Roadside Vegetation and Conservation Values in the Shire of Dowerin

Photo by V. Malcolm

October 2005

Roadside Conservation Committee

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Executive Summary

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

Aware of the need to conserve roadside remnants, the Shire of Dowerin, local community members and Dowerin Lancare 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 October and November 2004. The majority, 85.2%, of the Shire's 969.4 km of roadsides were assessed by the RCC for their conservation status and maps produced via a Geographic Information System (GIS). Roadside locations of seven nominated weeds were also recorded and mapped onto separate clear overlays.

The survey indicated that high conservation value roadsides covered 32.8% of the roadsides surveyed in the Shire, with medium-high conservation value roadsides accounting for 17.1%. Medium-low and low conservation value roadsides occupied 17.5% and 32.6%, 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.

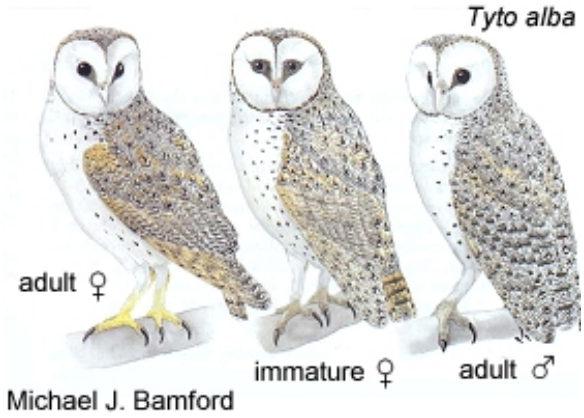
Progressive surveys of some Shires have revealed an alarming decline in the conservation status of many roadside reserves. In some cases the conservation value has declined at a rate of approximately 10% in 9 years. This trend indicates that without appropriate protection and management, roadside reserves 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 Dowerin 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.

PART A

OVERVIEW OF ROADSIDE CONSERVATION

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 Barn Owl (Tyto alba) has been recorded in the Shire of Dowerin.

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

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 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. Approval of the local Shire and a CALM permit are required prior to collection. 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 within the road reserve unless the width of the roadside vegetation strip is greater than 20m;
7. 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; and
8. 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

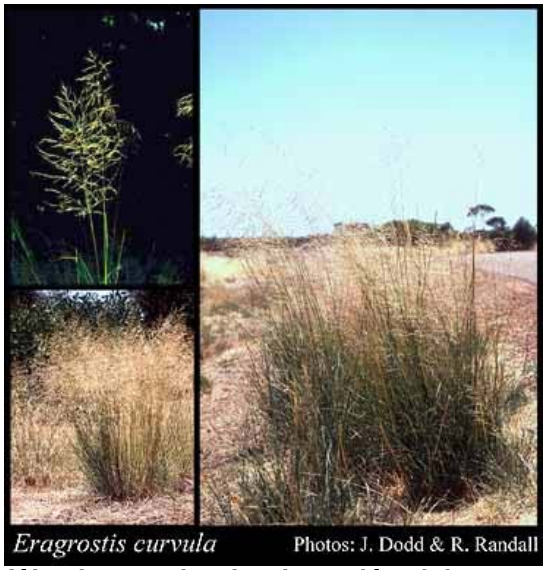
2.4 Weeds

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 19 weed species in the Shire of Dowerin, see Appendix 4. The roadside survey recorded populations of seven significant weeds, and their locations were mapped by the RCC onto clear overlays. The seven nominated weed groups were:

- Paterson's Curse (*Echium plantagineum*);
- Tagasaste (*Chamaecytisus palmensis*);
- Couch (*Cynodon dactylon*);
- Soursob (*Oxalis pes-caprae*);
- Sharp/Spiny rush (*Juncus acutus)*;
- Perennial Veldt Grass (*Ehrharta calycina*); and
- African Lovegrass (*Eragrostis curvula*).

Roadside populations of these weeds can be observed on the weed overlays provided with the Dowerin Roadside Conservation Value map (2005) (Note: Soursob was not recorded for any of the roadside surveys, and as a result no overlay has been printed for this weed species). 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.



African Lovegrass is an invasive weed found along roadsides and degraded land, causing major problems for road maintenance. It has been located in the Shire of Dowerin in large quantities.

Photography by R. Randall. Photo used with the permission of the WA Herbarium, CALM http://florabase.calm.wa.gov.au/help/photos#reuse).

Tagasaste can be a common weed in degraded roadsides and disturbed areas, and is found throughout Dowerin.

Photography by S.M. Armstrong. Photo used with the permission of the WA Herbarium, CALM http://florabase.calm.wa.gov.au/help/photos#reuse).

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.Dodds. Photo used with the permission of the WA Herbarium, CALM http://florabase.calm.wa.gov.au/help/photos#reuse).

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 occurred 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 South 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 6.8%, or 56.9km of roads in the Shire of Dowerin are potentially under threat from salinity.

Shire	Total road length assessed (km)	Roads potentially affected by salinity - length in km					
		Highways	Local roads	Main roads	Other roads	Total affected	% of total potentially affected
Dowerin	831.41		39.83	1.75	15.33	56.90	6.84%
Wongan-Ballidu	1,396.91		127.10	5.78	42.85	175.73	12.58
Koorda	908.40		53.30		14.90	68.20	7.51
Wyalkatchem	784.11		24.43	0.23	11.98	36.63	4.67
Cunderdin	797.55	4.63	38.28		15.65	58.55	7.34
Northam	23.97		0.38		0.55	0.93	3.86

Table 1. Road lengths potentially affected by salinity in the Shires of Dowerin, Wongan-Ballidu, Koorda, Wyalkatchem, Cunderdin and Northam.

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

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:

- 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. The exceptions for maintenance work will expire on 7th July 2006. Contact the Department of Environment's Native Vegetation Protection Team for advice on the situation following this date.

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 Environmentally Sensitive Areas

An Environmentally Sensitive Area (ESA) 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; and
- protection of Aboriginal or European cultural sites.

Environmentally Sensitive 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 ESA markers. Workers who come across an 'Environmentally Sensitive 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 an Environmentally Sensitive Area Register. This should outline any special treatment, which the site should receive. The Environmentally Sensitive 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 ESA markers are highly visible.
Photo by K. Jackson

Local Government is encouraged to permanently mark Environmentally Sensitive 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. Information about markers is available from the Roadside Conservation Committee.

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.

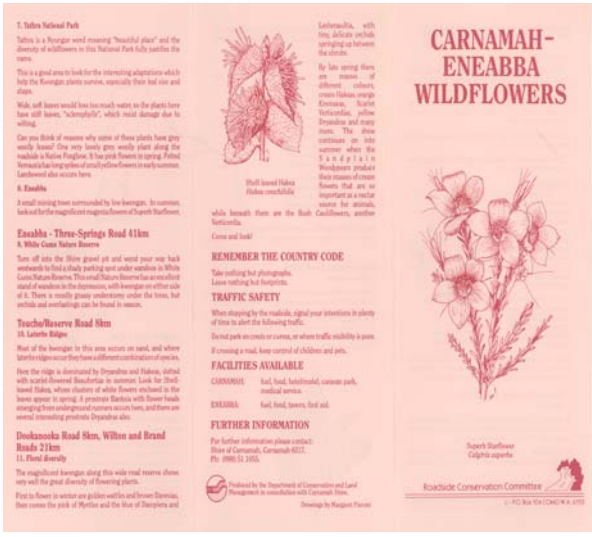
Roadsides are one of the most accessible places for tourists to view wildflowers.
Photo by CALM

There is presently one Flora Road designated within the Shire of Dowerin, a 3.5km section of Nambling South Road. In addition to this, the roadside survey and the roadside conservation value (RCV) map highlight 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 be familiar with 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 an *Environmentally Sensitive 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; and
- 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.

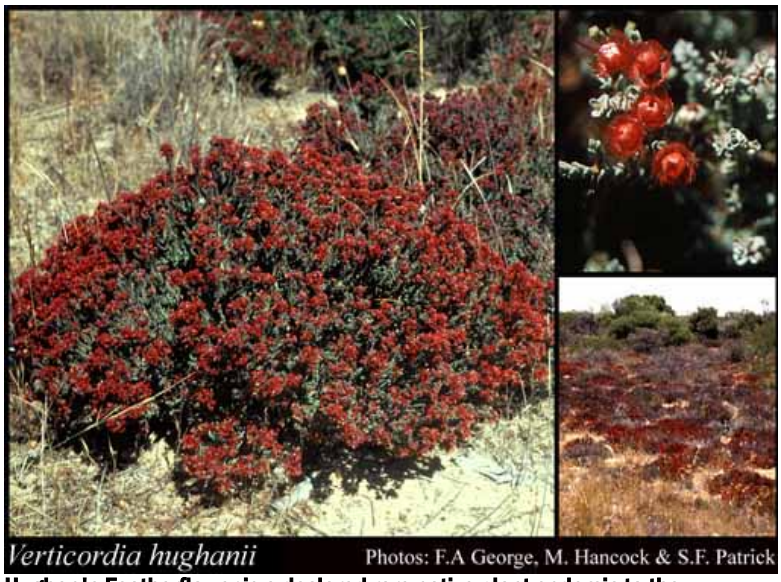
PART B

The Natural Environment in Dowerin

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 South West are endemic.

The WA Herbarium lists over 457 species of plants present in the Shire of Dowerin. The most prolific genus are Acacia 43 spp, Eucalyptus 38 spp, Verticordia 18 spp, Grevillea 17 spp, Melaleuca 16 spp, Caladenia 13 spp and Daviesia 10 spp. The complete list of recorded flora can bee seen in Appendix 4 of this report.



Hughan's Featherflower is a declared rare native plant endemic to the Shires of Dowerin and Goomaling.
Photography by M. Hancock,and S.F. Patrick. Photo used with the permission of the WA Herbarium, CALM http://florabase.calm.wa.gov.au/help/photos#reuse

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 roadsides are designated Environmentally Sensitive Areas (ESA's) and are usually delineated by yellow stakes with an identification plate welded on. It is suggested that the RCC publication *Guidelines for Managing Special Environmental Areas 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 Merredin 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 August 2005), 9 locations of declared rare and priority flora are known to occur within roadsides in the Shire of Dowerin. All 9 of these sites are road verges vested in the Shire. In total, there are five species of declared rare and priority flora on roadsides in the Shire, these include:

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

- *Eucalyptus recta*
- *Eucalyptus subangusta subsp. virescens*
- *Daviesia euphorbioides*
- *Grevillea rosieri*
- *Leucopogon sp. Bungulla (R.D. Royce 3435)*

Note: 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 64 species of fauna from the Dowerin 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 Dowerin area, there were 16 bird, 7 amphibia, 9 mammal and 32 reptile species.

A number of the fauna species recorded from Dowerin 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 the Dowerin area.

The Reticulated Velvet Gecko can be found in Dowerin

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

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, 10 species of threatened and priority fauna have been recorded or sighted throughout the Shire of Dowerin, 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.

- **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 Spiny-tailed Skink *(Egernia stokesii badia)***

This species occurs in semi-arid scrubs and woodlands of Shark Bay and the northern Wheatbelt, sheltering in hollow logs and behind bark of fallen trees.

- **Shield-backed Trapdoor Spider *(Idiosoma nigrum)***

This species is in decline in its patchy distribution through the northern and central Wheatbelt and coastal plain. It is a long-lived species that is very sensitive to disturbance.

- **Minnivale Trapdoor Spider *(Teyl sp)***

This species is only known from a few locations.

- **Peregrine Falcon *(Falco peregrinus)***

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

- **Shy Heathwren (western spp) *(Hylacola cauta whitlocki)***

This species is an uncommon resident in mallee undergrowth.

- **Crested Bellbird (southern) (*Oreoica gutturalis gutturalis)***

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

The quenda has been found in the Shire of Dowerin.

Information from Mammals of the South-West by Brent Johnson Brown and Carolyn Thomson. Available at; www.margaret-river-online.com.au

- **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.

- **Quenda *(Isoodon obesulus fusciventer)***

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

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 4.3% of the original native vegetation remains in the Shire of Dowerin, 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 5% vegetation cover remaining in Dowerin, this is extremely low, and this problem is magnified when considering the surrounding Shires, which also show similar low percentages of remaining vegetation cover. What is left of these remnants can, and will easily be depleted if proactive measures are not taken to manage this priceless resource for future generations.

Shire	Total Area (ha)	Area inside Clearing Line (ha)	Vegetation Cover Remaining (inside clearing line)	
			(ha)	(%)
Dowerin	188,786	188,786	8,055	4.3
Wongan-Ballidu	333,908	333,908	17,454	5.2
Koorda	283,746	266,057	21,537	8.1
Wyalkatchem	158,004	158,004	7,814	4.9
Cunderdin	188,696	188,696	3,312	1.8
Northam	141,410	141,410	31,229	22.1
Goomalling	185,768	185,768	8,559	4.6

Table 2. Remnant vegetation remaining in agricultural areas of Dowerin 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 continuous 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 DOWERIN

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 (826.0km, or 85.2%) of the Shire of Dowerin's 969.4km of roads were surveyed and then assessed to determine the conservation status of the road reserves. Fieldwork was carried out throughout the months of October and November 2004. 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:

- Vanessa Malcolm
- Beth Boase
- Robert Boase
- Ron Larkin
- Debbie Larkin
- Janelle Robinson
- Kerry Robinson
- Elaine Podmore
- Anne Robson
- Erin Slater

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 iPAQ personal computers and, when these were not available, used the standard paper survey sheets shown in Appendix 1. At the end of the survey, the iPAQs and survey sheets were sent back 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;
- extent of native vegetation along roadside;
- number of native species;
- level of weed infestation;
- 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; and
- presence of 7 nominated weeds.

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 Dowerin. 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 Dowerin. The data used to produce both the map and the following figures and tables are presented in Appendix 2. Road names and lengths 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

High conservation value roadsides are those with a score between 9 and 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.

Medium-high conservation value roadsides are those with a score between 7 and 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; and
- medium to high value as a biological corridor.

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

Medium-low conservation value roadsides are those with a score between 5 and 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; and
- medium to low value as a biological corridor.

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

Low Conservation Value roadsides are those with a score between 0 and 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; and
- low value as a biological corridor.

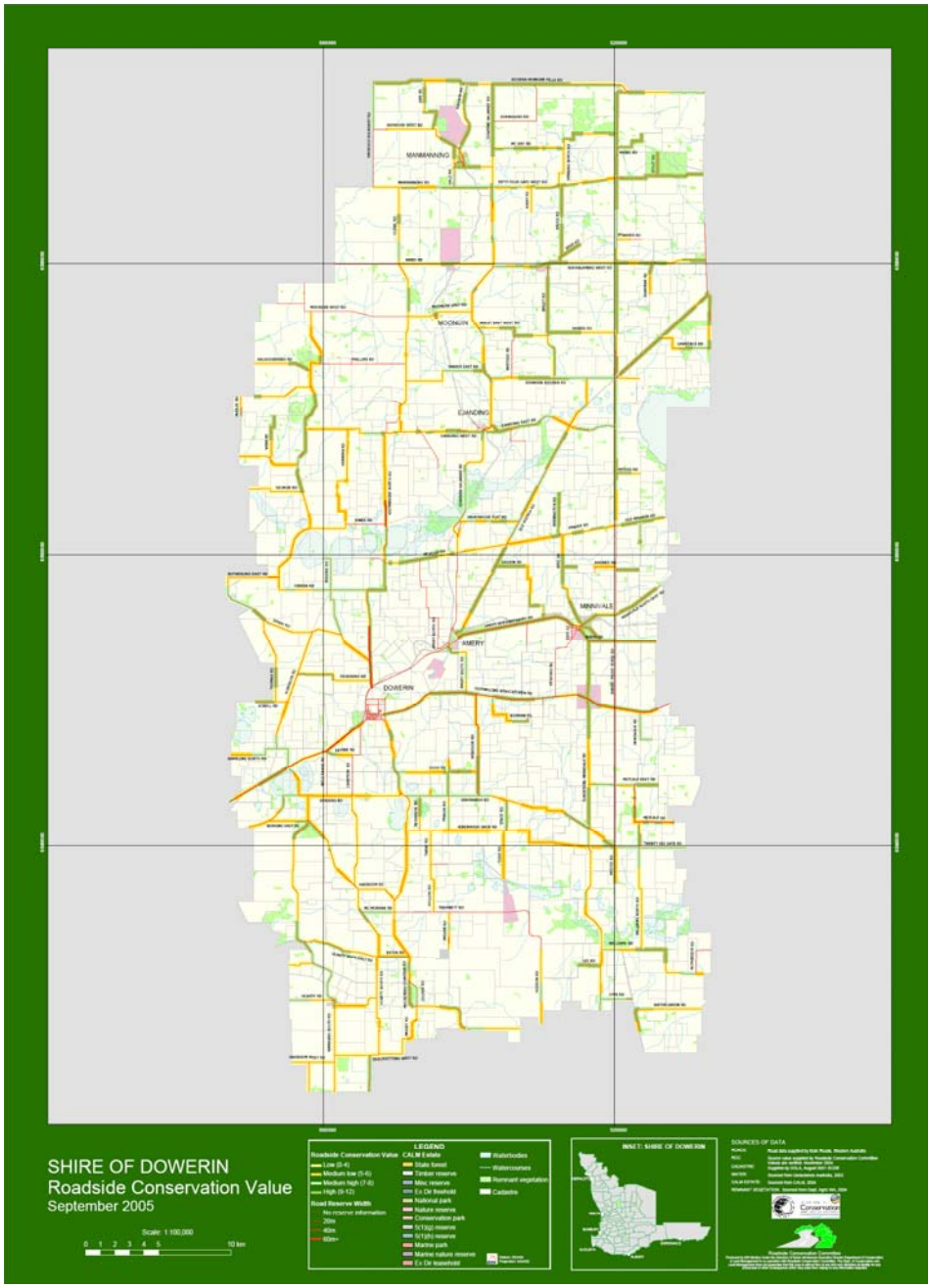
Low conservation value roadsides are typically dominated by weeds and have little or no native vegetation.
Photo by K. Jackson.

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 Dowerin.

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

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

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

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 Dowerin are 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.

