Department of Agriculture, Fisheries and Forestry Australia, 2003). It has also been estimated that more than 4,000km (or 5%) of roads in the sourth west land division of Western Australia are at threat of being degraded by the effects of rising water tables and salinity.

Based on figures supplied by the Department of Agriculture WA for the *Salinity Investment Framework Interim Report* (2003), Table 1 shows that approximately 5.72%, or 58.43 km of roads in the Shire of Dumbleyung are potentially under threat from salinity.

Shire	Total road	Roads potentially affected by salinity - length in km					
	length assessed (km)	Highways	Local roads	Main roads	Other roads	Total affected	% of total potentially affected
Dumbleyung	1,020.80		49.30	5.10	4.03	58.43	5.72%
Katanning	726.37		31.43	5.08	7.03	43.53	5.99%
Kent	1,372.75		56.15	6.28	50.03	112.45	8.19%
Lake Grace	2,195.71	1.60	90.10	15.43	71.90	179.03	8.15%
Wagin	817.68		43.90	4.03	6.05	53.98	6.60%
Wickepin	848.27		32.93	0.70	12.73	46.35	5.46%

Table 1. Road lengths potentially affected by salinity in the Shires of Dumbleyung, Katanning, Kent, Lake Grace, Wagin and Wickepin.

Adapted from material produced by the Department of Agriculture WA for Department of Environment 2003, Salinity Investement Framework Interim Report - Phase 1, 2003, Department of Environment, Salinity and Land Use Impacts Series No. SLUI 32

Aware of the threat salinity poses to the Shire, the 2004 Dumbleyung roadside survey was designed so that roadside surveyors could record the presence of salt affected roadsides as an additional attribute. The location of salt affected roadsides appears as a clear overlay accompanying the Shire of Dumbleyung roadside conservation value map (2005). The data relating to occurance of salt affected roadsides in Dumbleyung, as observed by the roadside surveyors, is also presented in Part C of this report. Survey of Roadside Conservation Values in the Shire of Dumbleyung 7

3.0 Legislative Requirements

Uncertainty often exists in the minds of many with regard to the 'ownership', control and management of 'the roadside'. This problem is also exacerbated by the multitude of legislative reference to activities within a transport corridor.

The Department of Conservation and Land Management (CALM) has the legislative responsibility to manage and protect all native flora and fauna in Western Australia. It is important to note that all native flora and fauna is protected under provisions of the *Wildlife Conservation Act* 1950, and cannot be taken unless it is taken in a lawful manner. In addition to the general provisions relating to protected flora under the *Wildlife Conservation Act*, special protection is afforded to flora that is declared as rare or threatened under section 23F of the *Wildlife Conservation Act*.

The legislation pertaining to the management of road reserves is complex and includes those listed below.

State legislation:

- Aboriginal Heritage Act 1972
- Agriculture and Related Resources Protection Act 1976
- Bush Fires Act 1954
- Conservation and Land Management Act 1984
- Environmental Protection Act 1986
- Heritage of WA Act 1990
- Land Act 1933
- Local Government Act 1995
- Main Roads Act 1930
- Mining Act 1978
- Soil and Land Conservation Act 1945
- State Energy Commission Supply Act 1979
- Water Authority Act 1987
- Wildlife Conservation Act 1950-1979

Commonwealth legislation:

- Environment Protection and Biodiversity Conservation Act 1999

New legalisation has been introduced under the *Environmental Protection Act 1986* which specify that all clearing of native vegetation require a permit, unless it is for an exempt purpose. The Environmental Protection (Clearing of Native Vegetation) Regulations 2004 provide an outline of these exemptions. Clearing applications are assessed against twelve clearing principles, which look at values such as the;

- biological value of the remnant vegetation,
- potential impact on wetlands and drainage,
- existence of rare flora and threatened ecological communities, and
- likely land degradation impacts.

This assessment process is designed to provide a more comprehensive and stringent land clearing control system. There are two land clearing permits available, an area permit and a purpose permit. Where clearing is for a once-off clearing event such as pasture clearing or an agricultural development for example, an area permit is required. Where ongoing clearing is necessary as part of a maintenance program for road or railway reserves for example, a purpose permit is needed. In the case of Shire road construction and maintenance activities, clearing is allowed to occur if it is to the width and height previously cleared for that purpose. Contact the Department of Environment's Native Vegetation Protection Team for information.

It is recommended that a cautionary approach be taken when working within roadsides, and that the relevant authority be contacted if there is any doubt about the management or protection of heritage or conservation values present in the roadsides.

4.0 Special Environment Areas

A Special Environmental Area is a section of roadside that requires special protection for the following reasons:

- protection of rare or threatened species of native plants;
- protection of sites that have other high conservation, scientific or aesthetic values;
- protection of Aboriginal or European cultural sites.

Special Environmental Areas can be delineated by the use of site markers. See the RCC publication *Guidelines for Managing Special Environmental Areas in Transport Corridors* for design and placement of SEA markers. Workers who come across a 'Special Environmental Area' marker in the field should not disturb the area between the markers unless specifically instructed. If in doubt, the Works Supervisor, Shire Engineer or CEO should be contacted. Western Power and West Net rail also have systems for marking sites near power or rail lines.

To ensure that knowledge of rare flora and other sites does not get lost due, perhaps, to staff changes, the Local Authority should establish a *Special Environmental Area Register*. This should outline any special treatment, which the site should receive, and be consulted prior to any work being initiated in the area.

The Special Environmental Area Register should be consulted by the appropriate person prior to work commencing on any particular road. This will ensure that inadvertent damage does not occur.



Roadside SEA markers are highly visible. Photo by K. Jackson

Local Government is encouraged to permanently mark Special Environmental Areas to prevent inadvertent or inappropriate damage to the rare flora or other values being protected. Markers of a uniform shape and colour will make recognition easier for other authorities using road reserves.

5.0 Flora Roads

A flora road is one which has special conservation value because of the vegetation contained within the road reserve. The managing authority may decide to declare a Flora Road based on the results of the survey of roadside conservation value. The Roadside Conservation Committee has prepared *Guidelines for the Nomination and Management of Flora Roads*, refer to Appendix 7. The Flora Road signs (provided by the RCC) draw the attention of both the tourist and anyone working in the road reserve, to the roadside flora, indicating that it's special and worthy of protection. The program seeks to raise the profile of roadsides within both the community and road management authorities.



Roadsides are one of the most accessible places for tourists to view wildflowers. Photo by CALM

Although presently there are no Flora Roads designated within the Shire of Dumbleyung, the roadside survey and the roadside conservation value (RCV) map highlighted a number of roadsides that have the potential to be declared as Flora Roads. These, and other roads may be investigated further to see if they warrant a declaration as a Flora Road, see Part C of this report.

In order to plan roadworks so that important areas of roadside vegetation are not disturbed, road managers should know of these areas. It is important to the sustainability of the designated flora roads, that all road managers are aware of the location of flora roads under their control. It is suggested that the Shire establish a *Special Environmental Area Register* important for conservation.

Attractive roadside drives are an important focus in Western Australia, the "Wildflower State". Declared Flora

Roads will, by their very nature, be attractive to tourists and would often be suitable as part of a tourist drive network. Consideration should be given to:

- promoting the road by means of a small brochure or booklet,
- showing all Flora Roads on a map of the region or State,
- using specially designed signs to delineate the Flora Road section (contact the RCC).

Right: The RCC has assisted local communities to produce wildflower drive pamphlets.



PART B

The Natural Environment in Dumbleyung

1.0 Flora

On a global scale, Western Australia has almost ten times the amount of vascular plant varieties than countries such as Great Britain. In fact Western Australia has some 4.8% of the 250,000 known vascular flora present on Earth. The Western Australian flora is also unique, with the majority of species being endemic, that is, found nowhere else in the world. Up to 75% of the 6,000 species in the southwest, are endemic.

The WA Herbarium lists over 790 species of plants present in the Shire of Dumbleyung. The most prolific genus are Acacia 49 spp, Dryandra 32 spp, Melaleuca 28 spp, Eucalyptus 44 spp, and Verticordia 23 spp. The complete list of recorded flora can bee seen in Appendix 4 of this report.

2.0 Declared Rare Flora (DRF)

Declared Rare Flora (DRF) species, or populations, are of great conservation significance and should therefore be treated with special care when road and utility service, construction or maintenance is undertaken. Populations of DRF along



Round leaf Grevillea (*Grevillea teretifolia*), a native plant of the roadside flora in the Shire of Dumbleyung. Photography by H. Adamson, and M Kealley. Photo used with the permission of the

WA Herbarium, CALM http://florabase.calm.wa.gov.au/help/photos#reuse

roadsides are designated Special Environmental Areas (SEA's) and are delineated by yellow stakes with an identification plate welded on. It is suggested that the RCC publication *Guidelines for Managing SEA's in Transport Corridors* is used as a guideline for managing these sites. It is the responsibility of the road manager to ensure these markers are installed, and guides for this are available from the Roadside Conservation Committee. For information regarding DRF, contact the CALM Flora Officer for the Katanning District. If roadworks are to be carried out near DRF sites, it is advisable to contact CALM at least six weeks in advance.

Currently (as at January 2005), twenty locations of declared rare and priority flora are known to occur within roadsides in the Shire of Dumbleyung. Twelve of these sites are road verges vested in the Shire, the remaining being vested in Main roads. In total, there are ten species of declared rare and priority flora on roadsides in the Shire, these being:

- Dryandra foliosissima
- Acacia depressa
- Bossiaea divaricata



Declared Rare Flora (DRF) sites should be clearly marked with these yellow posts. Photo K. Jackson.

- Gastrolobium densifolium
- Boronia ericifolia
- Boronia penicillata
- Gastrolobium rigidum
- Dryandra conferta var. parva
- Synaphea cervifolia
- Leucopogon spp.

Note that this information may have changed since the time of this report's release; therefore it is important to contact the relevant CALM District office or Wildlife Branch in Kensington for the most recent information.

3.0 Fauna

The Western Australian Museum records approximately 159 species of fauna from the Dumbleyung area, these are listed in Appendix 5. WA Museum fauna records comprise specimen records, museum collections and observations from 1850 to present; therefore it is intended to act only as a general representation of the fauna in the area. Of the fauna species recorded in the Dumbleyung area, there were 70 bird, 12 amphibia, 23 mammal, 5 fish and 49 reptile species.

A number of the fauna species recorded from Dumbleyung are classified as endemic to the wheatbelt region of Western Australia, or smaller regions within the State. For example, the Reticulated Velvet Gecko (*Oedura reticulata*) occurs only within the semi-arid southern interior from Buntine south to Woodanilling and Lake Grace, and was recorded by WA Museum in Dumbleyung area.

The *Wildlife Conservation Act* 1950 provides for native fauna (and flora) to be specially protected where they are under

identifiable threat of extinction, and as such, are considered to be "threatened". Based on distributional data from the Department of CALM, twenty species of threatened and priority fauna have been recorded or sighted throughout the Shire of Dumbleyung, and these are listed below.

Chuditch (Dasyurus geoffroii)

This carnivorous marsupial occupies large home ranges, is highly mobile and appears able to utilise bush remnants and corridors;

• **Numbat** (*Myrmecobius fasciatus*)This diurnal marsupial feeds almost exclusively on termites and is very vulnerable to predation by foxes and cats. It occurs in a variety of habitats including woodland and shrubland where it shelters in hollow logs, tree hollows and burrows.

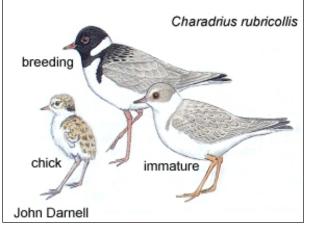
Red-tailed Phascogale (Phascogale calura)

 This arboreal marsupial seems to prefer dense woodland or tall shrubland with a continuous canopy and Survey of Roadside Conservation Values in the Shire of Dumbleyung



The Reticulated Velvet Gecko.

Photo by B. G. Bush, Photo used with the permission of the WA Museum, FaunaBase (http://www.museum.wa.gov.au/faunabase.htm)



The Hooded Plover (above) is a threatened species generally occuring near salt lakes. It has been recorded in the Shire of Dumbleyung. Photo by J. Darnell, Photo used with the permission of the WA Museum, FaunaBase (http://www.museum.wl4.cov.au/faunabase.htm). is most often associated with dense stands of rock sheoak (Allocasuarina huegeliana) and wandoo (Eucalyptus wandoo).

Western Ringtail Possum (Pseudocheirus occidentalis)

This species occurs in areas of forest and dense woodlands and requires tree hollows and/or dense canopy for refuge and nesting.

Malleefowl (Leipoa ocellata)

This species was once widely distributed across southern Australia. It prefers woodland or shrubland with an abundant litter layer that provides essential material for the construction of its nest mound.

Carnaby's Black-Cockatoo (Calyptorhynchus latirostris)

This species moves around seasonally in flocks to feeding areas in proteaceous scrubs and heaths and eucalypt woodlands as well as pine plantations. Breeding occurs in winter/spring, mainly in the eastern forests and wheatbelt where they can find mature hollow-bearing trees to nest in.

Western Rosella (inland ssp Platycercus icterotis xanthogenys)

This subspecies of the Western Rosella occurs in eucalypt and casuarina woodlands and scrubs, especially of Salmon Gum and tall mallees.

Peregrine Falcon (Falco peregrinus)

This species is uncommon and prefers areas with rocky ledges, cliffs, watercourses, open woodland or margins with cleared land.

Carpet Python (Morelia spilota imbricate)

This species occurs in a variety of habitats including forest and heathland. It is often arboreal and preys on birds, other reptiles and small to medium size mammals. This species is listed under both Schedule 4 and Priority 4.

Hylaeus globuliferus (Hylaeus globuliferus)

This species of native bee is known to feed on the flowers of Adenanthos cygnorum in particular but has also been collected from the flowers of Grevillea cagiana, Banksia grossa and Banksia attenuata.

Western Brush Wallaby (Macropus irma)

This species occurs in areas of forest and woodland supporting a dense shrub layer.

Western Mouse (Pseudomys occidentalis)

This species occurs most frequently in areas of long-unburnt vegetation on sandy clay or loam with a matrix of gravel. It is known to feed on the seeds of quandong (Santalum acuminatum) and various sedge species.

Australian Bustard (Ardeotis australis)

This species is uncommon and may occur in open or lightly wooded grasslands.

Bush Stonecurlew (Burhinus grallarius)

A well camouflaged, ground nesting bird which prefers to 'freeze' rather than fly when disturbed. It inhabits lightly timbered open woodlands.

Crested Bellbird (southern) (Oreoica gutteralis gutteralis)

This sedentary and solitary species inhabits the drier mallee woodlands and heaths of the southern parts of the State.

White-browed Babbler (Pomatostomus superciliosus ashbyi)

This species of bird lives in eucalypt forests and woodlands, and forages on or near the ground for insects and seeds.

Western Whipbird (Psophodes nigrogularis Oberon)

This subspecies occurs from the Stirling Range east to Munglinup and north to Lake Grace and inhabits areas of mallee and heath, nesting in dense vegetation.

Carpet Python (Morelia spilota imbricate)

This species occurs in a variety of habitats including forest and heathland. It is often arboreal and preys on birds, other reptiles and small to medium size mammals. This species is listed under both Schedule 4 and Priority 4.

Quenda (Isoodon obesulus fusciventer)

This species prefers areas with dense understorey vegetation, particularly around swamps and along watercourses, that provides ample protection from predators.

Tammar Wallaby (Macropus eugenii derbianus)

This species prefers thickets of Melaleuca, Sheoak or other large shrubs associated with grassland.

Many fauna species, particularly small birds need continuous corridors of dense vegetation to move throughout the landscape. Roadsides therefore are of particular importance to this avifauna because they usually contain the only continuous linear vegetation connection in some areas.

4.0 Remnant Vegetation Cover

Only 9.5 per cent of the original native vegetation remains in the Shire of Dumbleyung, and this is located in a variety of tenures from nature reserves to privately owned land. National Objectives and Targets for Biodiversity Conservation 2001-2005 (Environment Australia, 2001) stated that vegetation types represented by less than 30% are considered ecologically endangered and in need of protection and restoration wherever they are located. With less than 10% remaining in Dumbleyung, this is considerably low, and even the remaining remnants can be depleted if proactive measures are not taken to manage this priceless resource.

Shire	Total Area (ha)	Area inside Clearing Line (ha)	Vegetation Cover Remaining (inside clearing line)	
			(ha)	(%)
Dumbleyung	253,816	253,816	24,003	9.5
Katanning	153,272	153,272	17,149	11.2
Kent	575,537	575,537	154,315	26.8
Kulin	466,712	466,712	55,883	12.0
Lake Grace	1,031,972	1,031,972	225,891	21.9
Wagin	193,910	193,910	15,847	8.2
Wickepin	202,347	202,347	15,120	7.5

Table 2. Remnant vegetation remaining in agricultural areas of Dumbleyung and surrounding Shires (Shepherd, Beeston and Hopkins, 2001).

The continued presence of the flora and fauna living in these fragmented remnants is dependant on the connectivity throughout the landscape. This enables access to habitat and food resources essential for the survival of species and the overall biodiversity of the region. In many situations remnant native vegetation in transport corridors is of vital importance as it provides the only continuos link throughout the landscape.



Tree hollows are of vital importance to breeding birds. Photo by L. McMahon, Birds Australia

PART C ROADSIDE SURVEYS IN THE SHIRE OF DUMBLEYUNG

1.0 Introduction

The roadside survey and mapping program was developed to provide a method of readily determining the conservation status of roadsides. Using this method, community volunteers are able to participate in a 'snap-shot' survey of roadside vegetation to identify a range of attributes that, when combined, give an overall indication of the conservation status of the vegetation.

The majority (900.15 km, or 87.3%) of the Shire of Dumbleyung's 1,031 km of roads were surveyed and then assessed to determine the conservation status of the road reserves. Fieldwork was carried out throughout the months of September, October and November 2004 and February 2005. The enthusiastic efforts of the volunteer roadside surveyors and the support provided by Council and Shire staff ensured that this project was successfully completed. The roadside surveyors were:

- Michele Brown
- Megan Haines
- Michael Robinson
- Ella Maesepp

- Geoff Burrow
- Joan Temby
- Bill Temby
- Meryn Clune

1.1 Methods

Roadside surveys were undertaken in a vehicle, with two or three people per vehicle. The passenger recorded all the roadside survey data using the RCC's standard paper survey sheet shown in Appendix 1. At the end of the survey, the survey sheets were sent to the RCC for analysis and mapping.

The methods to assess and calculate the conservation value of the roadside reserves are described in *Assessing Roadsides: A guide for Rating Conservation Value* (Jackson, 2002). The process involves scoring a set of pre-selected attributes, which, when combined, represent a roadside's conservation status. A list of these attributes is presented on a standard survey sheet in Appendix 1. This provides both a convenient and uniform method of scoring.

The following 6 attributes were used to produce a quantitative measure of conservation value:

- structure of native vegetation on roadside;
- level of weed infestation;
- extent of native vegetation along roadside;
- number of native species;

- value as a biological corridor; and
- predominant adjoining land use.

Each of these 6 attributes was given a score ranging from 0 to 2 points. Their combined scores provided a conservation value score ranging from 0 to 12. The conservation values, in the form of conservation status categories, are represented on the roadside conservation value map by the following colour codes.

Conservation Value	Conservation Status	Colour Code
9 – 12	High	Dark Green
7 – 8	Medium High	Light Green
5 – 6	Medium Low	Dark Yellow
0 – 4	Low	Light Yellow

The following attributes were also noted but did not contribute to the conservation value score:

- width of road reserve;
- width of vegetated roadside;
- presence of utilities/disturbances;
- general comments;
- presence of 6 nominated weeds; and
- presence of salt affected roadside.

It is felt that the recording of these attributes will provide a dataset capable of being used by a broad range of community land management interests.

1.2 Mapping Roadside Conservation Values

The RCC produced a computer-generated map (using a Geographic Information System, or GIS), at a scale of 1:100,000 for the Shire of Dumbleyung. Known as the Roadside Conservation Value (RCV) map, it depicts the conservation status of the roadside vegetation and the width of the road reserves within the Shire of Dumbleyung. The data used to produce both the map and the following figures and tables are presented in Appendix 2. Road names and length information can be found in Appendix 3.

Digital information was obtained from the Department of CALM, Main Roads WA and the Department of Agriculture WA and used in the map, depicting the location of remnant vegetation on both the Crown estate and privately owned land. Watercourses are also depicted on the RCV map.

1.3 Roadside Conservation Value Categories

<u>High conservation value roadsides</u> are those with a score between 9-12, and generally display the following characteristics:

- intact natural structure consisting of a number of layers, i.e. ground, shrub, tree layers;
- extent of native vegetation greater than 80%, i.e. little or no disturbance;
- high diversity of native flora, i.e. greater than 20 different species,
- few weeds, i.e. less than 20% of the total plants; and
- high value as a biological corridor, i.e. may connect uncleared areas, contain flowering shrubs, tree hollows and/or hollow logs for habitat.



This high conservation value roadside in Wongan-Ballidu contains relatively intact, undisturbed and diverse remnant vegetation. Photo K. Jackson.

<u>Medium-high conservation value roadsides</u> are those with a score between 7-8, and generally have the following characteristics:

- generally intact natural structure, with one layer disturbed or absent;
- extent of native vegetation between 20-80%;
- medium to high diversity of native flora, i.e. between 6-19 species;
- few to half weeds i.e. between 20-80% of the total plants;
- medium to high value as a biological corridor.



Medium-high conservation value roadsides contains a moderate number of native species, some disturbance and weed invasion, but have relatively intact natural structure.

<u>Medium-low conservation value roadsides</u> are those with a score between 5-6, and generally have the following characteristics:

- natural structure disturbed, i.e. one or more vegetation layers absent;
- extent of native vegetation between 20-80%;
- medium to low diversity of native flora, i.e. between 0-5 species;
- half to mostly weeds, i.e. between 20-80% of total plants;
- medium to low value as a biological corridor.

Low Conservation Value roadsides are those with a score between 0-4, and generally have the following characteristics:

- no natural structure i.e. two or more vegetation layers absent;
- low extent of native vegetation, i.e. less than 20%;
- low diversity of native flora, i.e. between 0-5 different species;
- mostly weeds, i.e. more than 80% of total plants, or ground layer totally weeds;
- low value as a biological corridor.



Medium-low conservation value roadsides may contain Declared Rare Flora (DRF).



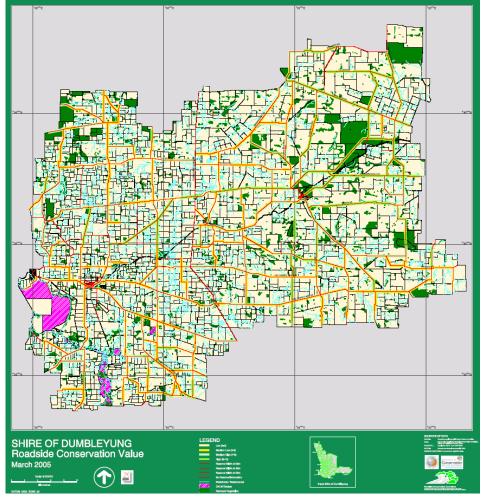
Low conservation value roadsides are typically dominated by weeds and have little or no native vegetation.

2.0 USING THE RCV MAP

The RCV map initially provides an inventory of the condition of the roadside vegetation. This is important as the quality of roadside vegetation has far reaching implications for sustaining biodiversity, tourism and Landcare values.

Moreover, the data and map can be incorporated as a management and planning tool for managing the roadsides, as it enables the condition of roadside vegetation to be easily assessed. This information can then be used to identify environmentally sensitive areas, high conservation roadsides or strategically important areas, and thus ensure their conservation. Conversely, it enables degraded areas to be identified as areas important for strategic rehabilitation or in need of specific management techniques and weed control programs.

The map can also be used as a reference to overlay transparencies of other information relevant to roadside conservation. This enables the roadside vegetation to be assessed in the context of its importance to the shire's overall conservation network. Other overlays, such as the degree of weed infestation, or the location of environmentally sensitive areas or future planned developments, could also be produced as an aid to roadside management.



The RCV map depicts roadside conservation values in the Shire of Dumbleyung.

As well as providing a road reserve planning and management tool, the roadside conservation value map can also be used for developing:

- regional or district fire management plans;
- Landcare and/or Bushcare projects that would be able to incorporate the information from this survey into 'whole of' landscape projects; and
- tourist routes, i.e. roads depicted as high conservation value would provide visitors to the district with an insight to the flora of the district.



Weed control along a roadside Photo MRWA



The road manager can declare high conservation value roads as Flora Roads. Photo by D. Lamont.



Catchment recovery projects, such as revegetation programs can utilise the information conveyed on roadside conservation value maps.



The survey data and map can be used in developing regional or district fire management plans Photo by CALM

3.0 RESULTS

Using the information collected by the roadside survey, totals of the attributes used to calculate roadside conservation values in the Shire of Dumbleyung is presented in Table 3. The survey data has been combined to provide the total kilometres and percentages of roadside occupied by each of the conservation status categories, and the attributes used to calculate the conservation values. As roadsides occur on both sides of the road, roadside distances (km) are equal to *twice* the actual distance of road travelled.

, .,					
Lengtr	n of roadside su	rveyed:1800).3 km (or 900.15 km of road)		
Roadside Conservation Status			Native Vegetation on Ro	<u>badside</u>	
	Total (km)	(%)		Total (km)	(%)
Low (0-4)	365.6	20.3	0 vegetation layers	104.7	5.8
Medium-low (5-6)	517.4	28.7	1 vegetation layer	460.6	25.6
Medium-high (7-8)	461.4	25.6	2-3 vegetation layers	1235.0	68.6
High (9-12)	455.9	25.3			
			Total	1800.3	100.0
Total	1800.3	100.0			
			Extent of Native Vegeta	<u>tion</u>	
Roadside Conservation Values				Total (km)	(%)
	Total (km)	(%)	Low, <20%	607.4	33.7
0	0.2	0.0	Medium, 20-80%	886.9	49.3
1	32.4	1.8	Good, >80%	306.1	17.0
2	71.4	4.0			
3	95.1	5.3	Total	1800.3	100.0
4	166.6	9.3			
5	214.1	11.9	Number of Native Plant	Species	
6	303.2	16.8		Total (km)	(%)
7	237.5	13.2	0 - 5 native species	985.7	54.8
8	224.0	12.4	6 - 19 native species	630.6	35.0
9	216.3	12.0	Over 20 native species	184.0	10.2
10	133.4	7.4			
11	53.9	3.0	Total	1800.3	100.0
12	52.4	2.9			
			Weed Infestation		
Total	1800.3	100.0		Total (km)	(%)
			Heavy	622.3	34.6
Predominant Adjoining Landuse			Medium	666.0	37.0
	Total (km)	(%)	Light	512.0	28.4
Agricultural: Completely cleared	1131.7	62.9			
Agricultural: Scattered vegetation	441.5	24.5	Total	1800.3	100.0
Other	8.0	0.4			
Non-native Plantation	10.1	0.6	Value as a Biol		
Railway Reserve	14.6	0.8		Total (km)	(%)
Uncleared native vegetation	194.4	10.8	Low	506.6	28.1
			Medium	440.2	24.4
Total	1800.3	100.0	High	853.5	47.4
			Total	1800.3	100.0

Table 3: Summary of results from the roadside survey in the Shire of Dumbleyung.

Width of Road Reserve

The width of road reserves in the Shire of Dumbleyung was recorded in increments of 20 metres, as shown in Table 4. The majority of road reserves were 20 metres in width, with 768.7 km, or 85.4% of roads falling into this category. Of the remaining roads, 42.2 km, or 4.7%, were 40 metres in width, 2.0 km, or 0.2% were 100m wide, and the width of roadside vegetation for 87.3 km, or 9.7% of roads surveyed was unknown.

Width of Road Reserve- Dumbleyung					
	Total km	%			
20 m	768.7	85.4			
40 m	42.2	4.7			
100 m	2.0	0.2			
Unknown	87.3	9.7			
Total	900.2	100.0			

Table 4: Width of road reserves in the Shire of Dumbleyung.

Width of Vegetated Roadside- Dumbleyung					
	Total km	%			
1-5 metres	1212.7	67.4			
5-20 metres	441.3	24.5			
Over 20 metres	51.6	2.9			
Unknown	94.8	5.3			
Total	1800.3	100.0			

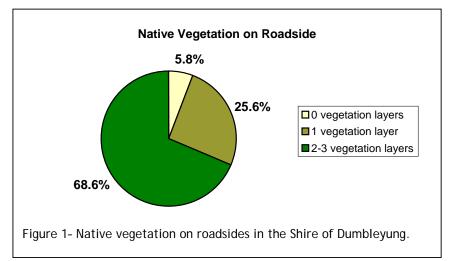
Table 5: Width of vegetation on roadsides in
the Shire of Dumbleyung.

Width of Vegetated Road Reserve

The width of vegetated roadside was recorded by selecting one of three categories, 1-5 metres, 5-20 metres or over 20 metres in width. The left and right hand sides were recorded independently, and then combined to establish the total figures shown in Table 5. The majority of roadside vegetation (1,212.7 km or 67.4%) was between 1 to 5 metres in width, followed by 441.3 km (24.5%) of roadsides where the vegetation fell between 5 to 20 metres in width. Roadside vegetation over 20 metres in width spanned 51.6 km, or 2.9% of the roadsides surveyed, whilst the width was unknown for 94.8 km or 5.3% of the roadsides surveyed.

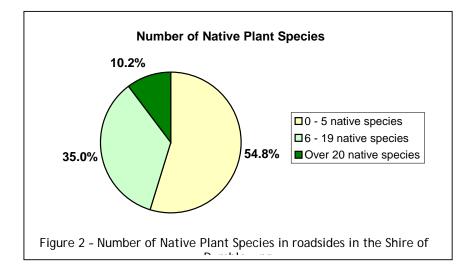
Native Vegetation on Roadsides

The number of native vegetation layers present, either the tree, shrub or ground layers determined the 'native vegetation on roadside' value. Sections with two to three layers of native vegetation covered 68.6% of roadsides (1235.0 km), 25.6% had only one layer (460.6 km) and 5.8% had no layers of native vegetation (104.7 km), refer to Table 3 and Figure 1.



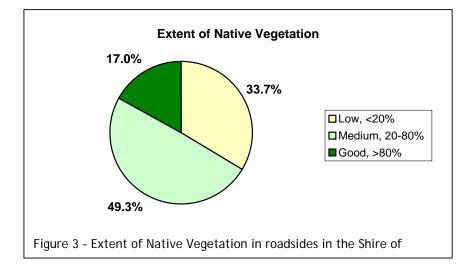
Number of Native Plant Species

The 'number of native plant species' score provided a measure of the diversity of the roadside vegetation. Survey sections with more than 20 plant species spanned 10.2% (184.0 km) of the roadsides surveyed. Roadside sections with 6 to 19 plant species accounted for 35.0% (630.6 km) of the roadside. The remaining 54.8% (985.7 km) contained less than 5 plant species, refer to Table 3 and Figure 2.



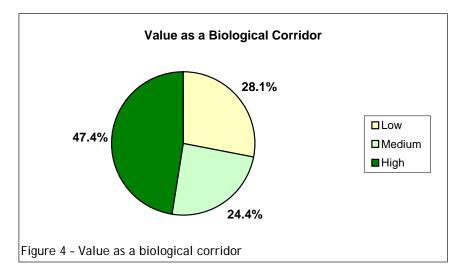
Extent of Native Vegetation

The 'extent of native vegetation' cover refers to the continuity of the roadside vegetation and takes into account the presence of disturbances such as weeds. Roadsides with extensive vegetation cover, i.e. greater than 80%, occurred along 17.0% of the roadsides surveyed (306.1 km). Survey sections with medium, i.e. 20% to 80% vegetation cover accounted for 49.3% of the roadsides (886.9 km). The remaining 33.7% had less than 20% native vegetation (607.4 km), and therefore, a low 'extent of native vegetation' value, refer to Table 3 and Figure 3.



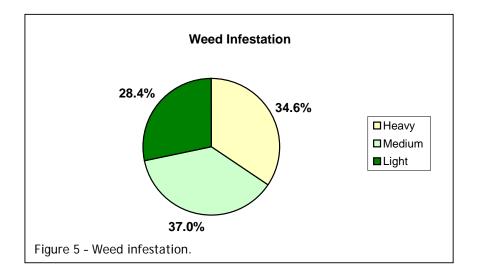
Value as a Biological Corridor

This characteristic considered the presence of four attributes- connection to uncleared areas; presence of flowering shrubs; large trees with hollows and hollow logs. Roadsides determined to have high value as a biological corridor were present along 47.4% (853.5 km) of the roadsides surveyed. Roadsides with medium value as biological corridors made up 24.4% (440.2 km), and roadsides with low value as a biological corridor occurred along 28.1% (506.6 km) of the roadsides surveyed, refer to Table 3 and Figure 4.



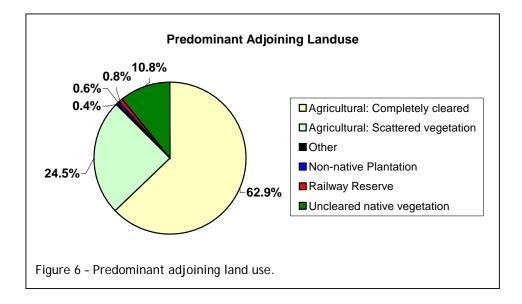
Weed Infestation

Light levels of weed infestation (weeds less than 20% of total plants), were recorded on 28.4% (512.0 km) of the roadsides surveyed, medium level weed infestation (weeds 20-80% of the total plants) occurred on 37.0% (666.0 km) of the roadsides and 34.6% of roadsides (622.3 km) were heavily infested with weeds (weeds more than 80% of the total plants), refer to Table 3 and Figure 5.



Predominant Adjoining Land Use

Uncleared native vegetation was present on 10.8% (194.4 km) of the land adjoining roadsides, whilst 62.9% (1131.7 km) of roadsides adjoined land that had been completely cleared for agriculture. 24.5% (441.5 km) of the roadsides bordered land cleared for agriculture, but contained a scattered distribution of native vegetation. Non-native plantations were the predominant adjoining landuse for 0.6% (10.1 km) of the roadsides surveyed, railways reserves adjoined 0.8% (14.6 km) of the roadsides, and 'other' landuses adjoined 0.4% (8.0 km) of the roadsides surveyed, see Table 3 and Figure 6.



Nominated Weeds

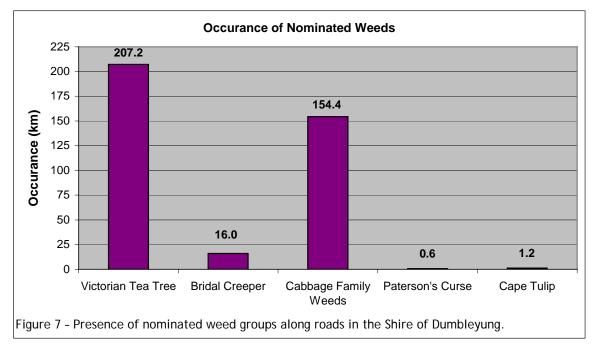
The following weeds/ weed groups are depicted on clear overlays accompanying the 2005 Roadside Conservation Value map:

- Paterson's Curse (Echium plantagineum);
- Cape Tulip (Moraea flaccida);
- Cabbage Family Weeds (includes Wild Radish);
- Bridal Creeper (Asparagus asparagoides); and
- Victorian Tea Tree (Leptospermum laevigatum).

Note: Dock (*Rumex spp.*) was the sixth weed species nominated, but no populations were recorded during the roadside survey, thus a map overlay for this species was not produced.

Roadside populations of nominated weeds were recorded as being present in the road reserve, i.e. not recorded specifically for presence on the left and/or right hand sides. Therefore, the occurance of each weed (in kilometres) indicates the presence of the weed within the road, and may need to be doubled where present on both sides of the road.

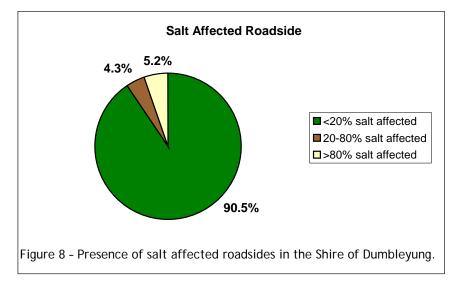
Of the nominated weeds species, Victorian Tea Tree was the most prevalent, and was recorded along 207.2 km (or 23.0 %) of roads surveyed. Cabbage Family weeds were also quite dominant, recorded along 154.4 km (or 17.2%) of roads. Bridal creeper was the next most commonly recorded weed, occurring along 16.0 km (or 1.8%) of roads, followed by Cape Tulip, which was recorded along 1.2 km (or 0.13%) and then Paterson's curse recorded along 0.6 km of road (or 0.06%). Refer to Figure 7.



<u>Salinity</u>

The presence of salinity in roadsides was recorded throughout the survey and these locations are depicted on a separate clear overlay accompanying the 2005 RCV map. The surveyors determined the level of salt damage occurring in roadsides, and there were 3 categories to choose from:

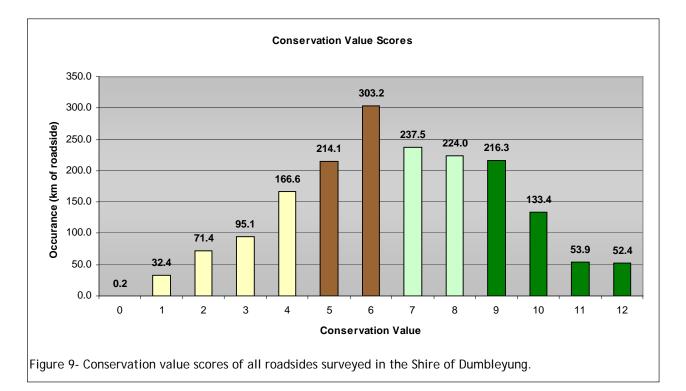
- No or minor salt damage (<20% of roadside salt affected),
- Moderate salt damage (20-80% of roadside salt affected), or
- Major salt damage (>80% of roadside salt affected).



Of the 1,800.3 km of roadsides surveyed, 90.5%, or 1629.4 km of roadsides had no, or minor (<20%) level of salt damage. Of the remaining roadsides, 4.3% or 77.3 km, were moderately affected by salt (20-80% salt affected) and 5.2% or 93.6 km were heavily salt affected. Refer to Figure 8.

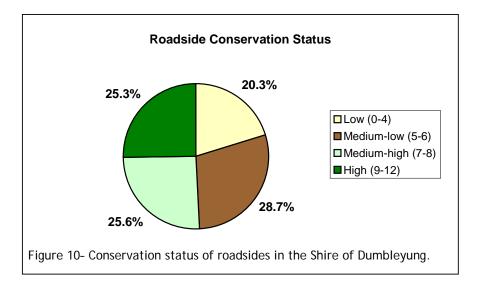
Conservation Value Scores

Conservation value scores were calculated for each section of roadside surveyed. Scores range from 0 to 12, from lowest to highest conservation value respectively, these are shown in Figure 9. The most occurring roadside conservation values were between 6 and 9, with a score of 6 being the highest with 303.2 km of roadside, followed by 7 (237.5 km), then 8 (224.0 km) and then the score of 9 (216.3 km). Roadsides with a conservation value score of 5 covered 214.1 km of roadsides, scores of 4 covered 166.6 km, and a score of 10 spanned 133.4 km of roadside. 95.1 km of roadsides scored 3, 71.4 km of roadsides scored 2, 53.9 km of roadside scored 11, 52.4 km of roadsides scored 12, 32.4 km scored 1 and 0.2 km of roadsides scored 0.



Conservation Status

The conservation status category indicated the combined conservation value of roadsides surveyed in the Shire of Dumbleyung. Roadside sections of high conservation value covered 25.3% (455.9 km) of the length of roadsides surveyed. Medium-high conservation value roadsides accounted for 25.6% of the total surveyed (461.4 km), medium-low conservation roadside covered 28.7% (517.4 km) of the total surveyed. Roadsides of low conservation value occupied 20.3% (365.6 km) of the roadsides surveyed; refer to Table 3 and Figure 10.



Flora Roads

A flora road is one which has special conservation value because of the vegetation contained within the road reserve. The Roadside Conservation Committee has prepared Guidelines for the Nomination and Management of Flora Roads, refer to Appendix 7.

Although presently there are no Flora Roads designated within the Shire of Dumbleyung, the roadside survey and the roadside conservation value (RCV) map highlighted a number of roadsides that have the potential to be declared as Flora Roads. Roadsides, or large sections of roadsides, determined as having high conservation value in the Shire of Dumbleyung include:

Tarin Rock Road Siberia Road

Holden Road

•

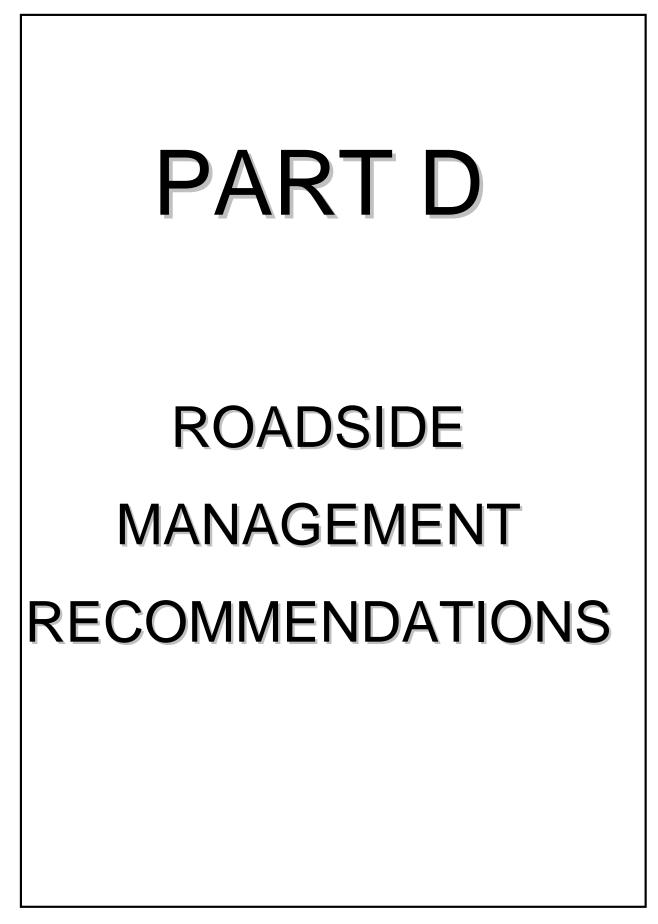
- Dumbleyung-Lake Grace Road
- Old Lake Grace Road
- **Rifle Range Road**
- Tarin Rock Road
- Hills Road

- . Kings Road
- Brays Road
- Willcock Road
- Hills Road



Flora Road nominations are assessed by the RCC. Photo D Lamont.

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1.0 Management Recommendations

The primary aim of road management is the creation and maintenance of a safe, efficient road system. However, the following management procedures are recommended. The following section provides general management recommendations that will assist in retaining and enhancing roadside conservation values.

The Executive Officer of the Roadside Conservation Committee is also available to provide assistance on all roadside conservation matters, and can be contacted on (08) 9334 0423. The following RCC publications provide guidelines and management recommendations that will assist Local Government Authorities:

- RCC Roadside Manual,
- The Roadside Handbook,
- Guidelines for Managing Special Environmental Areas in Transport Corridors, and
- Handbook of Environmental Practice for Road Construction and Maintenance Works.

1.1 Protect high conservation value roadsides by maintaining and enhancing the native plant communities.

This can be achieved by:

- retaining remnant vegetation,
- minimising disturbance to existing roadside vegetation,
- minimising disturbance to soil, and
- preventing or controlling the introduction of weeds.

1.2. Promote and raise awareness of the conservation value associated with roadside vegetation

by:

- establishing a register of Shire roads important for conservation,
- declaring suitable roadsides as Flora Roads,
- incorporating into tourist, wildflower and/or scenic drives.

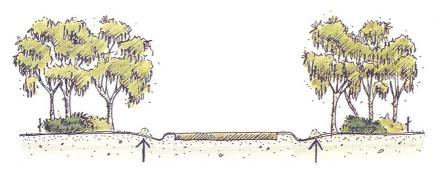
1.3 Improve roadside sections of medium to low conservation value by:

- minimising disturbance caused by machinery, adjoining land practices and incidences of fire,
- carrying out a targeted weed control program,
- retaining remnant trees and shrubs,
- allowing natural regeneration,
- spreading local native seed to encourage regeneration, and
- encourage revegetation projects by adjacent landholders.

2.0 Minimising Disturbance

Minimal disturbance can be achieved by:

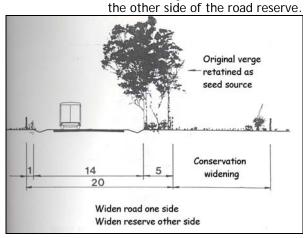
- 2.1 Adopting a road design that occupies the minimum space;
- 2.2 Diverting the line of a table drain to avoid disturbing valuable flora;
- 2.3 Pruning branches, rather than removing the whole tree or shrub;
- 2.4 Not dumping spoil on areas of native flora;
- 2.5 Applying the *Fire Threat Assessment* (see RCC Roadside Manual) before burning roadside vegetation, use methods other than fuel reduction burns to reduce fire threat; if roadside burning must be undertaken, incorporate it into a district fire management program;
- 2.6 Encouraging adjacent landholders to set back fences to allow roadside vegetation to proliferate;
- 2.7 Encouraging adjacent landholders to plant windbreaks or farm tree lots adjacent to roadside vegetation to create a denser windbreak or shelterbelt;
- 2.8 Encouraging revegetation projects by adjacent landholders.



Avoid windrowing drain material into vegetation



Above: a high value road reserve in Tammin. The road was built on adjoining farmland in order to retain the important remnant bushland existing in the undeveloped road reserve.



Below right: Widening a road to one side only so that a wider section of roadside vegetation is retained on

3.0 Planning for Roadsides

The RCC is able to provide comprehensive models of Roadside Management Plans and encourages all Shires to adopt this practice of planning for roadside conservation.

The following actions greatly enhance likelihood of a plan that changes behaviour and results in on-ground actions:

- <u>Community support</u>- encourage ongoing community involvement and commitment by establishing a local Roadside Advisory Committee or working group within the Shire Environmental Committee;
- <u>Contract specifications</u>- maintain roadside values by developing environmental specifications for inclusion in all tender documents or work practices;
- <u>Community education</u>- use of innovative and pertinent material can increase community understanding of roadside values;
- <u>Training</u>- promote local roadside planning initiatives and gain acceptance and understanding by involving shire staff, contractors, utility provider staff and the community in workshops, seminars or training days. The Roadside Conservation Committee can provide this training.

Training develops recognition and understanding of roadside values and highlights best work practices. Workshops are developed to ensure that local issues and environments are dealt with and they include site visits to high conservation remnants, current projects and works.

4.0 Setting Objectives

The objective of all roadside management should be to:

Protect

- native vegetation
- rare or threatened flora or fauna
- cultural and heritage values
- community assets from fire

Maintain

- safe function of the road
- native vegetation communities
- fauna habitats and corridors
- visual amenity and landscape qualities
- water quality

- Minimise
- land degradation
- spread of weeds and vermin
- spread of soil borne pathogens
- risk and impact of fire
- disturbance during installation and maintenance of service assets
- Enhance
- indigenous vegetation communities
- fauna habitats and corridors

References

Beeston, G., Mlodawski, G., Saunders, A and True, D. (1993, unpub.), *Remnant Vegetation Inventory in the Southern Agricultural Areas of Western Australia*. Western Australian Department of Agriculture, South Perth.

Department of Agriculture WA for Department of Environment (2003), Salinity Investment Framework Department Interim Report – Phase 1, 2003, Department of Environment, Salinity and Land Use Impacts Series No. SLUI 32

Department of Agriculture WA (2005), Salinity in Western Australia, http://agspsrv34.agric.wa.gov.au/environment/salinity/

Department of Environment and Heritage and the Department of Agriculture, Fisheries and Forestry Australia (2003), *Natural Heritage Trust- The Journal of the Natural Heritage Trust* Summer 2003, No 14. Department of Environment and Heritage and the Department of Agriculture, Fisheries and Forestry Australia, Canberra, Australia.

Environment Australia. (2001), *National Objectives and Targets for Biodiversity Conservation 2001-2005*. Environment Australia, Canberra, Australia.

Jackson, K A (2002), Assessing Roadsides A Guide to Rating Conservation Value, Roadside Conservation Committee, Kensington, Western Australia

Lamont, D.A. and Blyth, J.D. (1995), Roadside corridors and community networks, pp 425-35. In *Nature Conservation 4: The Role of Networks,* ed by Saunders, D.A., Craig J.L., and Mattiske E.M. Surrey Beatty & Sons, 1995.

Lamont D A (1998), Western Australian Roadside Handbook: Environmental guidelines for road construction and maintenance workers. Roadside Conservation Committee, Kensington, Western Australia.

Lamont D A and Atkins K (2000), *Guidelines for Managing Special Environmental Areas in Transport Corridors*. Roadside Conservation Committee, Kensington, Western Australia.

Platt, S.J. and Lowe, K.W., (2002), Biodiversity Action Planning: Action planning for native biodiversity at multiple scales – catchment, bioregional, landscape, local. Department of Natural Resources and Environment, Melbourne.