Summary Information: Shire of Dowerin 2004

Length of roadsides surveyed: 1,652.0 km (826.0 km of road)

Roadside Conservation Status

	Total (km)	(%)
High (9-12)	541.3	32.8
Medium-high (7-8)	283.1	17.1
Medium-low (5-6)	289.4	17.5
Low (0-4)	538.2	32.6
Total	1652.0	100.0

Native Vegetation in Roadsides

	Total (km)	(%)
2-3 vegetation layers	972.8	58.9
1 vegetation layer	382.6	23.2
0 vegetation layers	296.7	18.0
Total	1652.0	100.0

Number of Native Plant Species

	Total (km)	(%)
Over 20 species	293.5	17.8
6 to 19 species	647.5	39.2
0 to 5 species	711.1	43.0
Total	1652.0	100.0

Predominant Adjoining Land Use

	Total (km)	(%)
Agricultural: completely cleared	1305.3	79.0
Agricultural: scattered vegetation	225.0	13.6
Uncleared native vegetation	85.6	5.2
Drain		
Plantation of non-natives	2.2	0.1
Railway	25.3	1.5
Urban or Industrial		
Other	8.6	0.5
Total	1652.0	100.0

Weed Infestation

	Total (km)	(%)
Light <20% weeds	397.5	24.1
Medium 20-80% weeds	546.2	33.1
Heavy >80% weeds	708.3	42.9
Total	1652.0	100.0

Roadside Conservation Values

Score	Total (km)	(%)
0	2.4	0.1
1	19.1	1.2
2	242.8	14.7
3	158.1	9.6
4	115.8	7.0
5	122.4	7.4
6	166.9	10.1
7	125.7	7.6
8	157.4	9.5
9	195.7	11.8
10	197.2	11.9
11	91.7	5.6
12	56.7	3.4
Total	1652.0	100.0

Width of Vegetated Roadside

	Total (km)	(%)
1 to 5 m	1460.5	88.4
5 to 20 m	83.8	5.1
Over 20 m	9.2	0.6
Unknown	98.5	6.0
Total	1652.0	100.0

Extent of Native Vegetation

	Total (km)	(%)
Over 80%	279.9	16.9
20% to 80%	574.3	34.8
Less than 20%	797.9	48.3
Total	1652.0	100.0

Value as a Biological Corridor

	Total (km)	(%)
High	704.5	42.6
Medium	398.2	24.1
Low	549.3	33.3
Total	1652.0	100.0

Roadside surveys were carried out in Dowerin Shire in October and November 2004

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

Width of Road Reserve

The width of road reserves in the Shire of Dowerin was recorded in increments of 20 metres, as shown in Table 4. The majority of road reserves were 20 metres in width, with 768.0 km, or 93.0% of roads falling into this category. Of the remaining roads 52.0 km, or 6.3%, were 40 metres in width, and 5.96 km, or 0.7%, were 60m wide. No road reserves were recorded as above 60m wide.

Width of Road Reserve - Dowerin		
	Total km	%
20m	768.0	93.0.
40m	52.0	6.3
60m	6.0	0.7
80m	0.0	0.0
100m	0.0	0.0
Unknown	0.0	0.0
Total	826.0	100.0

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

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 (1,460.5 km or 88.4%) was between 1 to 5 metres in width, followed by 83.8 km (5.1%) of roadsides where the vegetation fell between 5 to 20 metres in width. Roadside vegetation over 20 metres in width spanned 9.2 km, or 0.6% of the roadsides surveyed, whilst the width was unknown for 98.5 km or 6.0% of the roadsides surveyed.

Width of Vegetated Roadside - Dowerin		
	Total Km	%
1-5m	1460.5	88.4
5-20m	83.8	5.1
Over 20m	9.2	0.6
Unknown	98.5	6.0
Total	1652.0	100.0

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

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 58.9% of roadsides (972.8 km), 23.2% had only one layer (382.6 km) and 18.0% had no layers of native vegetation (296.7 km), refer to Table 3 and Figure 1.

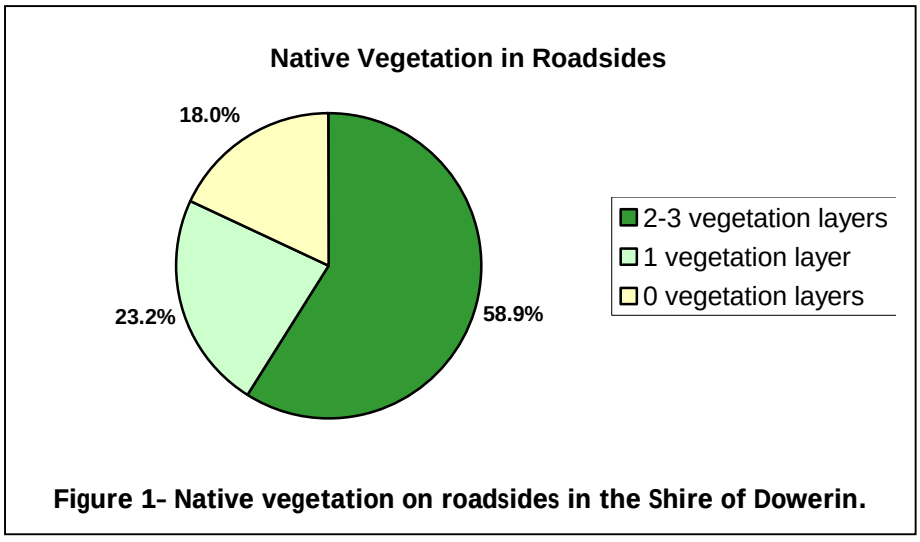


Figure 1- Native vegetation on roadsides in the Shire of Dowerin.

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 17.8% (293.5 km) of the roadsides surveyed. Roadside sections with 6 to 19 plant species accounted for 39.2% (647.5 km) of the roadside. The remaining 43.0% (711.1 km) contained less than 5 plant species, refer to Table 3 and Figure 2.

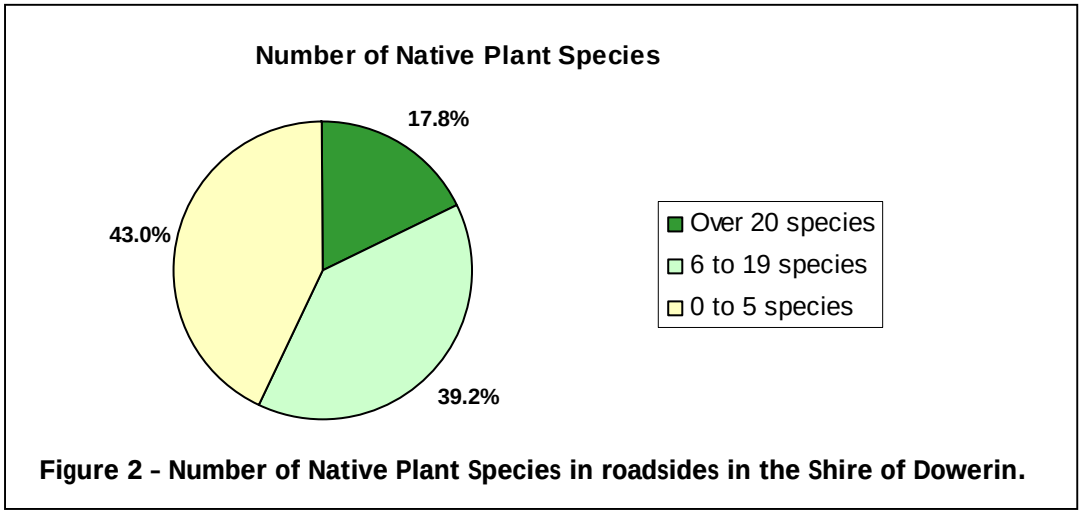


Figure 2 – Number of Native Plant Species in roadsides in the Shire of Dowerin.

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 16.9% of the roadsides surveyed (279.9 km). Survey sections with medium, i.e. 20% to 80%, vegetation cover accounted for 34.8% of the roadsides (574.3 km). The remaining 48.3% had less than 20% native vegetation (797.9 km), and therefore, a low 'extent of native vegetation' value, refer to Table 3 and Figure 3.

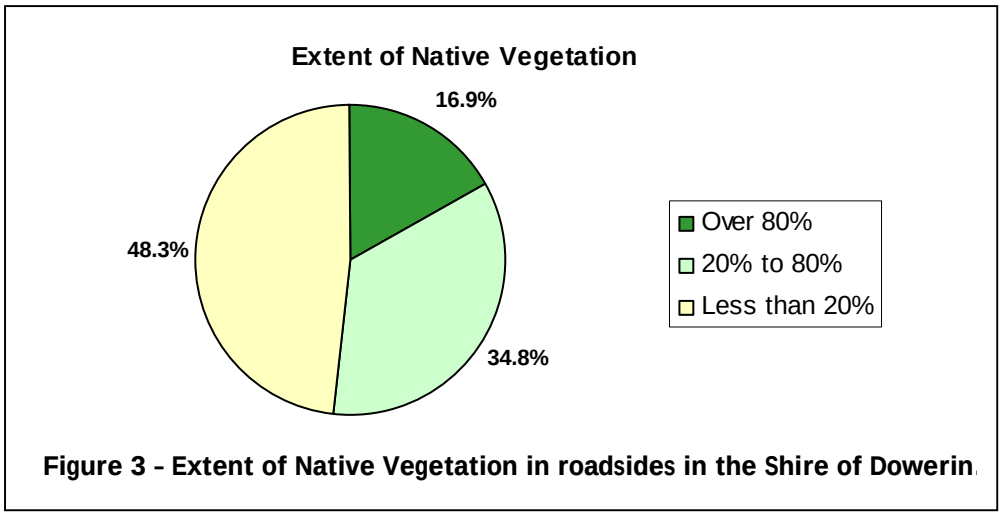


Figure 3 – Extent of Native Vegetation in roadsides in the Shire of Dowerin

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 42.6% (704.5 km) of the roadsides surveyed. Roadsides with medium value as biological corridors made up 24.1% (398.2 km), and roadsides with low value as a biological corridor occurred along 33.3% (549.3 km) of the roadsides surveyed, refer to Table 3 and Figure 4.

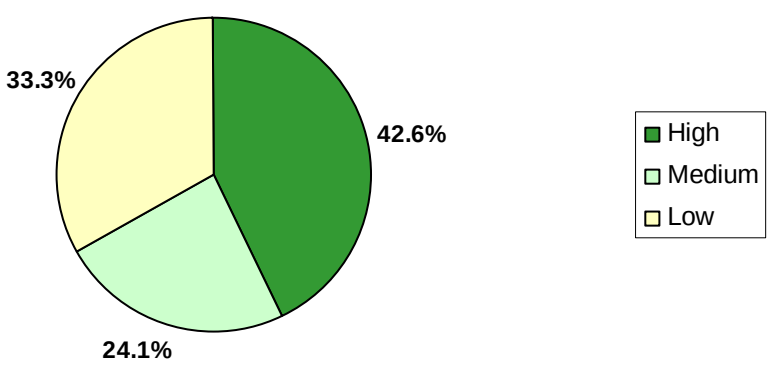


Figure 4 – Roadside vegetation value as a biological corridor in the Shire of Dowerin.

Weed Infestation

Light levels of weed infestation (weeds less than 20% of total plants), were recorded on 24.1% (397.5 km) of the roadsides surveyed, medium level weed infestation (weeds 20-80% of the total plants) occurred on 33.1% (546.2 km) of the roadsides and 42.9% of roadsides (708.3 km) were heavily infested with weeds (weeds more than 80% of the total plants), refer to Table 3 and Figure 5.

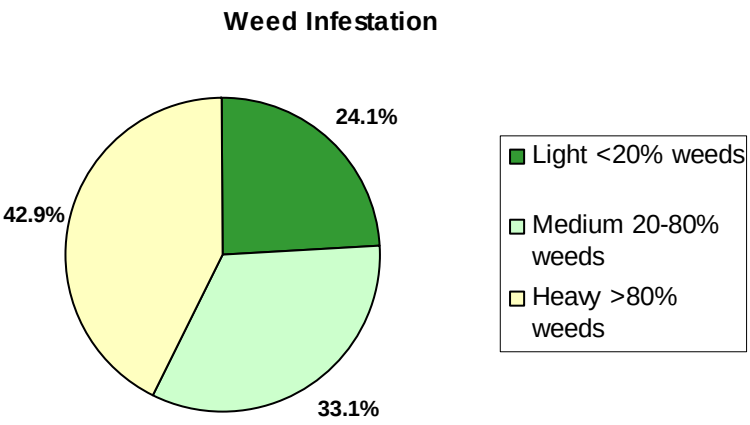


Figure 5 – Weed infestation along roadsides in the Shire of Dowerin.

Predominant Adjoining Land Use

Uncleared native vegetation was present on 5.2% (85.6 km) of the land adjoining roadsides, whilst 79.0% (1,305.3 km) of roadsides adjoined land that had been completely cleared for agriculture. 13.6% (225.0 km) of the roadsides bordered land cleared for agriculture, but contained a scattered distribution of native vegetation. Railway reserves were the predominant adjoining landuse for 1.5% (25.3 km) of the roadsides surveyed, plantation of non-natives covered 0.1% (2.2 km) of the roadsides surveyed, and 'other' landuses adjoined 0.5% (8.6 km) of the roadsides surveyed, see Table 3 and Figure 6.

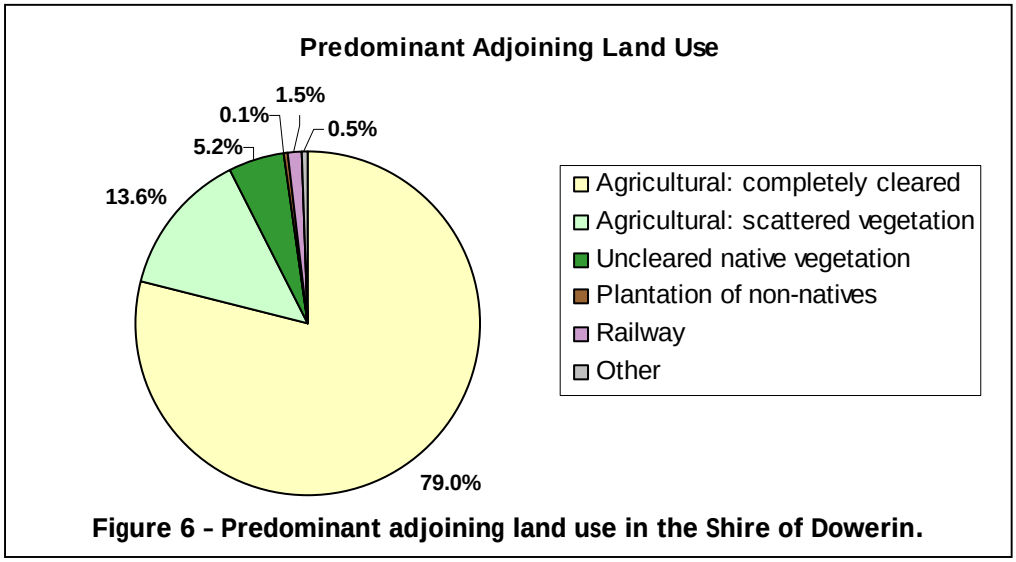


Figure 6 – Predominant adjoining land use in the Shire of Dowerin.

Nominated Weeds

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

- Paterson's Curse (*Echium plantagineum*);
- Tagasaste (*Chamaecytisus palmensis*);
- Couch (*Cynodon dactylon*);
- Soursob (*Oxalis pes-caprae*);
- Sharp/Spiny rush (*Juncus acutus)*;
- Perennial Veldt Grass (*Ehrharta calycina*); and
- African Lovegrass (*Eragrostis curvula*).

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 occurrence 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.

Tagasaste can be a common weed in degraded roadsides and disturbed areas, and is found throughout Dowerin.

Photography by S.M. Armstrong. Photo used with the permission of the WA Herbarium, CALM http://florabase.calm.wa.gov.au/help/photos#reuse).

Of the nominated weeds species, as determined by the roadside vegetation surveys, African Lovegrass was the most prevalent, and was recorded along 628.4km (or 38.0%) of roads surveyed. Veldt Grass was also quite prevalent, recorded along 192.1 km (or 11.6%) of roads. Paterson's Curse was the next most commonly recorded weed, occurring along 62.7 km (or 4.0%) of roads, followed by Tagasaste, which was recorded along 36.6 km (or 2.2%). Next was Couch, which was recorded along 33.3 km (2.0%) of roadsides, and finally Juncus acutus, which was recorded along 4.5 km of road (or 0.3%). The last nominated weed, Soursob, was not recorded on any of the roadside surveys and is therefore not included in Figure 7 below.

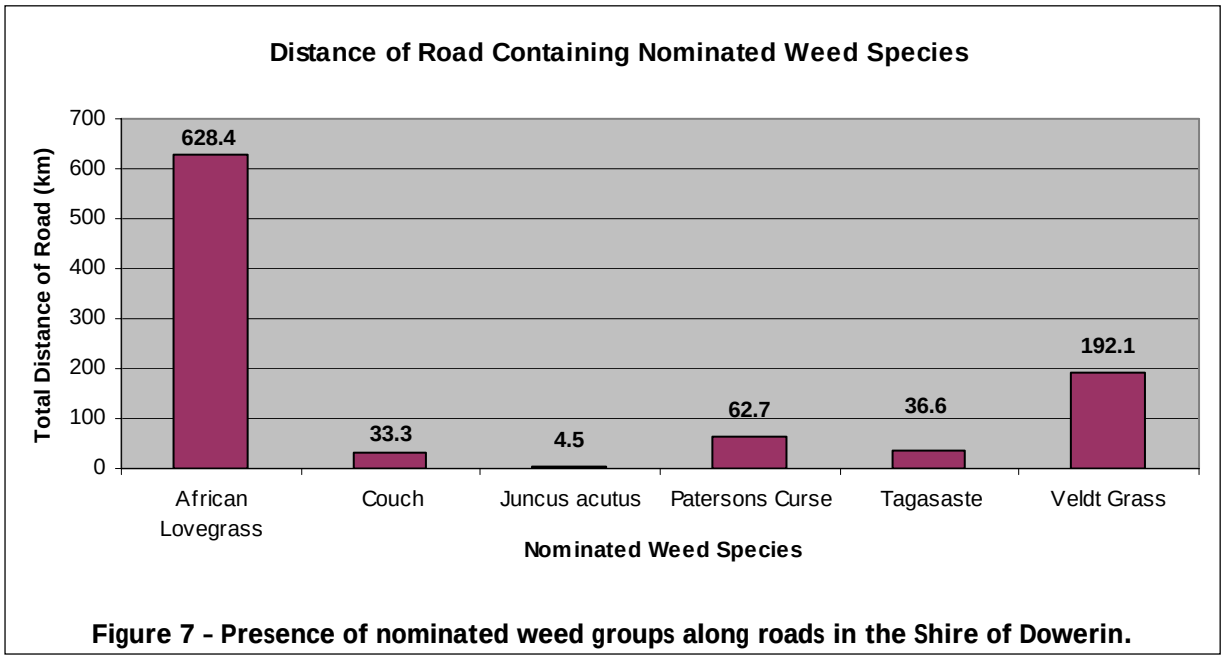


Figure 7 – Presence of nominated weed groups along roads in the Shire of Dowerin.