Roadside Conservation Committee. (1990), *Roadside Manual* Roadside Conservation Committee, Como WA

Shepherd, D. P., Beeston, G.R. and Hopkins, A. J. M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture, Western Australia, South Perth

Western Australian Museum (2005), Fauna Base, www.museum.wa.gov.au/faunabase/prod/index.htm

Appendix



SURVEY TO DETERMINE SHIRE OF	THE CON	SERVATIO	N VALUE OF ROADSIDES IN THE	C/-	Locked Ba	iservation Committee g 104 ery Centre WA 6983	Phone: (08) 9334 0 Fax: (08) 9334 019	
Date			No. OF DIFFERENT NATIVE SPECIE		nacy bears	NOMINATED WEEDS		
Observer(s)			0-5	<u> </u>				
Road Name			6 – 19 Over 20			< 20% total weeds		
Shire			VALUE AS A BIOLOGICAL CORRID	OR		20 – 80% total weeds > 80% total weeds		
Nearest named place			Connects uncleared areas					
Direction of travel (N,S,E,V	N)		Flowering shrubs Large trees with hollows			< 20% total weeds		
Section No			Hollow logs	ē	ē	20 – 80% total weeds > 80% total weeds		
Starting Point			PREDOMINANT ADJOINING LANDU	<u>SE</u>				
Odometer reading			Agricultural crop or pasture: - Completely cleared			< 20% total weeds		
Ending Point			- Scattered Uncleared land			20 – 80% total weeds > 80% total weeds		
Odometer reading			Plantation of non-native trees Urban or industrial	00000000	000000		-	-
Length of section			Railway Reserve parallel to road Drain Reserve parallel to road	Η				_
WIDTH OF ROAD RESE	RVE (m)		Other:			< 20% total weeds 20 – 80% total weeds		
Side of the road	Left	Right	UTILITIES			> 80% total weeds		
WIDTH OF VEGETATED	ROADSI	DE	Utility Present	⊒				
1 – 5 m			Utilitý Absent Type:			< 20% total weeds 20 – 80% total weeds		
5 – 20 m Over 20 m						> 80% total weeds		Ē
NATIVE VEGETATION O	ON ROADS	SIDE	GENERAL WEEDS					
Tree layer			Few weeds (<20% total plants) Half weeds (20 - 80% total)			< 20% total weeds		
Shrub layer Ground layer			Mostly weeds (>80% total)			20 – 80% total weeds 80% total weeds		
	-	-	Ground layer totally weeds				-	-
EXTENT OF NATIVE VE ROADSIDE	GETATIO	NON	SALT AFFECTED ROADSIDE			GENERAL COMMENTS	5	
Less than 20%			< 20% salt affected 20 – 80% salt affected					
20 – 80% Over 80%			> 80% salt affected		Ē	OFFICE USE ONLY Conservation value score		

Appendix

2

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width	Na Vege	tive tation	Exte Vege	ent of tation	# Nat Pla Spec	nt	We	eds	В	ue as iol. ridor	Adjoi Lanc	ning luse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left R	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060001	1	0.00	0.60	0.60	ONE TWENTY NINE RD	East	07- Oct- 04	mike	20	2	2	0	0	0	0	0	1	2	1	2	2	6	6	
3060001	2	0.60	1.40	0.80	ONE TWENTY NINE RD	East	07- Oct- 04	mike	20	2	2	1	0	1	0	2	2	0	0	0	2	6	6	
3060001	3	1.40	4.30	2.90	ONE TWENTY NINE RD	East	07- Oct- 04	mike	20	2	2	0	1	0	0	0	0	0	0	2	1	4	5	
3060001	4	4.30	4.80	0.50	ONE TWENTY NINE RD	East	07- Oct- 04	mike	20	1	1	1	0	0	0	1	1	0	0	2	2	5	4	
3060001	5	4.80	5.50	0.70	ONE TWENTY NINE RD	East	07- Oct- 04	mike	20	2	2	1	0	0	0	2	2	2	0	2	2	9	6	
3060001	6	5.50	8.00	2.50	ONE TWENTY NINE RD	East	07- Oct- 04	mike	20	2	2	0	1	0	0	0	0	1	1	2	2	5	6	
3060001	7	8.00	8.40	0.40	ONE TWENTY NINE RD	East	07- Oct- 04	mike	20	2	2	2	1	2	1	2	2	2	1	0	1	10	8	VICTORIAN_TEA_TREE
3060001	8	8.40	9.50	1.10	ONE TWENTY NINE RD	East	07- 07- 04	mike	20	2	2	0	0	0	0	2	2	2	2	2	2	8	8	VICTORIAN_TEA_TREE
3060001	9	9.50	10.40	0.90	ONE TWENTY NINE RD	East	07- Oct- 04	mike	20	2	2	1	0	1	0	2	1	2	2	0	2	8	7	
3060001	10	10.40	12.00	1.60	ONE TWENTY NINE RD	East	07- Oct- 04	mike	20	2	2	0	0	0	0	2	2	0	0	0	0	4	4	SALT_AFFECTED_ROADSIDE
3060001	11	12.00	14.90	2.90	ONE TWENTY NINE RD	East	07- 0ct- 04	mike	20	2	2	0	0	0	0	1	1	1	2	2	2	6	7	
3060001	12	14.90	16.80	1.90	ONE TWENTY NINE RD	East	07- Oct- 04	mike	20	2	2	1	0	1	0	1	1	2	0	2	2	9	5	
3060001	13	16.80	18.70	1.90	ONE TWENTY NINE RD	East	07- Oct- 04	mike	20	2	2	0	0	0	0	1	1	2	2	2	2	7	7	
3060001	14	18.70	20.00	1.30	ONE TWENTY NINE RD	East	07- 07- 0ct- 04	mike	20	2	2	0	1	0	0	0	1	1	1	2	1	5	5	BRIDAL_CREEPER
3060001	15	20.00	23.30	3.30	ONE TWENTY NINE RD	East	07- 07- 0ct- 04	mike	20	2	2	1	1	0	0	0	0	0	2	2	2	3	7	
3060001	16	23.30	24.00	0.70	ONE TWENTY NINE RD	East	07- 07- 0ct- 04	mike	20	2	2	1	0	1	0	2	1	2	1	2	2	10	6	
3060001	17	24.00	34.80	10.80	ONE TWENTY NINE RD	East	-	mike	20	2	2	1	1	0	0	2	1	1	0	2	2	8	6	SALT_AFFECTED_ROADSIDE

ROAD#	Section#	OD start	OD finish	Sectn length		Direction	Date	Observer	Width		tive tation		ent of tation	PI	ative ant ecies	We	eds	В	ue as iol. ridor	Adjo Lano	ining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
							Oct- 04																	
3060001	18	34.80	35.10	0.30	ONE TWENTY NINE RD	East	07- Oct- 04	mike	20	2	2	1	1	1	1	2	2	1	2	0	0	7	8	VICTORIAN_TEA_TREE
3060001	19	35.10	38.80	3.70	ONE TWENTY NINE RD	East	07- Oct- 04	mike	20	2	2	0	1	0	0	0	1	2	2	2	2	6	8	
3060001	20	38.80	39.50	0.70	ONE TWENTY NINE RD	East	07- 07- 0ct- 04	mike	20	0	0	0	0	0	0	0	0	0	1	2	2	2	3	
3060001	21	39.50	40.30	0.80	ONE TWENTY NINE RD	East	07- 07- 0ct- 04	mike	20	0	0	0	0	0	0	2	0	0	0	2	2	4	2	
3060001	22	40.30	48.50	8.20	ONE TWENTY NINE RD	East	07- 07- 0ct- 04	mike	20	1	1	0	0	0	0	0	1	2	2	2	2	5	6	
3060001	23	48.50	49.95	1.45	ONE TWENTY NINE RD	East	07- 07- 0ct- 04		20	1	1	0	0	1	1	1	1	2	2	2	2	7	7	
3060002	1	2.95	7.85	4.90	TINCURRIN RD	North	14-	J&B Temby	20	2	1	1	1	1	0	1	1	2	2	0	1	7	6	
3060002	2	7.85	19.75	11.90	TINCURRIN RD	North	14-	J&B Temby	20	1	1	1	1	0	0	1	1	2	2	1	1	6	6	
3060002	3	19.75	23.75	4.00	TINCURRIN RD	North	04 14- Oct- 04	J&B Temby	20	1	0	1	0	0	0	1	0	2	0	1	1	6	1	
3060002	4	23.75	25.05	1.30	TINCURRIN RD	North	14-	J&B Temby	20	1	1	1	1	0	0	1	1	2	2	1	1	6	6	
3060003	1	3.00	9.80	6.80	KUKERIN SOUTH RD	South	21- Oct- 04		20	2	2	1	0	0	0	2	1	2	2	2	2	9	7	VICTORIAN TEA TREE
3060003	2	9.80	11.20	1.40	KUKERIN SOUTH RD	South	21- Oct- 04	Mike	20	1	1	1	1	1	2	2	2	2	2	0	0	7	8	
3060003	3	11.20	19.50	8.30	KUKERIN SOUTH RD	South	04 21- Oct- 04	Mike	20	2	2	0	1	0	0	1	0	1	2	2	2	6	7	VICTORIAN TEA TREE
3060003	4	19.50	19.80	0.30	KUKERIN SOUTH RD	South	04 21- Oct- 04	mike	20	2	2	1	1	1	1	1	1	1	1	1	0	7	6	
3060003	5	19.80	22.00	2.20	KUKERIN SOUTH RD	South		mike	20	2	2	1	1	1	0	2	2	2	2	2	2	10	9	
3060004	1	0.00	2.70	2.70	KUKERIN NORTH RD	South	01- Oct-	mike	20	1	1	0	0	0	0	1	1	0	1	2	2	4	5	CABBAGE_FAMILY_WEEDS

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width	Nat Veget	ive ation		ent of tation	Pla	ative ant cies	We	eds	В	ie as iol. ridor		ining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)			04		(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060004	2	2.70	3.30	0.60	KUKERIN NORTH RD	South	-	mike	20	2	2	1	0	2	0	2	1	2	1	0	2	9	6	CABBAGE_FAMILY_WEEDS
3060004	3	3.30	5.40	2.10	KUKERIN NORTH RD	South	01- Oct- 04	mike	20	2	2	0	0	0	0	1	1	1	1	2	2	6	6	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060004	4	5.40	6.40	1.00	KUKERIN NORTH RD	South	01- Oct- 04		20	2	1	0	0	0	0	1	1	1	0	0	2	4	4	VICTORIAN_TEA_TREE
3060004	5	6.40	7.60	1.20	KUKERIN NORTH RD	South	01- Oct- 04	mike	20	1	1	0	0	0	0	2	1	0	1	2	0	5	3	
3060004	6	7.60	8.10	0.50	KUKERIN NORTH RD	South	01- Oct- 04	mike	20	1	2	1	1	0	0	1	2	0	1	2	0	4	7	
3060004	7	8.10	12.00	3.90	KUKERIN NORTH RD	South	01- Oct- 04	mike	20	1	1	0	0	1	0	2	0	1	0	2	2	7	3	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060004	8	12.00	13.00	1.00	KUKERIN NORTH RD	South	01- Oct- 04	mike	20	2	2	1	1	1	1	2	2	2	1	2	2	10	9	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060004	9	13.00	14.00	1.00	KUKERIN NORTH RD	South	01- Oct- 04	mike	20	1	1	0	0	0	0	1	1	1	0	2	2	5	4	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060004	10	14.00	15.10	1.10	KUKERIN NORTH RD	South	01- Oct- 04		20	1	0	0	0	0	0	1	2	0	0	0	2	2	4	CABBAGE_FAMILY_WEEDS
3060004	11	15.10	16.50	1.40	KUKERIN NORTH RD	South	01- Oct- 04	mike	20	1	1	0	0	0	0	1	1	2	1	2	1	6	4	CABBAGE_FAMILY_WEEDS
3060006	1	0.00	0.30	0.30	MT PLEASANT RD	North	00- Feb- 05	mike	20	1	1	0	0	1	1	0	0	0	0	2	2	4	4	
3060006	2	0.30	4.20	3.90	MT PLEASANT RD	North	00- Feb- 05	mike	20	2	2	0	1	0	0	0	0	0	2	2	2	4	7	
3060006	3	4.20	5.30	1.10	MT PLEASANT RD	North	00- Feb- 05	mike	20	2	2	1	1	0	1	0	0	0	0	1	2	4	6	
3060006	4	5.30	5.50	0.20	MT PLEASANT RD	North	00- Feb- 05	mike	20	2	2	1	0	1	0	1	1	2	1	1	1	8	5	
3060006	5	5.50	5.90	0.40	MT PLEASANT RD	North	00- Feb- 05	mike	20	1	2	0	0	0	1	0	0	0	1	2	1	3	5	
3060006	6	5.90	11.00	5.10	MT PLEASANT RD	North	00- Feb- 05	mike	20	2	2	1	1	1	1	2	2	2	2	1	1	9	9	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width	Na Vege	tive tation	Exte Vege	ent of tation	# Nativ Plant Specie	۱ ا	Veeds	В	ue as liol. rridor	Adjo Land	ining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left Rig	jht Le	eft Righ	t Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060006	7	11.00	11.80	0.80	MT PLEASANT RD	North	00- Feb- 05	mike	20	2	1	2	1	2	1	2 2	2 2	2	0	1	10	8	
3060007	1	0.00	4.70	4.70	ONE TWENTY FIVE RD	East	07- Oct- 04		20	2	2	0	0	0	0	1 2	2 1	2	2	2	6	8	
3060007	2	4.70	6.60	1.90	ONE TWENTY FIVE RD	East	07- Oct- 04	mlke	20	1	2	0	0	0	0	2 2	2 0	0	0	0	3	4	SALT_AFFECTED_ROADSIDE
3060007	3	6.60	12.40	5.80	ONE TWENTY FIVE RD	East	07- Oct- 04	mlke	20	2	2	0	0	0	0	2 2	2 2	1	2	2	8	7	
3060007	4	12.40	13.00	0.60	ONE TWENTY FIVE RD	East	07- Oct- 04	mlke	20	2	2	1	0	1	0	2 '	1	1	0	2	7	6	
3060007	5	13.00	14.00	1.00	ONE TWENTY FIVE RD	East	07- Oct- 04	mlke	20	2	2	0	0	0	0	2 2	2 2	1	1	2	7	7	VICTORIAN_TEA_TREE
3060007	6	14.00	17.00	3.00	ONE TWENTY FIVE RD	East	07- 07- 0ct- 04	mlke	20	2	2	0	0	1	0	1 2	2 2	0	2	2	8	6	VICTORIAN_TEA_TREE
3060007	7	17.00	18.40	1.40	ONE TWENTY FIVE RD	East	07- 07- 0ct- 04	mlke	20	1	2	0	0	0	0	2 2	2 2	2	2	2	7	8	
3060007	8	18.40	19.60	1.20	ONE TWENTY FIVE RD	East	07- 07- 04	mlke	20	1	2	0	1	0	1	2 2	2 0	2	1	0	4	8	
3060007	9	19.60	28.60	9.00	ONE TWENTY FIVE RD	East	07- 07- 0ct- 04	mlke	20	2	0	1	0	0	0	0 () 1	0	2	2	6	2	
3060008	1	0.00	1.30	1.30	PETERSEN RD	East	09- 02- 04	mike	20	2	2	0	0	0	0	1	0	0	2	2	5	5	SALT_AFFECTED_ROADSIDE
3060008	2	1.30	2.40	1.10	PETERSEN RD	East	09- Oct- 04	mike	20	2	2	0	0	0	0	2 2	2 0	0	2	0	6	4	SALT_AFFECTED_ROADSIDE
3060008	3	2.40	6.00	3.60	PETERSEN RD	East	09- Oct- 04	mike	20	2	2	0	0	0	0	2 2	2 0	0	2	2	6	6	SALT_AFFECTED_ROADSIDE
3060008	4	6.00	15.30	9.30	PETERSEN RD	East	09- 02- 04	mike	20	2	2	1	1	1	1	2 2	2 2	2	0	0	8	8	
3060009	1	2.87	4.57	1.70	NIPPERING NORTH RD	North	01- 0ct- 04	mich	20	1	0	1	1	0	0	0 () 2	0	2	2	6	3	VICTORIAN_TEA_TREE SALT_AFFECTED_ROADSIDE
3060009	2	4.57	10.87	6.30	NIPPERING NORTH RD	North	01- 01- 0ct- 04	mich	20	1	1	1	1	1	1	0 () 2	2	2	2	7	7	VICTORIAN_TEA_TREE
3060009	3	10.87	14.77	3.90	NIPPERING NORTH RD	North	-	mich	20	2	2	1	1	1	1	0 () 2	2	2	2	8	8	VICTORIAN_TEA_TREE

ROAD#	Section#	OD start	OD finish	Sectn length		Direction	Date	Observer	Width		tive tation		ent of tation	PI	ative ant ecies	We	eeds	B	ue as iol. ridor	Adjo Lan	oining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
							Oct- 04																	
3060010	1	1.00	1.30	0.30	WHITE WELL RD	East	00- Feb- 05	mike	20	2	1	2	0	1	0	2	2	2	2	1	1	10	6	
3060010	2	1.30	3.20	1.90	WHITE WELL RD	East	00- Feb- 05	mike	20	2	2	2	1	1	1	2	2	1	0	1	1	9	7	
3060010	3	3.20	3.90	0.70	WHITE WELL RD	East	00- Feb- 05	mike	20	2	0	0	0	0	0	2	2	2	2	2	2	8	6	
3060010	4	3.90	4.20	0.30	WHITE WELL RD	East	00- Feb- 05	mike	20	2	2	0	0	1	0	2	2	2	2	0	2	7	8	
3060010	5	4.20	7.20	3.00	WHITE WELL RD	East	00- Feb- 05	mike	20	2	2	1	0	1	0	1	1	2	2	1	2	8	7	
3060010	6	7.20	7.90	0.70	WHITE WELL RD	East	00- Feb- 05	mike	20	2	2	0	2	0	2	0	1	2	2	1	0	5	9	
3060010	7	7.90	13.00	5.10	WHITE WELL RD	East	00- Feb- 05	mike	20	2	2	0	0	1	1	0	0	2	2	2	2	7	7	
3060010	8	13.00	17.70	4.70	WHITE WELL RD	East	00- Feb- 05	mike	20	2	2	1	1	0	0	1	1	0	0	1	1	5	5	
3060010	9	17.70	18.30	0.60	WHITE WELL RD	East	00- Feb- 05	mike	20	1	1	0	0	0	0	0	0	0	0	1	0	2	1	
3060010	10	18.30	20.40	2.10	WHITE WELL RD	East	00- Feb- 05	mike	20	1	1	0	0	0	0	0	0	1	1	2	1	4	3	
3060010	11	20.40	20.90	0.50	WHITE WELL RD	East	00- Feb- 05	mike	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	SALT_AFFECTED_ROADSIDE
3060012	1	0.00	0.70	0.70	BIBIKIN RD	South	10- Nov- 04	mich	20	2	2	2	2	1	1	1	1	2	2	0	0	8	8	SALT_AFFECTED_ROADSIDE
3060012	2	0.70	4.00	3.30	BIBIKIN RD	South	10- Nov- 04	mich	20	1	1	1	1	0	0	0	0	0	0	2	2	4	4	SALT_AFFECTED_ROADSIDE
3060012	3	4.00	6.20	2.20	BIBIKIN RD	South	10- Nov- 04		20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	
3060012	4	6.20	9.60	3.40	BIBIKIN RD	South	10- Nov- 04		20	1	1	1	1	0	0	1	1	0	0	2	2	5	5	
3060012	5	9.60	11.50	1.90	BIBIKIN RD	South	10- Nov-	mich	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width		tive tation		ent of tation	Pla	ative ant cies	We	eds	В	ie as iol. ridor	Adjo Lano	ining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)			04		(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060013	1	0.00	2.20	2.20	WISHBONE RD	North	04 16- Oct- 04	meryn	20	1	1	1	1	0	0	1	1	2	2	1	1	6	6	SALT_AFFECTED_ROADSIDE
3060013	2	2.20	3.00	0.80	WISHBONE RD	North	16- Oct- 04	meryn	20	2	2	1	1	1	1	1	1	0	0	1	1	6	6	
3060013	3	3.00	3.90	0.90	WISHBONE RD	North	16- Oct- 04	meryn	20	2	2	0	0	0	0	0	0	0	0	1	1	3	3	
3060013	4	3.90	4.30	0.40	WISHBONE RD	North	16- Oct- 04	-	20	2	2	1	1	0	0	1	1	1	0	0	1	5	5	
3060013	5	4.30	4.90	0.60	WISHBONE RD	North	16- Oct- 04		20	1	1	1	1	0	0	1	1	0	0	1	1	4	4	PATERSONS_CURSE
3060013	6	4.90	5.30	0.40	WISHBONE RD	North	16- Oct- 04		20	1	1	1	1	0	0	1	1	0	0	1	1	4	4	SALT_AFFECTED_ROADSIDE
3060013	7	5.30	5.70	0.40	WISHBONE RD	North	16- Oct- 04	-	20	2	2	1	1	0	0	1	1	0	0	1	1	5	5	
3060013	8	5.70	6.00	0.30	WISHBONE RD	North	16- Oct- 04	-	20	2	0	1	0	1	0	1	0	1	0	1	1	7	1	
3060013	9	6.00	6.30	0.30	WISHBONE RD	North	16- Oct- 04	-	20	2	2	1	1	1	0	1	2	1	1	1	1	7	7	
3060013	10	6.30	8.60	2.30	WISHBONE RD	North	Oct- 04		40	1	1	0	0	0	0	2	2	0	0	1	1	4	4	SALT_AFFECTED_ROADSIDE
3060013	11	8.60	11.00	2.40	WISHBONE RD	North	15- Oct- 04		40	2	2	1	1	1	1	1	1	1	1	1	1	7	7	
3060013	12	11.00	14.80	3.80	WISHBONE RD	North	15- Oct- 04		40	2	2	1	1	1	1	1	1	2	2	1	1	8	8	
3060013	13	14.80	15.90	1.10	WISHBONE RD	North	15- Oct- 04		40	2	2	1	1	0	0	1	1	1	0	1	1	6	5	
3060013	14	15.90	17.20	1.30	WISHBONE RD	North	15- Oct- 04	,	40	2	2	1	1	0	0	1	1	0	1	1	0	5	5	SALT_AFFECTED_ROADSIDE
3060013	15	17.20	22.20	5.00	WISHBONE RD	North	15- Oct- 04	,	40	2	2	2	2	1	1	1	1	2	2	1	1	9	9	
3060013	16	22.20	23.50	1.30	WISHBONE RD	North	15- Oct- 04	-	20	1	1	1	0	0	0	1	0	0	0	1	1	4	2	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width		tive tation		ent of station	PI	ative ant ecies	w	eeds	В	ue as iol. ridor	Aujo	oining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060013	17	23.50	25.30	1.80	WISHBONE RD	North	15- Oct- 04	meryn	20	2	1	1	1	1	1	1	2	1	1	1	1	7	7	CABBAGE_FAMILY
3060013	18	25.30	29.50	4.20	WISHBONE RD	North	14- Oct- 04	meryn	20	2	2	1	0	0	0	1	0	0	0	1	1	5	3	
3060013	19	29.50	31.30	1.80	WISHBONE RD	North		meryn	20	1	2	1	1	0	0	0	1	0	1	1	1	3	6	SALT_AFFECTED_ROADSIDE
3060013	20	31.30	31.80	0.50	WISHBONE RD	North		meryn	20	0	1	0	0	0	0	0	0	0	1	1	1	1	3	
3060013	21	31.80	34.70	2.90	WISHBONE RD	North		meryn	20	1	2	1	1	0	0	1	1	0	0	1	1	4	5	
3060013	22	34.70	36.40	1.70	WISHBONE RD	North		meryn	20	2	2	2	1	1	1	2	2	2	2	0	1	9	9	
3060013	23	36.40	36.80	0.40	WISHBONE RD	North		meryn	20	2	2	1	1	0	0	1	1	2	2	1	1	7	7	
3060014	1	0.00	7.72	7.72	TARIN ROCK RD	East	23-	megan and ella	20	2	2	2	2	0	0	2	2	2	2	1	1	9	9	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060014	2	7.72	11.19	3.46	TARIN ROCK RD	East	23-	megan and ella	20	2	2	2	2	2	2	2	2	2	2	0	2	10	12	VICTORIAN_TEA_TREE
3060014	3	11.19	15.15	3.96	TARIN ROCK RD	East	23-	megan and ella	20	2	2	2	2	1	1	1	1	2	2	2	2	10	10	CABBAGE_FAMILY_WEEDS
3060014	4	15.15	16.81	1.66	TARIN ROCK RD	East	23-	megan and ella	20	2	2	1	1	1	1	0	0	2	2	1	2	7	8	CABBAGE_FAMILY_WEEDS
3060014	5	16.81	17.37	0.56	TARIN ROCK RD	East		megan and ella	20	2	2	0	1	0	0	0	0	1	1	1	2	4	6	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060014	6	17.37	17.84	0.46	TARIN ROCK RD	East	23- Sep- 04	and ella	20	2	0	1	0	1	0	0	0	0	0	1	2	5	2	CABBAGE_FAMILY_WEEDS CABBAGE_FAMILY_WEEDS
3060014	7	17.84	20.00	2.16	TARIN ROCK RD	East	23-	megan and ella	20	2	2	1	1	1	1	0	0	1	1	2	2	7	7	CABBAGE_FAMILY_WEEDS CABBAGE_FAMILY_WEEDS
3060014	8	20.00	20.76	0.76	TARIN ROCK RD	East	23-	megan and ella	20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	
3060015	1	0.00	2.80	2.80	BLADENDALE RD	North	24- Sep- 04	geoff	20	2	1	0	0	0	0	0	0	0	0	2	2	4	3	VICTORIAN_TEA_TREE
3060015	2	2.80	3.40	0.60	BLADENDALE RD	North		geoff	20	1	1	0	0	0	0	2	1	0	0	0	2	3	4	VICTORIAN_TEA_TREE

ROAD#	Section#	OD start	OD finish	Sectn length		Direction	Date	Observer	Width		tive tation		ent of tation	Pl	ative ant ecies	We	eds	В	ue as iol. ridor	Adjoi Lanc				Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
							Sep- 04																	
3060015	3	3.40	6.90	3.50	BLADENDALE RD	North		geoff	20	2	2	2	2	1	1	1	1	1	1	2	2	9	9	VICTORIAN_TEA_TREE
3060015	4	6.90	7.20	0.30	BLADENDALE RD	North	24- Sep- 04	geoff	20	2	2	2	2	2	2	2	2	2	2	2	2	10	12	VICTORIAN_TEA_TREE
3060015	5	7.20	7.50	0.30	BLADENDALE RD	North	24- Sep- 04	geoff	20	2	2	2	2	2	2	2	2	2	2	2	0	12	10	VICTORIAN_TEA_TREE
3060015	6	7.50	7.80	0.30	BLADENDALE RD	North	24- Sep- 04	geoff	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060015	7	7.80	10.20	2.40	BLADENDALE RD	North	24- Sep- 04	geoff	20	2	2	1	1	0	0	1	1	0	0	1	2	5	6	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060015	8	10.20	10.80	0.60	BLADENDALE RD	North	24- Sep- 04		20	2	2	2	2	2	2	2	2	1	1	0	0	9	9	VICTORIAN_TEA_TREE
3060015	9	10.80	11.70	0.90	BLADENDALE RD	North	24- Sep- 04	geoff	20	1	2	1	1	1	1	1	1	1	1	2	2	7	8	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060015	10	11.70	12.80	1.10	BLADENDALE RD	North	24- Sep- 04	geoff	20	1	1	1	1	1	0	2	2	1	0	1	2	7	6	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060015	11	12.80	14.30	1.50	BLADENDALE RD	North	24- Sep- 04	geoff	20	1	0	0	0	0	0	0	2	0	0	1	1	2	3	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060016	1	0.22	1.52	1.30	KUKERIN NORTH EAST RD	North	24-	megan mike	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	
3060016	2	1.52	2.02	0.50	KUKERIN NORTH EAST RD	North	24-		20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	
3060016	3	2.02	4.02	2.00	KUKERIN NORTH EAST RD	North	24- Sep- 04	megan mike	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	
3060016	4	4.02	4.32	0.30	KUKERIN NORTH EAST RD	North	24- Sep- 04	megan mike	20	2	2	2	2	1	1	2	2	2	2	0	0	9	9	
3060016	5	4.32	6.12	1.80	KUKERIN NORTH EAST RD	North	24- Sep- 04	megan mike	20	2	2	2	2	1	1	2	2	2	2	2	2	11	11	
3060017	1	10.80	11.30	0.50	TARIN ROCK NORTH RD	North	23-	ella megan	20	2	2	2	2	0	0	2	2	2	2	0	0	8	8	
3060017	2	9.60	10.80	1.20	TARIN ROCK NORTH RD	North		ella megan	20	2	2	2	2	2	2	2	2	2	2	1	0	10	11	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width		tive tation	Exte Vege	ent of tation	Pla	ative ant cies	We	eds	Bi	ie as ol. ridor		oining Iduse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	t Left	Right	Left	Right	Left	Right	Left	Right	Left	t Right	Left	Right	(Weeds and salt listed if present)
3060017	3	4.40	9.60	5.20	TARIN ROCK NORTH RD	North	Sep-	ella megan	20	2	2	2	2	2	2	2	2	2	2	1	2	11	12	CABBAGE_FAMILY_WEEDS
3060017	4	0.00	4.40	4.40	TARIN ROCK NORTH RD	North		ella megan	20	2	2	2 0	1	0	1	0	1	1	2	1	2	4	9	CABBAGE_FAMILY_WEEDS
3060019	1	0.00	5.35	5.35	TRELOARS RD	East		mike	20	0	0	0	0	0	0	0	0	0	0	2	2 1	2	1	VICTORIAN_TEA_TREE SALT_AFFECTED_ROADSIDE
3060019	2	5.35	9.20	3.85	TRELOARS RD	East		mike	20	2	2	2 0	1	0	0	0	0	2	2	2	2 1	6	6	VICTORIAN_TEA_TREE
3060019	3	9.20	9.65	0.45	TRELOARS RD	East	-	mike	20	2	1	1	0	0	0	1	0	1	0	2	! 1	7	2	CABBAGE_FAMILY_WEEDS
3060019	4	9.65	12.30	2.65	TRELOARS RD	East	-	mike	20	1	1	1	1	0	0	1	2	2	1	2	2 1	7	6	CABBAGE_FAMILY_WEEDS
3060019	5	12.30	13.45	1.15	TRELOARS RD	East	-	mike	20	0	0	0 0	0	0	0	0	0	0	0	2	2 1	2	1	CABBAGE_FAMILY_WEEDS
3060019	6	13.45	14.70	1.25	TRELOARS RD	East	-	mike	20	2	1	0	1	0	0	1	1	0	2	2	2 1	5	6	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060020	1	0.00	0.40	0.40	CANDLELIGHT RD	South	-	mike	20	0	0	0 0	0	0	0	0	0	0	0	2	2 2	2	2	VICTORIAN_TEA_TREE
3060020	2	0.40	2.50	2.10	CANDLELIGHT RD	South	-	mike	20	0	1	0	1	0	1	0	1	0	2	2	2 2	2	8	VICTORIAN_TEA_TREE
3060020	3	2.50	5.30	2.80	CANDLELIGHT RD	South		mike	20	1	2	2 0	1	0	1	1	2	2	1	2	2 2	5	8	VICTORIAN_TEA_TREE
3060020	4	5.30	9.20	3.90	CANDLELIGHT RD	South		mike	20	2	2	2 0	0	1	0	2	2	1	1	1	1	7	6	VICTORIAN_TEA_TREE
3060020	5	9.20	11.20	2.00	CANDLELIGHT RD	West		mike	20	2	2	! 1	0	1	0	2	2	2	1	1	1	8	6	VICTORIAN_TEA_TREE
3060020	6	11.20	11.80	0.60	CANDLELIGHT RD	West		mike	20	1	1	1	0	1	0	1	2	2	1	0) 1	6	5	VICTORIAN_TEA_TREE
3060020	7	11.80	17.60	5.80	CANDLELIGHT RD	West	-	mike	20	1	2	2 0	1	1	1	1	1	1	1	2	2 1	6	7	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060020	8	17.60	18.40	0.80	CANDLELIGHT RD	West	-	mike	20	2	2	2 0	0	0	0	1	1	1	1	1	2	5	6	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width		tive tation		ent of station	P	ative ant ecies	We	eds	В	ue as iol. ridor		ining duse	Conser Value (0-	Score	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060020	9	18.40	19.40	1.00	CANDLELIGHT RD	West	01- Oct- 04		20	2	2	1	1	1	1	1	0	2	2	1	2	8	8	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060021	1	0.00	1.20	1.20	KUKERIN RD	West	24- Sep- 04	and mike	20	2	1	2	0	1	0	0	0	1	1	0	2	6	4	
3060021	2	1.20	1.70	0.50	KUKERIN RD	West	24- Sep- 04	and mike	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	
3060021	3	1.70	2.20	0.50	KUKERIN RD	West	24- Sep- 04	and mike	20	2	2	1	1	1	1	0	0	1	1	2	0	7	5	
3060021	4	2.20	4.80	2.60	KUKERIN RD	West	24- Sep- 04	megan and mike	20	2	2	1	1	1	1	0	0	2	2	2	1	8	7	CABBAGE_FAMILY_WEEDS
3060022	1	0.00	2.40	2.40	RIFLE RANGE RD	South	29- Oct- 04	Ŭ	0	2	2	1	1	1	1	2	2	0	0	2	2	8	8	
3060022	2	2.40	5.40	3.00	RIFLE RANGE RD	South	29- Oct- 04	geoff	0	2	2	2	2	2	2	2	2	1	1	1	0	10	9	
3060022	3	5.40	7.40	2.00	RIFLE RANGE RD	South	29- Oct- 04	geoff	20	2	2	1	1	1	1	2	2	1	1	1	1	8	8	
3060022	4	7.40	12.50	5.10	RIFLE RANGE RD	South	29- Oct- 04	geoff	20	2	2	1	1	0	0	2	2	2	2	2	2	9	9	
3060023	1	0.00	0.90	0.90	CARWARDINE RD	South	01- Oct- 04	mike	20	2	2	1	1	0	0	1	1	1	1	2	2	7	7	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060023	2	0.90	1.40	0.50	CARWARDINE RD	South		mike	20	2	2	1	0	1	0	1	0	1	1	2	2	6	5	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060023	3	1.40	2.40	1.00	CARWARDINE RD	South	-	mike	20	2	2	1	0	0	0	2	2	1	0	2	2	8		VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060023	4	2.40	3.70	1.30	CARWARDINE RD	South	01- Oct- 04	mike	20	1	2	0	1	0	1	1	2	1	1	2	0	5	7	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060023	5	3.70	6.20	2.50	CARWARDINE RD	South	01- 01- 0ct- 04	mike	20	2	2	0	0	0	0	2	1	1	2	2	1	7	6	VICTORIAN_TEA_TREE
3060023	6	6.20	6.50	0.30	CARWARDINE RD	South	01- 01- 0ct- 04	mike	20	2	2	1	1	1	0	1	1	1	1	2	1	8	6	VICTORIAN_TEA_TREE
3060024	1	0.00	0.80	0.80	CANDLELIGHT SOUTH EAST RD	West	29- 0ct- 04	geoff	0	2	2	2	2	2	2	2	2	1	1	0	2	9	11	
3060024	2	0.30	3.50	3.20	CANDLELIGHT SOUTH	West	-	geoff	0	2	2	1	1	2	2	0	0	0	0	0	2	5	7	

ROAD#	Section#	OD start	OD finish	Sectn length		Direction	Date	Observer	Width		tive tation		ent of tation	PI	ative ant ecies	We	eds	В	ue as iol. ridor	Aujo	ining duse	value		Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
					EAST RD		Oct- 04																	
3060024	3	3.50	3.90	0.40	CANDLELIGHT SOUTH EAST RD	West	29- Oct- 04	Ŭ	0	2	2	2	2	2	2	0	0	2	2	0	0	8	8	
3060024	4	3.90	6.60	2.70	CANDLELIGHT SOUTH EAST RD	West	29- Oct- 04	-	0	2	2	1	1	1	1	2	2	2	2	2	2	10	10	
3060024	5	6.60	6.80	0.20	CANDLELIGHT SOUTH EAST RD	West	29- Oct- 04	geoff	0	2	2	2	2	2	2	1	1	0	0	0	0	7	7	
3060024	6	6.80	7.80	1.00	CANDLELIGHT SOUTH EAST RD	West	29- Oct- 04	geoff	0	2	2	2	2	2	2	2	2	1	1	0	2	9	11	
3060024	7	7.80	10.80	3.00	CANDLELIGHT SOUTH EAST RD	West	29- Oct- 04	geoff	0	2	2	1	1	2	2	0	0	1	1	2	2	8	8	
3060024	8	10.80	12.20	1.40	CANDLELIGHT SOUTH EAST RD	West		geoff	0	2	0	0	0	0	0	0	0	0	0	2	2	4	2	
3060024	9	12.20	14.40	2.20	CANDLELIGHT SOUTH EAST RD	West		geoff	0	2	2	1	1	1	1	0	0	0	0	2	2	6	6	
3060024	10	14.40	14.70	0.30	CANDLELIGHT SOUTH EAST RD	West	29- Oct- 04	geoff	0	2	2	1	1	1	1	0	0	0	0	0	2	4	6	
3060024	11	14.70	16.60	1.90	CANDLELIGHT SOUTH EAST RD	West	29- Oct- 04	geoff	0	2	2	1	1	1	1	0	0	0	0	2	2	6	6	
3060025	1	0.00	0.50	0.50	ADAMS RD	North	29- Oct- 04	mike	0	2	2	2	2	1	2	2	2	0	2	0	0	7	10	
3060025	2	0.50	4.60	4.10	ADAMS RD	North	29- Oct- 04	geoff	0	2	2	0	0	0	0	0	0	1	2	2	2	5	6	
3060025	3	4.60	5.10	0.50	ADAMS RD	North	29- Oct- 04	mike	0	2	2	2	2	2	2	1	1	2	2	1	0	10	9	
3060025	4	5.10	7.80	2.70	ADAMS RD	North	29- Oct- 04	geoff	0	1	1	0	0	0	0	0	0	1	1	1	1	3	3	
3060025	5	7.80	8.90	1.10	ADAMS RD	North	29- Oct- 04	mike	0	2	1	2	0	2	0	2	1	1	0	0	2	9	4	
3060025	6	8.90	10.40	1.50	ADAMS RD	North	29- Oct- 04	geoff	20	2	2	0	0	0	0	1	1	1	1	2	2	6	6	
3060025	7	10.40	10.80	0.40	ADAMS RD	North	29- Oct-	mike	0	2	2	0	1	0	1	2	2	0	2	2	0	6	8	

ROAD#	Section#	OD start	OD finish	Sectn length		Direction	Date	Observer	Width		tive tation		ent of station	PI	ative ant ecies	We	eds	В	ue as iol. ridor	Aujo	ining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060025	8	10.80	16.40	5.60	ADAMS RD	North	04 29- Oct- 04	geoff	20	2	2	1	1	1	1	1	2	2	2	1	2	8	9	
3060026	1	0.70	1.90	1.20	MERILUP RD	North	29- 0ct- 04	mike	0	2	2	1	1	1	1	0	0	0	0	1	2	5	6	
3060026	2	1.90	2.30	0.40	MERILUP RD	North	29- 0ct- 04	geoff	0	2	2	1	1	1	1	2	2	1	1	0	0	7	7	
3060026	3	2.30	4.70	2.40	MERILUP RD	North	29- Oct- 04	mike	0	2	2	1	1	1	1	2	2	0	0	2	2	8	8	
3060026	4	4.70	4.90	0.20	MERILUP RD	North	29- Oct- 04	geoff	0	0 0	0	0	0	0	0	0	0	0	0	2	0	2	0	
3060026	5	4.90	6.00	1.10	MERILUP RD	North	29- Oct- 04	mike	20	1	1	0	0	0	0	0	0	1	1	2	0	4	2	
3060026	6	6.00	6.30	0.30	MERILUP RD	North		geoff	0	1	1	1	1	0	0	2	2	2	2	2	0	8	6	
3060026	7	6.30	6.80	0.50	MERILUP RD	North	29- Oct- 04	mike	0	2	2	1	1	2	1	2	1	1	0	0	2	8	7	
3060026	8	6.80	11.50	4.70	MERILUP RD	North	29- Oct- 04	geoff	0	2	2	1	0	1	0	1	1	1	1	2	2	8	6	
3060027	1	0.00	1.00	1.00	TARIN ROCK SOUTH RD	North	-	mike	20	2	2	1	1	0	0	1	1	0	0	2	2	6	6	
3060027	2	1.00	1.90	0.90	TARIN ROCK SOUTH RD	North	-	mike	20	0	2	0	0	0	0	0	0	0	0	2	2	2	4	
3060027	3	1.90	3.20	1.30	TARIN ROCK SOUTH RD	North	21- Oct- 04		20	2	2	1	0	1	0	2	2	2	1	2	2	10	7	
3060027	4	3.20	3.30	0.10	TARIN ROCK SOUTH RD	North	-	mike	20	2	2	1	1	1	1	1	1	2	2	2	0	8	7	
3060027	5	3.30	5.60	2.30	TARIN ROCK SOUTH RD	North	21- Oct- 04	mike	20	2	2	2	2	2	2	1	1	2	2	0	0	9	9	
3060027	6	5.60	5.80	0.20	TARIN ROCK SOUTH RD	North	21- Oct- 04	mike	20	2	2	0	1	0	1	2	2	1	2	1	0	6	8	
3060027	7	5.80	6.50	0.70	TARIN ROCK SOUTH RD	North	21- Oct- 04	mike	20	2	2	0	0	0	0	2	2	1	2	2	0	7	6	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width		tive tation	Exte Vege	nt of tation	# Na Pla Spec	nt	Wee		Bi	ie as ol. ridor	Adjoi Land	ning luse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left F	Right	Left F	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060027	8	6.50	10.50	4.00	TARIN ROCK SOUTH RD	North	21- Oct- 04	mike	20	2	2	1	1	0	0	2	2	0	2	2	2	7	9	
3060027	9	10.50	11.40	0.90	TARIN ROCK SOUTH RD	East	24-	megan and mike	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	CABBAGE_FAMILY_WEEDS
3060027	10	11.60	14.90	3.30	TARIN ROCK SOUTH RD	North	24-	megan and mike	20	2	2	1	1	1	1	0	0	2	2	1	2	7	8	CABBAGE_FAMILY_WEEDS
3060027	11	14.90	15.10	0.20	TARIN ROCK SOUTH RD	North	24-	megan and mike	20	2	2	2	2	1	1	1	1	2	2	0	2	8	10	
3060027	12	15.10	17.80	2.70	TARIN ROCK SOUTH RD	North	24-	megan and mike	20	2	2	2	2	1	1	2	2	1	1	2	2	10	10	
3060027	13	17.80	19.10	1.30	TARIN ROCK SOUTH RD	North	24-	megan and mike	20	2	2	2	2	2	2	2	2	2	2	0	2	10	12	
3060027	14	19.10	19.80	0.70	TARIN ROCK SOUTH RD	North	24-	megan and mike	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	VICTORIAN_TEA_TREE
3060027	15	19.80	21.90	2.10	TARIN ROCK SOUTH RD	North	24-	megan and mike	20	2	2	2	2	1	1	1	1	2	2	1	2	9	10	VICTORIAN_TEA_TREE
3060027	16	21.90	22.40	0.50	TARIN ROCK SOUTH RD	North	24-	megan and mike	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	
3060028	1	0.00	4.21	4.21	LEO RD	East		mike	20	1	1	0	0	0	0	0	0	1	1	2	2	4	4	
3060028	2	4.21	4.42	0.21	LEO RD	East	-	mike	20	2	2	1	1	1	0	1	1	2	0	0	2	7	6	
3060028	3	4.42	8.43	4.01	LEO RD	East	-	mike	0	2	2	1	1	1	1	1	1	1	1	2	2	8	8	
3060029	1	0.00	3.40	3.40	WALKERS RD	East	-	mike	20	2	2	0	0	0	0	1	1	0	0	2	2	5	5	
3060029	2	3.40	3.70	0.30	WALKERS RD	East		mike	20	2	2	1	1	1	1	1	1	1	1	0	0	6	6	
3060029	3	3.70	4.50	0.80	WALKERS RD	East		mike	20	2	2	1	0	0	0	0	0	0	0	2	2	5	4	
3060029	4	4.50	5.20	0.70	WALKERS RD	East		mike	20	1	2	0	1	0	1	1	1	0	0	2	0	4	5	
3060029	5	5.20	8.10	2.90	WALKERS RD	East		mike	20	2	2	0	0	0	0	0	0	0	1	2	2	4	5	

ROAD#	Section#	OD start	OD finish	Sectn length		Direction	Date	Observer	Width		tive tation		ent of tation	PI	ative ant ecies	We	eds	В	ue as iol. ridor	Adjoi Lanc	ning	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)			_		(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
							Oct- 04																	
3060029	6	8.10	8.70	0.60	WALKERS RD	East	28- Oct- 04		0	2	2	0	0	0	0	1	1	0	0	2	0	5	3	
3060029	7	8.70	11.40	2.70	WALKERS RD	East	28- Oct- 04	mike	20	2	2	0	0	1	0	1	1	0	0	1	1	5	4	
3060030	1	0.00	1.80	1.80	JARRING SOUTH RD	North	21- Oct- 04	mike	20	2	2	1	1	1	1	1	1	2	2	2	0	8	6	
3060030	2	1.80	3.50	1.70	JARRING SOUTH RD	North	21- Oct- 04	mike	20	2	2	0	1	1	0	2	2	1	1	1	0	7	6	
3060030	3	3.50	4.10	0.60	JARRING SOUTH RD	North	21- Oct- 04	mike	20	2	2	0	1	0	1	1	1	0	0	2	0	5	5	
3060030	4	4.10	5.80	1.70	JARRING SOUTH RD	North	21- Oct- 04	mike	20	0	0	0	0	0	0	0	0	0	0	1	1	1	1	
3060030	5	5.80	9.30	3.50	JARRING SOUTH RD	North	21- Oct- 04	mike	20	2	2	1	0	1	0	2	2	1	2	2	2	9	8	
3060030	6	9.30	9.70	0.40	JARRING SOUTH RD	North		mike	20	2	1	1	0	0	0	1	1	0	0	0	2	4	4	
3060031	1	0.00	0.60	0.60	SIBERIA RD	East		megan and mike	20	2	2	2	2	1	1	2	2	2	2	0	0	9	9	
3060031	2	0.60	1.50	0.90	SIBERIA RD	East	24- Sep- 04	megan and mike	20	2	2	1	2	1	2	1	2	2	2	1	0	8	10	
3060031	3	1.50	2.20	0.70	SIBERIA RD	East	24- Sep- 04	megan and mike	20	0	0	0	0	0	0	0	0	0	0	1	2	1	2	
3060031	4	2.20	3.20	1.00	SIBERIA RD	East	24- Sep- 04	megan and mike	20	2	2	2	2	1	2	1	2	2	2	2	0	10	10	
3060031	5	3.20	5.40	2.20	SIBERIA RD	East	24- Sep- 04	megan and mike	20	2	2	2	2	2	2	1	1	2	2	2	2	11	11	
3060031	6	5.40	9.50	4.10	SIBERIA RD	East	24- Sep- 04	megan and mike	20	2	2	1	1	2	2	1	1	2	2	2	2	10	10	
3060031	7	9.50	10.50	1.00	SIBERIA RD	East	24- Sep- 04	megan	20	2	2	2	2	2	2	2	2	2	2	2	0	12	10	
3060031	8	10.50	12.70	2.20	SIBERIA RD	East	24-	megan and mike	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	

ROAD#	Section#	OD start	OD finish	Sectn length		Direction	Date	Observer	Width	Nat Veget	tive tation		ent of tation	Pla	ative ant cies	We	eds	В	ie as iol. ridor	Adjoi Lanc	ning luse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)			04		(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060031	9	12.70	13.20	0.50	SIBERIA RD	East	24-	megan and mike	20	2	2	2	2	1	1	1	1	2	2	0	0	8	8	CABBAGE_FAMILY_WEEDS
3060031	10	13.20	14.20	1.00	SIBERIA RD	East	24- Sep- 04	megan and mike	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	CABBAGE_FAMILY_WEEDS
3060032	1	0.00	1.00	1.00	OLD LAKE GRACE RD	East	24- Sep- 04	megan andmike	20	2	2	2	2	1	1	2	2	2	2	2	2	11	11	
3060032	2	1.00	1.80	0.80	OLD LAKE GRACE RD	East	24- Sep- 04	andmike	20	2	2	2	2	1	1	2	2	2	2	0	2	9	11	
3060032	3	1.80	6.00	4.20	OLD LAKE GRACE RD	East	24- Sep- 04	megan andmike	20	2	2	2	2	1	1	1	1	2	2	2	2	10	10	
3060032	4	6.00	6.30	0.30	OLD LAKE GRACE RD	East	24- Sep- 04	megan andmike	20	2	2	2	2	1	1	2	2	2	2	2	0	11	9	
3060032	5	6.30	12.00	5.70	OLD LAKE GRACE RD	East	24- Sep- 04	megan andmike	20	2	2	2	2	1	1	2	2	2	2	2	2	11	11	
3060032	6	12.00	12.50	0.50	OLD LAKE GRACE RD	East	24- Sep- 04	megan and mike	20	2	2	2	2	1	1	1	1	2	2	2	0	10	8	
3060032	7	12.50	14.90	2.40	OLD LAKE GRACE RD	East	24- Sep- 04	megan and mike	20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	
3060033	1	0.00	2.30	2.30	WILLOCK RD	North	24- Sep- 04	megan and mike	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	CABBAGE_FAMILY_WEEDS
3060033	2	2.30	3.00	0.70	WILLOCK RD	North	24- Sep- 04	megan and mike	20	2	2	2	2	1	1	2	2	2	2	2	0	11	9	CABBAGE_FAMILY_WEEDS
3060034	1	0.00	5.30	5.30	COCKRAN RD	West	24- Sep- 04	megan and mike	20	2	2	1	1	1	1	0	0	2	2	2	2	8	8	VICTORIAN_TEA_TREE
3060035	1	0.00	6.90	6.90	BRAYS RD	South	29- Oct- 04	geoff	20	2	2	1	1	1	1	2	2	2	2	2	2	10	10	
3060035	2	6.90	7.20	0.30	BRAYS RD	South	29- Oct- 04	mike	20	2	2	1	1	2	2	2	2	2	2	2	0	11	9	
3060035	3	7.20	7.70	0.50	BRAYS RD	South	29- Oct- 04	geoff	20	2	2	1	1	1	1	2	2	0	0	2	2	8	8	
3060036	1	0.00	0.30	0.30	NIPPERING RD	North	08- 0ct- 04	mich	20	2	2	2	2	2	2	1	2	2	2	0	0	9	10	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width		tive tation	Exte Vege	nt of tation		ative ant cies	Wee	eds	Bi	ue as iol. ridor		ining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left R	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060036	2	0.30	0.70	0.40	NIPPERING RD	North	08- Oct- 04	mich	20	2	1	2	1	2	0	1	0	2	2	0	2	9	6	
3060036	3	0.70	4.00	3.30	NIPPERING RD	North	08- Oct- 04	mich	20	1	1	1	1	0	0	0	0	2	2	2	2	6	6	
3060036	4	4.00	4.93	0.93	NIPPERING RD	North		mich	20	1	1	1	1	0	0	0	0	2	2	2	2	6	6	
3060037	1	0.00	1.00	1.00	114 GATE RD	East		meryn	20	1	1	1	1	0	0	1	1	1	1	1	1	5	5	
3060037	2	1.00	1.30	0.30	114 GATE RD	East		meryn	20	2	2	0	1	0	0	1	1	1	0	0	2	4	6	
3060037	3	1.30	3.20	1.90	114 GATE RD	East		meryn	20	2	2	1	1	0	0	1	2	0	1	1	1	5	7	
3060037	4	3.20	3.70	0.50	114 GATE RD	East		meryn	20	0	1	0	0	0	0	0	0	0	0	1	1	1	2	
3060037	5	3.70	5.30	1.60	114 GATE RD	East		meryn	20	1	1	1	1	0	0	0	0	1	1	1	1	4	4	BRIDAL_CREEPER
3060037	6	5.30	6.20	0.90	114 GATE RD	East		meryn	20	1	1	1	1	0	0	0	0	0	0	1	1	3	3	BRIDAL_CREEPER
3060037	7	6.20	6.70	0.50	114 GATE RD	East		meryn	20	1	1	1	1	0	0	0	0	0	0	1	1	3	3	BRIDAL_CREEPER
3060037	8	6.70	7.30	0.60	114 GATE RD	East		meryn	20	2	2	1	1	1	1	1	1	1	1	1	1	7	7	BRIDAL_CREEPER
3060037	9	7.30	10.50	3.20	114 GATE RD	East		meryn	20	1	1	0	1	0	0	0	0	0	0	1	1	2	3	BRIDAL_CREEPER
3060037	10	10.50	10.70	0.20	114 GATE RD	East		meryn	20	1	2	0	1	0	0	1	1	0	0	1	1	3	5	CABBAGE_FAMILY_WEEDS
3060037	11	10.70	11.70	1.00	114 GATE RD	East		meryn	20	0	1	0	1	0	0	2	1	0	1	1	1	3	5	CABBAGE_FAMILY_WEEDS BRIDAL_CREEPER
3060037	12	11.70	12.00	0.30	114 GATE RD	East		meryn	20	0	0	0	0	0	0	0	0	0	0	1	1	1	1	CABBAGE_FAMILY_WEEDS BRIDAL_CREEPER
3060037	13	12.00	13.10	1.10	114 GATE RD	East		meryn	20	2	0	1	0	0	0	0	0	2	0	1	1	6	1	CABBAGE_FAMILY_WEEDS
3060037	14	13.10	14.00	0.90	114 GATE RD	East		meryn	20	0	0	0	0	0	0	0	0	0	0	1	1	1	1	CABBAGE_FAMILY_WEEDS