Conservation Status

The conservation status category indicated the combined conservation value of roadsides surveyed in the Shire of Dowerin. Roadside sections of high conservation value covered 32.8% (541.3 km) of the length of roadsides surveyed. Medium-high conservation value roadsides accounted for 17.1% of the total surveyed (283.1 km), medium-low conservation roadside covered 17.5% (289.4 km) of the total surveyed. Roadsides of low conservation value occupied 32.6% (538.2 km) of the roadsides surveyed; refer to Table 3 and Figure 8.

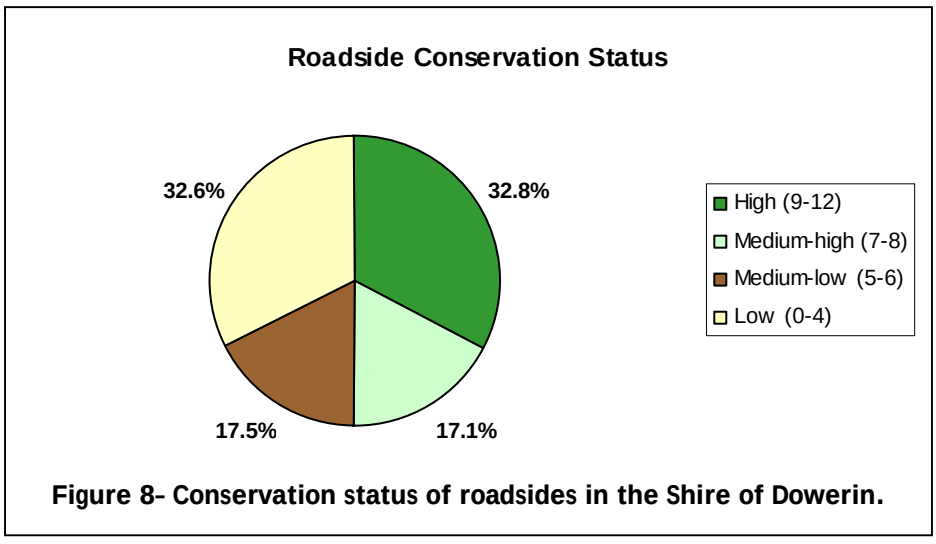


Figure 8- Conservation status of roadsides in the Shire of Dowerin.

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 ranged between 2 and 10, with a score of 2 being the highest with 242.8 km of roadside, followed by 10 (197.2 km), then 9 (195.7 km) and then the score of 6 (166.9 km). Roadsides with a conservation value score of 3 covered 158.1 km of roadsides, a score of 8 covered 157.4 km, and a score of 7 spanned 125.7 km of roadside. 122.4 km of roadsides scored 5, 115.8 km of roadsides scored 4, 91.7 km of roadside scored 11, 56.7 km of roadsides scored 12, 19.1 km of roadsides scored a conservation value of 1, and a conservation value of 0 was awarded to 2.4 km of roadsides.

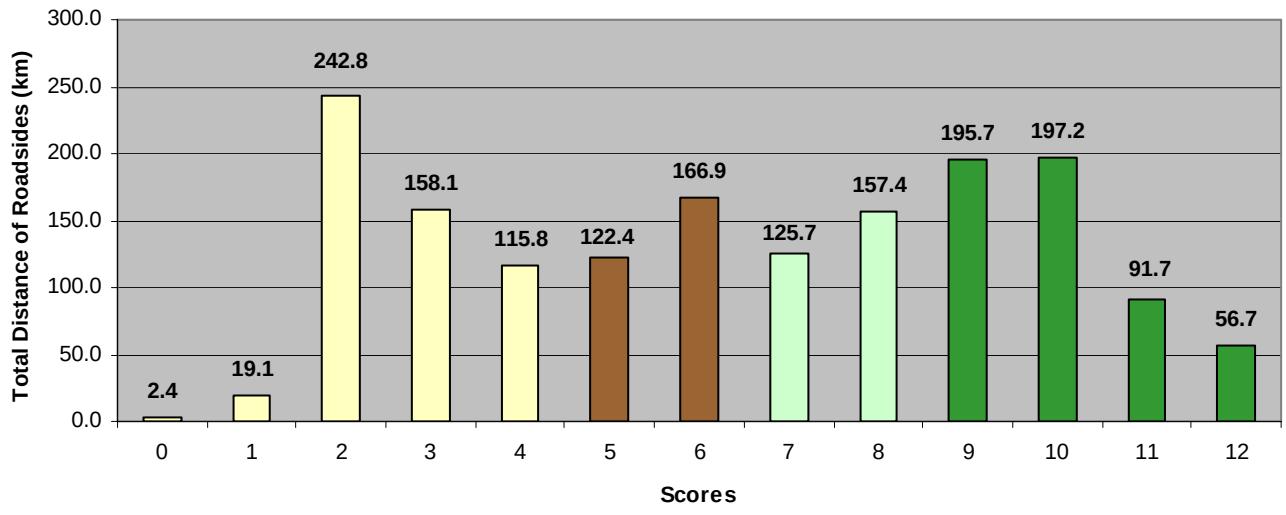


Figure 9- Conservation value scores of all roadsides surveyed in the Shire of Dowerin.

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.

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

There is one Flora Road designated within the Shire of Dowerin, which is a 3.5km section of Nambling South Road, declared in 2002, although it is currently not sign posted. The roadside survey and the roadside conservation value (RCV) map highlighted a few 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 Dowerin include:

- Old Nalkain road
- Wheat Bin road
- Mains road
- Bebbington road
- Dam road
- Railway road
- Bruce road
- Minnivale North East road
- Fifty Four Gate West road
- Amery-Benjabberring road
- Rabbit Proof Fence road

PART D

ROADSIDE MANAGEMENT RECOMMENDATIONS

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; and
- 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;

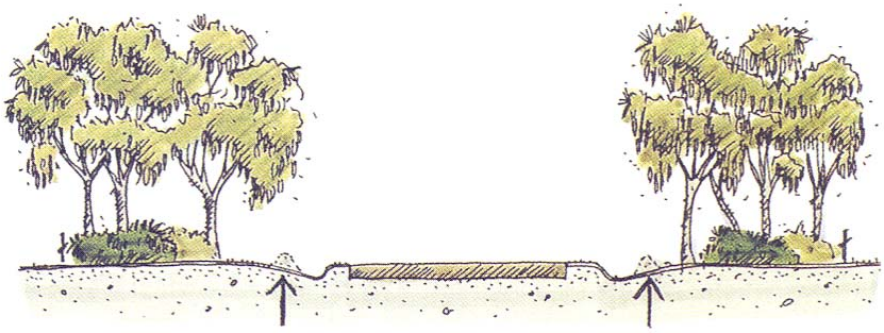
2.4 Not dumping spoil on areas of native flora;

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; and

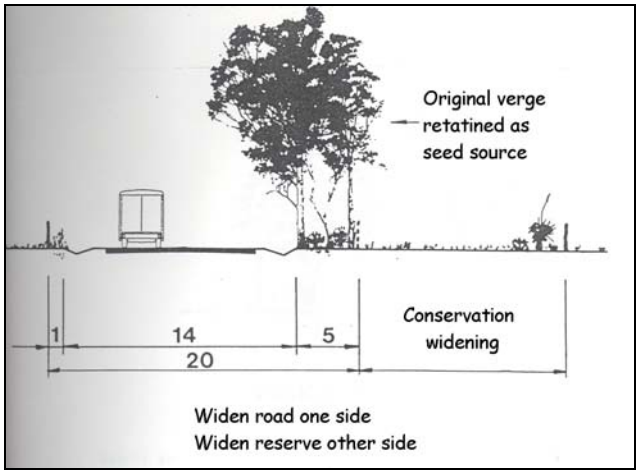
2.8 Encouraging revegetation projects by adjacent landholders.



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 the other side of the road reserve.



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:

- Community support - encourage ongoing community involvement and commitment by establishing a local Roadside Advisory Committee or working group within the Shire Environmental Committee;
- Contract specifications - maintain roadside values by developing environmental specifications for inclusion in all tender documents or work practices;
- Community education - use of innovative and pertinent material can increase community understanding of roadside values;
- Training - 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

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Appendix

1

SURVEY TO DETERMINE THE CONSERVATION VALUE OF ROADSIDES IN THE SHIRE OF ______________________________

Roadside Conservation Committee
C/- Locked Bag 104
Bentley Delivery Centre WA 6983

Phone: (08) 9334 0423
Fax: (08) 9334 0199

Date ______________________
Observer(s) ______________________
Road Name ______________________
Shire ______________________
Nearest named place ______________________
Direction of travel (N,S,E,W) ______________________
Section No. ______________________
Starting Point ______________________
Odometer reading ______________________
Ending Point ______________________
Odometer reading ______________________
Length of section ______________________

WIDTH OF ROAD RESERVE (m) ________

Side of the road	Left	Right
WIDTH OF VEGETATED ROADSIDE		
1 – 5 m	☐	☐
5 – 20 m	☐	☐
Over 20 m	☐	☐
NATIVE VEGETATION ON ROADSIDE		
Tree layer	☐	☐
Shrub layer	☐	☐
Ground layer	☐	☐
EXTENT OF NATIVE VEGETATION ON ROADSIDE		
Less than 20%	☐	☐
20 – 80%	☐	☐
Over 80%	☐	☐

No. OF DIFFERENT NATIVE SPECIES

0 – 5	☐	☐
6 – 19	☐	☐
Over 20	☐	☐

VALUE AS A BIOLOGICAL CORRIDOR

Connects uncleared areas	☐	☐
Flowering shrubs	☐	☐
Large trees with hollows	☐	☐
Hollow logs	☐	☐

PREDOMINANT ADJOINING LANDUSE

Agricultural crop or pasture:		
- Completely cleared	☐	☐
- Scattered	☐	☐
Uncleared land	☐	☐
Plantation of non-native trees	☐	☐
Urban or industrial	☐	☐
Railway Reserve parallel to road	☐	☐
Drain Reserve parallel to road	☐	☐
Other:	☐	☐

____

UTILITIES

Utility Present	☐	☐
Utility Absent	☐	☐
Type:		

____

GENERAL WEEDS

Few weeds (<20% total plants)	☐	☐
Half weeds (20 - 80% total)	☐	☐
Mostly weeds (>80% total)	☐	☐
Ground layer totally weeds	☐	☐

SALT AFFECTED ROADSIDE

< 20% salt affected	☐	☐
20 – 80% salt affected	☐	☐
> 80% salt affected	☐	☐

NOMINATED WEEDS

____

< 20% total weeds	☐	☐
20 – 80% total weeds	☐	☐
> 80% total weeds	☐	☐

____

< 20% total weeds	☐	☐
20 – 80% total weeds	☐	☐
> 80% total weeds	☐	☐

____

< 20% total weeds	☐	☐
20 – 80% total weeds	☐	☐
> 80% total weeds	☐	☐

____

< 20% total weeds	☐	☐
20 – 80% total weeds	☐	☐
> 80% total weeds	☐	☐

____

< 20% total weeds	☐	☐
20 – 80% total weeds	☐	☐
> 80% total weeds	☐	☐

____

< 20% total weeds	☐	☐
20 – 80% total weeds	☐	☐
80% total weeds	☐	☐

GENERAL COMMENTS

____

____

OFFICE USE ONLY

Conservation value score	☐	☐

Appendix

2

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070001	1	0	1.3	1.3	CUNDERDIN-MINNIVALE RD	South	26-Oct-04	vanessa	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	AFRICAN_LOVEGRASS
4070001	2	1.3	4.3	3	CUNDERDIN-MINNIVALE RD	South	26-Oct-04	vanessa	20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	VELDT_GRASS AFRICAN_LOVEGRASS
4070001	3	4.3	6	1.7	CUNDERDIN-MINNIVALE RD	South	26-Oct-04	vanessa	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	AFRICAN_LOVEGRASS
4070001	4	6	8.1	2.1	CUNDERDIN-MINNIVALE RD	South	26-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	AFRICAN_LOVEGRASS
4070001	5	8.1	8.9	0.8	CUNDERDIN-MINNIVALE RD	South	26-Oct-04	vanessa	20	1	2	0	0	0	0	0	0	0	1	2	2	3	5	AFRICAN_LOVEGRASS
4070001	6	8.9	10.3	1.4	CUNDERDIN-MINNIVALE RD	South	26-Oct-04	vanessa	20	2	2	0	0	0	0	0	0	1	1	2	2	5	5	AFRICAN_LOVEGRASS
4070001	7	10.3	11.5	1.2	CUNDERDIN-MINNIVALE RD	South	26-Oct-04	vanessa	20	2	1	0	0	0	0	0	0	1	1	2	2	5	4	AFRICAN_LOVEGRASS
4070001	8	11.5	13.5	2	CUNDERDIN-MINNIVALE RD	South	26-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	AFRICAN_LOVEGRASS VELDT_GRASS
4070001	9	13.5	14.4	0.9	CUNDERDIN-MINNIVALE RD	South	26-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	AFRICAN_LOVEGRASS VELDT_GRASS
4070001	10	14.4	15.7	1.3	CUNDERDIN-MINNIVALE RD	South	01-Nov-04	boase	20	1	2	0	0	0	1	0	1	1	2	2	2	4	8	
4070001	11	15.7	16.2	0.5	CUNDERDIN-MINNIVALE RD	South	01-Nov-04	boase	20	2	0	1	0	1	0	1	0	2	1	2	2	7	1	
4070001	12	16.2	17.7	1.5	CUNDERDIN-MINNIVALE RD	South	01-Nov-04	boase	20	1	1	0	0	0	0	0	0	1	1	2	2	4	4	AFRICAN_LOVEGRASS
4070001	13	17.7	18.9	1.2	CUNDERDIN-MINNIVALE RD	South	01-Nov-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070001	14	18.9	19.9	1	CUNDERDIN-MINNIVALE RD	South	01-Nov-04	boase	20	1	2	0	0	1	1	1	1	0	1	2	2	5	7	AFRICAN_LOVEGRASS
4070001	15	19.9	20.6	0.7	CUNDERDIN-MINNIVALE RD	South	01-Nov-04	boase	20	2	2	0	0	0	0	1	1	0	0	2	2	5	5	
4070001	16	20.6	22	1.4	CUNDERDIN-MINNIVALE RD	South	01-Nov-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	
4070001	17	22	23.5	1.5	CUNDERDIN-MINNIVALE RD	South	01-Nov-	boase	20	2	2	0	0	0	0	1	1	0	0	2	2	3	3	

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070001	18	23.5	24.6	1.1	CUNDERDIN-MINNIVALE RD	South	01-Nov-04	boase	20	2	2	0	0	0	0	0	0	1	1	2	2	5	5	
4070001	19	24.6	25.8	1.2	CUNDERDIN-MINNIVALE RD	South	01-Nov-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	
4070001	20	25.8	26.5	0.7	CUNDERDIN-MINNIVALE RD	South	01-Nov-04	boase	20	1	1	1	0	0	0	1	0	0	0	2	2	5	3	
4070001	21	26.5	27.7	1.2	CUNDERDIN-MINNIVALE RD	South	01-Nov-04	boase	20	2	1	2	0	1	0	1	0	2	2	2	2	8	8	
4070003	1	0	4.24	4.24	KOOMBEKINE NORTH RD	North	21-Oct-04	Robinson Chicks	60	2	2	0	1	1	1	1	1	2	2	2	2	8	9	VELDT_GRASS AFRICAN_LOVEGRASS
4070003	2	4.24	6.78	2.54	KOOMBEKINE NORTH RD	North	21-Oct-04	Robinson Chicks	20	1	2	0	1	0	1	0	2	0	2	2	2	3	10	AFRICAN_LOVEGRASS
4070003	3	6.78	8.32	1.54	KOOMBEKINE NORTH RD	East	21-Oct-04	Robinson Chicks	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	AFRICAN_LOVEGRASS
4070003	4	8.32	10.26	1.94	KOOMBEKINE NORTH RD	North	21-Oct-04	Robinson Chicks	20	2	2	1	0	1	1	1	1	2	1	2	2	9	7	AFRICAN_LOVEGRASS VELDT_GRASS
4070003	5	10.26	10.7	0.44	KOOMBEKINE NORTH RD	North	21-Oct-04	Robinson Chicks	20	2	2	0	1	0	0	1	2	0	2	2	0	5	7	AFRICAN_LOVEGRASS VELDT_GRASS
4070003	6	10.7	11.54	0.84	KOOMBEKINE NORTH RD	North	21-Oct-04	Robinson Chicks	20	1	2	0	1	0	0	0	2	0	2	2	2	3	9	AFRICAN_LOVEGRASS
4070003	7	11.54	12.58	1.04	KOOMBEKINE NORTH RD	North	21-Oct-04	Robinson Chicks	20	2	2	1	1	1	1	1	1	0	2	2	2	7	9	AFRICAN_LOVEGRASS VELDT_GRASS
4070003	8	12.58	13.12	0.54	KOOMBEKINE NORTH RD	North	21-Oct-04	Robinson Chicks	60	0	1	0	0	0	0	0	0	0	0	2	2	2	3	VELDT_GRASS
4070003	9	13.12	13.76	0.64	KOOMBEKINE NORTH RD	North	21-Oct-04	Robinson Chicks	60	0	2	0	1	0	0	0	2	0	0	2	2	2	7	VELDT_GRASS
4070003	10	13.76	14.3	0.54	KOOMBEKINE NORTH RD	North	21-Oct-04	Robinson Chicks	60	2	2	0	0	0	0	1	1	0	1	2	2	5	6	VELDT_GRASS
4070003	11	14.3	18.94	4.64	KOOMBEKINE NORTH RD	North	21-Oct-04	Robinson Chicks	20	2	2	1	1	0	0	1	1	0	0	2	2	6	6	AFRICAN_LOVEGRASS VELDT_GRASS
4070004	1	0	1.9	1.9	HINDMARSH RD	West	22-Oct-04	boase	20	1	1	2	2	1	1	1	1	2	0	2	2	9	7	