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width		ive tation		ent of tation	Pla	ative ant cies	We	eds	В	ue as iol. ridor	Adjo Lan	ining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
							Oct- 04																	
3060037	15	14.00	14.30	0.30	114 GATE RD	East	12- Oct- 04	meryn	20	2	0	1	0	0	0	1	0	1	0	1	1	6	1	CABBAGE_FAMILY_WEEDS
3060037	16	14.30	16.00	1.70	114 GATE RD	East	12- Oct- 04	meryn	20	2	1	1	1	0	0	0	0	1	1	1	1	4	4	CABBAGE_FAMILY_WEEDS
3060037	17	16.00	16.60	0.60	114 GATE RD	East	12- 0ct- 04	meryn	20	2	2	1	1	1	1	0	0	2	2	1	1	7	7	CABBAGE_FAMILY_WEEDS
3060037	18	16.60	17.10	0.50	114 GATE RD	East	12- 0ct- 04	meryn	20	1	1	1	1	0	0	0	0	2	2	0	0	4	4	CABBAGE_FAMILY_WEEDS
3060037	19	17.10	17.60	0.50	114 GATE RD	East	12- 0ct- 04	meryn	20	2	2	1	1	0	0	1	1	2	2	0	1	6	6	
3060037	20	17.60	18.90	1.30	114 GATE RD	East	12- Oct- 04	meryn	20	1	2	1	1	0	0	0	0	0	0	1	1	3	3	BRIDAL_CREEPER
3060037	21	18.90	20.40	1.50	114 GATE RD	East	12- Oct- 04	meryn	20	2	2	1	1	1	1	1	1	2	2	1	1	8	8	BRIDAL_CREEPER
3060037	22	20.40	20.80	0.40	114 GATE RD	East	12- Oct- 04	meryn	20	2	2	1	1	1	1	1	1	2	2	0	1	7	8	BRIDAL_CREEPER SALT_AFFECTED_ROADSIDE
3060038	1	0.00	0.60	0.60	SMITHS RD	North	12- 0ct- 04	Meryn	20	2	2	1	1	0	0	1	1	2	2	2	2	8	8	
3060038	2	0.60	1.20	0.60	SMITHS RD	North	12- Oct- 04	Meryn	20	1	1	1	1	0	0	2	2	0	0	0	1	4	5	
3060038	3	1.20	1.70	0.50	SMITHS RD	North	12- 0ct- 04	Meryn	20	1	1	1	1	0	0	2	1	1	0	1	1	6	4	
3060038	4	1.70	2.50	0.80	SMITHS RD	West	12- Oct- 04	Meryn	20	1	2	0	0	0	0	1	2	0	1	1	1	3	6	
3060038	5	2.50	4.20	1.70	SMITHS RD	West	12- 0ct- 04	Meryn	20	1	2	1	1	0	0	1	1	0	2	1	1	4	7	
3060038	6	4.20	4.50	0.30	SMITHS RD	West	12- Oct- 04	Meryn	20	1	1	1	1	0	0	0	0	0	1	1	0	3	3	
3060038	7	4.50	5.10	0.60	SMITHS RD	West	12- Oct- 04	Meryn	20	0	0	0	0	0	0	0	2	0	1	1	0	1	3	
3060038	8	5.10	5.70	0.60	SMITHS RD	West	12- Oct-	Meryn	20	1	1	1	0	0	0	0	0	0	0	1	0	3	1	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width		tive tation		ent of tation	Pla	ative ant cies	We	eds	В	ue as iol. ridor		ining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)			04		(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060039	1	0.00	1.40	1.40	DWELYERDINE RD	West	-	meryn	40	0	2	0	1	0	0	0	1	0	2	1	1	1	7	
3060039	2	1.40	2.70	1.30	DWELYERDINE RD	West	13- Oct- 04	meryn	20	1	0	1	0	0	0	1	0	1	0	1	1	5	1	
3060039	3	2.70	4.40	1.70	DWELYERDINE RD	West	13- Oct- 04	meryn	20	2	0	1	0	0	0	1	0	1	0	1	1	6	1	
3060039	4	4.40	5.30	0.90	DWELYERDINE RD	West	13- Oct- 04	J Temby	40	2	0	1	0	1	0	1	0	0	0	1	1	6	1	
3060039	5	5.30	6.40	1.10	DWELYERDINE RD	West	13- Oct- 04		0	1	0	1	0	0	0	2	0	1	0	0	1	5	1	
3060039	6	6.40	7.50	1.10	DWELYERDINE RD	West	13- Oct- 04	J Temby	0	2	2	1	1	1	1	2	2	2	2	0	0	8	8	
3060040	1	0.00	3.50	3.50	SPRINGHURST RD	East	01- Oct- 04	mike	20	2	2	1	1	0	0	0	0	1	1	2	2	6	6	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS SALT_AFFECTED_ROADSIDE
3060040	2	3.50	5.90	2.40	SPRINGHURST RD	East	01- Oct- 04	mike	20	0	0	0	0	0	0	1	1	0	0	2	2	3	3	CABBAGE_FAMILY_WEEDS
3060040	3	5.90	10.60	4.70	SPRINGHURST RD	East	01- Oct- 04		20	1	1	0	0	0	0	1	1	1	1	2	2	5	5	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060040	4	10.60	11.00	0.40	SPRINGHURST RD	East		mike	20	1	1	1	1	1	1	1	1	1	0	2	0	5	4	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060040	5	11.00	16.20	5.20	SPRINGHURST RD	East	01- Oct- 04		20	0	1	0	0	0	0	1	1	1	1	2	2	4	5	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS SALT_AFFECTED_ROADSIDE
3060040	6	16.20	16.70	0.50	SPRINGHURST RD	East	01- Oct- 04	mike	20	2	2	1	0	1	0	2	2	1	2	0	2	7	8	VICTORIAN_TEA_TREE
3060040	7	16.70	18.30	1.60	SPRINGHURST RD	North	01- Oct- 04	mike	20	2	1	1	1	1	1	1	1	1	0	2	2	8	6	VICTORIAN_TEA_TREE
3060041	1	0.00	0.10	0.10	KERSLEY DR	South	10- Oct- 04	mich	20	1	1	1	1	0	0	0	0	0	0	0	0	2	2	
3060041	2	0.10	0.40	0.30	KERSLEY DR	South	10- Oct- 04	mich	20	1	1	2	2	0	0	0	1	0	2	2	0	5	6	
3060041	3	0.40	0.60	0.20	KERSLEY DR	South	10- Oct-		20	1	0	0	0	0	0	2	2	0	0	2	2	5	4	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width	Nat Veget			ent of tation	Pl	ative ant ecies	We	eds	В	ue as iol. ridor		ining duse	Value	ervation Score -12)	Overlay data
		(km)	(km)	(km)			04		(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	t Right	(Weeds and salt listed if present)
3060041	4	0.60	2.40	1.80	KERSLEY DR	West	10- 0ct- 04	mich	20	2	0	2	0	1	0	0	0	2	0	0	2	7	2	
3060041	5	2.40	3.60	1.20	KERSLEY DR	West	10- 0ct- 04	mich	20	2	0	2	0	1	0	0	0	2	0	0	2	7	2	SALT_AFFECTED_ROADSIDE
3060042	1	0.00	1.30	1.30	DAMPER FLAT RD	North	05- Oct- 04	ella	40	2	2	0	0	0	0	1	1	0	0	2	2	5	5 5	CABBAGE_FAMILY_WEEDS SALT_AFFECTED_ROADSIDE
3060042	2	1.30	2.50	1.20	DAMPER FLAT RD	North	05- Oct- 04	ella	40	1	1	1	1	0	0	0	0	0	0	2	2	4	4	CABBAGE_FAMILY_WEEDS SALT_AFFECTED_ROADSIDE
3060042	3	2.50	3.00	0.50	DAMPER FLAT RD	North	05- Oct- 04	ella	40	1	1	0	0	0	0	1	1	0	0	2	2	4	4	CABBAGE_FAMILY_WEEDS SALT_AFFECTED_ROADSIDE
3060042	4	3.00	3.40	0.40	DAMPER FLAT RD	North	05- Oct- 04	ella	20	2	2	0	0	0	0	1	1	0	0	2	1	5	6 4	CABBAGE_FAMILY_WEEDS SALT_AFFECTED_ROADSIDE
3060042	5	3.40	5.40	2.00	DAMPER FLAT RD	North	05- 05- 0ct- 04	ella	20	1	1	0	0	0	0	2	2	0	0	1	1	4	4	CABBAGE_FAMILY_WEEDS SALT_AFFECTED_ROADSIDE
3060042	6	5.40	5.80	0.40	DAMPER FLAT RD	North	05- 05- 0ct- 04	ella	20	2	2	1	1	0	0	1	1	0	0	1	2	5	6 6	CABBAGE_FAMILY_WEEDS SALT_AFFECTED_ROADSIDE
3060042	7	5.80	6.40	0.60	DAMPER FLAT RD	North	05- 05- 0ct- 04	ella	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3 3	SALT_AFFECTED_ROADSIDE
3060042	8	6.40	7.00	0.60	DAMPER FLAT RD	North	05- 05- 0ct- 04	ella	20	1	1	1	1	0	0	0	0	0	0	2	2	4	4	
3060043	1	0.00	0.60	0.60	FAIRCLOUGH RD	West	05- 05- 0ct- 04	ella	20	2	2	2	2	2	2	2	2	2	2	0	0	10) 10	VICTORIAN_TEA_TREE
3060043	2	0.60	1.80	1.20	FAIRCLOUGH RD	West		ella	20	1	1	0	0	0	0	1	1	0	0	2	2	4	4	BRIDAL_CREEPER VICTORIAN_TEA_TREE SALT AFFECTED ROADSIDE
3060043	3	1.80	2.90	1.10	FAIRCLOUGH RD	West	05- Oct- 04	ella	20	2	2	1	1	2	2	2	2	1	1	2	2	10) 10	VICTORIAN_TEA_TREE
3060043	4	2.90	3.40	0.50	FAIRCLOUGH RD	West	05- 05- 0ct- 04	ella	20	2	2	2	2	2	2	2	2	2	2	0	0	10) 10	
3060043	5	3.40	4.00	0.60	FAIRCLOUGH RD	West	05- 05- 0ct- 04	ella	20	2	1	0	0	0	0	0	0	1	1	2	2	5	i 4	VICTORIAN_TEA_TREE
3060043	6	4.00	5.50	1.50	FAIRCLOUGH RD	West	05- Oct- 04	ella	20	1	0	0	0	0	0	1	0	0	0	2	2	4	2	VICTORIAN_TEA_TREE

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width		tive tation		ent of etation	PI	ative ant ecies	We	eeds	В	ue as iol. ridor		ining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060043	7	5.50	9.50	4.00	FAIRCLOUGH RD	West	05- Oct- 04		20	2	2	1	1	0	0	0	0	0	0	2	1	5	4	VICTORIAN_TEA_TREE
3060043	8	9.50	10.20	0.70	FAIRCLOUGH RD	West	05- Oct- 04	ella	20	2	2	2	2	2	2	2	2	2	2	0	2	10	12	VICTORIAN_TEA_TREE
3060045	1	0.00	1.10	1.10	BULLOCK HILLS RD	West	10- Nov- 04	michele	20	1	1	1	1	0	0	0	0	0	0	2	2	4	4	
3060045	2	1.10	1.80	0.70	BULLOCK HILLS RD	West	10- Nov- 04		20	1	1	1	1	0	0	0	0	0	1	2	2	4	5	
3060045	3	1.80	3.30	1.50	BULLOCK HILLS RD	West	10- Nov- 04	michele	20	2	1	1	1	0	0	0	0	2	2	2	2	7	6	
3060045	4	3.30	4.30	1.00	BULLOCK HILLS RD	West	10- Nov- 04	michele	20	1	1	2	2	0	0	0	0	0	0	2	0	5	3	
3060046	1	0.00	1.29	1.29	BELLS RD	North	14-	B&J Temby	20	1	0	1	0	0	0	1	1	2	2	1	1	6	4	
3060047	1	0.00	1.50	1.50	MILD WATERS RD	North	30- Sep- 04	michele	20	1	1	2	2	1	1	2	2	2	2	2	2	10	10	
3060047	2	1.50	2.70	1.20	MILD WATERS RD	North	30- Sep- 04	michele	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	VICTORIAN_TEA_TREE CAPE_TULIP
3060048	1	0.00	1.10	1.10	KINGS RD	East	24- Sep- 04	geoff	40	2	1	2	2	2	1	2	1	2	1	0	2	10	8	VICTORIAN_TEA_TREE
3060048	2	1.10	3.30	2.20	KINGS RD	East	24- Sep- 04	geoff	40	2	2	2	2	2	2	2	2	0	1	0	0	8	9	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060048	3	3.30	4.50	1.20	KINGS RD	East	24- Sep- 04	geoff	40	2	2	2	2	1	1	1	1	1	1	1	2	8	9	VICTORIAN_TEA_TREE
3060048	4	4.50	5.80	1.30	KINGS RD	East	24- Sep- 04	geoff	20	2	2	1	1	1	1	2	2	2	2	0	1	8	9	VICTORIAN_TEA_TREE
3060048	5	5.80	7.30	1.50	KINGS RD	East	24- Sep- 04	geoff	20	2	2	2	2	1	1	2	2	1	1	2	1	10	9	
3060049	1	0.00	4.00	4.00	HARRISON RD	East	30- Sep- 04	michele	20	2	2	0	0	0	0	0	0	1	1	2	2	5	5	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060050	1	0.00	4.10	4.10	MOULYINNING NORTH RD	South	01- Oct- 04	mike	20	2	2	1	0	0	0	1	0	0	0	2	2	6	4	VICTORIAN_TEA_TREE SALT_AFFECTED_ROADSIDE
3060050	2	4.10	5.90	1.80	MOULYINNING NORTH	South	-	mike	20	1	1	0	0	0	0	1	0	0	0	2	2	4	3	CABBAGE_FAMILY_WEEDS

ROAD#	Section#	OD start	OD finish	Sectn length		Direction	Date	Observer	Width		tive tation	Exte Vege	ent of tation		ative ant cies	We	eds	В	ue as iol. ridor	Adjo Lanc	ining duse	value		Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
					RD		Oct- 04																	
3060050	3	5.90	6.88	0.98	MOULYINNING NORTH	South	01- Oct- 04	mike	20	1	1	0	0	0	0	2	2	0	0	2	2	5	5	CABBAGE_FAMILY_WEEDS
3060050	4	6.88	9.65	2.78	MOULYINNING NORTH RD	South	01- Oct- 04	mike	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	CABBAGE_FAMILY_WEEDS
3060050	5	9.65	10.53	0.88	MOULYINNING NORTH RD	South	01- Oct- 04	mike	20	0	2	0	1	0	0	0	0	0	1	0	0	2	6	CABBAGE_FAMILY_WEEDS
3060050	6	10.53	11.70	1.18	MOULYINNING NORTH RD	South	01- Oct- 04	mike	20	2	2	1	1	1	1	2	2	2	1	0	0	8	7	VICTORIAN_TEA_TREE
3060051	1	0.00	0.40	0.40	MOULYINNING SOUTH RD	South		geoff	20	2	2	1	1	0	0	1	1	1	0	2	2	7	6	
3060051	2	0.40	0.70	0.30	MOULYINNING SOUTH RD	South		geoff	20	0	1	0	0	0	0	0	0	0	0	2	2	2	3	
3060051	3	0.70	1.10	0.40	MOULYINNING SOUTH RD	South		geoff	20	1	1	0	0	0	0	0	0	0	1	2	2	3	4	
3060051	4	1.10	1.70	0.60	MOULYINNING SOUTH RD	South		geoff	20	0	1	0	0	0	0	0	0	0	1	2	2	2	4	
3060051	5	1.70	3.70	2.00	MOULYINNING SOUTH RD	South	31- Oct- 04	geoff	20	1	2	1	1	0	0	0	0	2	2	2	2	6	7	
3060051	6	3.70	4.00	0.30	MOULYINNING SOUTH RD	South	31- Oct- 04	geoff	20	1	1	1	1	1	1	2	2	1	1	2	1	8	7	
3060051	7	4.00	4.40	0.40	MOULYINNING SOUTH RD	South	31- Oct- 04	geoff	20	2	2	1	1	0	0	0	0	1	1	2	2	6	6	
3060051	8	4.40	4.70	0.30	MOULYINNING SOUTH RD	South	31- Oct- 04	geoff	20	2	2	1	1	1	1	1	1	1	1	2	0	8	6	
3060051	9	4.70	6.40	1.70	MOULYINNING SOUTH RD	South		geoff	20	1	1	1	1	1	1	0	0	1	1	2	2	6	6	
3060051	10	6.40	6.60	0.20	MOULYINNING SOUTH RD	South		geoff	20	2	2	2	2	2	2	2	2	1	1	0	0	9	9	
3060052	1	0.00	8.60	8.60	GOODING RD	West	29- Oct- 04		0	2	2	0	0	0	0	0	0	0	1	2	2	4	5	
3060053	1	0.00	0.60	0.60	CLARKES RD	North	30- Oct-	geoff	20	2	2	2	2	1	1	2	2	2	2	2	1	11	10	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width		tive tation		ent of etation	PI	ative ant ecies	We	eds	В	ue as iol. ridor	Adjo Lan	ining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)			04		(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060053	2	0.60	0.90	0.30	CLARKES RD	North	30- Oct- 04		20	2	2	2	2	1	1	1	1	1	1	2	0	9	7	
3060053	3	0.90	3.00	2.10	CLARKES RD	North	30- Oct- 04	geoff	20	2	2	1	1	0	0	0	0	2	2	2	2	7	7	
3060053	4	3.00	3.20	0.20	CLARKES RD	North	30- Oct- 04	geoff	20	2	2	2	2	0	1	0	0	0	0	2	0	6	5	
3060055	1	0.00	3.50	3.50	POWELLS RD	West	28- Oct- 04	michele	20	2	2	1	1	1	1	0	0	2	2	2	2	8	8	
3060055	2	3.50	3.70	0.20	POWELLS RD	West	28- Oct- 04	michele	20	1	1	2	2	0	0	0	0	2	2	0	2	5	7	
3060056	1	0.00	2.50	2.50	SANDPLAIN RD	West	10- Nov- 04	michele	20	1	1	1	1	0	0	0	0	2	2	2	2	6	6	
3060056	2	2.50	3.30	0.80	SANDPLAIN RD	West	10- Nov- 04	michele	20	2	2	1	1	0	0	0	0	2	0	2	2	7	5	
3060056	3	3.30	4.20	0.90	SANDPLAIN RD	West	10- Nov- 04	michele	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	
3060057	1	0.00	0.50	0.50	FORBES RD	South	10- Nov- 04	michele	20	2	2	1	1	0	0	0	0	0	0	2	2	5	5	
3060057	2	0.50	1.00	0.50	FORBES RD	South	10- Nov- 04	michele	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	SALT_AFFECTED_ROADSIDE
3060057	3	1.00	2.30	1.30	FORBES RD	South	10- Nov- 04	michele	0	2	2	1	1	0	0	0	0	2	2	2	2	7	7	
3060067	1	0.00	1.50	1.50	HOLDEN RD	West	23- Sep- 04	megan and ella	20	2	2	2	2	2	2	2	2	2	2	1	2	11	12	
3060067	2	1.50	2.40	0.90	HOLDEN RD	West	23- Sep- 04	megan and ella	20	2	2	2	2	2	2	2	2	2	2	0	2	10	12	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060067	3	2.40	6.40	4.00	HOLDEN RD	West	23- Sep- 04	megan and ella	20	2	2	1	1	1	1	2	2	2	2	2	1	10	9	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060067	4	6.40	6.80	0.40	HOLDEN RD	West	23- Sep- 04	megan and ella	20	1	1	1	0	1	0	0	0	1	0	2	1	6	2	
3060067	5	6.80	10.50	3.70	HOLDEN RD	West	23- Sep- 04	megan and ella	20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width		tive tation		ent of station	P	ative lant ecies	w	eeds	B	ue as iol. ridor	Aujo	ining duse			Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060070	1	0.00	0.70	0.70	BROWNS RD	East	01- Nov- 04		20	2	2	1	1	0	0	1	1	1	1	2	1	7	6	SALT_AFFECTED_ROADSIDE
3060070	2	0.70	1.00	0.30	BROWNS RD	East	01- Nov- 04	ella	20	2	2	1	1	1	0	1	1	1	1	2	1	8	6	
3060070	3	1.00	1.50	0.50	BROWNS RD	East	01- Nov- 04		20	1	0	0	0	0	0	0	0	0	0	2	1	3	1	
3060070	4	1.50	2.10	0.60	BROWNS RD	East	01- Nov- 04		20	2	2	1	1	0	0	0	0	0	1	1	2	4	6	
3060071	1	0.00	2.78	2.78	CANTWELLS RD	East	09- Oct- 04		20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	
3060071	2	2.78	3.16	0.38	CANTWELLS RD	East	09- Oct- 04		20	2	2	0	0	0	0	1	1	1	1	2	0	6	4	
3060071	3	3.16	5.74	2.58	CANTWELLS RD	East	09- Oct- 04	mike	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	
3060072	1	0.00	2.66	2.66	DATATINE NORTH RD	North	09- Oct- 04	mike	20	2	2	1	1	1	1	2	2	2	2	2	2	10	10	
3060072	2	2.66	4.81	2.16	DATATINE NORTH RD	North	09- Oct- 04	mike	20	2	2	0	0	0	0	0	0	0	0	2	2	4	4	SALT_AFFECTED_ROADSIDE
3060072	3	4.84	7.87	3.03	DATATINE NORTH RD	North	09- Oct- 04	mike	20	2	2	1	1	1	0	2	0	0	0	2	2	8	5	
3060072	4	7.87	9.72	1.86	DATATINE NORTH RD	North	09- Oct- 04	mike	20	2	1	0	0	0	0	0	0	2	1	2	2	6	4	
3060073	1	0.15	0.55	0.40	ROBSON RD	East	09- Oct- 04	mike	20	2	2	1	1	0	0	2	0	0	0	2	2	7	5	
3060073	2	0.55	0.85	0.30	ROBSON RD	East	09- Oct- 04	mike	20	2	2	2	2	1	1	2	2	2	2	0	2	9	11	
3060073	3	0.85	2.15	1.30	ROBSON RD	East	09- Oct- 04	mike	20	2	2	0	0	0	0	0	0	2	2	1	2	5	6	SALT_AFFECTED_ROADSIDE
3060073	4	2.15	3.85	1.70	ROBSON RD	East	09- 0ct- 04	mike	20	2	2	0	0	0	0	0	0	0	0	2	2	4	4	SALT_AFFECTED_ROADSIDE
3060073	5	3.85	6.15	2.30	ROBSON RD	East	09- 02- 02- 04	mike	20	2	2	0	1	0	0	0	0	0	0	2	2	4	5	
3060074	1	0.00	3.70	3.70	KURINGUP NORTH RD	South		mike	20	1	1	0	0	0	0	0	0	1	0	1	1	3	2	

ROAD#	Section#	OD start	OD finish	Sectn length		Direction	Date	Observer	Width		tive tation		ent of tation	PI	ative ant ecies	We	eeds	В	ue as iol. ridor	Aujo	oining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
							Oct- 04																	
3060076	1	0.00	0.40	0.40	BAGNALLS RD	West	16- Oct- 04	meryn	20	2	2	1	1	0	0	1	1	1	1	1	1	6	6	
3060076	2	0.40	0.70	0.30	BAGNALLS RD	West	16- Oct- 04	-	20	1	1	1	1	0	0	1	1	0	0	1	1	4	4	
3060076	3	0.70	1.00	0.30	BAGNALLS RD	West	16- Oct- 04		20	1	1	0	0	1	1	0	0	0	0	1	1	3	3	
3060076	4	1.00	1.40	0.40	BAGNALLS RD	West	16- Oct- 04	meryn	20	1	2	1	1	0	0	1	1	1	1	1	1	5	6	
3060076	5	1.40	2.40	1.00	BAGNALLS RD	West	16- Oct- 04	meryn	20	1	2	0	0	0	0	0	0	1	1	1	1	3	4	
3060076	6	2.40	3.40	1.00	BAGNALLS RD	West	16- Oct- 04	-	20	1	1	1	1	0	0	1	1	1	1	1	1	5	5	
3060076	7	3.40	4.00	0.60	BAGNALLS RD	West	16- Oct- 04	meryn	20	1	1	1	1	0	0	1	1	0	0	1	1	4	4	
3060077	1	0.00	0.80	0.80	HOME RD	East		meryn	20	2	2	1	1	0	0	1	1	1	2	1	1	6	7	
3060078	1	0.00	0.53	0.53	DART RD	East	16- Oct- 04	meryn	20	1	1	0	0	0	0	1	1	1	1	1	1	4	4	
3060078	2	0.53	2.47	1.93	DART RD	East	16- Oct- 04	meryn	20	2	2	1	1	0	0	1	1	0	0	1	1	5	5	
3060078	3	2.47	3.40	0.93	DART RD	East	16- Oct- 04	meryn	20	0	0	0	0	0	0	0	0	0	0	1	1	1	1	
3060081	1	0.00	0.66	0.66	JIPSONS RD	North	24- Sep- 04	geoff	20	1	1	2	2	1	1	2	2	1	1	1	1	8	8	
3060081	2	0.66	3.62	2.96	JIPSONS RD	North	24- Sep- 04	geoff	20	2	2	0	0	0	0	1	1	1	1	1	2	5	6	CABBAGE_FAMILY_WEEDS
3060082	1	0.00	3.10	3.10	DUALLING RD	South	21- Oct- 04	mike	20	2	2	0	0	0	0	0	0	1	2	2	2	5	6	
3060082	2	3.10	3.50	0.40	DUALLING RD	South	21- Oct- 04	mike	20	2	2	0	0	0	0	0	0	0	0	2	1	4	3	
3060082	3	3.50	5.10	1.60	DUALLING RD	South		mike	20	2	2	1	0	0	0	1	1	2	2	2	2	8	7	

ROAD#	Section#	OD start	OD finish	Sectn length		Direction	Date	Observer	Width		tive tation	Exte Vege		Pla	ative ant cies	We	eds	Bi	ie as ol. ridor		ining duse	Conse Value (0-	Score	Overlay data
		(km)	(km)	(km)			04		(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060083	1	0.00	1.03	1.03	HILLS RD	North	04 24- Sep- 04	geoff	20	2	2	2	2	2	2	2	2	2	2	0	2	10	12	VICTORIAN_TEA_TREE
3060083	2	1.03	2.67	1.63	HILLS RD	North	24- Sep- 04	geoff	20	2	2	2	2	1	1	2	2	2	2	0	2	9	11	VICTORIAN_TEA_TREE
3060083	3	2.67	4.40	1.73	HILLS RD	North	24- Sep- 04	geoff	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060083	4	4.40	5.04	0.63	HILLS RD	North	24- Sep- 04	geoff	20	2	2	2	2	1	1	2	2	1	1	2	2	10	10	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060083	5	5.04	6.57	1.53	HILLS RD	North	24- Sep- 04	geoff	20	2	2	2	2	2	2	2	2	2	2	0	2	9	11	
3060083	6	6.57	7.30	0.73	HILLS RD	North	24- Sep- 04	geoff	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	VICTORIAN_TEA_TREE
3060083	7	7.30	8.34	1.03	HILLS RD	North	24- Sep- 04	geoff	40	2	2	2	2	1	1	2	2	2	2	2	2	11	11	VICTORIAN_TEA_TREE
3060083	8	8.34	8.57	0.23	HILLS RD	North	24- Sep- 04	geoff	40	2	2	2	2	2	2	2	2	2	2	2	0	12	10	VICTORIAN_TEA_TREE
3060083	9	8.57	9.41	0.83	HILLS RD	North	24- Sep- 04	geoff	40	2	2	2	2	1	1	2	2	2	2	2	2	11	11	VICTORIAN_TEA_TREE
3060083	10	9.41	10.24	0.83	HILLS RD	North		geoff	40	2	2	2	2	2	2	2	2	2	2	2	0	12	10	VICTORIAN_TEA_TREE
3060083	11	10.24	11.17	0.93	HILLS RD	North	24- Sep- 04	geoff	40	2	2	2	2	2	2	2	2	2	2	2	2	12	12	VICTORIAN_TEA_TREE
3060084	1	0.00	1.10	1.10	SLANT RD	South	01- Oct- 04	mike	20	1	1	1	0	0	0	1	1	1	0	2	2	6	4	VICTORIAN_TEA_TREE
3060084	2	1.10	2.00	0.90	SLANT RD	South	01- Oct- 04	mike	20	2	2	1	1	1	0	2	1	0	1	0	2	6	7	VICTORIAN_TEA_TREE
3060084	3	2.00	2.90	0.90	SLANT RD	South	01- Oct- 04	mike	20	2	2	1	1	1	1	2	2	0	2	0	0	6	8	VICTORIAN_TEA_TREE
3060085	1	0.00	2.30	2.30	DONGOLOCKING RD	East	13- Oct- 04	J.Temby	20	2	2	1	1	1	1	1	2	1	2	1	0	7	8	
3060085	2	2.30	3.90	1.60	DONGOLOCKING RD	East	13- Oct- 04	,	20	1	1	1	1	0	0	1	1	2	2	1	1	6	6	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width		tive tation		ent of tation	Pl	ative ant cies	Wee	eds	Bi	ue as iol. ridor	Adjoi Lanc		Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left F	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060085	3	3.90	4.80	0.90	DONGOLOCKING RD	East	13- Oct- 04	J.Temby	20	1	2	1	1	1	1	2	2	2	2	1	0	8	8	
3060085	4	4.80	8.60	3.80	DONGOLOCKING RD	East	13- Oct- 04	J.Temby	40	1	2	1	1	1	1	1	1	2	2	1	1	7	8	
3060086	1	0.00	0.50	0.50	COOMELBERRUP RD	East	05- Oct- 04	ella	20	2	2	0	0	0	0	0	0	0	0	1	2	3	4	SALT_AFFECTED_ROADSIDE
3060086	2	0.50	1.00	0.50	COOMELBERRUP RD	South	05- Oct- 04		20	2	2	1	1	0	0	0	0	0	0	1	2	4	5	
3060086	3	1.00	1.30	0.30	COOMELBERRUP RD	South		ella	20	2	2	1	0	1	0	2	0	1	0	0	2	7	4	
3060086	4	1.30	1.80	0.50	COOMELBERRUP RD	South		ella	20	1	1	0	0	1	0	1	1	0	0	0	2	3	4	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060086	5	1.80	3.20	1.40	COOMELBERRUP RD	South	-	ella	20	1	2	0	0	0	0	1	1	0	0	2	2	4	5	CABBAGE_FAMILY_WEEDS VICTORIAN_TEA_TREE
3060086	6	3.20	4.50	1.30	COOMELBERRUP RD	West		ella	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	CABBAGE_FAMILY_WEEDS
3060086	7	4.50	5.00	0.50	COOMELBERRUP RD	South		ella	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	CABBAGE_FAMILY_WEEDS
3060086	8	5.00	7.00	2.00	COOMELBERRUP RD	South	-	ella	20	1	2	0	0	1	0	0	0	2	2	2	2	6	6	SALT_AFFECTED_ROADSIDE
3060086	9	7.00	7.20	0.20	COOMELBERRUP RD	South	-	ella	20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	
3060086	10	7.20	7.60	0.40	COOMELBERRUP RD	South	-	ella	20	1	1	1	1	1	1	1	1	1	2	2	2	7	8	
3060087	1	3.50	9.20	5.70	JAY RD	South	29- Oct- 04	geoff	0	1	1	0	0	0	0	0	0	2	2	2	2	5	5	
3060087	2	9.20	10.20	1.00	JAY RD	South	29- Oct- 04	geoff	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	
3060087	3	10.20	10.60	0.40	JAY RD	South	-	geoff	0	1	1	0	0	0	0	0	0	1	1	2	2	4	4	
3060090	1	0.00	3.00		NIPPERING SCHOOL RD	North	09- 02- 04	mich	20	1	1	1	1	0	0	2	2	1	0	2	2	7	6	
3060090	2	3.00	3.50	0.50	NIPPERING SCHOOL	North	-	mich	20	1	1	1	1	0	0	2	2	0	0	2	1	6	5	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width	Nat Veget			ent of tation	Pla	ative ant ecies	We	eds	В	ue as iol. ridor		ining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
					RD		Oct- 04																	
3060090	3	3.50	4.40	0.90	NIPPERING SCHOOL RD	North	09- Oct- 04		20	1	1	1	1	0	0	0	0	0	0	2	2	4	4	
3060094	1	0.00	0.90	0.90	BOUNDRY RD	North	23- Sep- 04	megan ella	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	VICTORIAN_TEA_TREE SALT_AFFECTED_ROADSIDE
3060094	2	0.90	1.70	0.80	BOUNDRY RD	North	23- Sep- 04	megan ella	20	2	2	2	2	1	1	2	2	2	2	0	2	9	11	VICTORIAN_TEA_TREE
3060094	3	1.70	6.30	4.60	BOUNDRY RD	North	23- Sep- 04	megan ella	20	2	2	1	1	1	1	1	1	2	2	1	1	8	8	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060094	4	6.30	7.60	1.30	BOUNDRY RD	North	23- Sep- 04	megan ella	20	2	2	2	2	1	1	1	1	2	2	1	1	9	9	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060094	5	7.60	7.90	0.30	BOUNDRY RD	North	23- Sep- 04	megan ella	20	2	2	2	2	2	2	0	2	2	2	1	0	9	10	VICTORIAN_TEA_TREE CABBAGE_FAMILY_WEEDS
3060094	6	7.90	9.20	1.30	BOUNDRY RD	North	23- Sep- 04	megan ella	20	2	2	2	2	1	1	2	2	2	2	1	1	10	10	
3060094	7	9.20	10.40	1.20	BOUNDRY RD	East		megan ella	20	0	2	0	2	0	2	0	2	0	2	2	1	2	11	VICTORIAN_TEA_TREE
3060094	8	10.40	11.80	1.40	BOUNDRY RD	East		megan ella	20	2	2	2	2	1	1	2	2	2	2	2	0	11	9	VICTORIAN_TEA_TREE
3060095	1	0.00	0.80	0.80	MUTTERS RD	West	05- Oct- 04	ella	40	2	2	2	2	2	2	2	2	1	1	2	2	11	11	VICTORIAN_TEA_TREE
3060095	2	0.80	2.20	1.40	MUTTERS RD	West	05- Oct- 04	ella	40	2	2	1	1	1	1	0	0	1	1	2	2	7	7	VICTORIAN_TEA_TREE
3060095	3	2.20	3.30	1.10	MUTTERS RD	West	05- Oct- 04	ella	40	1	1	0	0	0	0	1	0	0	0	2	2	4	3	VICTORIAN_TEA_TREE SALT_AFFECTED_ROADSIDE
3060096	1	0.00	0.63	0.63	KELLY RD	North	05- Oct- 04	ella	20	1	1	0	0	0	0	1	1	1	1	2	2	5	5	
3060096	2	0.63	2.16	1.53	KELLY RD	North	05- 05- 0ct- 04	ella	20	2	2	0	0	1	1	0	0	0	0	2	2	5	5	VICTORIAN_TEA_TREE
3060096	3	2.16	3.00	0.84	KELLY RD	North	05- 05- 0ct- 04	ella	20	2	2	2	2	2	2	2	2	1	1	2	2	11	11	VICTORIAN_TEA_TREE
3060096	4	3.00	3.62	0.62	KELLY RD	North	05- Oct-	ella	20	1	1	1	1	1	1	0	0	1	1	2	2	6	6	VICTORIAN_TEA_TREE

ROAD#	Section#	OD start	OD finish	Sectn length		Direction	Date	Observer	Width		tive tation		ent of etation	Pla	ative ant cies	We	eds	В	ue as iol. ridor		ining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)			04		(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060096	5	3.62	4.65	1.03	KELLY RD	North	•	ella	20	2	2	2	2	1	1	0	0	1	1	1	2	7	8	VICTORIAN_TEA_TREE
3060096	6	4.65	5.58	0.93	KELLY RD	North	05- Oct- 04	ella	20	2	2	1	2	1	2	0	1	0	1	0	1	4	10	VICTORIAN_TEA_TREE
3060096	7	5.58	5.90	0.32	KELLY RD	North	05- Oct- 04	ella	20	2	2	1	1	2	2	1	2	0	1	2	0	8	8	VICTORIAN_TEA_TREE
3060099	1	0.00	1.50	1.50	LEE RD	South	29- Oct- 04	geoff	0	2	2	1	1	1	1	2	2	0	0	2	2	8	8	SALT_AFFECTED_ROADSIDE
3060100	1	0.00	0.58	0.58	STURGESS RD	South	05- 05- 0ct- 04	ella	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	CABBAGE_FAMILY_WEEDS
3060100	2	0.58	2.46	1.88	STURGESS RD	South	05- Oct- 04	ella	20	1	1	1	1	1	1	0	0	0	0	2	2	5	5	BRIDAL_CREEPER VICTORIAN_TEA_TREE
3060107	1	1.05	1.35	0.30	PEPALL RD	North	05- 05- 0ct- 04	ella	20	1	2	0	0	0	0	0	0	0	0	2	2	3	4	BRIDAL_CREEPER VICTORIAN_TEA_TREE
3060107	2	1.35	1.65	0.30	PEPALL RD	North	05- Oct- 04	ella	20	1	1	0	0	0	0	0	0	1	1	2	0	4	2	
3060107	3	1.65	2.35	0.70	PEPALL RD	North	05- 05- 0ct- 04	ella	20	2	2	1	1	0	0	0	0	2	2	2	2	7	7	
3060110	1	0.00	1.10	1.10	MILLS RD	East	14- 0ct- 04	J.Temby	20	1	1	1	1	0	0	1	1	2	2	1	1	6	6	
3060110	2	1.10	2.04	0.94	MILLS RD	East	14- Oct- 04	J.Temby	20	1	1	1	1	1	0	1	1	2	2	0	1	6	6	
3060111	1	0.00	0.80	0.80	BALL RD	East	14- 0ct- 04	J.Temby	20	1	0	1	1	0	0	1	1	2	2	0	1	5	5	
3060111	2	0.80	3.10	2.30	BALL RD	North	14- Oct- 04	J.Temby	0	1	1	1	1	1	0	1	1	2	2	0	1	6	6	
3060111	3	3.10	6.60	3.50	BALL RD	West	14- 0ct- 04	J.Temby	20	1	1	1	1	0	0	1	1	2	2	1	1	6	6	
3060112	1	0.00	2.60	2.60	NAISBITT RD	East	23- Sep- 04		20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	CABBAGE_FAMILY_WEEDS
3060113	1	0.00	3.10	3.10	BEHN ORD RD	West	08- Oct- 04	mich	20	1	1	1	1	0	0	0	0	1	0	2	2	5	4	CABBAGE_FAMILY_WEEDS

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width		tive tation	Exte Vege		# Na Pla Spe	ant	Wee	eds	Bi	ie as iol. ridor	Adjoi Lanc		Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right			Left F	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
3060117	1	0.00	1.00	1.00	EDWARDS RD	North	Oct- 04		0	2	2	0	2	1	2	2	2	0	1	2	0	7	9	
3060117	2	1.00	4.60	3.60	EDWARDS RD	North	29- Oct- 04	geoff	0	1	1	1	1	0	0	0	1	0	0	2	2	4	5	
3060117	3	4.60	4.80	0.20	EDWARDS RD	North	29- Oct- 04	geoff	0	0	1	0	1	0	2	2	2	1	1	2	0	5	7	
3060117	4	4.80	11.50	6.70	EDWARDS RD	North	29- Oct- 04	geoff	0	2	2	0	0	0	0	1	1	2	2	2	2	7	7	
3060117	5	11.50	11.70	0.20	EDWARDS RD	North		geoff	0	2	2	1	2	1	2	2	2	2	2	2	0	10	10	
3060123	1	0.86	1.32		DUMBLEYUNG- NYABING RD	East		mike	20	2	2	2	2	2	2	2	2	2	2	0	2	10	12	
3060123	2	1.32	5.58		DUMBLEYUNG- NYABING RD	East		mike	20	2	2	1	1	0	1	0	0	1	1	2	2	6	7	
3060123	3	5.58	6.04		DUMBLEYUNG- NYABING RD	East	-	mike	20	2	2	1	0	2	0	1	2	1	1	1	2	8	7	
3060123	4	6.04	8.00		DUMBLEYUNG- NYABING RD	East	-	mike	20	2	2	1	1	1	1	1	2	0	0	2	2	7	8	
3060123	5	8.00	9.56		DUMBLEYUNG- NYABING RD	East	-	mike	20	2	2	0	0	0	0	1	1	0	0	2	2	5	5	SALT_AFFECTED_ROADSIDE
3060123	6	9.56	11.72		DUMBLEYUNG- NYABING RD	North		mike	20	2	2	0	0	0	0	1	1	0	0	0	0	3	3	VICTORIAN_TEA_TREE SALT_AFFECTED_ROADSIDE
3060123	7	11.72	13.18	1.46	DUMBLEYUNG- NYABING RD	North		mike	20	2	2	1	1	1	1	1	1	1	1	2	2	8	8	VICTORIAN_TEA_TREE
3060123	8	13.18	13.44		DUMBLEYUNG- NYABING RD	North	09- Oct- 04	mike	20	1	1	1	2	2	2	2	2	1	1	1	0	8	8	VICTORIAN_TEA_TREE
3060123	9	13.44	16.46		DUMBLEYUNG- NYABING RD	North	-	mike	20	2	2	1	1	1	1	2	2	1	1	1	0	8	7	VICTORIAN_TEA_TREE
3060123	10	16.46	16.78		DUMBLEYUNG- NYABING RD	North		mike	20	2	2	0	2	0	2	1	2	0	1	2	0	5	9	
3060123	11	16.78	17.10		DUMBLEYUNG- NYABING RD	North	09- 02- 04	mike	20	2	2	1	1	1	1	2	2	1	1	2	2	9	9	
3060123	12	17.10	18.02	0.92	DUMBLEYUNG-	North		mike	20	2	2	1	2	1	2	2	2	2	2	2	0	10	10	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width		tive tation		ent of tation	Pla	ative ant cies	We	eds	В	ue as iol. ridor		ining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
					NYABING RD		Oct- 04																	
3060123	13	18.02	24.04	6.02	DUMBLEYUNG- NYABING RD	North	09- Oct- 04	mike	20	2	2	0	1	1	1	0	0	1	0	2	2	6	6	SALT_AFFECTED_ROADSIDE
3060123	14	24.04	24.96	0.92	DUMBLEYUNG- NYABING RD	North	09- Oct- 04	mike	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	
3060123	15	24.96	25.88	0.92	DUMBLEYUNG- NYABING RD	North	09- Oct- 04	mike	20	0	2	0	1	0	1	1	2	0	2	2	2	3	10	
3060124	1	0.00	0.68	0.68	KATANNING- DUMBLEYUNG RD	North	28- Oct- 04	michele	20	1	1	0	0	0	0	0	0	1	1	2	2	4	4	
3060124	2	0.68	1.08	0.40	KATANNING- DUMBLEYUNG RD	North	28- Oct- 04	michele	20	1	2	1	2	1	2	0	0	2	2	2	0	7	8	
3060124	3	1.08	5.48	4.40	KATANNING- DUMBLEYUNG RD	North	28- Oct- 04	michele	20	1	1	1	1	1	1	0	0	2	2	2	2	7	7	
3060124	4	5.48	5.88	0.40	KATANNING- DUMBLEYUNG RD	North	28- Oct- 04	michele	20	2	2	2	2	1	1	1	1	1	1	0	0	7	7	SALT_AFFECTED_ROADSIDE
3060124	5	5.88	7.78	1.90	KATANNING- DUMBLEYUNG RD	North	28- Oct- 04	michele	20	2	2	2	2	1	1	1	1	1	1	0	0	7	7	
3060124	6	7.78	8.48	0.70	KATANNING- DUMBLEYUNG RD	North	28- Oct- 04	michele	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	SALT_AFFECTED_ROADSIDE
3060124	7	8.48	13.88	5.40	KATANNING- DUMBLEYUNG RD	North	28- Oct- 04	michele	0	1	0	1	0	0	0	0	0	1	0	2	2	5	2	
3060124	8	13.88	15.78	1.90	KATANNING- DUMBLEYUNG RD	North	28- Oct- 04	michele	20	1	1	1	1	0	0	0	0	1	1	2	2	5	5	SALT_AFFECTED_ROADSIDE
3060124	9	15.78	16.08	0.30	KATANNING- DUMBLEYUNG RD	North	28- Oct- 04	michele	20	1	2	1	2	0	1	0	0	0	1	2	0	4	6	
3060125	1	0.00	4.20	4.20	MORAN RD	North	13- Oct- 04	J.Temby	20	1	1	1	1	0	0	1	1	2	2	1	1	6	6	
3060125	2	4.20	5.10	0.90	MORAN RD	North	13- Oct- 04	J.Temby	20	1	1	1	1	0	0	1	1	2	2	1	1	1	6	
3060125	3	5.10	6.20	1.10	MORAN RD	North	13- Oct- 04	J.Temby	0	1	1	1	1	0	0	2	1	1	0	0	1	5	4	
3060126	1	0.00	5.58	5.58	DORADINE RD	North	-	mich	20	1	2	1	1	0	0	1	1	2	1	2	2	7	7	VICTORIAN_TEA_TREE

ROAD#	Section#	OD start	OD finish	Sectn length		Direction	Date	Observer	Width	Na Vege	tive tation	Exte Vege	ent of tation	# Nati Plan Speci	nt	Wee	eds	Bi	ie as ol. ridor		ining duse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left Ri		_eft F	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
							04																	
M037	1	187.57	188.17	0.60	DUMBLEYUNG LAKE GRACE RD	East	09- Oct- 04	mich	100	2	2	2	2	1	1	1	0	2	2	0	1	8	8	
M037	2	188.17	188.77	0.60	DUMBLEYUNG LAKE GRACE RD	East	09- Oct- 04	mich	100	1	1	0	1	0	0	0	0	0	0	2	1	3	3	
M037	3	188.77	189.57	0.80	DUMBLEYUNG LAKE GRACE RD	East	-	mich	100	1	1	1	1	0	0	0	0	0	0	1	1	3	3	CABBAGE_FAMILY_WEEDS
M037	4	189.57	190.47	0.90	DUMBLEYUNG LAKE GRACE RD	East	09- Oct- 04	mich	40	0	0	0	0	0	0	0	0	0	0	2	2	2	2	CABBAGE_FAMILY_WEEDS
M037	5	190.47	194.17	3.70	DUMBLEYUNG LAKE GRACE RD	East	09- Oct- 04	mich	40	2	1	1	1	1	1	0	0	1	0	1	2	6	5	
M037	6	194.17	195.07	0.90	DUMBLEYUNG LAKE GRACE RD	East	09- 0ct- 04	mich	40	1	2	1	1	1	1	0	0	1	1	1	2	5	7	
M037	7	195.07	196.47	1.40	DUMBLEYUNG LAKE GRACE RD	East	09- 02- 04	mich	20	1	1	0	0	0	0	0	0	0	0	1	2	2	3	
M037	8	196.47	196.97	0.50	DUMBLEYUNG LAKE GRACE RD	East	24-	megan and mike	20	2	2	1	1	1	1	1	1	1	1	1	0	7	6	SALT_AFFECTED_ROADSIDE
M037	9	196.97	198.17	1.20	DUMBLEYUNG LAKE GRACE RD	East	24-	megan and mike	20	0	0	0	0	0	0	0	0	0	0	2	1	2	1	
M037	10	198.17	199.37	1.20	DUMBLEYUNG LAKE GRACE RD	East	24-	megan and mike	20	1	1	1	1	1	1	0	0	0	0	2	1	5	4	SALT_AFFECTED_ROADSIDE
M037	11	199.37	199.67	0.30	DUMBLEYUNG LAKE GRACE RD	East	24-	megan and mike	20	2	2	2	1	1	1	2	1	2	2	0	1	9	8	
M037	12	199.67	200.07	0.40	DUMBLEYUNG LAKE GRACE RD	East		megan and mike	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	CABBAGE_FAMILY_WEEDS
M037	13	200.07	201.27	1.20	DUMBLEYUNG LAKE GRACE RD	East		megan and mike	20	2	2	1	1	1	1	0	0	1	1	2	2	7	7	CABBAGE_FAMILY_WEEDS
M037	14	201.27	201.77	0.50	DUMBLEYUNG LAKE GRACE RD	East	24-	megan and mike	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	
M037	15	201.77	202.77	1.00	DUMBLEYUNG LAKE GRACE RD	East	24-	megan and mike	20	2	2	1	1	1	1	0	0	1	1	2	2	7	7	
M037	16	202.77	205.77	3.00	DUMBLEYUNG LAKE GRACE RD	East	24- Sep- 04	megan and mike	20	2	2	1	1	1	1	1	1	2	2	2	1	9	8	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width	Na Vege	tive tation	Exte Vege	ent of tation	# Na Pla Spe	ative ant cies	We	eds	В	ue as iol. ridor	Adjoi Lanc	ining Juse	Value	rvation Score 12)	Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right			Left	Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
M037	17	205.77	205.97	0.20	DUMBLEYUNG LAKE GRACE RD	East	24- Sep- 04		20	2	2	1	2	1	1	1	2	2	2	2	0	9	9	
M037	18	205.97	208.97	3.00	DUMBLEYUNG LAKE GRACE RD	East	24- Sep- 04	and mike	20	2	2	2	2	1	1	1	1	2	2	1	2	9	10	
M037	19	208.97	213.07	4.10	DUMBLEYUNG LAKE GRACE RD	East	24- Sep- 04		20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	
M037	20	213.07	215.57	2.50	DUMBLEYUNG LAKE GRACE RD	East	24- Sep- 04	and mike	20	2	2	0	0	2	2	1	1	2	2	2	2	9	9	
M037	21	215.57	216.77	1.20	DUMBLEYUNG LAKE GRACE RD	East	24- Sep- 04	megan and mike	20	1	1	0	0	0	0	1	1	0	0	2	2	4	4	SALT_AFFECTED_ROADSIDE
M037	22	216.77	219.97	3.20	DUMBLEYUNG LAKE GRACE RD	East	24- Sep- 04	megan and mike	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	SALT_AFFECTED_ROADSIDE
M037	23	219.97	221.47	1.50	DUMBLEYUNG LAKE GRACE RD	East	24- Sep- 04	megan and mike	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	SALT_AFFECTED_ROADSIDE
M037	24	221.47	227.67	6.20	DUMBLEYUNG LAKE GRACE RD	East	24- Sep- 04	megan and mike	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	
M037	25	227.67	232.87	5.20	DUMBLEYUNG LAKE GRACE RD	East	24- Sep- 04	megan and mike	20	2	2	2	2	2	2	1	2	2	2	2	2	12	12	
M037	26	232.87	234.67	1.80	DUMBLEYUNG LAKE GRACE RD	East	23- Sep- 04	megan and ella	20	2	2	1	2	1	1	1	2	1	2	2	0	8	9	CABBAGE_FAMILY_WEEDS
M037	27	234.67	238.87	4.20	DUMBLEYUNG LAKE GRACE RD	East	23- Sep- 04	megan and ella	20	2	2	2	2	1	1	1	1	2	2	1	1	9	9	CABBAGE_FAMILY_WEEDS
M037	28	238.87	240.27	1.40	DUMBLEYUNG LAKE GRACE RD	East	23- Sep- 04	megan and ella	20	2	2	2	2	2	2	2	2	2	2	1	1	11	11	CABBAGE_FAMILY_WEEDS
M037	29	240.27	242.77	2.50	DUMBLEYUNG LAKE GRACE RD	East	23- Sep- 04	megan and ella	20	2	2	2	2	2	2	2	2	2	2	1	0	11	10	
M037	30	242.77	244.47	1.70	DUMBLEYUNG LAKE GRACE RD	East	23- Sep- 04	megan and ella	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	
M037	31	244.47	245.37	0.90	DUMBLEYUNG LAKE GRACE RD	East	23- Sep- 04	megan and ella	20	2	2	2	2	2	2	2	2	2	2	0	1	10	11	
M037	32	245.37	247.27	1.90	DUMBLEYUNG LAKE GRACE RD	East	23- Sep- 04	megan	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	
M037	33	247.27	249.87	2.60	DUMBLEYUNG LAKE	East		megan	20	2	2	2	2	2	2	2	2	2	2	2	0	12	10	