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070004	2	1.9	5.2	3.3	HINDMARSH RD	West	22-Oct-04	boase	20	2	2	0	0	1	1	0	0	1	1	2	2	6	6	
4070004	3	5.2	6.2	1	HINDMARSH RD	West	22-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	
4070004	4	6.2	6.7	0.5	HINDMARSH RD	West	22-Oct-04	boase	20	1	1	1	1	0	0	1	1	0	0	2	2	5	5	
4070004	5	6.7	7.4	0.7	HINDMARSH RD	West	22-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	PATERSONS_CURSE
4070004	6	7.4	13.3	5.9	HINDMARSH RD	West	22-Oct-04	boase	20	2	2	1	1	1	1	1	1	2	2	2	2	8	8	AFRICAN_LOVEGRASS PATERSONS_CURSE
4070005	1	0	3.95	3.95	RABBIT PROOF FENCE RD	South	23-Oct-04	larkin	20	2	2	2	2	2	2	2	2	1	2	2	2	10	11	AFRICAN_LOVEGRASS PATERSONS_CURSE
4070005	2	3.95	7.7	3.75	RABBIT PROOF FENCE RD	South	23-Oct-04	larkin	20	2	2	1	2	2	2	2	2	1	2	2	2	10	12	AFRICAN_LOVEGRASS
4070005	3	7.7	8.25	0.55	RABBIT PROOF FENCE RD	South	23-Oct-04	larkin	20	2	2	1	1	1	1	2	2	1	1	2	2	9	9	AFRICAN_LOVEGRASS
4070005	4	8.25	10.9	2.65	RABBIT PROOF FENCE RD	South	23-Oct-04	larkin	20	2	2	1	1	1	1	1	1	2	2	1	1	8	8	AFRICAN_LOVEGRASS
4070005	5	10.9	11.75	0.85	RABBIT PROOF FENCE RD	South	23-Oct-04	larkin	20	1	2	0	1	0	1	1	1	0	2	0	2	2	9	AFRICAN_LOVEGRASS
4070005	6	11.75	16.9	5.15	RABBIT PROOF FENCE RD	South	23-Oct-04	larkin	20	2	2	1	1	1	1	2	2	2	2	2	2	10	10	AFRICAN_LOVEGRASS
4070005	7	16.9	18.55	1.65	RABBIT PROOF FENCE RD	South	23-Oct-04	larkin	20	1	2	0	1	0	1	1	1	0	2	2	2	4	9	AFRICAN_LOVEGRASS
4070005	8	18.55	19.6	1.05	RABBIT PROOF FENCE RD	South	23-Oct-04	larkin	20	2	2	1	2	1	2	1	1	2	2	2	2	9	11	AFRICAN_LOVEGRASS
4070005	9	19.6	22.4	2.8	RABBIT PROOF FENCE RD	South	23-Oct-04	larkin	20	1	2	1	1	1	1	1	1	1	2	2	2	7	9	AFRICAN_LOVEGRASS
4070005	10	22.4	25	2.6	RABBIT PROOF FENCE RD	South	23-Oct-04	larkin	20	2	2	1	1	1	2	1	2	1	2	2	2	8	11	AFRICAN_LOVEGRASS
4070005	11	25	25.7	0.7	RABBIT PROOF FENCE RD	South	23-Oct-04	larkin	20	2	2	1	1	1	1	1	1	1	2	2	2	8	9	AFRICAN_LOVEGRASS
4070005	12	25.7	27.2	1.5	RABBIT PROOF FENCE RD	South	23-Oct-	larkin	20	2	2	1	2	1	2	1	2	2	2	2	1	9	11	AFRICAN_LOVEGRASS VELDT_GRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070005	13	27.2	27.8	0.6	RABBIT PROOF FENCE RD	South	23-Oct-04	larkin	20	2	2	1	2	1	2	1	2	0	2	2	1	7	11	AFRICAN_LOVEGRASS VELDT_GRASS
4070005	14	27.8	28.1	0.3	RABBIT PROOF FENCE RD	South	23-Oct-04	larkin	20	1	2	0	2	1	2	1	2	0	2	2	1	5	11	AFRICAN_LOVEGRASS VELDT_GRASS
4070005	15	28.1	30	1.9	RABBIT PROOF FENCE RD	South	23-Oct-04	larkin	20	1	2	0	1	1	2	1	2	1	2	2	1	6	10	AFRICAN_LOVEGRASS
4070006	1	0	1.6	1.6	NAMBLING RD	North	27-Oct-04	vanessa	20	2	2	0	0	0	0	0	0	1	1	2	2	5	5	AFRICAN_LOVEGRASS VELDT_GRASS
4070006	2	1.6	2.2	0.6	NAMBLING RD	North	27-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	2	2	1	1	8	8	AFRICAN_LOVEGRASS VELDT_GRASS
4070007	1	0	1.75	1.75	UCARTY SOUTH RD	South	21-Oct-04	boase	20	1	2	1	2	1	2	1	2	0	2	2	0	6	10	
4070007	2	1.75	2.55	0.8	UCARTY SOUTH RD	South	21-Oct-04	boase	20	1	0	0	0	0	0	0	0	0	0	2	2	3	2	AFRICAN_LOVEGRASS
4070007	3	2.55	2.75	0.2	UCARTY SOUTH RD	South	21-Oct-04	boase	20	2	2	1	1	2	2	1	1	1	1	2	2	7	9	AFRICAN_LOVEGRASS
4070007	4	2.75	4.15	1.4	UCARTY SOUTH RD	South	21-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS VELDT_GRASS
4070007	5	4.15	5.25	1.1	UCARTY SOUTH RD	South	21-Oct-04	boase	20	1	1	0	0	0	0	1	1	1	1	2	2	5	5	AFRICAN_LOVEGRASS
4070007	6	5.25	7.65	2.4	UCARTY SOUTH RD	South	21-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070007	7	7.65	8.75	1.1	UCARTY SOUTH RD	South	21-Oct-04	boase	20	2	2	1	1	1	1	1	1	1	2	2	2	8	9	AFRICAN_LOVEGRASS
4070007	8	8.75	9.85	1.1	UCARTY SOUTH RD	South	21-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070007	9	9.85	12.65	2.8	UCARTY SOUTH RD	South	21-Oct-04	boase	20	2	2	0	0	1	1	0	0	1	1	2	2	5	5	AFRICAN_LOVEGRASS
4070007	10	12.65	16.25	3.6	UCARTY SOUTH RD	South	21-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	PATERSONS_CURSE AFRICAN_LOVEGRASS
4070007	11	16.25	16.85	0.6	UCARTY SOUTH RD	South	21-Oct-04	boase	20	2	1	1	1	0	0	1	1	2	2	2	2	6	6	VELDT_GRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070007	12	16.85	18.65	1.8	UCARTY SOUTH RD	South	21-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	VELDT_GRASS
4070008	1	0	2	2	AMERY-BENJABBERRING RD	East	26-Oct-04	vanessa	40	2	2	2	2	2	1	2	2	2	2	0	2	10	11	PATERSONS_CURSE
4070008	2	2	4	2	AMERY-BENJABBERRING RD	East	26-Oct-04	vanessa	40	2	2	2	1	2	1	2	1	2	2	2	2	12	9	AFRICAN_LOVEGRASS
4070008	3	4	8	4	AMERY-BENJABBERRING RD	East	26-Oct-04	vanessa	40	2	2	2	1	2	1	2	2	2	2	1	2	10	9	AFRICAN_LOVEGRASS
4070008	4	8	8.5	0.5	AMERY-BENJABBERRING RD	East	26-Oct-04	vanessa	40	2	2	2	2	2	2	2	2	2	2	1	0	11	10	AFRICAN_LOVEGRASS
4070008	5	8.5	9	0.5	AMERY-BENJABBERRING RD	East	26-Oct-04	vanessa	40	1	1	0	0	0	0	0	0	2	2	2	2	3	3	AFRICAN_LOVEGRASS
4070008	6	9	9.8	0.8	AMERY-BENJABBERRING RD	East	26-Oct-04	vanessa	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	AFRICAN_LOVEGRASS
4070008	7	9.8	11.9	2.1	AMERY-BENJABBERRING RD	East	26-Oct-04	vanessa	20	2	2	2	2	1	1	1	1	2	2	2	2	10	10	AFRICAN_LOVEGRASS
4070008	8	11.9	14.7	2.8	AMERY-BENJABBERRING RD	East	26-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	2	2	1	2	8	9	AFRICAN_LOVEGRASS VELDT_GRASS
4070009	1	0	1.9	1.9	OLD KOORDA RD	South	26-Oct-04	larkin	20	0	0	0	0	1	1	0	0	2	2	2	1	5	4	AFRICAN_LOVEGRASS
4070009	2	1.9	2.5	0.6	OLD KOORDA RD	South	26-Oct-04	larkin	20	1	2	1	1	1	1	1	1	2	2	2	1	8	8	AFRICAN_LOVEGRASS
4070009	3	2.5	4.2	1.7	OLD KOORDA RD	South	26-Oct-04	larkin	20	0	1	0	1	1	1	1	1	0	0	2	2	4	6	AFRICAN_LOVEGRASS
4070009	4	4.2	4.8	0.6	OLD KOORDA RD	South	26-Oct-04	larkin	20	2	2	1	2	1	2	1	2	2	2	2	2	9	12	AFRICAN_LOVEGRASS
4070009	5	4.8	5.7	0.9	OLD KOORDA RD	South	26-Oct-04	larkin	20	0	2	1	2	1	2	1	2	2	2	2	1	7	11	AFRICAN_LOVEGRASS
4070009	6	5.7	6.6	0.9	OLD KOORDA RD	South	26-Oct-04	larkin	20	2	2	1	1	1	1	2	2	1	2	1	1	8	9	AFRICAN_LOVEGRASS
4070009	7	6.6	7.2	0.6	OLD KOORDA RD	South	26-Oct-04	larkin	20	0	2	0	1	1	1	0	2	0	2	1	1	2	9	AFRICAN_LOVEGRASS
4070009	8	7.2	8.5	1.3	OLD KOORDA RD	South	26-Oct-	larkin	20	0	0	1	1	1	1	1	1	2	2	2	2	7	7	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070009	9	8.5	10.9	2.4	OLD KOORDA RD	South	26-Oct-04	larkin	20	1	2	1	1	1	2	1	1	0	2	2	2	6	10	AFRICAN_LOVEGRASS
4070009	10	10.9	12.5	1.6	OLD KOORDA RD	South	26-Oct-04	larkin	20	2	2	1	1	1	1	1	1	1	2	1	1	7	8	AFRICAN_LOVEGRASS
4070009	11	12.5	13.2	0.7	OLD KOORDA RD	South	26-Oct-04	larkin	20	0	0	0	0	1	1	0	0	1	2	1	2	3	5	AFRICAN_LOVEGRASS
4070009	12	13.2	15.2	2	OLD KOORDA RD	South	26-Oct-04	vanessa	20	2	2	1	1	1	1	2	2	2	2	2	2	10	10	AFRICAN_LOVEGRASS VELDT_GRASS
4070009	13	15.2	16.5	1.3	OLD KOORDA RD	South	26-Oct-04	vanessa	20	2	0	1	0	1	0	1	0	2	0	2	2	9	2	AFRICAN_LOVEGRASS VELDT_GRASS
4070009	14	16.5	18.5	2	OLD KOORDA RD	South	26-Oct-04	vanessa	20	2	2	1	1	1	1	2	2	2	2	2	2	10	10	VELDT_GRASS AFRICAN_LOVEGRASS PATERSONS_CURSE
4070009	15	18.5	19.5	1	OLD KOORDA RD	South	26-Oct-04	vanessa	20	2	2	0	0	0	0	1	1	1	1	2	2	6	6	AFRICAN_LOVEGRASS
4070009	16	19.5	19.9	0.4	OLD KOORDA RD	South	26-Oct-04	vanessa	20	2	2	2	1	2	1	2	1	2	1	0	2	10	8	AFRICAN_LOVEGRASS
4070009	17	19.9	20.5	0.6	OLD KOORDA RD	South	26-Oct-04	vanessa	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	
4070010	1	0	0.5	0.5	EJANDING WEST RD	West	01-Nov-04	larkin	20	2	1	2	1	2	1	2	2	2	2	2	0	12	7	AFRICAN_LOVEGRASS
4070010	2	0.5	1.5	1	EJANDING WEST RD	West	01-Nov-04	larkin	20	2	0	2	0	2	0	2	0	2	1	2	1	12	2	AFRICAN_LOVEGRASS
4070010	3	1.5	2.6	1.1	EJANDING WEST RD	West	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	1	1	1	11	10	AFRICAN_LOVEGRASS
4070010	4	2.6	3.3	0.7	EJANDING WEST RD	West	01-Nov-04	larkin	20	0	0	0	0	1	1	1	1	2	1	2	1	6	4	AFRICAN_LOVEGRASS
4070010	5	3.3	3.9	0.6	EJANDING WEST RD	West	01-Nov-04	larkin	20	2	0	1	0	2	1	2	0	2	0	2	2	11	3	AFRICAN_LOVEGRASS
4070010	6	3.9	4.3	0.4	EJANDING WEST RD	West	01-Nov-04	larkin	20	0	0	0	0	0	0	0	0	2	1	2	2	4	3	AFRICAN_LOVEGRASS
4070010	7	4.3	4.6	0.3	EJANDING WEST RD	West	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	1	1	1	11	10	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070010	8	4.6	5.8	1.2	EJANDING WEST RD	West	01-Nov-04	larkin	20	0	0	0	0	1	1	0	0	1	1	2	2	4	4	AFRICAN_LOVEGRASS
4070010	9	5.8	6.1	0.3	EJANDING WEST RD	West	01-Nov-04	larkin	20	2	0	1	0	1	0	1	0	2	0	2	2	9	2	AFRICAN_LOVEGRASS
4070010	10	6.1	6.7	0.6	EJANDING WEST RD	West	01-Nov-04	larkin	20	0	0	0	0	1	0	0	0	1	0	1	1	3	1	AFRICAN_LOVEGRASS
4070010	11	6.7	7	0.3	EJANDING WEST RD	West	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	1	1	11	11	AFRICAN_LOVEGRASS
4070010	1	7	8.1	1.1	EJANDING WEST RD	West	21-Oct-04	Robinson Chicks	20	2	2	1	1	0	0	0	0	2	2	2	2	7	7	AFRICAN_LOVEGRASS VELDT_GRASS
4070010	2	8.1	9.1	1	EJANDING WEST RD	West	21-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	2	2	0	0	2	2	4	4	AFRICAN_LOVEGRASS
4070010	3	9.1	12.5	3.4	EJANDING WEST RD	West	21-Oct-04	Robinson Chicks	20	2	1	0	0	0	0	0	0	1	0	2	2	5	3	AFRICAN_LOVEGRASS VELDT_GRASS
4070011	1	0	2.3	2.3	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	2	2	1	2	1	2	1	2	2	2	1	2	8	12	AFRICAN_LOVEGRASS
4070011	2	2.3	3.9	1.6	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	1	1	1	1	1	1	1	1	1	1	2	1	7	6	AFRICAN_LOVEGRASS COUCH
4070011	3	3.9	4.3	0.4	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	0	2	0	2	0	1	0	2	0	2	2	1	2	10	AFRICAN_LOVEGRASS
4070011	4	4.3	4.6	0.3	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	2	2	1	1	1	1	1	1	1	2	2	1	8	8	AFRICAN_LOVEGRASS
4070011	5	4.6	4.9	0.3	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	1	1	0	0	0	0	0	0	0	0	2	1	3	2	AFRICAN_LOVEGRASS PATERSONS_CURSE
4070011	6	4.9	5.3	0.4	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	1	1	0	0	1	1	0	0	1	1	2	2	5	5	AFRICAN_LOVEGRASS
4070011	7	5.3	5.6	0.3	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	2	1	2	0	1	1	2	0	2	1	0	1	9	4	AFRICAN_LOVEGRASS
4070011	8	5.6	6.2	0.6	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	1	2	0	1	1	2	0	2	0	2	1	1	3	10	AFRICAN_LOVEGRASS COUCH
4070011	9	6.2	7	0.8	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	1	2	0	1	1	2	0	1	1	2	1	1	4	9	AFRICAN_LOVEGRASS COUCH
4070011	10	7	7.7	0.7	FIFTY FOUR GATE WEST RD	East	01-Nov-	larkin	20	2	2	2	2	2	2	2	2	2	2	1	1	11	11	AFRICAN_LOVEGRASS PATERSONS_CURSE

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070011	11	7.7	8.5	0.8	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	0	2	0	2	0	1	0	2	1	2	2	2	3	11	AFRICAN_LOVEGRASS
4070011	12	8.5	8.8	0.3	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	1	1	0	0	1	1	0	0	0	0	2	2	4	4	AFRICAN_LOVEGRASS
4070011	13	8.8	9.3	0.5	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	1	2	0	2	1	2	0	2	1	1	2	2	5	11	AFRICAN_LOVEGRASS
4070011	14	9.3	10.5	1.2	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	1	2	0	2	0	2	0	2	1	1	2	2	4	11	AFRICAN_LOVEGRASS
4070011	15	10.5	11.3	0.8	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	1	1	0	0	1	1	0	0	1	1	2	2	5	5	AFRICAN_LOVEGRASS
4070011	16	11.3	12.1	0.8	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	1	1	1	1	10	10	AFRICAN_LOVEGRASS
4070011	17	12.1	13	0.9	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	2	2	1	1	2	2	1	1	2	2	1	1	9	9	AFRICAN_LOVEGRASS
4070011	18	13	13.4	0.4	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	1	1	11	11	AFRICAN_LOVEGRASS
4070011	19	13.4	16.4	3	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	0	1	10	11	AFRICAN_LOVEGRASS
4070011	20	16.4	17.4	1	FIFTY FOUR GATE WEST RD	East	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	
4070012	1	5.22	6.12	0.9	CEMETERY RD	South	22-Oct-04	boase	20	1	1	0	0	0	0	0	0	1	1	2	2	4	4	AFRICAN_LOVEGRASS
4070012	2	6.12	11.62	5.5	CEMETERY RD	South	22-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070013	1	0	0.4	0.4	BERRING EAST RD	West	22-Oct-04	boase	20	2	1	2	1	2	0	1	1	2	1	2	2	9	4	AFRICAN_LOVEGRASS
4070013	2	0.4	0.9	0.5	BERRING EAST RD	West	22-Oct-04	boase	20	2	0	2	0	2	0	2	0	2	0	2	2	10	2	AFRICAN_LOVEGRASS
4070013	3	0.9	1.7	0.8	BERRING EAST RD	West	22-Oct-04	boase	20	1	0	0	0	1	0	1	0	1	0	2	2	5	1	AFRICAN_LOVEGRASS
4070013	4	1.7	4.3	2.6	BERRING EAST RD	West	22-Oct-04	boase	20	2	2	0	0	0	0	1	0	1	0	2	2	5	3	AFRICAN_LOVEGRASS PATERSONS_CURSE

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070015	1	0	1.25333	1.25333	HINDMARSH BACK RD	East	22-Oct-04	boase	20	1	2	0	2	0	1	2	1	2	2	2	2	3	3	
4070015	2	1.25333	2.50666	1.25333	HINDMARSH BACK RD	East	22-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	PATERSONS_CURSE
4070015	3	2.50666	5.75999	3.25333	HINDMARSH BACK RD	East	22-Oct-04	boase	20	2	2	0	0	1	1	0	0	2	2	2	2	6	6	
4070015	4	5.75999	7.61332	1.85333	HINDMARSH BACK RD	East	22-Oct-04	boase	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	
4070015	5	7.61332	14.26665	6.65333	HINDMARSH BACK RD	East	22-Oct-04	boase	20	2	2	0	0	1	1	1	1	0	0	2	2	6	6	
4070015	6	14.26665	15.02003	0.75333	HINDMARSH BACK RD	East	22-Oct-04	boase	20	2	2	2	1	1	0	2	1	2	2	2	2	9	8	
4070016	1	0	0.1	0.1	PICKERING RD	West	18-Oct-04	Janelle and Kerry	20	1	1	0	0	0	0	0	0	1	2	1	0	3	3	PATERSONS_CURSE
4070016	2	0.1	2.5	2.4	PICKERING RD	West	18-Oct-04	Janelle and Kerry	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070016	3	2.5	5.3	2.8	PICKERING RD	West	18-Oct-04	Janelle and Kerry	20	2	0	1	0	1	0	2	0	2	0	2	2	10	2	AFRICAN_LOVEGRASS
4070017	1	0	0.9	0.9	ROBINSON RD	North	18-Oct-04	Robinson Chicks	20	2	2	1	1	0	0	1	1	1	1	2	2	7	7	AFRICAN_LOVEGRASS
4070017	2	0.9	2.2	1.3	ROBINSON RD	North	18-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070017	3	2.2	3.4	1.2	ROBINSON RD	North	18-Oct-04	Robinson Chicks	20	2	2	0	0	0	0	1	1	0	0	2	2	5	5	AFRICAN_LOVEGRASS
4070017	4	3.4	4.8	1.4	ROBINSON RD	North	18-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070017	5	4.8	7.2	2.4	ROBINSON RD	North	18-Oct-04	Robinson Chicks	20	2	2	0	0	0	0	0	0	0	0	2	2	4	4	AFRICAN_LOVEGRASS
4070017	6	7.2	8.4	1.2	ROBINSON RD	North	18-Oct-04	Robinson Chicks	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS
4070018	1	0	2.6	2.6	SPARK RD	North	20-Oct-04	Robinson Chicks	20	2	2	1	1	1	1	2	2	0	0	2	2	8	8	AFRICAN_LOVEGRASS
4070018	2	2.6	3.7	1.1	SPARK RD	East	20-Oct-	Robinson Chicks	20	2	2	1	1	1	1	2	2	2	2	2	2	10	10	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070018	3	3.7	4.1	0.4	SPARK RD	East	20-Oct-04	Robinson Chicks	20	0	1	0	1	0	0	0	2	0	1	2	2	2	7	AFRICAN_LOVEGRASS
4070018	4	4.1	5.9	1.8	SPARK RD	East	20-Oct-04	Robinson Chicks	20	1	0	0	0	0	0	0	0	0	0	2	2	3	2	AFRICAN_LOVEGRASS
4070018	5	5.9	7.1	1.2	SPARK RD	East	20-Oct-04	Robinson Chicks	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS
4070018	6	7.1	9.2	2.1	SPARK RD	East	20-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070019	1	0	3.7	3.7	UBERIN RD	West	20-Oct-04	Robinson Chicks	20	2	2	1	1	1	1	0	0	2	2	2	2	8	8	TAGASASTE AFRICAN_LOVEGRASS
4070019	2	3.7	4.9	1.2	UBERIN RD	West	20-Oct-04	Robinson Chicks	20	1	0	0	0	0	0	0	0	0	0	2	2	3	2	VELDT_GRASS AFRICAN_LOVEGRASS
4070019	3	4.9	5.6	0.7	UBERIN RD	West	20-Oct-04	Robinson Chicks	20	2	2	1	1	0	0	2	2	0	0	0	2	7	7	AFRICAN_LOVEGRASS
4070019	4	5.6	6.1	0.5	UBERIN RD	West	20-Oct-04	Robinson Chicks	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS TAGASASTE
4070019	5	6.1	11.3	5.2	UBERIN RD	West	20-Oct-04	Robinson Chicks	20	1	1	1	0	0	0	1	0	1	1	2	2	6	4	AFRICAN_LOVEGRASS
4070019	6	11.3	12.2	0.9	UBERIN RD	West	20-Oct-04	Robinson Chicks	20	1	1	1	1	0	0	0	0	1	1	2	2	5	5	PATERSONS_CURSE
4070019	7	12.2	13.7	1.5	UBERIN RD	West	20-Oct-04	Robinson Chicks	20	2	2	0	0	0	0	0	0	0	0	2	2	4	4	AFRICAN_LOVEGRASS
4070019	8	13.7	15.4	1.7	UBERIN RD	West	20-Oct-04	Robinson Chicks	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	AFRICAN_LOVEGRASS
4070019	9	15.4	16.2	0.8	UBERIN RD	South	20-Oct-04	Robinson Chicks	20	1	1	1	1	1	1	2	2	0	1	2	2	7	8	AFRICAN_LOVEGRASS
4070019	10	16.2	21.1	4.9	UBERIN RD	South	20-Oct-04	Robinson Chicks	20	2	2	2	2	2	2	2	2	0	1	2	2	10	11	
4070019	11	21.1	23.89	2.79	UBERIN RD	South	20-Oct-04	Robinson Chicks	20	2	2	1	1	0	0	1	1	0	0	2	2	6	6	AFRICAN_LOVEGRASS
4070020	1	0	0.3	0.3	HALE RD	North	03-Nov-04	larkin	20	2	2	1	1	1	1	1	1	2	0	2	2	9	7	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070020	2	0.3	1	0.7	HALE RD	North	03-Nov-04	larkin	20	2	2	1	1	1	1	1	1	1	1	2	2	8	8	AFRICAN_LOVEGRASS
4070020	3	1	1.4	0.4	HALE RD	North	03-Nov-04	larkin	20	0	2	0	1	0	1	0	1	0	1	2	2	2	8	AFRICAN_LOVEGRASS
4070020	4	1.4	2.3	0.9	HALE RD	North	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	2	12	10	AFRICAN_LOVEGRASS
4070021	1	0	0.5	0.5	HAYWOOD WEST RD	West	03-Nov-04	larkin	20	1	1	0	0	0	0	0	0	1	1	2	2	4	4	
4070021	2	0.5	2.5	2	HAYWOOD WEST RD	West	03-Nov-04	larkin	20	2	2	1	2	1	2	1	2	2	2	2	0	9	10	AFRICAN_LOVEGRASS
4070021	3	2.5	6.7	4.2	HAYWOOD WEST RD	West	03-Nov-04	larkin	20	1	1	0	0	0	0	0	0	1	0	2	2	4	3	AFRICAN_LOVEGRASS
4070022	1	3.87	7.07	3.2	HAYWOOD BOUNDARY ROAD	North	03-Nov-04	larkin	20	2	2	1	1	1	1	1	1	1	2	1	1	7	8	
4070023	1	0	0.32584	0.32584	KOORDA-WONGAN HILLS RD	East	25-Oct-04	larkin	20	2	2	2	2	1	1	2	2	2	2	0	0	9	9	
4070023	2	0.32584	3.15168	2.82584	KOORDA-WONGAN HILLS RD	East	25-Oct-04	larkin	20	2	2	2	2	1	1	2	2	2	2	1	1	10	10	AFRICAN_LOVEGRASS
4070023	3	3.15168	3.37752	0.22584	KOORDA-WONGAN HILLS RD	East	25-Oct-04	larkin	20	2	2	2	2	1	1	2	2	2	2	1	1	10	10	AFRICAN_LOVEGRASS
4070023	4	3.37752	4.90336	1.52584	KOORDA-WONGAN HILLS RD	East	25-Oct-04	larkin	20	1	1	0	0	1	1	1	1	2	2	1	1	6	6	AFRICAN_LOVEGRASS
4070023	5	4.90336	7.2292	2.32584	KOORDA-WONGAN HILLS RD	East	25-Oct-04	larkin	20	2	2	1	1	2	2	2	2	2	2	1	1	10	10	AFRICAN_LOVEGRASS
4070023	6	7.2292	8.15504	0.92584	KOORDA-WONGAN HILLS RD	East	25-Oct-04	larkin	20	1	1	0	0	1	1	0	0	1	1	1	1	4	4	AFRICAN_LOVEGRASS
4070023	7	8.15504	13.48088	5.32584	KOORDA-WONGAN HILLS RD	East	25-Oct-04	larkin	20	2	2	1	1	1	1	2	2	2	2	1	1	9	9	AFRICAN_LOVEGRASS
4070023	8	13.48088	16.90672	3.42584	KOORDA-WONGAN HILLS RD	East	25-Oct-04	larkin	20	0	2	0	1	1	1	0	2	0	2	1	1	2	9	AFRICAN_LOVEGRASS
4070023	9	16.90672	17.53256	0.62584	KOORDA-WONGAN HILLS RD	East	25-Oct-04	larkin	20	0	0	0	0	1	1	0	0	1	1	1	1	3	3	AFRICAN_LOVEGRASS
4070023	10	17.53256	18.7584	1.22584	KOORDA-WONGAN HILLS	East	25-Oct-	larkin	20	2	2	2	2	2	2	2	2	2	2	1	1	11	11	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
					RD		04																	
4070023	11	18.7584	20.38424	1.62584	KOORDA-WONGAN HILLS RD	East	25-Oct-04	larkin	20	0	0	0	0	0	0	0	0	0	0	1	1	1	1	AFRICAN_LOVEGRASS
4070023	12	20.38424	22.81008	2.42584	KOORDA-WONGAN HILLS RD	East	25-Oct-04	larkin	20	2	2	1	1	1	1	2	2	1	1	1	1	8	8	AFRICAN_LOVEGRASS
4070025	1	4.7	5.6	0.9	DOWERIN KOORDA RD	South	26-Oct-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	AFRICAN_LOVEGRASS
4070025	2	5.6	6	0.4	DOWERIN KOORDA RD	South	26-Oct-04	larkin	20	0	0	1	1	1	1	1	1	2	1	2	2	7	6	AFRICAN_LOVEGRASS
4070025	3	6	13.3	7.3	DOWERIN KOORDA RD	South	26-Oct-04	larkin	20	2	2	1	1	2	2	1	1	2	2	2	2	10	10	AFRICAN_LOVEGRASS
4070025	4	13.3	16.6	3.3	DOWERIN KOORDA RD	South	26-Oct-04	larkin	20	0	0	1	1	2	2	1	1	2	2	2	2	8	8	AFRICAN_LOVEGRASS
4070025	5	16.6	17.9	1.3	DOWERIN KOORDA RD	West	26-Oct-04	larkin	20	2	2	1	1	2	1	1	1	2	1	2	2	10	8	AFRICAN_LOVEGRASS
4070025	6	17.9	20.1	2.2	DOWERIN KOORDA RD	West	26-Oct-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	1	12	11	AFRICAN_LOVEGRASS
4070025	7	20.1	21	0.9	DOWERIN KOORDA RD	West	26-Oct-04	larkin	20	0	0	0	0	1	1	1	1	1	2	1	1	4	5	AFRICAN_LOVEGRASS
4070025	8	21	22	1	DOWERIN KOORDA RD	West	26-Oct-04	larkin	20	1	2	1	1	1	1	1	1	1	1	1	1	6	7	AFRICAN_LOVEGRASS
4070026	1	0	1.4	1.4	MINNIVALE NORTH EAST RD	North	26-Oct-04	vanessa	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	
4070026	2	1.4	3	1.6	MINNIVALE NORTH EAST RD	North	26-Oct-04	vanessa	20	1	2	0	1	0	1	0	1	0	2	2	2	3	9	VELDT_GRASS
4070026	3	3	6.2	3.2	MINNIVALE NORTH EAST RD	North	26-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	VELDT_GRASS
4070028	1	0	0.6	0.6	EJANDING EAST RD	East	01-Nov-04	larkin	20	0	2	0	2	0	2	0	2	0	2	1	1	1	11	AFRICAN_LOVEGRASS
4070028	2	0.6	1.8	1.2	EJANDING EAST RD	East	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	1	1	11	11	AFRICAN_LOVEGRASS
4070028	3	1.8	2	0.2	EJANDING EAST RD	East	01-Nov-04	larkin	20	1	2	1	2	1	2	1	2	1	2	1	1	6	11	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070028	4	2	4	2	EJANDING EAST RD	East	01-Nov-04	larkin	20	1	2	1	2	1	2	1	2	1	2	2	1	7	11	AFRICAN_LOVEGRASS
4070028	5	4	5	1	EJANDING EAST RD	East	01-Nov-04	larkin	20	1	1	1	1	1	2	1	1	2	2	1	1	7	8	AFRICAN_LOVEGRASS
4070028	6	5	6.8	1.8	EJANDING EAST RD	East	01-Nov-04	larkin	20	0	0	0	0	1	1	0	0	2	2	2	2	5	5	AFRICAN_LOVEGRASS
4070028	7	6.8	7.8	1	EJANDING EAST RD	East	01-Nov-04	larkin	20	2	2	1	2	1	1	1	2	1	1	2	2	8	10	AFRICAN_LOVEGRASS
4070028	8	7.8	9.2	1.4	EJANDING EAST RD	East	01-Nov-04	larkin	20	1	1	1	1	1	1	1	1	1	1	2	2	7	7	AFRICAN_LOVEGRASS
4070028	9	9.2	9.7	0.5	EJANDING EAST RD	East	01-Nov-04	larkin	20	1	1	1	1	1	1	1	1	1	1	2	2	7	7	AFRICAN_LOVEGRASS
4070029	1	0	0.4	0.4	GASKIN RD	West	26-Oct-04	vanessa	20	2	2	2	2	2	2	2	2	2	2	1	0	10	10	VELDT_GRASS
4070029	2	0.4	1.2	0.8	GASKIN RD	West	26-Oct-04	vanessa	20	1	2	0	0	0	1	0	1	0	2	2	2	3	8	VELDT_GRASS
4070029	3	1.2	2	0.8	GASKIN RD	West	26-Oct-04	vanessa	20	2	2	2	2	1	1	2	2	2	2	2	2	11	11	VELDT_GRASS AFRICAN_LOVEGRASS
4070029	4	2	2.7	0.7	GASKIN RD	North	26-Oct-04	vanessa	20	2	1	1	0	1	0	1	0	2	0	2	2	9	3	VELDT_GRASS
4070029	5	2.7	5	2.3	GASKIN RD	West	26-Oct-04	vanessa	20	2	2	0	0	0	0	0	0	1	1	2	2	6	6	VELDT_GRASS
4070029	6	5	7.2	2.2	GASKIN RD	West	26-Oct-04	vanessa	20	2	2	1	1	1	1	2	2	2	2	2	2	10	10	VELDT_GRASS AFRICAN_LOVEGRASS
4070030	1	0	3.1	3.1	PARKER RD	East	21-Oct-04	larkin	20	1	1	0	0	1	1	1	1	0	1	2	2	5	6	AFRICAN_LOVEGRASS
4070030	2	3.1	3.9	0.8	PARKER RD	East	21-Oct-04	larkin	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	AFRICAN_LOVEGRASS
4070030	3	3.9	4.6	0.7	PARKER RD	East	21-Oct-04	larkin	20	1	1	0	0	0	1	0	0	0	0	2	2	3	4	AFRICAN_LOVEGRASS
4070030	4	4.6	5.4	0.8	PARKER RD	East	21-Oct-04	larkin	20	2	2	2	2	1	1	2	2	2	2	2	2	11	11	AFRICAN_LOVEGRASS
4070030	5	5.4	5.9	0.5	PARKER RD	East	21-Oct-	larkin	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070030	6	5.9	6.9	1	PARKER RD	East	21-Oct-04	larkin	20	2	1	1	0	1	1	1	0	2	0	2	2	9	4	AFRICAN_LOVEGRASS
4070030	7	6.9	7.1	0.2	PARKER RD	East	21-Oct-04	larkin	20	2	2	1	1	1	1	1	1	1	1	2	0	8	6	AFRICAN_LOVEGRASS
4070030	8	7.1	7.7	0.6	PARKER RD	East	21-Oct-04	larkin	20	2	1	0	0	1	0	0	0	0	0	2	2	5	3	AFRICAN_LOVEGRASS
4070031	1	0	1.3	1.3	KING RD	South	26-Oct-04	vanessa	20	2	2	0	0	0	0	0	0	2	2	2	2	6	6	VELDT_GRASS AFRICAN_LOVEGRASS
4070031	2	1.3	3.4	2.1	KING RD	South	26-Oct-04	vanessa	20	2	2	1	1	1	1	2	2	1	1	2	2	9	9	VELDT_GRASS AFRICAN_LOVEGRASS
4070031	3	3.4	4.8	1.4	KING RD	South	26-Oct-04	vanessa	20	1	2	0	0	0	0	1	1	2	2	2	2	6	7	VELDT_GRASS
4070031	4	4.8	6	1.2	KING RD	South	26-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	VELDT_GRASS
4070031	5	6	6.7	0.7	KING RD	South	26-Oct-04	vanessa	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	
4070032	1	0	2.3	2.3	WINDSOR RD	South	29-Oct-04	vanessa	40	1	2	0	0	0	0	0	0	0	1	1	2	2	5	VELDT_GRASS AFRICAN_LOVEGRASS
4070032	2	2.3	4.3	2	WINDSOR RD	South	29-Oct-04	vanessa	40	2	2	0	0	0	1	0	0	1	2	2	2	5	7	VELDT_GRASS COUCH AFRICAN_LOVEGRASS
4070032	3	4.3	7.1	2.8	WINDSOR RD	South	29-Oct-04	vanessa	40	2	2	1	1	1	1	1	1	2	2	2	2	9	9	VELDT_GRASS
4070033	1	0	0.6	0.6	COOK RD	East	29-Oct-04	vanessa	20	2	2	0	1	1	1	1	1	1	1	2	2	7	8	VELDT_GRASS TAGASASTE JUNCUS_ACUTUS
4070033	2	0.6	2.2	1.6	COOK RD	East	29-Oct-04	vanessa	20	1	2	0	0	0	0	0	0	0	1	2	2	3	5	VELDT_GRASS JUNCUS_ACUTUS
4070033	3	2.2	3.2	1	COOK RD	East	29-Oct-04	vanessa	20	2	2	0	0	0	0	0	0	1	2	2	2	5	6	VELDT_GRASS COUCH AFRICAN_LOVEGRASS JUNCUS_ACUTUS
4070033	4	3.2	5.2	2	COOK RD	East	29-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	VELDT_GRASS COUCH AFRICAN_LOVEGRASS JUNCUS_ACUTUS
4070033	5	5.2	5.5	0.3	COOK RD	East	29-Oct-04	vanessa	20	2	2	0	0	0	0	0	0	2	2	2	2	6	6	AFRICAN_LOVEGRASS JUNCUS_ACUTUS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070034	1	0	0.6	0.6	PULFORD RD	East	02-Nov-04	boase	20	1	1	1	1	0	0	1	1	1	1	2	2	6	6	
4070035	1	0	1.2	1.2	WILLIAMS RD	East	02-Nov-04	boase	20	1	2	0	1	0	1	0	1	1	1	0	2	2	8	
4070035	2	1.2	2.3	1.1	WILLIAMS RD	East	02-Nov-04	boase	20	2	2	0	0	1	1	0	0	0	0	1	2	4	5	AFRICAN_LOVEGRASS
4070035	3	2.3	5.4	3.1	WILLIAMS RD	East	02-Nov-04	boase	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	AFRICAN_LOVEGRASS
4070035	4	5.4	7	1.6	WILLIAMS RD	South	02-Nov-04	boase	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS JUNCUS_ACUTUS
4070035	5	7	8.15	1.15	WILLIAMS RD	East	02-Nov-04	boase	20	2	2	1	1	1	1	1	1	2	2	1	1	8	8	
4070036	1	0	0.7	0.7	MANMANNING TOWN RD	West	03-Nov-04	larkin	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	
4070036	2	0.7	1.5	0.8	MANMANNING TOWN RD	West	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	1	1	2	2	11	11	AFRICAN_LOVEGRASS
4070036	3	1.5	2.4	0.9	MANMANNING TOWN RD	West	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	0	1	10	11	AFRICAN_LOVEGRASS
4070036	4	2.4	2.6	0.2	MANMANNING TOWN RD	West	03-Nov-04	larkin	20	1	1	1	1	1	1	1	1	0	0	1	1	5	5	AFRICAN_LOVEGRASS
4070036	5	2.6	2.9	0.3	MANMANNING TOWN RD	West	03-Nov-04	larkin	20	0	2	0	2	0	1	0	2	0	1	0	1	0	9	AFRICAN_LOVEGRASS
4070036	6	2.9	3.3	0.4	MANMANNING TOWN RD	West	03-Nov-04	larkin	20	2	2	2	1	2	1	2	1	2	1	0	2	10	8	AFRICAN_LOVEGRASS
4070037	1	0	2.3	2.3	WARD RD	West	01-Nov-04	larkin	20	1	1	0	0	0	0	0	0	0	0	1	1	2	2	AFRICAN_LOVEGRASS
4070037	2	2.3	2.7	0.4	WARD RD	West	01-Nov-04	larkin	20	1	2	0	2	1	2	1	2	0	2	1	0	4	10	AFRICAN_LOVEGRASS
4070037	3	2.7	3.7	1	WARD RD	West	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	AFRICAN_LOVEGRASS
4070037	4	3.7	6.6	2.9	WARD RD	West	01-Nov-04	larkin	20	1	1	0	0	0	0	0	0	0	1	2	2	3	4	AFRICAN_LOVEGRASS
4070038	1	0	1.5	1.5	BAILEY RD	North	01-Nov-	larkin	20	1	2	0	1	1	2	0	1	0	2	2	2	4	10	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070038	2	1.5	1.9	0.4	BAILEY RD	North	01-Nov-04	larkin	20	2	2	1	1	1	1	1	1	2	2	1	2	8	9	AFRICAN_LOVEGRASS
4070038	3	1.9	2.2	0.3	BAILEY RD	North	01-Nov-04	larkin	20	0	2	0	1	0	2	0	1	0	2	2	1	2	9	AFRICAN_LOVEGRASS
4070038	4	2.2	2.4	0.2	BAILEY RD	North	01-Nov-04	larkin	20	2	2	1	1	1	1	1	1	1	1	2	2	8	8	
4070038	5	2.4	3	0.6	BAILEY RD	North	01-Nov-04	larkin	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	
4070038	6	3	6.5	3.5	BAILEY RD	North	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	AFRICAN_LOVEGRASS
4070038	7	6.5	7.1	0.6	BAILEY RD	North	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	1	1	2	2	11	11	AFRICAN_LOVEGRASS
4070038	8	7.1	7.6	0.5	BAILEY RD	North	01-Nov-04	larkin	20	2	2	1	1	1	1	1	1	1	1	2	2	8	8	AFRICAN_LOVEGRASS
4070038	9	7.6	8.1	0.5	BAILEY RD	North	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	AFRICAN_LOVEGRASS
4070039	1	0	1.5	1.5	HARRIS RD	East	27-Oct-04	larkin	20	2	2	2	2	2	2	2	2	1	2	2	2	11	12	AFRICAN_LOVEGRASS
4070039	2	1.5	2.3	0.8	HARRIS RD	East	27-Oct-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	1	12	11	AFRICAN_LOVEGRASS
4070039	3	2.3	3.4	1.1	HARRIS RD	East	27-Oct-04	larkin	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070039	4	3.4	3.8	0.4	HARRIS RD	East	27-Oct-04	larkin	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS COUCH
4070039	5	3.8	4.9	1.1	HARRIS RD	East	27-Oct-04	larkin	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070040	1	0	0.78	0.78	BOORALAMING WEST RD	West	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	1	0	11	10	AFRICAN_LOVEGRASS
4070040	2	0.78	1.06	0.28	BOORALAMING WEST RD	West	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	AFRICAN_LOVEGRASS
4070040	3	1.06	1.64	0.58	BOORALAMING WEST RD	West	01-Nov-04	larkin	20	1	2	0	1	0	1	0	2	0	2	2	2	3	10	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070040	4	1.64	2.72	1.08	BOORALAMING WEST RD	West	01-Nov-04	larkin	20	1	1	0	0	0	0	0	0	0	1	2	2	3	4	AFRICAN_LOVEGRASS
4070040	5	2.72	4.6	1.88	BOORALAMING WEST RD	West	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	1	12	11	AFRICAN_LOVEGRASS
4070040	6	4.6	5.28	0.68	BOORALAMING WEST RD	West	01-Nov-04	larkin	20	1	1	0	0	0	0	2	2	1	1	1	1	5	5	
4070040	7	5.28	6.26	0.98	BOORALAMING WEST RD	West	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	1	1	11	11	AFRICAN_LOVEGRASS
4070040	8	6.26	9.44	3.18	BOORALAMING WEST RD	West	01-Nov-04	larkin	20	2	1	1	0	1	0	1	0	2	1	1	1	8	3	AFRICAN_LOVEGRASS
4070040	9	9.44	10.72	1.28	BOORALAMING WEST RD	West	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	1	2	11	12	AFRICAN_LOVEGRASS
4070040	10	10.72	12.1	1.38	BOORALAMING WEST RD	West	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	AFRICAN_LOVEGRASS
4070040	11	12.1	12.48	0.38	BOORALAMING WEST RD	West	01-Nov-04	larkin	20	1	1	0	0	1	1	1	1	1	1	1	1	5	5	AFRICAN_LOVEGRASS
4070040	12	12.48	13.06	0.58	BOORALAMING WEST RD	West	01-Nov-04	larkin	20	2	2	1	1	1	1	1	1	1	2	1	2	7	9	AFRICAN_LOVEGRASS
4070040	13	13.06	13.74	0.68	BOORALAMING WEST RD	West	01-Nov-04	larkin	20	2	1	1	0	1	1	1	1	2	1	1	2	8	6	AFRICAN_LOVEGRASS
4070040	14	13.74	14.72	0.98	BOORALAMING WEST RD	West	01-Nov-04	larkin	20	1	1	1	1	1	1	1	1	2	1	1	2	7	7	
4070041	1	0	2.3	2.3	MOONIJIN EAST RD	West	27-Oct-04	larkin	20	0	0	0	0	1	1	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS
4070041	2	2.3	2.7	0.4	MOONIJIN EAST RD	West	27-Oct-04	larkin	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	AFRICAN_LOVEGRASS
4070041	3	2.7	2.84	0.14	MOONIJIN EAST RD	West	27-Oct-04	larkin	20	0	0	0	0	0	0	0	0	0	0	1	1	1	1	AFRICAN_LOVEGRASS
4070042	1	0	0.2	0.2	MCHUGH RD	East	21-Oct-04	larkin	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS
4070042	2	0.2	0.5	0.3	MCHUGH RD	East	21-Oct-04	larkin	20	2	2	1	1	1	1	2	2	2	2	2	2	10	10	AFRICAN_LOVEGRASS
4070042	3	0.5	0.9	0.4	MCHUGH RD	East	21-Oct-	larkin	20	1	2	0	0	0	0	0	0	0	0	2	2	3	4	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070042	4	0.9	3.6	2.7	MCHUGH RD	East	21-Oct-04	larkin	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	
4070042	5	3.6	4.5	0.9	MCHUGH RD	East	21-Oct-04	larkin	20	1	1	0	0	0	0	0	0	0	0	1	2	2	3	AFRICAN_LOVEGRASS
4070042	6	4.5	4.8	0.3	MCHUGH RD	East	21-Oct-04	larkin	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	AFRICAN_LOVEGRASS
4070042	7	4.8	5.4	0.6	MCHUGH RD	East	21-Oct-04	larkin	20	0	2	0	1	0	1	0	2	0	2	2	0	2	8	AFRICAN_LOVEGRASS
4070042	8	5.4	6.3	0.9	MCHUGH RD	East	21-Oct-04	larkin	20	2	1	0	0	1	1	0	0	0	0	2	2	5	4	AFRICAN_LOVEGRASS
4070042	9	6.3	8.7	2.4	MCHUGH RD	East	21-Oct-04	larkin	20	1	1	0	0	1	1	0	0	0	0	2	2	4	4	AFRICAN_LOVEGRASS
4070044	1	0	1	1	MORRELL NORTH RD	South	21-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070044	2	1	3.2	2.2	MORRELL NORTH RD	South	21-Oct-04	Robinson Chicks	20	1	1	1	1	0	0	0	0	1	1	2	2	5	5	AFRICAN_LOVEGRASS
4070044	3	3.2	3.8	0.6	MORRELL NORTH RD	South	21-Oct-04	Robinson Chicks	20	2	2	1	2	1	2	2	0	2	2	2	2	10	10	
4070046	1	0	4.5	4.5	SANDERS RD	East	22-Oct-04	boase	20	2	2	0	0	0	0	0	0	2	2	2	2	6	6	PATERSONS_CURSE AFRICAN_LOVEGRASS
4070046	2	4.5	4.9	0.4	SANDERS RD	East	22-Oct-04	boase	20	2	2	2	2	0	0	1	1	1	1	2	2	6	6	
4070046	3	4.9	7.1	2.2	SANDERS RD	East	22-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	1	1	
4070047	1	0	1.4	1.4	TWENTY SIX GATE RD	East	22-Oct-04	boase	20	1	1	0	0	0	0	1	1	2	2	2	2	6	6	
4070047	2	1.4	2.3	0.9	TWENTY SIX GATE RD	East	22-Oct-04	boase	20	2	2	2	2	2	2	2	2	2	2	2	2	10	10	