ROAD#	Section#	OD start	OD finish	Sectn length	Road Name	Direction	Date	Observer	Width	Nat Vege	tive tation	Exte Vege	ent of tation	# Native Plant Species	, N	/eeds		e as ol. idor	Αά joi				Overlay data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left Righ	nt Lef	ft Right	Left	Right	Left	Right	Left	Right	(Weeds and salt listed if present)
					GRACE RD		Sep- 04	and ella															
M037	34	249.87	252.07		DUMBLEYUNG LAKE GRACE RD	East		megan and ella	20	2	2	2	2	2 2	2 :	2 2	2	2	0	2	10	12	
M037	35	252.07	253.57		DUMBLEYUNG LAKE GRACE RD	East		megan and ella	20	2	2	2	2	2 :	2 2	2 2	2	2	2	2	12	12	

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APPENDIX 3

Road names and lengths: Shire of Dumbleyung

(Source- Main Roads WA 2004)

ROAD #	ROAD NAME	ROAD LENGTH (km)
M037	DUMBLEYUNG LAKE GRACE RD	
3060001	ONE TWENTY NINE RD	49.95
3060002	TINCURRIN RD	25.05
3060003	KUKERIN SOUTH RD	22.08
3060004	KUKERIN NORTH RD	16.81
3060005	RABBIT PROOF FENCE RD	24.47
3060006	MT PLEASANT RD	11.74
3060007	ONE TWENTY FIVE RD	28.66
3060008	PETERSEN RD	15.15
3060009	NIPPERING NORTH RD	14.77
3060010	WHITE WELL RD	20.89
3060011	WARDS RD	7.81
3060012	BIBIKIN RD	10.80
3060013	WISHBONE RD	37.10
3060014	TARIN ROCK RD	20.76
3060015	BLADENDALE RD	14.70
3060016	KUKERIN NORTH EAST RD	6.12
3060017	TARIN ROCK NORTH RD	15.60
3060018	PEARCE RD	7.67
3060019	TRELOARS RD	14.71
3060020	CANDLELIGHT RD	19.36
3060021	KUKERIN RD	4.52
3060022	RIFLE RANGE RD	12.28
3060023	CARWARDINE RD	6.61
3060024	CANDLELIGHT SOUTH EAST RD	16.69
3060025	ADAMS RD	16.00
3060026	MERILUP RD	4.66
3060027	TARIN ROCK SOUTH RD	22.40
3060028	LEO RD	8.43
3060029	WALKERS RD	12.39
3060030	JARRING SOUTH RD	10.47
3060031	SIBERIA RD	13.88
3060032	OLD LAKE GRACE RD	15.13
3060033	WILLOCK RD	3.08
3060034	COCKRAN RD	5.24
3060035	BRAYS RD	7.90
3060036	NIPPERING RD	4.93
3060037	114 GATE RD	21.02
3060038	SMITHS RD	5.83
3060039	DWELYERDINE RD	7.60
3060040	SPRINGHURST RD	18.30
3060041	KERSLEY DR	3.50
3060042	DAMPER FLAT RD	7.22
3060043	FAIRCLOUGH RD	10.45
3060044	DUMBLEYUNG SOUTH RD	5.30
3060045	BULLOCK HILLS RD	7.38
3060046	BELLS RD	1.29
3060047	MILD WATERS RD	2.70
3060048	KINGS RD	7.56
3060048	HARRISON RD	4.15
3060049	MOULYINNING NORTH RD	11.62
	MOULYINNING SOUTH RD	
3060051 3060052	GOODING RD	6.60 8.53
3000032		0.00

ROAD #	ROAD NAME	ROAD LENGTH (km)
3060054	HOLMES RD	4.89
3060055	POWELLS RD	3.71
3060056	SANDPLAIN RD	4.35
3060057	FORBES RD	2.25
3060058	HARVEY ST	0.88
3060059	TAYLOR ST	1.00
3060060	LOVE ST	0.54
3060061	DAWSON ST	1.65
3060062	BENNETT ST	0.54
3060063	TUNNEY ST	0.53
3060064	BAIRSTOWE ST	1.15
3060065	BARTRAM RD	1.16
3060067	HOLDEN RD	10.75
3060068	TEMBY RD	6.74
3060069	NEWMAN ST	1.73
3060070	BROWNS RD	2.12
3060071	CANTWELLS RD	5.74
3060072	DATATINE NORTH RD	9.72
3060073	ROBSON RD	6.15
3060074	KURINGUP NORTH RD	3.70
3060075	MCINTYRE ST	0.65
3060076	BAGNALLS RD	4.01
3060077	HOME RD	0.80
3060078	DART RD	3.40
3060079	COLLIER ST	0.26
3060080	OLIVER RD	1.80
3060081	JIPSONS RD	3.62
3060082	DUALLING RD	4.99
3060083	HILLS RD	11.17
3060084	SLANT RD	2.90
3060085	DONGOLOCKING RD	8.60
3060086	COOMELBERRUP RD	7.85
3060087	JAY RD	10.62
3060088	AYLIFFE RD	4.83
3060089	SUTHERLAND RD	2.00
3060090	NIPPERING SCHOOL RD	7.12
3060091	LAKE RD	2.40
3060092	RICHARDSON RD	1.78
3060093	KNOTT ST	0.55
3060094	BOUNDRY RD	19.44
3060095	MUTTERS RD	3.30
3060096	KELLY RD	5.90
3060097	BAIRSTOWE RD	2.60
3060099	LEE RD	1.55
3060100	STURGESS RD	2.46
3060101	MANSER ST	0.84
3060102	JOHNSTON ST	0.25
3060103	STUBBS ST	0.25
3060104	BATH ST	0.54
3060105	WOODROFFEST	0.73
3060106	TROUPE ST	0.93
3060107	PEPALL RD	2.35
3060108	CAMPBELL COURT	0.12
3060109	MEADOW VIEW CT	0.12
3060110	MILLS RD	2.04
3060111	BALL RD	6.70
3060112	NAISBITT RD	2.60
3060113	BEHN ORD RD	3.10
3060114	MATSON RD	1.85

ROAD #	ROAD NAME	ROAD LENGTH (km)
3060115	PIKE RD KUKERIN	2.75
3060116	NO-NAME	3.75
3060117	EDWARDS RD	11.71
3060118	JUSTINS RD	3.80
3060119	KULIN-DUMBLEYUNG RD	16.10
3060121	GIBLETT RD	1.90
3060122	KENT RD	1.00
3060123	DUMBLEYUNG-NYABING RD	25.86
3060124	KATANNING-DUMBLEYUNG RD	16.08
3060125	MORAN RD	6.27
3060126	DORADINE RD	5.58
3060127	JOSE RD	0.65



APPENDIX 4

Flora species in the Shire of Dumbleyung

(Source- W.A Herbarium)

Note: not a comprehensive list and may not be the most up to date information available.

* = Weed species P = Priority species R = Rare species

Acacia acanthaster ms Acacia acuminata subsp. acuminata ms Acacia acutata Acacia amputa ms Acacia arcuatilis ms P2 Acacia assimilis subsp. atroviridis Acacia bidentata Acacia biflora Acacia brachyphylla var. recurvata P3 Acacia consobrina Acacia deflexa P2 Acacia depressa R Acacia drummondii subsp. elegans Acacia erinacea Acacia grisea P4 Acacia heteroclita subsp. heteroclita ms Acacia intricata Acacia lanuginophylla R Acacia laricina var. laricina Acacia lasiocalvx Acacia lasiocarpa var. ? bracteolata Acacia lasiocarpa var. bracteolata Acacia lasiocarpa var. sedifolia Acacia leptalea ms R Acacia leptopetala Acacia leptospermoides subsp. leptospermoides Acacia lineolata subsp. lineolata Acacia microbotrva Acacia mimica var. mimica Acacia moirii subsp. recurvistipula Acacia multispicata Acacia myrtifolia Acacia obesa P3 Acacia pulchella var. glaberrima Acacia pulchella var. goadbyi Acacia pulviniformis Acacia pycnocephala Acacia resinomarginea Acacia rostellata ms Acacia saligna Acacia sclerophylla var. teretiuscula P1 Acacia shuttleworthii Acacia squamata Acacia stenoptera Acacia tetanophylla Acacia trigonophylla Acacia uncinella Acacia unifissilis Acacia varia var. parviflora Actinotus humilis Actinotus superbus

Adenanthos cygnorum subsp. cygnorum Adenanthos flavidiflorus Adenanthos linearis P2 Adenanthos pungens Adonis microcarpa Agrostocrinum scabrum *Aira cupaniana (hair grass) Allocasuarina acutivalvis subsp. acutivalvis Allocasuarina campestris Allocasuarina corniculata Allocasuarina microstachya Allocasuarina pinaster Allocasuarina thuyoides Alvogyne hakeifolia Alyogyne pinoniana var. leptochlamys ms Amphipogon strictus Amphipogon turbinatus Anarthria humilis Andersonia caerulea Aniaozanthos humilis Anigozanthos humilis subsp. humilis Aotus diffusa ms Argentipallium niveum *Asparagus asparagoides (bridal creeper) Asteridea asteroides Asterolasia grandiflora R Asterolasia squamuligera Astroloma cataphractum ms Astroloma compactum Astroloma microphyllum P2 Astroloma pallidum Astroloma recurvum ms Astroloma serratifolium Austrostipa hemipogon Baeckea aff. preissiana Baeckea crispiflora Baeckea grandibracteata Baeckea grandis Baeckea pachyphylla Baeckea preissiana

Baeckea preissiana Baeckea sp.Hyden(J.M.Brown 141) P3 Banksia attenuata Banksia baueri Banksia sphaerocarpa var. caesia Banksia violacea Beaufortia bracteosa Beaufortia cyrtodonta Beaufortia incana Beaufortia interstans Beaufortia macrostemon

Beaufortia micrantha Beaufortia micrantha var. micrantha Beaufortia micrantha var. puberula Beaufortia schaueri Billardiera bicolor Billardiera bicolor var. bicolor Billardiera coriacea Billardiera sericea Blennospora drummondii Boronia aff. subsessilis Boronia capitata Boronia capitata subsp. clavata Boronia coerulescens Boronia crassifolia Boronia ericifolia P2 Boronia inornata subsp. leptophylla Boronia octandra Boronia penicillata P3 Boronia ramosa Boronia subsessilis Boronia ternata Boronia ternata var. austrofoliosa ms Boronia ternata var. foliosa Boronia ternata var. ternata Borya sphaerocephala Bossiaea concinna Bossiaea divaricata P3 Bossiaea eriocarpa Bossiaea preissii Bossiaea spinescens Bossiaea spinosa Brachyscome bellidioides Brachyscome ciliaris Brachysema celsianum *Brassica tournefortii (wild turnip) *Briza minor (shivery grass, quaking grass) *Bromus rubens (red brome) *Buglossoides arvensis (corn gromwell) Caladenia drummondii Caladenia falcata Caladenia hirta subsp. rosea ms Caladenia longicauda subsp. eminens ms Caladenia polychroma ms Caladenia saccharata Caladenia varians subsp. pendens ms Caladenia varians subsp. varians ms Calectasia arnoldii ms R Calectasia cyanea Calectasia grandiflora Callistemon phoeniceus Callitris canescens Callitris roei Calothamnus planifolius Calothamnus quadrifidus Calothamnus quadrifidus var. "unsorted" Calytrix breviseta subsp. stipulosa Calytrix depressa Calytrix fraseri Calytrix habrantha Calytrix leschenaultii Calytrix oldfieldii

Calytrix tetragona Carduus pycnocephalus *Carthamus lanatus (saffron thistle) Cassytha melantha Caustis dioica Centrolepis aristata Chamaescilla spiralis Chamaexeros fimbriata Chamaexeros serra Chamelaucium ciliatum Chamelaucium croxfordiae ms P2 Chamelaucium megalopetalum Chamelaucium naviculum ms Chamelaucium pauciflorum Chamelaucium pauciflorum pauciflorum ms Chlaenosciadium gardneri Chloanthes coccinea Choretrum glomeratum var. glomeratum Chorizandra enodis Chorizema glycinifolium Chorizema uncinatum Chrysocephalum apiculatum Comesperma calymega Comesperma ciliatum Comesperma scoparium Comesperma volubile Conospermum bracteosum Conospermum capitatum subsp. glabratum Conospermum cinereum ms Conospermum croniniae Conospermum distichum Conospermum ephedroides Conospermum filifolium subsp. australe ms Conospermum filifolium subsp. filifolium Conospermum floribundum Conospermum incurvum Conospermum multispicatum Conospermum scaposum P3 Conospermum stoechadis Conospermum stoechadis subsp. sclerophyllum ms Conostylis argentea Conostylis drummondii R Conostylis petrophiloides Conostylis prolifera Conostylis pusilla Conostylis rogeri R Conostylis seorsiflora subsp. seorsiflora Conostylis seorsiflora subsp. trichophylla R Conostylis setigera subsp. setigera Coopernookia polygalacea Corrigiola litoralis Cryptandra inconspicua ms P2 Cryptandra leucopogon Cryptandra minutifolia subsp. brevistyla Cryptandra minutifolia subsp. minutifolia Cryptandra myriantha Cryptandra nutans Cryptandra pungens Cyanostegia angustifolia Cyanostegia corifolia Cyanostegia lanceolata

Dampiera eriocephala Dampiera fasciculata Dampiera haematotricha subsp. haematotricha Dampiera juncea Dampiera lavandulacea Dampiera linearis Dampiera obligua Dampiera oligophylla Dampiera sacculata Dampiera wellsiana Darwinia vestita Daucus glochidiatus Daviesia angulata Daviesia articulata Daviesia audax Daviesia benthamii subsp. acanthoclona ms Daviesia cardiophylla Daviesia crassa P4 Daviesia elongata subsp. implexa P2 Daviesia lineata P2 Daviesia longifolia Daviesia scoparia Daviesia tortuosa P2 Daviesia uncinata P3 Daviesia uniflora Desmocladus myriocladus ms Desmocladus parthenicus ms Dianella revoluta Dicrastylis velutina Dillwynia sp.A Perth Flora(R.Coveny 8036) Dillwynia uncinata Dodonaea amblyophylla Dodonaea bursariifolia Dodonaea caespitosa Dodonaea pinifolia Dodonaea ptarmicaefolia Dodonaea rigida Dodonaea stenozyga Drosera barbigera Drosera leucoblasta Drosera macrantha Drosera macrantha subsp. macrantha Drosera paleacea subsp. paleacea Drosera pycnoblasta Drosera subhirtella subsp. subhirtella Drummondita hassellii Dryandra armata var. ignicida Dryandra cirsioides Dryandra conferta Dryandra conferta var. conferta Dryandra conferta var. conferta ms Dryandra cuneata Dryandra cynaroides P4 Dryandra epimicta P2 Dryandra erythrocephala Dryandra erythrocephala var. erythrocephala Dryandra erythrocephala var. inopinata P2 Dryandra falcata Dryandra fasciculata P3 Dryandra ferruginea Dryandra ferruginea subsp. ferruginea Dryandra fililoba

Dryandra foliosissima P2 Dryandra fraseri Dryandra fraseri var. fraseri Dryandra meganotia P3 Drvandra nivea Dryandra nivea subsp. nivea Dryandra nivea subsp. nivea ms Dryandra nobilis Dryandra nobilis subsp. nobilis Dryandra octotriginata Dryandra porrecta P4 Dryandra pteridifolia Dryandra sessilis var. sessilis Dryandra squarrosa subsp. squarrosa Drvandra vestita Dryandra xylothemelia P3 * Echium plantagineum (Paterson's Curse) Eremaea pauciflora var. calyptra Eremaea pauciflora var. pauciflora Eremophila decipiens subsp. decipiens ms Eremophila drummondii Eremophila lehmanniana Eremophila woolsiana Eriostemon rhomboideus Erymophyllum tenellum Eucalyptus aff. incrassata Eucalyptus albida Eucalyptus annulata Eucalyptus argyphea Eucalyptus calycogona var. calycogona Eucalyptus celastroides subsp. virella Eucalyptus conglobata Eucalyptus eremophila Eucalyptus eremophila subsp. conjunctens ms Eucalyptus eremophila subsp. eremophila Eucalyptus erythronema var. erythronema Eucalyptus extensa Eucalyptus falcata Eucalyptus flocktoniae Eucalyptus gardneri Eucalyptus gardneri subsp. gardneri Eucalyptus gratiae Eucalyptus hebetifolia Eucalyptus hypochlamydea subsp. ecdysiastes ms Eucalyptus incrassata Eucalyptus kondininensis Eucalyptus latens P4 Eucalyptus leptophylla Eucalyptus longicornis Eucalyptus mesopoda ms Eucalyptus myriadena subsp. myriadena Eucalyptus obesa Eucalyptus phaenophylla subsp. interjacens Eucalyptus phaenophylla subsp. phaenophylla Eucalyptus phenax Eucalyptus platypus subsp. platypus Eucalyptus pluricaulis subsp. pluricaulis Eucalyptus pluricaulis subsp. porphyrea Eucalyptus protensa Eucalyptus redacta subsp. redacta ms Eucalyptus rudis

Eucalyptus salmonophloia Eucalyptus sparsicoma P2 Eucalyptus spathulata Eucalyptus spathulata subsp. spathulata Eucalyptus subangusta subsp. subangusta Eucalyptus uncinata Eucalyptus vegrandis Eucalyptus xanthonema subsp. xanthonema Exocarpos sparteus

*Fallopia convolvulus (black bindweed)

Gastrolobium bennettsianum Gastrolobium crassifolium Gastrolobium densifolium P2 Gastrolobium hamulosum R Gastrolobium parviflorum Gastrolobium parvifolium Gastrolobium rigidum P2 Gastrolobium spinosum Gastrolobium spinosum var. spinosum Gastrolobium tetragonophyllum Gastrolobium velutinum Gilberta tenuifolia Gilruthia osbornei Glischrocaryon aureum Glischrocaryon aureum var. angustifolium Glischrocaryon roei Gnephosis tenuissima Gompholobium aristatum Gompholobium gompholobioides Gompholobium hendersonii Gompholobium marginatum Gompholobium polymorphum Gompholobium shuttleworthii Goodenia affinis Goodenia glareicola Goodenia incana Goodenia pulchella Goodenia scapigera Goodenia tripartita Goodenia viscida Goodenia watsonii subsp. glandulosa Goodenia watsonii subsp. watsonii Grevillea ? cagiana Grevillea anethifolia Grevillea biformis subsp. biformis Grevillea cagiana Grevillea disjuncta Grevillea eryngioides Grevillea excelsior Grevillea hookeriana Grevillea huegelii Grevillea insignis Grevillea insignis subsp. insignis Grevillea integrifolia Grevillea newbeyi P3 Grevillea patentiloba subsp. patentiloba Grevillea pectinata Grevillea pilulifera Grevillea teretifolia Grevillea umbellulata subsp. acerosa

Grevillea umbellulata subsp. umbellulata Grevillea uncinulata subsp. uncinulata Grevillea wittweri P2 Gunniopsis septifraga *Gynandriris setifolia (thread iris) Gyrostemon prostratus P3 Gyrostemon subnudus Hakea baxteri Hakea brownii Hakea cinerea Hakea corymbosa Hakea cygna Hakea erecta Hakea incrassata Hakea laurina Hakea lehmanniana Hakea meisneriana Hakea multilineata Hakea newbeyana Hakea nitida Hakea pandanicarpa Hakea pandanicarpa subsp. crassifolia ms Hakea prostrata Hakea subsulcata Halgania anagalloides var. preissiana ms Halgania cyanea var. cyanea Halgania lavandulacea Helichrysum leucopsideum Hemiandra pungens Hemigenia sp.Albany(G.J.Keighery 8712) Hemiphora elderi Hibbertia acerosa Hibbertia aff. gracilipes Hibbertia drummondii Hibbertia enervia Hibbertia exasperata Hibbertia gracilipes Hibbertia polystachya Hibbertia rupicola Hibbertia subvaginata Hyalosperma demissum Hybanthus floribundus Hybanthus floribundus subsp. floribundus Hypocalymma angustifolium Hypocalymma puniceum Isolepis congrua Isolepis nodosa Isopogon buxifolius Isopogon crithmifolius Isopogon divergens

Isopogon chinimionus Isopogon divergens Isopogon gardneri Isopogon scabriusculus Isopogon teretifolius subsp. teretifolius ms Isopogon villosus Isotropis drummondii Isotropis juncea

Jacksonia alata Jacksonia debilis ms P1 Jacksonia furcellata Jacksonia racemosa Jacksonia tarinensis ms P2 Johnsonia acaulis *Juncus bufonius (toad rush) Juncus radula Kulinia eludens ms Kunzea jucunda Kunzea micromera Kunzea preissiana Labichea stellata Lachnostachys albicans Lachnostachys bracteosa Lachnostachys ferruginea Lachnostachys verbascifolia var. verbascifolia Lambertia ilicifolia Lambertia inermis Lambertia inermis var. drummondii Lasiopetalum cardiophyllum P2 Lasiopetalum cordifolium Lasiopetalum indutum Lasiopetalum microcardium Lasiopetalum molle Lasiopetalum rosmarinifolium Lawrencella rosea Lawrencia spicata Laxmannia grandiflora Laxmannia minor Laxmannia paleacea Laxmannia squarrosa Lechenaultia biloba Lechenaultia expansa Lechenaultia formosa Lechenaultia laricina R Lechenaultia pulvinaris R Lechenaultia tubiflora Lepidium bonariense Lepidium rotundum Lepidobolus chaetocephalus Lepidosperma sp.P1 small head(M.D.Tindale 166A) Lepidosperma tenue Leptomeria pauciflora Leptomeria preissiana Leptospermum erubescens Leptospermum incanum *Leptospermum laevigatum (Victorian Teatree) Leptospermum nitens Leptospermum roei Leptospermum spinescens Leucopogon aff. conostephioides Leucopogon aff. gracillimus Leucopogon aff. obtusatus Leucopogon aff. oppositifolius Leucopogon aff. pendulus Leucopogon bossiaea Leucopogon conostephioides Leucopogon crassifolius Leucopogon cucullatus Leucopogon cymbiformis Leucopogon dielsianus Leucopogon fimbriatus

Leucopogon gracillimus Leucopogon kingianus Leucopogon leptanthus Leucopogon minutifolius Leucopogon obtusatus Leucopogon ozothamnoides Leucopogon polymorphus Leucopogon sprengelioides Leucopogon tamminensis Leucopogon tenuis Leucopogon woodsii Logania buxifolia Logania flaviflora Logania nuda Logania tortuosa Lomandra micrantha Lomandra mucronata Lyginia barbata Lysinema ciliatum Lysinema ciliatum forma Lake King(J.S.Beard 3698) Lysiosepalum involucratum Maireana brevifolia Mallophora globiflora *Malva parviflora (small flowrered mallow) Melaleuca acuminata subsp. acuminata ms Melaleuca adenostyla Melaleuca adnata Melaleuca bracteosa Melaleuca carrii ms Melaleuca conferta Melaleuca cordata Melaleuca coronicarpa Melaleuca cuneata Melaleuca depauperata Melaleuca elliptica Melaleuca eurystoma ms Melaleuca fulgens subsp. fulgens Melaleuca hamulosa Melaleuca lateriflora subsp. lateriflora ms Melaleuca laxiflora Melaleuca lecanantha Melaleuca leptospermoides Melaleuca platycalyx Melaleuca polycephala P3 Melaleuca pungens Melaleuca scabra Melaleuca sp.Wongan Hills(R.Davis 1959) Melaleuca spathulata Melaleuca spicigera Melaleuca subtrigona Melaleuca uncinata Melaleuca urceolaris *Mesembryanthemum nodiflorum (common ice plant) Mesomelaena preissii Microcorys capitata Microcorys cephalantha P3 Microcorys ericifolia Microcorys exserta Microcorys lenticularis P2 Microcorys loganiacea Microcorys sp.stellate(A.Strid 21885)