4070047	3	2.3	7	4.7	TWENTY SIX GATE RD	East	22-Oct-04	boase	20	2	2	1	1	0	0	1	1	2	2	2	2	8	8	
4070048	1	0	1.3	1.3	HAGBOOM RD	East	22-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070048	2	1.3	2.3	1	HAGBOOM RD	East	22-Oct-04	boase	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS
4070048	3	2.3	2.8	0.5	HAGBOOM RD	East	22-Oct-04	boase	20	2	2	1	0	0	0	0	0	0	0	2	2	5	4	
4070049	1	0	1.1	1.1	EATON SAND HOLE RD	West	01-Nov-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070049	2	1.1	3.2	2.1	EATON SAND HOLE RD	West	01-Nov-04	boase	20	2	2	0	0	1	1	0	0	0	1	2	2	5	6	AFRICAN_LOVEGRASS PATERSONS_CURSE
4070050	1	0	1.4	1.4	WILLIAMS NORTH RD	South	02-Nov-04	boase	20	2	2	1	1	1	1	1	1	1	1	2	2	8	8	PATERSONS_CURSE
4070050	2	1.4	2.9	1.5	WILLIAMS NORTH RD	South	02-Nov-04	boase	20	0	1	0	0	0	0	0	0	0	1	2	2	2	4	PATERSONS_CURSE
4070050	3	2.9	3.5	0.6	WILLIAMS NORTH RD	South	02-Nov-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	
4070050	4	3.5	4.9	1.4	WILLIAMS NORTH RD	South	02-Nov-04	boase	20	1	1	0	0	0	0	0	0	1	1	0	0	2	2	
4070050	5	4.9	6.4	1.5	WILLIAMS NORTH RD	South	02-Nov-04	boase	20	1	1	1	1	0	0	1	1	1	1	0	0	4	4	
4070050	6	6.4	7.3	0.9	WILLIAMS NORTH RD	South	02-Nov-04	boase	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	
4070051	1	0	3	3	GRIFFITH-WHALEY RD	West	20-Oct-04	Robinson Chicks	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS VELDT_GRASS
4070051	2	3	3.7	0.7	GRIFFITH-WHALEY RD	West	20-Oct-04	Robinson Chicks	20	2	2	0	0	0	0	0	0	0	0	2	2	4	4	
4070051	3	3.7	4.2	0.5	GRIFFITH-WHALEY RD	West	20-Oct-04	Robinson Chicks	20	2	2	1	1	1	1	2	2	1	1	2	2	9	9	
4070052	1	0	3.2	3.2	HARRIS EAST RD	East	27-Oct-04	larkin	20	1	1	0	0	1	1	0	0	0	0	2	2	4	4	AFRICAN_LOVEGRASS
4070052	2	3.2	3.9	0.7	HARRIS EAST RD	East	27-Oct-04	larkin	20	1	1	1	1	1	1	2	2	1	1	1	2	7	8	AFRICAN_LOVEGRASS
4070052	3	3.9	4.3	0.4	HARRIS EAST RD	East	27-Oct-04	larkin	20	2	2	1	1	1	1	2	2	2	0	0	2	8	8	AFRICAN_LOVEGRASS
4070052	4	4.3	5.3	1	HARRIS EAST RD	East	27-Oct-	larkin	20	1	1	1	1	1	1	2	2	2	0	1	2	8	7	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070052	5	5.3	6.2	0.9	HARRIS EAST RD	East	27-Oct-04	larkin	20	2	2	2	2	2	2	2	2	1	0	1	2	10	10	AFRICAN_LOVEGRASS
4070053	1	0	0.8	0.8	UNDERWOOD FLAT RD	West	20-Oct-04	larkin	20	1	2	0	1	1	1	1	1	1	1	2	2	6	8	
4070053	2	0.8	1.3	0.5	UNDERWOOD FLAT RD	West	20-Oct-04	larkin	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	AFRICAN_LOVEGRASS
4070053	3	1.3	1.9	0.6	UNDERWOOD FLAT RD	West	20-Oct-04	larkin	20	2	1	1	0	1	0	1	1	2	1	2	2	9	5	AFRICAN_LOVEGRASS
4070053	4	1.9	2.2	0.3	UNDERWOOD FLAT RD	West	20-Oct-04	larkin	20	2	2	1	1	1	1	1	1	0	0	2	2	7	7	AFRICAN_LOVEGRASS
4070053	5	2.2	2.9	0.7	UNDERWOOD FLAT RD	West	20-Oct-04	larkin	20	1	1	1	1	1	1	0	0	1	0	2	2	6	5	AFRICAN_LOVEGRASS
4070053	6	2.9	3.5	0.6	UNDERWOOD FLAT RD	West	20-Oct-04	larkin	20	2	2	1	1	1	1	1	1	0	1	2	2	7	8	AFRICAN_LOVEGRASS
4070053	7	3.5	4.2	0.7	UNDERWOOD FLAT RD	West	20-Oct-04	larkin	20	2	1	1	0	0	0	1	0	0	0	2	2	6	3	AFRICAN_LOVEGRASS
4070054	1	0	3.2	3.2	TODD RD	South	01-Nov-04	boase	20	1	1	0	0	0	0	0	0	2	2	2	2	5	5	
4070055	1	0	0.9	0.9	MAISEY RD	South	30-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	VELDT_GRASS AFRICAN_LOVEGRASS
4070055	2	0.9	2.9	2	MAISEY RD	South	30-Oct-04	boase	20	1	1	1	1	0	0	1	1	1	1	2	2	5	6	TAGASASTE VELDT_GRASS AFRICAN_LOVEGRASS JUNCUS_ACUTUS
4070055	3	2.9	3.5	0.6	MAISEY RD	South	30-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	VELDT_GRASS AFRICAN_LOVEGRASS
4070055	4	3.5	4.3	0.8	MAISEY RD	South	30-Oct-04	boase	20	2	2	0	0	0	0	0	0	0	0	2	2	4	4	VELDT_GRASS AFRICAN_LOVEGRASS
4070056	1	0	1.05	1.05	QUELAGETTING WEST RD	East	21-Oct-04	boase	20	0	1	0	0	0	0	2	0	0	0	2	2	3	1	VELDT_GRASS
4070056	2	1.05	4.8	3.75	QUELAGETTING WEST RD	East	21-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	VELDT_GRASS AFRICAN_LOVEGRASS
4070057	1	0	1.77	1.77	UCARTY ROCK RD	West	01-Nov-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	COUCH AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070058	1	0	2.22	2.22	MC MORRAN RD	East	30-Oct-04	boase	20	2	2	1	1	0	0	1	1	1	1	2	2	7	7	
4070059	1	0	0.7	0.7	MELVIN RD	South	30-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	
4070059	2	0.7	1.2	0.5	MELVIN RD	South	30-Oct-04	boase	20	2	2	1	1	1	1	1	1	0	0	2	2	7	7	AFRICAN_LOVEGRASS
4070059	3	1.2	2.4	1.2	MELVIN RD	South	30-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070060	1	0	2.09	2.09	EATON RD	West	01-Nov-04	boase	20	2	2	1	0	2	1	1	0	2	1	1	2	9	6	
4070061	1	0	2.2	2.2	TWINE RD	South	02-Nov-04	boase	20	1	1	0	0	0	0	0	0	1	1	1	1	4	4	
4070061	2	2.2	2.42	0.22	TWINE RD	South	02-Nov-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070062	1	0	4.2	4.2	NAMBLING NORTH RD	West	18-Oct-04	Robinson Chicks	20	2	2	0	0	0	0	1	1	2	2	2	2	7	7	AFRICAN_LOVEGRASS
4070062	2	4.2	5.6	1.4	NAMBLING NORTH RD	South	18-Oct-04	Robinson Chicks	20	1	1	1	1	0	0	2	2	1	1	1	1	6	6	AFRICAN_LOVEGRASS
4070063	1	0	1.6	1.6	KALGUDDERING RD	West	21-Oct-04	Robinson Chicks	20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	
4070063	2	1.6	3.9	2.3	KALGUDDERING RD	West	21-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS VELDT_GRASS
4070064	1	0	1.4	1.4	DOWERIN-KONNONGORRING RD	East	20-Oct-04	Robinson Chicks	20	1	1	0	1	0	0	0	1	1	1	2	2	4	6	AFRICAN_LOVEGRASS
4070064	2	1.4	2.3	0.9	DOWERIN-KONNONGORRING RD	East	20-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070064	3	2.3	4.3	2	DOWERIN-KONNONGORRING RD	East	20-Oct-04	Robinson Chicks	20	2	2	0	0	0	0	1	1	1	1	2	2	6	6	AFRICAN_LOVEGRASS
4070065	1	0	1.25	1.25	WEBB RD	North	20-Oct-04	Robinson Chicks	20	1	2	0	0	0	0	0	1	0	0	2	2	3	5	VELDT_GRASS AFRICAN_LOVEGRASS
4070065	2	1.25	3.2	1.95	WEBB RD	North	20-Oct-04	Robinson Chicks	20	1	1	2	2	2	2	2	2	2	2	2	2	11	11	AFRICAN_LOVEGRASS
4070066	1	0	3.94	3.94	GEORGE RD	West	20-Oct-	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070067	1	0	1	1	IRVINE RD	West	27-Oct-04	erin	20	0	2	0	0	0	0	0	0	0	1	2	1	2	4	PATERSONS_CURSE AFRICAN_LOVEGRASS VELDT_GRASS
4070067	2	1	1.6	0.6	IRVINE RD	West	27-Oct-04	erin	20	2	2	0	1	0	0	0	0	1	2	2	1	5	6	AFRICAN_LOVEGRASS
4070067	3	1.6	2.6	1	IRVINE RD	West	27-Oct-04	erin	20	2	2	0	1	1	2	1	2	1	1	2	1	7	9	AFRICAN_LOVEGRASS
4070068	1	0	1.77	1.77	AVERY RD	South	01-Nov-04	larkin	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	
4070070	1	0	0.58	0.58	BRUCE RD	South	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	AFRICAN_LOVEGRASS
4070070	2	0.58	2.16	1.58	BRUCE RD	South	01-Nov-04	larkin	20	2	2	2	2	1	1	2	1	2	2	1	1	10	9	AFRICAN_LOVEGRASS
4070070	3	2.16	2.64	0.48	BRUCE RD	South	01-Nov-04	larkin	20	1	1	2	2	1	1	2	2	0	0	1	1	7	7	AFRICAN_LOVEGRASS
4070070	4	2.64	3.62	0.98	BRUCE RD	South	01-Nov-04	larkin	20	2	2	1	1	2	2	1	1	2	2	2	2	10	10	AFRICAN_LOVEGRASS
4070070	5	3.62	5.4	1.78	BRUCE RD	South	01-Nov-04	larkin	20	2	2	2	2	2	2	2	2	1	2	2	1	11	11	AFRICAN_LOVEGRASS
4070072	1	2.85	3.76	0.91	JONES RD	South	21-Oct-04	Robinson Chicks	20	1	1	1	1	0	0	0	0	1	1	0	0	3	3	VELDT_GRASS
4070072	2	3.76	4.96	1.2	JONES RD	South	21-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	0	0	2	2	VELDT_GRASS
4070072	3	4.96	5.56	0.6	JONES RD	South	21-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS VELDT_GRASS
4070073	1	0	0.6	0.6	HENNING RD	South	21-Oct-04	Robinson Chicks	20	2	0	1	0	0	0	0	0	0	0	2	2	5	2	
4070073	2	0.3	0.8	0.5	HENNING RD	South	21-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	
4070073	3	0.8	1.8	1	HENNING RD	South	21-Oct-04	Robinson Chicks	20	2	0	1	0	0	0	1	0	0	0	2	2	6	2	AFRICAN_LOVEGRASS
4070073	4	1.8	3.5	1.7	HENNING RD	South	21-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS VELDT_GRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070073	5	3.5	3.9	0.4	HENNING RD	West	21-Oct-04	Robinson Chicks	20	2	2	1	1	0	0	1	1	2	2	0	0	6	6	AFRICAN_LOVEGRASS VELDT_GRASS
4070073	6	3.9	4.6	0.7	HENNING RD	South	21-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070073	7	4.6	4.9	0.3	HENNING RD	South	21-Oct-04	Robinson Chicks	20	2	2	0	0	0	0	1	1	0	0	2	2	5	5	AFRICAN_LOVEGRASS
4070073	8	4.9	5.2	0.3	HENNING RD	South	21-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS VELDT_GRASS
4070073	9	5.2	7.8	2.6	HENNING RD	South	21-Oct-04	Robinson Chicks	20	1	1	1	1	0	0	0	0	2	2	2	2	6	6	AFRICAN_LOVEGRASS VELDT_GRASS TAGASASTE
4070073	10	7.8	7.99	0.19	HENNING RD	South	21-Oct-04	Robinson Chicks	20	1	1	1	1	0	0	0	0	1	1	0	0	3	3	VELDT_GRASS
4070074	1	0	0.5	0.5	NORMAN RD	South	29-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	2	2	1	1	8	8	VELDT_GRASS
4070074	2	0.5	2.7	2.2	NORMAN RD	South	29-Oct-04	vanessa	20	2	2	0	0	0	0	0	0	2	2	2	2	6	6	VELDT_GRASS COUCH PATERSONS_CURSE AFRICAN_LOVEGRASS
4070074	3	2.7	3.8	1.1	NORMAN RD	South	29-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	2	2	1	2	8	9	VELDT_GRASS
4070075	1	0	2.1	2.1	STACY RD	South	01-Nov-04	boase	20	2	2	1	1	1	1	1	1	2	1	2	2	9	8	
4070076	1	0	2.1	2.1	WILKINS RD	West	20-Oct-04	Robinson Chicks	20	1	1	0	0	0	0	1	1	1	1	2	2	5	5	AFRICAN_LOVEGRASS TAGASASTE
4070076	2	2.1	2.7	0.6	WILKINS RD	West	20-Oct-04	Robinson Chicks	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS
4070076	3	2.7	8.45	5.75	WILKINS RD	North	20-Oct-04	Robinson Chicks	20	2	2	0	0	0	0	1	1	2	2	2	2	7	7	VELDT_GRASS AFRICAN_LOVEGRASS JUNCUS_ACUTUS
4070077	1	0	0.5	0.5	BAILEY EAST WEST RD	East	27-Oct-04	larkin	20	1	2	0	0	1	1	1	1	1	1	2	2	6	7	AFRICAN_LOVEGRASS
4070077	2	0.5	1.4	0.9	BAILEY EAST WEST RD	East	27-Oct-04	larkin	20	0	0	0	0	0	0	0	0	1	1	2	2	3	3	AFRICAN_LOVEGRASS
4070077	3	1.4	4.2	2.8	BAILEY EAST WEST RD	East	27-Oct-04	larkin	20	2	2	1	1	2	2	2	2	2	2	2	2	11	11	AFRICAN_LOVEGRASS
4070077	4	4.2	5.1	0.9	BAILEY EAST WEST RD	East	27-Oct-	larkin	20	1	1	0	0	0	0	0	0	1	1	2	2	4	4	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070077	5	5.1	5.3	0.2	BAILEY EAST WEST RD	East	27-Oct-04	larkin	20	2	2	1	1	1	1	1	1	0	1	2	2	7	8	AFRICAN_LOVEGRASS
4070078	1	0	1	1	BORGWARD RD	East	29-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	AFRICAN_LOVEGRASS VELDT_GRASS COUCH
4070079	1	0	0.5	0.5	METCALF EAST RD	East	27-Oct-04	vanessa	20	2	2	0	0	1	1	0	0	1	2	2	2	6	7	VELDT_GRASS AFRICAN_LOVEGRASS
4070079	2	0.5	1.9	1.4	METCALF EAST RD	East	27-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	1	1	2	2	8	8	VELDT_GRASS
4070079	3	1.9	3.1	1.2	METCALF EAST RD	East	27-Oct-04	vanessa	20	2	2	1	1	1	0	0	0	1	1	2	2	7	6	VELDT_GRASS
4070079	4	3.1	4.8	1.7	METCALF EAST RD	East	27-Oct-04	vanessa	20	2	2	2	2	1	1	1	1	2	2	2	2	10	10	VELDT_GRASS
4070080	1	0	0.9	0.9	METCALF RD	South	27-Oct-04	vanessa	40	2	1	1	0	1	0	1	0	1	0	2	2	8	3	VELDT_GRASS AFRICAN_LOVEGRASS
4070080	2	0.9	1.1	0.2	METCALF RD	South	27-Oct-04	vanessa	40	2	2	1	1	1	1	1	1	2	2	2	2	9	9	VELDT_GRASS
4070080	3	1.1	1.6	0.5	METCALF RD	South	27-Oct-04	vanessa	40	1	1	0	0	0	0	0	0	1	0	2	2	4	3	VELDT_GRASS
4070080	4	1.6	2.6	1	METCALF RD	East	27-Oct-04	vanessa	40	2	2	1	1	1	1	2	2	2	2	2	2	10	10	
4070080	5	2.6	3.6	1	METCALF RD	East	27-Oct-04	vanessa	40	2	2	0	0	0	0	0	0	2	1	2	2	6	5	VELDT_GRASS
4070080	6	3.6	4	0.4	METCALF RD	East	27-Oct-04	vanessa	40	2	2	1	1	1	1	1	1	2	2	2	2	9	9	VELDT_GRASS
4070080	7	4	4.5	0.5	METCALF RD	East	27-Oct-04	vanessa	40	1	2	0	1	0	0	1	1	1	2	2	2	5	8	VELDT_GRASS
4070080	8	4.5	5.1	0.6	METCALF RD	East	27-Oct-04	vanessa	40	2	2	0	1	1	1	1	1	1	2	2	2	7	9	VELDT_GRASS
4070080	9	5.1	5.9	0.8	METCALF RD	East	27-Oct-04	vanessa	40	1	2	0	0	0	0	0	0	1	1	2	2	4	5	VELDT_GRASS
4070080	10	5.9	6.05	0.15	METCALF RD	East	27-Oct-04	vanessa	40	2	2	1	1	1	1	1	1	2	2	2	2	9	9	VELDT_GRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070081	1	0	0.2	0.2	LAWRENCE RD	East	26-Oct-04	larkin	20	2	2	1	1	1	1	1	0	1	0	2	2	8	6	AFRICAN_LOVEGRASS
4070081	2	0.2	1.8	1.6	LAWRENCE RD	East	26-Oct-04	larkin	20	0	0	0	0	1	1	0	0	0	2	2	2	3	5	AFRICAN_LOVEGRASS
4070081	3	1.8	2.2	0.4	LAWRENCE RD	East	26-Oct-04	larkin	20	0	2	0	2	1	1	0	2	0	2	1	1	2	10	AFRICAN_LOVEGRASS
4070081	4	2.2	2.7	0.5	LAWRENCE RD	East	26-Oct-04	larkin	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	AFRICAN_LOVEGRASS
4070081	5	2.7	3.6	0.9	LAWRENCE RD	East	26-Oct-04	larkin	20	0	0	1	1	1	1	1	1	2	2	2	2	7	7	AFRICAN_LOVEGRASS
4070081	6	3.6	4.1	0.5	LAWRENCE RD	East	26-Oct-04	larkin	20	2	2	2	2	2	2	2	2	1	1	2	1	11	10	AFRICAN_LOVEGRASS
4070082	1	0	0.69	0.69	CLINIC RD	North	21-Oct-04	Robinson Chicks	20	1	1	1	0	0	0	0	0	2	2	2	2	6	5	
4070082	2	0.69	1.18	0.49	CLINIC RD	North	21-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070082	3	1.18	1.97	0.79	CLINIC RD	North	21-Oct-04	Robinson Chicks	20	2	2	1	1	0	1	0	0	1	2	2	0	6	6	AFRICAN_LOVEGRASS
4070082	4	1.97	3.06	1.09	CLINIC RD	North	21-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS VELDT_GRASS
4070082	5	3.06	5.35	2.29	CLINIC RD	North	21-Oct-04	Robinson Chicks	20	2	2	0	0	0	0	0	0	0	0	2	2	4	4	AFRICAN_LOVEGRASS VELDT_GRASS
4070082	6	5.35	5.64	0.29	CLINIC RD	North	21-Oct-04	Robinson Chicks	20	2	2	1	1	0	0	0	0	1	1	2	2	6	6	AFRICAN_LOVEGRASS VELDT_GRASS
4070082	7	5.64	8.53	2.89	CLINIC RD	North	21-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS VELDT_GRASS
4070082	8	8.53	10.12	1.59	CLINIC RD	North	21-Oct-04	Robinson Chicks	20	2	2	1	1	1	1	1	1	0	2	2	0	7	9	AFRICAN_LOVEGRASS VELDT_GRASS
4070082	9	10.12	12.21	2.09	CLINIC RD	North	21-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	0	2	0	2	AFRICAN_LOVEGRASS VELDT_GRASS
4070082	10	12.21	13.5	1.29	CLINIC RD	North	21-Oct-04	Robinson Chicks	20	2	2	1	1	0	0	1	1	2	2	2	2	8	8	AFRICAN_LOVEGRASS VELDT_GRASS
4070082	11	13.5	14.69	1.19	CLINIC RD	North	21-Oct-	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070082	12	14.69	15.38	0.69	CLINIC RD	North	21-Oct-04	Robinson Chicks	20	2	2	1	1	0	0	2	2	2	2	2	2	9	9	AFRICAN_LOVEGRASS
4070082	13	15.38	16.07	0.69	CLINIC RD	North	21-Oct-04	Robinson Chicks	20	0	2	0	0	0	0	0	0	0	0	2	2	2	4	
4070082	14	16.07	17.26	1.19	CLINIC RD	North	21-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070083	1	0	2.82	2.82	MONTAGUE RD	South	29-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	2	2	1	1	8	8	VELDT_GRASS
4070084	1	0	1	1	PETERS RD	East	20-Oct-04	larkin	20	2	2	1	1	1	1	2	2	1	0	2	2	9	8	AFRICAN_LOVEGRASS
4070084	2	1	1.6	0.6	PETERS RD	East	20-Oct-04	larkin	20	1	1	0	0	0	1	0	0	1	0	2	2	4	4	AFRICAN_LOVEGRASS
4070101	1	0	0.5	0.5	COUPER RD	East	01-Nov-04	boase	20	0	2	0	1	0	2	0	1	0	2	1	0	1	8	
4070101	2	0.5	1.8	1.3	COUPER RD	South	01-Nov-04	boase	20	2	2	1	1	0	1	1	1	2	2	1	0	7	7	
4070103	1	0	0.9	0.9	SCHELL RD	West	20-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070103	2	0.9	2.2	1.3	SCHELL RD	West	20-Oct-04	Robinson Chicks	20	2	2	1	1	0	0	2	2	2	2	2	2	9	9	
4070104	1	0	0.6	0.6	MC KAY RD	West	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	1	1	11	11	AFRICAN_LOVEGRASS PATERSONS_CURSE
4070104	2	0.6	1.6	1	MC KAY RD	West	03-Nov-04	larkin	20	1	2	0	2	0	2	1	2	0	2	2	0	4	10	AFRICAN_LOVEGRASS
4070104	3	1.6	2.3	0.7	MC KAY RD	West	03-Nov-04	larkin	20	1	1	0	0	0	0	0	0	0	1	2	0	3	2	AFRICAN_LOVEGRASS PATERSONS_CURSE
4070104	4	2.3	2.7	0.4	MC KAY RD	West	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	0	2	2	0	10	10	AFRICAN_LOVEGRASS PATERSONS_CURSE
4070104	5	2.7	3.7	1	MC KAY RD	West	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	1	2	2	0	11	10	AFRICAN_LOVEGRASS
4070104	6	3.7	4.3	0.6	MC KAY RD	West	03-Nov-04	larkin	20	1	2	0	1	0	1	0	2	0	2	2	1	3	9	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070104	7	4.3	4.7	0.4	MC KAY RD	West	03-Nov-04	larkin	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS
4070104	8	4.7	5.1	0.4	MC KAY RD	West	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	AFRICAN_LOVEGRASS
4070104	9	5.1	5.9	0.8	MC KAY RD	West	03-Nov-04	larkin	20	2	1	1	0	1	0	1	1	1	1	2	2	8	5	AFRICAN_LOVEGRASS
4070104	10	5.9	6.1	0.2	MC KAY RD	West	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	AFRICAN_LOVEGRASS
4070104	11	6.1	6.4	0.3	MC KAY RD	West	03-Nov-04	larkin	20	1	1	0	0	0	1	0	0	0	1	2	2	3	5	AFRICAN_LOVEGRASS
4070104	12	6.4	7.1	0.7	MC KAY RD	West	03-Nov-04	larkin	20	2	2	2	2	1	1	2	2	1	1	2	2	10	10	AFRICAN_LOVEGRASS
4070104	13	7.1	8.1	1	MC KAY RD	West	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	1	2	11	12	AFRICAN_LOVEGRASS
4070104	14	8.1	8.8	0.7	MC KAY RD	West	03-Nov-04	larkin	20	2	2	1	1	1	1	1	1	1	1	2	2	8	8	AFRICAN_LOVEGRASS
4070104	15	8.8	9.7	0.9	MC KAY RD	West	03-Nov-04	larkin	20	2	1	1	0	1	0	1	0	2	0	2	2	9	3	AFRICAN_LOVEGRASS
4070105	1	0	1.5	1.5	STOUT RD	North	25-Oct-04	larkin	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	
4070105	2	1.5	1.69	0.19	STOUT RD	North	25-Oct-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	2	10	10	AFRICAN_LOVEGRASS
4070106	1	0	0.73833	0.73833	RAILWAY RD	South	03-Nov-04	larkin	20	2	2	1	1	1	1	1	1	1	1	1	1	7	7	AFRICAN_LOVEGRASS
4070106	2	0.73833	1.676663	0.938333	RAILWAY RD	South	03-Nov-04	larkin	20	2	2	2	2	2	1	2	2	1	1	1	1	10	9	AFRICAN_LOVEGRASS
4070106	3	1.676663	3.614993	1.93833	RAILWAY RD	South	03-Nov-04	larkin	20	2	1	2	0	2	0	2	0	1	0	1	1	10	2	AFRICAN_LOVEGRASS
4070106	4	3.614993	4.75332	1.138327	RAILWAY RD	South	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	1	0	11	10	AFRICAN_LOVEGRASS
4070106	5	4.75332	5.491653	0.738333	RAILWAY RD	South	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	1	0	11	10	AFRICAN_LOVEGRASS
4070106	6	5.491653	5.929983	0.43833	RAILWAY RD	South	03-Nov-	larkin	20	2	1	1	1	2	1	2	1	2	1	1	2	10	7	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070107	1	0	1.3	1.3	DAM RD	North	03-Nov-04	larkin	20	2	2	2	2	1	2	1	2	2	2	1	0	9	10	AFRICAN_LOVEGRASS
4070107	2	1.3	1.8	0.5	DAM RD	North	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	1	1	1	2	10	11	AFRICAN_LOVEGRASS
4070107	3	1.8	2.1	0.3	DAM RD	North	03-Nov-04	larkin	20	2	0	2	0	1	0	2	0	2	1	0	2	9	3	AFRICAN_LOVEGRASS
4070107	4	2.1	2.6	0.5	DAM RD	North	03-Nov-04	larkin	20	1	2	0	1	0	1	0	1	0	1	1	2	2	8	AFRICAN_LOVEGRASS
4070107	5	2.6	3.2	0.6	DAM RD	North	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	0	2	10	12	AFRICAN_LOVEGRASS
4070107	6	3.2	3.7	0.5	DAM RD	North	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	1	1	1	2	10	11	AFRICAN_LOVEGRASS
4070107	7	3.7	4.3	0.6	DAM RD	North	03-Nov-04	larkin	20	1	1	1	1	1	1	1	1	2	1	1	1	7	6	
4070108	1	0	1.2	1.2	LAWRENCE SOUTH RD	South	26-Oct-04	vanessa	20	2	2	1	1	0	0	0	1	2	2	2	2	7	8	VELDT_GRASS
4070108	2	1.2	1.5	0.3	LAWRENCE SOUTH RD	South	26-Oct-04	vanessa	20	2	2	2	2	1	1	2	2	2	2	2	2	9	9	VELDT_GRASS
4070109	1	0	2.5	2.5	CULBARTING ROCK RD	South	21-Oct-04	boase	20	2	1	2	0	1	0	1	0	2	2	2	2	11	7	PATERSONS_CURSE VELDT_GRASS AFRICAN_LOVEGRASS JUNCUS_ACUTUSJUNCUS_ACUTUS
4070122	1	0	1.5	1.5	LEE RD	West	01-Nov-04	boase	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	
4070123	1	0	0.9	0.9	LYNN RD	East	01-Nov-04	boase	20	2	2	1	1	1	1	1	1	1	1	2	2	8	8	
4070123	2	0.9	2.2	1.3	LYNN RD	East	01-Nov-04	boase	20	2	2	1	1	1	1	1	1	0	0	2	2	7	7	
4070124	1	0	1.6	1.6	HUDSON RD	North	30-Oct-04	boase	20	1	2	0	0	0	1	0	0	0	0	2	2	3	5	
4070124	2	1.6	2.4	0.8	HUDSON RD	North	30-Oct-04	boase	20	2	2	1	1	1	1	1	1	0	0	2	2	7	7	
4070124	3	2.4	3	0.6	HUDSON RD	North	30-Oct-	boase	20	1	1	1	1	1	1	1	1	1	1	2	2	7	7	

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070124	4	3	5.6	2.6	HUDSON RD	North	30-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070125	1	0	0.8	0.8	HENNESSEY RD	South	27-Oct-04	vanessa	20	1	2	0	2	0	1	0	2	0	2	1	2	2	11	VELDT_GRASS
4070125	2	0.8	1.8	1	HENNESSEY RD	South	27-Oct-04	vanessa	20	2	2	2	2	1	1	2	2	2	2	2	2	11	11	VELDT_GRASS
4070126	1	0	1.3	1.3	UCARTY RD	West	01-Nov-04	boase	20	2	2	1	1	1	1	1	1	0	0	2	2	7	7	AFRICAN_LOVEGRASS
4070126	2	1.3	2.7	1.4	UCARTY RD	West	01-Nov-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS VELDT_GRASS
4070126	3	2.7	2.9	0.2	UCARTY RD	West	01-Nov-04	boase	20	2	2	1	1	1	1	1	1	1	1	0	0	6	6	
4070127	1	0	2.1	2.1	HAGBOOM SOUTH RD	South	21-Oct-04	boase	20	1	1	0	0	0	0	0	0	1	1	2	2	4	4	AFRICAN_LOVEGRASS
4070128	1	0	0.7	0.7	BERRING-NAMBLING RD	North	22-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070128	2	0.7	1.3	0.6	BERRING-NAMBLING RD	North	22-Oct-04	boase	20	1	2	2	1	0	1	0	0	1	1	2	2	6	7	AFRICAN_LOVEGRASS
4070128	3	1.3	2.2	0.9	BERRING-NAMBLING RD	North	22-Oct-04	boase	20	2	2	2	2	1	1	1	1	2	1	2	2	8	9	AFRICAN_LOVEGRASS
4070128	4	2.2	3.3	1.1	BERRING-NAMBLING RD	East	22-Oct-04	boase	20	2	2	1	1	1	1	1	1	1	2	1	1	7	8	AFRICAN_LOVEGRASS
4070129	1	0	2.5	2.5	THOMAS RD	South	20-Oct-04	Robinson Chicks	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS
4070129	2	2.5	3.5	1	THOMAS RD	South	20-Oct-04	Robinson Chicks	20	1	0	0	0	0	0	0	0	1	0	2	2	4	2	AFRICAN_LOVEGRASS
4070129	3	3.5	4.9	1.4	THOMAS RD	South	20-Oct-04	Robinson Chicks	20	2	2	1	1	1	1	2	2	2	2	2	2	10	10	AFRICAN_LOVEGRASS
4070129	4	4.9	5.8	0.9	THOMAS RD	South	20-Oct-04	Robinson Chicks	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070130	1	0	0.7	0.7	BOTHERLING EAST RD	West	20-Oct-04	Robinson Chicks	20	1	1	1	1	0	0	1	1	0	0	2	2	5	5	TAGASASTE