Microcorys sp. Tarin Rock(E.J.Croxford 5251) Microcorys subcanescens Microcybe multiflora Micromyrtus obovata Micromyrtus racemosa Micromyrtus racemosa var. latifolia ms P2 Micromyrtus serrulata P2 Mirbelia dilatata Mirbelia floribunda Mirbelia multicaulis Mirbelia spinosa Mirbelia trichocalyx *Misopates orontium (lesser snapdragon) *Moraea flaccida (Cape Tulip)

Nematolepis phebalioides Nemcia carinata Nemcia cruciata ms Nemcia effusa P2 Nemcia emarginata Nemcia punctata Neurachne alopecuroidea

Olax benthamiana Olearia ciliata Olearia homolepis Olearia imbricata Olearia laciniifolia P2 Olearia muelleri Opercularia liberiflora Opercularia spermacocea Opercularia vaginata Orobanche minor Oxalis bowiei *Oxalis purpurea (four o'clock, large flower wood sorrel, purple wood sorrel) Ozothamnus lepidophyllus

Paracaleana triens ms *Parentucellia latifolia (red bartsia, common bartsia) Patersonia umbrosa Pelargonium havlasae Persoonia coriacea Persoonia helix Persoonia quinquenervis Persoonia striata Persoonia teretifolia Persoonia trinervis Petrophile aspera Petrophile brevifolia Petrophile circinata Petrophile ericifolia subsp. ericifolia Petrophile ericifolia subsp. ericifolia ms Petrophile glauca Petrophile glauca ms Petrophile heterophylla Petrophile longifolia Petrophile phylicoides Petrophile seminuda Petrophile squamata subsp. squamata Petrophile teretifolia Petrophile trifida

Petrorhagia velutina Phebalium aff. filifolium Phebalium ambiguum Phebalium drummondii P1 Phebalium filifolium Phebalium microphyllum Phebalium rude Phebalium rude subsp. amblycarpum Phebalium rude subsp. rude Phebalium tuberculosum Phebalium tuberculosum subsp. tuberculosum Phyllopodium cordatum Physopsis lachnostachya Pimelea angustifolia Pimelea argentea Pimelea brachyphylla Pimelea brevifolia Pimelea brevifolia subsp. brevifolia Pimelea cracens subsp. cracens Pimelea imbricata var. piligera Pimelea neokyrea ms Pimelea sulphurea Pityrodia bartlingii Pityrodia terminalis Platysace commutata Platysace maxwellii Podolepis canescens Podolepis lessonii Podotheca angustifolia Podotheca gnaphalioides *Polygala virgata *Polypogon monspeliensis (annual barbgrass) Pomaderris bilocularis P4 Poranthera ericoides Poranthera microphylla Prasophyllum gracile Prostanthera campbellii Prostanthera serpyllifolia subsp. microphylla Pterochaeta paniculata Ptilotus humilis Ptilotus spathulatus Pultenaea aff. verruculosa Pultenaea ericifolia Pultenaea neurocalyx Pultenaea verruculosa *Raphanus raphanistrum (Wild Radish)

Regelia inops Rhagodia preissii Rhodanthe manglesii Rhodanthe pygmaea Rinzia affinis P2 Rinzia communis Rinzia crassifolia P4 Rinzia dimorphandra Rinzia schollerifolia Rulingia cuneata Rulingia kempeana Rumex crispus Rumex pulcher

Salvia verbenaca

Santalum acuminatum Santalum murrayanum Sarcocornia quinqueflora Scaevola glandulifera Scaevola lanceolata Scaevola striata var. arenaria Schoenus nanus Schoenus sp.smooth culms(K.R.Newbey 7823) Schoenus subflavus subsp. subflavus Senna artemisioides subsp. x coriacea Senna glutinosa subsp. charlesiana Solanum capsiciforme *Solanum elaeagnifolium (silver-leaf nightshade) *Solanum hoplopetalum (Afghan thistle) *Solanum rostratum (buffalo burr) Sphaerolobium linophyllum Spyridium microcephalum Spyridium oligocephalum P3 Spyridium polycephalum *Stachys arvensis (stagger weed) Stachystemon brachyphyllus Stachystemon polyandrus Stackhousia monogyna Stackhousia scoparia Stenanthemum tridentatum P3 Stylidium adpressum Stylidium breviscapum Stylidium breviscapum var. breviscapum Stylidium caricifolium Stylidium limbatum Stylidium neglectum P3 Stylidium piliferum Stylidium piliferum subsp. minor Stylidium squamellosum Styphelia aff. tenuiflora Styphelia tenuiflora Synaphea acutiloba P3 Synaphea flabelliformis P3 Synaphea interioris Synaphea parviflora P2 Synaphea petiolaris Synaphea platyphylla Synaphea platyphylla P2 Synaphea tripartita P2

Templetonia sulcata Tetratheca confertifolia Tetratheca virgata Teucrium fililobum Thelymitra canaliculata Thelymitra fuscolutea Thelymitra variegata Thomasia macrocalyx Thryptomene australis Thysanotus asper Thysanotus dichotomus Thysanotus manglesianus Thysanotus patersonii Thysanotus sabulosus P1 Thysanotus sparteus Thysanotus tenuis P3 Thysanotus thyrsoideus Trachymene croniniana P2 Trachymene pilosa *Trifolium arvense var. arvense (hare's foot clover) *Trifolium cherleri (cupped clover) *Trifolium stellatum (star clover) *Trifolium subterraneum (sub-clover, subterranean clover) Triglochin lineare Triglochin mucronatum Triglochin stowardii P2 Tripterococcus brunonis *Typha orientalis (bulrush, cumbunji)

Urodon capitatus Urodon dasyphyllus *Ursinia speciosa

Velleia trinervis Verticordia acerosa var. preissii Verticordia aff. chrysantha Verticordia chrysantha Verticordia chrysanthella Verticordia densiflora var. cespitosa Verticordia densiflora var. densiflora Verticordia eriocephala Verticordia grandiflora Verticordia habrantha Verticordia huegelii var. stylosa Verticordia humilis Verticordia insignis subsp. compta Verticordia integra Verticordia ovalifolia Verticordia pennigera Verticordia picta Verticordia plumosa Verticordia plumosa var. brachyphylla Verticordia plumosa var. incrassata Verticordia roei Verticordia roei subsp. roei Verticordia serrata var. serrata Verticordia tumida subsp. therogana

Waitzia acuminata Waitzia acuminata var. acuminata Waitzia suaveolens var. flava Westringia cephalantha Westringia rigida Wilsonia humilis Wurmbea drummondii P4

Xanthorrhoea drummondii Xanthosia huegelii

*Zaluzianskya divaricata (Zedweed, spreading night phlox)

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APPENDIX 5

Fauna species in the Shire of Dumbleyung (Source- W.A Museum, 2005)

Information provided by Western Australian Museum, Fauna Base, latitude/longitude coordinates -30.4500, 116.4333 and -31.000, 117.2333.

Note- not a comprehensive list.

* represents an introduced species.

BIRD SPECIES

Acanthizidae

Acanthiza apicalis Acanthiza chrysorrhoa Calamanthus campestris Gerygone fusca fusca Hylacola cauta Sericornis frontalis maculatus Smicrornis brevirostris

Accipitridae

Accipiter cirrocephalus cirrocephalus Hamirostra isura

Artamidae Artamus cyanopterus Artamus personatus

Charadriidae

Charadrius melanops Charadrius rubricollis Charadrius ruficapillus

Climacteridae

Climacteris rufa

Columbidae

Columba livia

Cracticidae

Cracticus torquatus

Cuculidae

Cacomantis flabelliformis flabelliformis Chrysococcyx basalis Chrysococcyx lucidus plagosus Cuculus pallidus

Dicruridae

Rhipidura fuliginosa

Falconidae

Falco peregrinus

Halcyonidae

Dacelo novaeguineae

Hirundinidae

Cheramoeca leucosternus Hirundo nigricans nigricans

Maluridae

Malurus pulcherrimus Stipiturus malachurus westernensis

Megapodiidae

Leipoa ocellata

Meliphagidae

Anthochaera carunculata Certhionyx niger Lichenostomus cratitius Lichenostomus leucotis novaenorciae Lichenostomus ornatus Lichmera indistincta indistincta Melithreptus brevirostris leucogenys Phylidonyris albifrons Phylidonyris melanops Phylidonyris nigra gouldii

Motacillidae

Anthus australis australis

Neosittidae

Daphoenositta chrysoptera pileata

Pachycephalidae

Colluricincla harmonica rufiventris Falcunculus frontatus Pachycephala pectoralis fuliginosa

Pardalotidae

Pardalotus punctatus punctatus Pardalotus striatus Pardalotus striatus westraliensis

Petroicidae

Drymodes brunneopygia Eopsaltria australis griseogularis Microeca fascinans assimilis Petroica cucullata Petroica goodenovii

Phasianidae

Coturnix pectoralis

Pomatostomidae

Pomatostomus superciliosus

Psittacidae

Cacatua pastinator pastinator Calyptorhynchus latirostris Glossopsitta porphyrocephala Neophema elegans Platycercus icterotis Platycercus icterotis icterotis Platycercus spurius Platycercus zonarius Platycercus zonarius Platycercus zonarius zonarius Polytelis anthopeplus anthopeplus

Strigidae

Ninox novaeseelandiae Ninox novaeseelandiae boobook

Turnicidae

Turnix varia varia Turnix velox

Tytonidae *Tyto alba*

Zosteropidae Zosterops lateralis gouldi

MAMMAL SPECIES

Bovidae

Ovis aries

Burramyidae Cercartetus concinnus

Canidae

*Vulpes vulpes

Dasyuridae

Dasyurus geoffroii Phascogale calura Sminthopsis crassicaudata Sminthopsis gilberti Sminthopsis granulipes

Delphinidae Tursiops truncatus

Macropodidae Macropus fuliginosus Macropus irma

Muridae

*Mus musculus Notomys mitchellii Pseudomys occidentalis

Peramelidae

Isoodon obesulus fusciventer

Phalangeridae Trichosurus vulpecula vulpecula

Suidae Sus scrofa

Tarsipedidae Tarsipes rostratus

Thylacomyidae Macrotis lagotis

Vespertilionidae Chalinolobus gouldii Chalinolobus morio Nyctophilus geoffroyi

Vespadelus regulus

REPTILE SPECIES

Agamidae

Ctenophorus cristatus Ctenophorus maculatus griseus Ctenophorus ornatus Ctenophorus scutulatus Pogona minor Pogona minor minor Rankinia adelaidensis chapmani

Boidae

Morelia spilota imbricata

Elapidae

Echiopsis curta Parasuta gouldii Parasuta nigriceps Pseudonaja affinis affinis Simoselaps bertholdi Suta fasciata

Gekkonidae

Christinus marmoratus Crenadactylus ocellatus Crenadactylus ocellatus ocellatus Diplodactylus alboguttatus Diplodactylus granariensis Diplodactylus granariensis granariensis Diplodactylus maini Diplodactylus pulcher Diplodactylus spinigerus Oedura reticulata Strophurus spinigerus Strophurus spinigerus inornatus Underwoodisaurus milii

Pygopodidae

Aprasia repens Delma australis Delma fraseri Delma fraseri fraseri Delma grayii Lialis burtonis

Scincidae

Cryptoblepharus plagiocephalus Ctenotus impar Ctenotus schomburgkii Egernia richardi Hemiergis initialis Lerista distinguenda Menetia greyii Morethia lineoocellata Morethia obscura Tiliqua occipitalis Tiliqua rugosa rugosa

Typhlopidae Ramphotyphlops australis

Ramphotyphlops bituberculatus Ramphotyphlops waitii

Varanidae Varanus gouldii Varanus rosenbergi

FISH SPECIES

Atherinidae Atherinosoma wallacei

Galaxiidae Galaxias occidentalis

Nannopercidae Edelia vittata

Percichthyidae Bostockia porosa

Percidae Perca fluviatilis

AMPHIBIA SPECIES

Hylidae

Litoria adelaidensis Litoria moorei

Myobatrachidae

Crinia georgiana Crinia pseudinsignifera Heleioporus albopunctatus Heleioporus sp Limnodynastes dorsalis Myobatrachus gouldii Neobatrachus albipes Neobatrachus kunapalari Neobatrachus pelobatoides Pseudophryne guentheri

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ROADSIDE CONSERVATION COMMITTEE

GUIDELINES FOR MANAGING THE HARVESTING OF NATIVE FLOWERS, SEED AND TIMBER FROM ROADSIDES

Preamble

The diversity of values associated with roadside vegetation is well documented and acknowledged. In landscapes that have been extensively cleared, roadside vegetation provides essential wildlife corridors and habitat for local flora and fauna, including a number of threatened species. Hence it is highly desirable that this asset is managed in such a way as to ensure its conservation and sustainability.

The control and management of roadside vegetation is the responsibility of the road manager. Local government authorities, as road managers, are often approached for 'permission' to take various flora products from the roadside. These requests are mainly for wildflowers, native seed and firewood. Other products which may be sought includes material for making didgeridoos, other types of craftwood, and stakes or poles for various purposes.

Although road managers are primarily concerned about the maintenance of the running surface itself, through the implementation of these simple guidelines for the removal of flora and timber material from the roadsides, the vegetated roadside reserve should be maintained for its biodiversity values, and the benefit of the community and road users.

In some instances the Roadside Conservation Committee (RCC) is supportive of the sustainable harvesting of flora, such as salvage (removal of dead material that is not significant wildlife habitat or is material to be destroyed by road works), or the selective collection of seed for revegetation. However, each case should be viewed on its merits and any decision to facilitate harvesting from roadsides should be referred to the Department of Conservation and Land Management (CALM) and/or the RCC for advice. Licences allowing the taking of roadside flora may be issued by CALM when supported by the road managing authority.

Legislation

All Western Australian native flora is protected under the *Wildlife Conservation Act 1950*. Native flora includes all parts of a native plant, including its flowers, seed, and timber. Protection of native flora under the Act has the effect of requiring a person to only take (cut or remove) native flora from Crown land under a licence.

Road and rail reserves are Crown land, and hence a licence is required to cut or remove any native flora from a roadside or rail line. There is, however, a legal provision by which the road manager or their agent (contractor) does not require a licence whilst undertaking legitimate road management activities. This provision does not extend to other persons who wish to take protected flora from roadsides.

There are two types of licences that apply to the taking of protected flora from Crown land -Commercial Purposes Licences where the flora is being taken for any commercial purpose, and Survey of Roadside Conservation Values in the Shire of Dumbleyung Scientific or Other Prescribed Purposes Licences where the protected flora is being taken for specific non-commercial purposes.

These licences are issued by CALM. In issuing a licence, CALM is required to be assured that the activity will not compromise the conservation of the flora. In determining this, CALM will seek advice from the land manager for which the application relates to determine the potential impact of the activity, and how the activity relates to the management objectives being applied to that land.

A licence application may be refused if the activity is either a conservation concern, or does not fit in with the management objectives of the road manager. Once issued with a licence, a licensee must comply with the conditions of the licence that are designed to ensure the activity does not adversely impact on the conservation of the flora or the natural environment in which it occurs.

Commercial Wildflower Harvesting

Western Australia is referred to as the 'Wildflower State', and its wildflowers attract a significant number of tourists each year. Roadside vegetation provides the most accessible, and hence the most commonly viewed, array of wildflowers, and as such are an important feature of regional tourism and can provide a significant financial boost to local economies.

The RCC considers that the flora on roadsides is reserved and maintained for public benefit. It is therefore seen as a contradiction of purpose to allow wildflowers on roadsides to be harvested, particularly for private gain, and this activity should not be permitted.

Wildflower harvesting in many instances detracts from the biodiversity and tourism values of the roadside. It is often the case that flora is harvested from roadsides because of the convenience of access, and harvesters should be directed to find alternative locations.

There are situations where some harvesting may be considered, such as in very wide road reserves where the activity can be screened from road users, but mostly road managers have been discouraged from supporting or allowing such harvesting to occur. If harvesting is to be approved, then the points provided at the end of these guidelines should be considered.

Seed Collection

Throughout much of the south west, revegetation of the native flora is being undertaken to redress the problems that historic clearing has created. Increasingly, this revegetation is aimed at using local native flora so as to recreate the native vegetation to support biodiversity objectives. The paradox is that in many areas the native vegetation has been cleared to such an extent that adequate sources of native seed cannot be found for undertaking this work. Roadside vegetation may be a source of such seed.

Native seed is an important component of remnant vegetation. It is critical for the regeneration of certain species, called re-seeder species, when plants are either killed by an event, such as fire, storm damage, or die as part of their natural cycle. The maintenance of adequate seed of these species is necessary as a precaution to ensure the sustainability of the flora biodiversity.

Native seed is also an important food source for native fauna living in roadside vegetation, from ants to birds and mammals. The maintenance of this fauna is important for the continuing survival of the vegetation, especially where the fauna is required to pollinate the flora.

When seed is needed for *bona fide* revegetation projects within the local community, and no other source of local seed is available, then the controlling authority may consider giving permission for

collection of seed from roadsides. Such collection must be under the appropriate licence issued by CALM and the harvesting should be done in a way that does not endanger the long-term survival of the roadside vegetation.

Where seed collection is to be authorised on roadsides, the road manager should consider the points listed at the end of these guidelines. Specific consideration should be given to the methods that are approved for harvesting the seed, the quantity of seed that may be taken, and the species from which the seed is to be sourced.

Timber Harvesting from Roadsides.

Timber is harvested for a range of reasons, including saw logs, firewood and craftwood. Due to the ease of access, timber harvesters may wish to source timber from roadside vegetation for these purposes.

The RCC seeks to encourage roadside managers to retain timber on roadsides as an important component of the natural habitat, which fulfils ecological, aesthetic and land management functions. The value of fallen logs and branches within the roadside is often not realised, but this material forms an important habitat for many species of insects, reptiles, mammals and birds, thus enhancing the roadside biodiversity. Insects and reptiles that live in fallen timber are also important elements of the food chain, and are very important to the functioning of natural systems, and the survival of many other native animals.

The RCC believes that harvesting of timber from roadsides should not be permitted except in defined road safety, fence line or service clearance zones, or where a tree has fallen, or appears likely to fall into clearance zones.

Where timber removal is to be allowed, consideration should be given to the points raised at the end of these guidelines, especially in relation to safety issues related to timber cutting. Permission to remove timber should be specific to certain sections of roadsides where the removal is necessary for other planned road management purposes.

Guidelines For Harvesting On Roadsides

- ✓ In all cases the permission of the managing authority, i.e. Main Roads WA, Local Government or CALM, must be sought before native flora is removed from a roadside.
- ✓ Flora removal should be from only designated roads, which have wider vegetated road verges i.e. vegetation width > 3metres
- ✓ The number of operators authorised to remove flora from a roadside should be strictly limited to that which can be sustained and managed. The determination of this is at the judgement of the managing authority, but consideration should be taken of the type of flora being harvested and an evaluation of monitoring of the impact of the harvest activity. Advice may be sought from CALM.
- ✓ Approval for flora harvesting should be for a set period, with a review of the impact and operation before renewal.
- ✓ Approval should also stipulate approved methods of harvesting, the species which may be harvested, and the quantity of material to be taken. Advice on harvest conditions may be obtained from CALM.

- ✓ Any flora removed should not affect the viability of the residual seed bank. It is recommended that no more than 20% of the flowers or seed on a plant should be taken, unless it is in an area that is scheduled to be cleared as part of road management.
- ✓ Methods of harvesting flora should not jeopardise the survival of the plant/tree, unless it is in an area that is scheduled to be cleared as part of road management.
- ✓ The removal of whole plants should be restricted to areas that are scheduled to be cleared as part of road management. Note, some species of flora such as zamia palms and grass trees cannot be removed for commercial purposes without a special endorsement on the Commercial Purposes Licence issued by CALM.
- ✓ No flora of special conservation concern (Declared Rare Flora or Priority Flora) should be removed without special authorisation through CALM.
- ✓ No commercial harvesting of any plant product should be allowed for any reason between the markers that delineate a Special Environmental Area.
- ✓ Flora harvesting should be prohibited from designated Flora Roads.
- ✓ Care should be taken that access to Dieback infected areas is limited to the drier months of the year, and vehicular access disallowed.
- ✓ Safety should always be of prime concern and every effort should be made to ensure that personal safety is a key consideration in any harvesting operation.
- ✓ Flora harvesters should not operate from the roadside in areas where the vegetation is close to the road, where vehicles cannot be safely parked off the road, or where there is poor driver visibility.

7



Guidelines for the Nomination and Management of Flora Roads

Introduction

The Flora Roads program began as an initiative of the Roadside Conservation Committee (RCC), as a means of encouraging road managers to protect and conserve roadside vegetation of high conservation value. Flora Roads also highlight areas of high conservation flora as a tourist asset to local communities and are easily identified to passing travellers as areas worthy of an inspection to view the local flora.



The Roadside Conservation Committee has defined Flora Roads as "those roads which have conservation value owing to the vegetation growing within the reserve".

Principle Conservation Values of Flora Roads:

- The roadside must contain a significant population of native vegetation. Introduced trees and grasses are not important for conservation.
- The native vegetation must be in as near to its natural condition as possible. In undisturbed vegetation, several layers of plants occur - trees, shrubs and herbs are present in woodlands, for example. If one or more of the expected layers are missing, the conservation value is reduced.
- The roadside may be the only remaining example of original vegetation within a cleared area. It thus:
 - Assists in vegetation mapping and distribution studies
 - Provides a benchmark for study of soil change during agricultural development
 - Provides a source of local seed for revegetation projects
 - Acts as a wildlife habitat for the protection of fauna.
 - Rare or endangered plants may occur on the roadside.
 - May provide nest sites and refuges for native animals.
 - May act as a biological corridor.

Identification and Nomination of Flora Roads

The RCC has been coordinating a volunteer roadside survey program since 1989, which provides a list of high conservation value roads within many Shires in the agricultural areas of this state. These roadsides can be investigated further to see of they warrant declaration as a Flora Road. Nevertheless, roadsides that have not been surveyed may still be nominated.

Any person may suggest to the managing authority or to the RCC that a road, or a section of road fits the criteria of a Flora Road. However, only the managing authority in whom care, control and management of the road is vested can officially declare it a Flora Road.

A road may be nominated as a Flora Road by submitting a written request to the RCC.

The RCC requires the following information:

- Endorsement from the managing authority;
- Name of the road, LGA, and the road manager (MRWA, Local Government or DCLM);
- Distance of the proposed Flora Road; and
- Width of the road reserve.

The following information would also be useful:

- Photograph(s) of the road;
- A list of the dominant plant species;
- Threats (weeds, disturbances, etc).

This information will be stored in the RCC Flora Roads Register, a database which is maintained by the RCC Technical Officer (Mapping).

Establishment of a Flora Road

Given that only the managing authority can officially declare a road, or section of road as a Flora Road, it is important to have the support of the road manager.

The RCC will provide two Flora Road signs to the managing authority. The signs are in the tourist sign colours of white letters and symbols on a leaf brown background. It is the responsibility of the managing authority to erect the signs, and to provide signposts, auxiliary signs and carry out maintenance. One sign may be placed at each approach to the area.

Management Implications

A standard sign was developed by Main Roads WA in the late 1980's, a policy for the erection of Flora Road signage was developed shortly afterwards. See Appendix 1

Part16 of the RCC *Roadside Manual* details the establishment and management of Flora Roads. The RCC's *Guidelines for Managing Special Environment Areas in Transport Corridors* and the *Roadside Handbook* also provide information on Flora Road establishment.

The aim of all management should be to minimise any disturbance to the roadside flora, consistent with the provision of a safe and efficient roadway.

The managing authority will be expected to take into consideration the high conservation values present, and take special care when working within the Flora Road road reserve and the surrounding area. More specifically though;

- Council may choose to adopt a policy on Roadside Conservation.
- Environmental assessments (pre-construction checklists) should be completed prior to any upgrade work, to assist with planning for flora preservation.
- Fire Management should be undertaken in such a way so as to take into account the ecological needs of the flora.
- Where rehabilitation is contemplated, local native species should be used.

Tourism Implications

Declared Flora Roads will, by their very nature, be attractive to tourists, and would often be suitable as part of a tourist drive network. Consideration should be given to:

- Promoting the road by means of a small brochure or booklet;
- Eventually showing all Flora Roads on a map of the region or State;
- Using specially designed signs to delineate the Flora Road section; and
- Constructing roadside flora rest areas where people can get out and enjoy the flora. Walk trails could be made from these, and information brochures produced;

Flora Road Register

To ensure that knowledge of Flora Roads sites does not get lost, due perhaps to staff changes, the RCC has established a Flora Roads Register. Information pertaining to each Flora Road (i.e. road name, location, length, etc) will be stored in the Flora Roads database, and updated as necessary.

In order to plan roadworks so that these important areas of roadside vegetation are not disturbed, road managers should also know of these areas. Therefore, it is suggested that the Managing Authority (Shire, MRWA, DCLM) establish a *Register of Roads Important for Conservation* also. This register should be consulted prior to any works being initiated in the area.