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070130	2	0.7	3.4	2.7	BOTHERLING EAST RD	West	20-Oct-04	Robinson Chicks	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS TAGASASTE
4070130	3	3.4	4.1	0.7	BOTHERLING EAST RD	South	20-Oct-04	Robinson Chicks	20	0	1	0	0	0	0	0	1	0	0	2	2	2	4	AFRICAN_LOVEGRASS
4070131	1	0	1.5	1.5	HUGHES RD	West	29-Oct-04	vanessa	20	2	2	0	0	0	0	0	0	1	1	2	2	5	5	VELDT_GRASS
4070132	1	0	1.6	1.6	BORGWARD EAST RD	East	29-Oct-04	vanessa	20	2	2	1	1	1	1	1	2	2	2	2	2	9	10	VELDT_GRASS
4070133	1	0	0.6	0.6	BEBBINGTON RD	North	20-Oct-04	larkin	20	2	1	1	0	1	0	1	0	2	0	2	2	9	3	
4070133	2	0.6	1.9	1.3	BEBBINGTON RD	North	20-Oct-04	larkin	20	2	2	1	1	2	1	1	1	2	2	2	2	10	9	
4070133	3	1.9	3	1.1	BEBBINGTON RD	North	20-Oct-04	larkin	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	AFRICAN_LOVEGRASS
4070134	1	0	0.9	0.9	BERRY RD	East	29-Oct-04	vanessa	20	2	2	2	2	2	1	2	2	2	1	2	2	12	10	VELDT_GRASS
4070136	1	0	1.7	1.7	FRASER RD	North	01-Nov-04	boase	20	2	2	1	1	0	0	1	1	1	1	2	2	7	7	
4070136	2	1.7	2.4	0.7	FRASER RD	North	01-Nov-04	boase	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS
4070136	3	2.4	4.1	1.7	FRASER RD	North	29-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	2	2	2	1	9	8	VELDT_GRASS
4070137	1	0	0.4	0.4	NORRIS RD	North	29-Oct-04	vanessa	20	0	2	0	1	0	1	2	2	1	2	0	2	3	10	JUNCUS_ACUTUS
4070137	2	0.4	0.8	0.4	NORRIS RD	North	29-Oct-04	vanessa	20	2	2	0	0	0	0	0	0	2	2	2	2	6	6	JUNCUS_ACUTUS
4070138	1	0	0.4	0.4	HATWELL RD	North	01-Nov-04	boase	20	1	1	1	1	1	1	1	1	0	0	1	1	5	5	
4070139	1	0	1.7	1.7	MCKINNON RD	South	01-Nov-04	boase	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	
4070139	2	1.7	2.4	0.7	MCKINNON RD	South	01-Nov-04	boase	20	0	0	0	0	0	0	0	0	1	1	2	2	3	3	
4070140	1	0	1.5	1.5	HOLLINS RD	North	02-Nov-	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070140	2	1.5	2.2	0.7	HOLLINS RD	North	02-Nov-04	boase	20	1	2	0	0	0	0	0	0	1	1	2	2	4	5	AFRICAN_LOVEGRASS JUNCUS_ACUTUS
4070140	3	2.2	3.38	1.18	HOLLINS RD	North	02-Nov-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070142	1	0	0.5	0.5	AMERY SOUTH RD	East	26-Oct-04	vanessa	20	2	2	2	2	2	2	2	2	2	2	0	0	12	12	
4070142	2	0.5	1	0.5	AMERY SOUTH RD	South	26-Oct-04	vanessa	20	2	2	1	2	0	2	1	2	1	1	2	0	7	9	
4070142	3	1	1.7	0.7	AMERY SOUTH RD	South	26-Oct-04	vanessa	20	1	1	0	0	0	0	0	0	0	0	2	1	3	2	AFRICAN_LOVEGRASS
4070142	4	1.7	3.2	1.5	AMERY SOUTH RD	South	26-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	1	1	2	2	8	8	AFRICAN_LOVEGRASS VELDT_GRASS
4070142	5	3.2	3.9	0.7	AMERY SOUTH RD	South	26-Oct-04	vanessa	20	1	1	0	0	0	0	0	0	1	1	2	2	4	4	AFRICAN_LOVEGRASS VELDT_GRASS
4070142	6	3.9	4.3	0.4	AMERY SOUTH RD	South	26-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	1	1	2	1	8	7	VELDT_GRASS
4070144	1	0.48	1.08	0.6	GODDARD SIDING RD	North	20-Oct-04	larkin	20	1	2	0	1	1	1	1	1	1	1	2	2	6	8	AFRICAN_LOVEGRASS
4070147	1	0	0.5	0.5	EJANDING SCHOOL RD	South	27-Oct-04	larkin	20	2	2	2	2	2	2	2	2	2	2	0	1	10	11	
4070150	1	0	2.12	2.12	TURRIFF RD	East	23-Oct-04	larkin	20	1	1	0	0	0	0	0	0	0	1	2	2	3	4	AFRICAN_LOVEGRASS
4070151	1	0	1.1	1.1	BYWATER RD	East	23-Oct-04	larkin	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS
4070152	1	0	0.9	0.9	CADOUX PUMP RD	West	23-Oct-04	larkin	20	2	2	2	2	2	2	2	2	1	2	2	2	11	12	AFRICAN_LOVEGRASS
4070153	1	0	1.7	1.7	BEAR RD	West	01-Nov-04	larkin	20	2	2	1	1	2	2	2	2	2	2	1	1	10	10	AFRICAN_LOVEGRASS
4070154	1	0	2.8	2.8	HENNING NORTH RD	West	03-Nov-04	larkin	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	
4070156	1	0	0.4	0.4	MAINS RD	North	23-Oct-04	larkin	20	2	2	1	1	1	1	2	2	2	1	1	1	9	8	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070156	2	0.4	1.2	0.8	MAINS RD	East	23-Oct-04	larkin	20	2	2	1	1	1	1	2	2	2	1	1	1	9	8	AFRICAN_LOVEGRASS
4070156	3	1.2	2.5	1.3	MAINS RD	East	23-Oct-04	larkin	20	2	2	1	1	2	2	2	2	2	2	1	1	10	10	AFRICAN_LOVEGRASS
4070157	1	0	0.8	0.8	SHARMAN RD	South	25-Oct-04	larkin	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	AFRICAN_LOVEGRASS
4070157	2	0.8	2.1	1.3	SHARMAN RD	South	25-Oct-04	larkin	20	0	0	0	0	1	1	0	0	2	1	2	2	5	4	AFRICAN_LOVEGRASS
4070160	1	0	0.6	0.6	WHEAT BIN RD	West	03-Nov-04	larkin	20	0	2	0	2	0	2	0	2	0	2	1	0	1	10	AFRICAN_LOVEGRASS
4070160	2	0.6	1.1	0.5	WHEAT BIN RD	West	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	0	0	10	10	AFRICAN_LOVEGRASS
4070160	3	1.1	1.6	0.5	WHEAT BIN RD	West	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	0	12	10	AFRICAN_LOVEGRASS
4070161	1	0	0.5	0.5	FAIRLIE RD	North	20-Oct-04	Robinson Chicks	20	1	1	1	1	0	0	2	2	2	2	2	2	8	8	AFRICAN_LOVEGRASS
4070161	2	0.5	1.3	0.8	FAIRLIE RD	North	20-Oct-04	Robinson Chicks	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS
4070162	1	0	5.8	5.8	NAMBLING SOUTH RD	North	21-Oct-04	boase	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	PATERSONS_CURSE AFRICAN_LOVEGRASS COUCH TAGASASTE VELDT_GRASS JUNCUS_ACUTUS
4070162	2	5.8	6.7	0.9	NAMBLING SOUTH RD	North	21-Oct-04	boase	20	2	2	2	2	2	2	2	2	2	2	2	2	10	10	AFRICAN_LOVEGRASS PATERSONS_CURSE
4070162	3	6.7	10.8	4.1	NAMBLING SOUTH RD	North	21-Oct-04	boase	20	2	2	0	0	1	1	0	0	2	2	2	2	7	7	AFRICAN_LOVEGRASS
4070162	4	10.8	13.4	2.6	NAMBLING SOUTH RD	North	21-Oct-04	boase	20	2	2	2	1	2	2	2	1	2	1	2	2	12	8	VELDT_GRASS AFRICAN_LOVEGRASS
4070162	5	13.4	19.1	5.7	NAMBLING SOUTH RD	North	21-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	PATERSONS_CURSE COUCH AFRICAN_LOVEGRASS TAGASASTE VELDT_GRASS
4070162	6	19.1	20.8	1.7	NAMBLING SOUTH RD	North	21-Oct-04	boase	20	2	2	2	2	2	2	2	2	2	2	2	2	10	10	PATERSONS_CURSE AFRICAN_LOVEGRASS
4070162	7	20.8	22.5	1.7	NAMBLING SOUTH	North	21-	boase	20	2	2	0	0	1	1	0	0	1	1	2	2	6	6	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
					RD		Oct-04																	
4070163	1	0	0.16	0.16	MOONIJIN WEST RD	West	27-Oct-04	larkin	20	0	0	0	0	0	0	0	0	0	0	1	1	1	1	AFRICAN_LOVEGRASS
4070163	2	0.16	0.56	0.4	MOONIJIN WEST RD	West	27-Oct-04	larkin	20	0	0	0	0	0	0	0	0	1	1	0	0	1	1	AFRICAN_LOVEGRASS
4070163	3	0.56	2.16	1.6	MOONIJIN WEST RD	West	27-Oct-04	larkin	20	1	1	0	0	0	0	0	0	1	0	1	2	3	3	AFRICAN_LOVEGRASS
4070164	1	0	1.8	1.8	MANMANNING RD	East	01-Nov-04	larkin	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS COUCH
4070164	2	1.8	3	1.2	MANMANNING RD	East	01-Nov-04	larkin	20	1	2	0	1	0	1	0	1	1	2	2	2	4	9	AFRICAN_LOVEGRASS COUCH
4070164	3	3	4.3	1.3	MANMANNING RD	East	01-Nov-04	larkin	20	1	1	0	0	1	1	0	0	1	1	2	2	5	5	AFRICAN_LOVEGRASS
4070164	4	4.3	4.7	0.4	MANMANNING RD	East	01-Nov-04	larkin	20	2	2	1	1	1	1	1	1	1	1	2	2	8	8	AFRICAN_LOVEGRASS
4070164	5	4.7	5.58	0.88	MANMANNING RD	East	01-Nov-04	larkin	20	2	2	1	2	1	2	1	2	2	2	1	2	8	12	AFRICAN_LOVEGRASS
4070165	1	0	0.4	0.4	OLD NALKAIN RD	North	21-Oct-04	larkin	20	2	1	1	0	1	0	1	0	1	0	2	0	8	1	
4070165	2	0.4	1.2	0.8	OLD NALKAIN RD	North	21-Oct-04	larkin	20	2	2	1	1	1	1	1	1	2	2	2	2	9	9	AFRICAN_LOVEGRASS
4070165	3	1.2	1.8	0.6	OLD NALKAIN RD	North	21-Oct-04	larkin	20	2	2	1	1	1	1	2	2	2	2	1	2	9	10	AFRICAN_LOVEGRASS
4070165	4	1.8	2.3	0.5	OLD NALKAIN RD	North	21-Oct-04	larkin	20	2	2	2	2	1	1	2	2	2	2	0	2	9	11	AFRICAN_LOVEGRASS
4070165	5	2.3	2.8	0.5	OLD NALKAIN RD	North	21-Oct-04	larkin	20	2	2	2	2	1	1	2	2	1	1	2	2	10	10	AFRICAN_LOVEGRASS
4070165	6	2.8	3.6	0.8	OLD NALKAIN RD	North	21-Oct-04	larkin	20	2	1	1	0	1	0	2	0	2	0	2	2	10	3	AFRICAN_LOVEGRASS
4070166	1	0	0.55	0.55	SMITH RD	West	03-Nov-04	larkin	20	2	2	2	2	2	2	2	2	1	1	0	0	9	9	AFRICAN_LOVEGRASS
4070168	1	0	0.8	0.8	DEVINE RD	East	28-Oct-04	vanessa	20	2	2	1	1	1	1	1	1	2	1	2	2	9	8	VELDT_GRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070168	2	0.8	1.8	1	DEVINE RD	East	28-Oct-04	vanessa	20	2	2	0	0	0	1	0	0	1	1	2	2	5	6	VELDT_GRASS AFRICAN_LOVEGRASS
4070169	1	0	2.4	2.4	WATERCARRIN RD	West	02-Nov-04	boase	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	
4070169	2	2.4	3.2	0.8	WATERCARRIN RD	West	02-Nov-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	
4070169	3	3.2	4.1	0.9	WATERCARRIN RD	West	02-Nov-04	boase	20	2	2	1	1	1	1	1	1	1	0	0	2	6	7	
4070169	4	4.1	5.2	1.1	WATERCARRIN RD	South	02-Nov-04	boase	20	2	2	2	2	2	2	2	2	2	2	0	2	10	12	
4070169	5	5.2	5.9	0.7	WATERCARRIN RD	South	02-Nov-04	boase	20	2	1	2	1	2	1	2	1	2	0	0	2	10	6	
4070170	1	0	1.2	1.2	GANGELL RD	East	30-Oct-04	boase	20	2	2	1	1	1	1	1	1	1	1	2	2	7	7	
4070170	2	1.2	3.7	2.5	GANGELL RD	East	30-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070171	1	0	0.6	0.6	UCARTY ROCK EAST RD	East	30-Oct-04	boase	20	0	2	0	1	0	2	0	1	0	2	2	2	2	8	AFRICAN_LOVEGRASS
4070171	2	0.6	1.4	0.8	UCARTY ROCK EAST RD	East	30-Oct-04	boase	20	2	2	0	1	0	2	0	1	1	2	2	0	5	8	AFRICAN_LOVEGRASS
4070171	3	1.4	3.6	2.2	UCARTY ROCK EAST RD	East	30-Oct-04	boase	20	0	2	0	2	0	2	0	1	0	2	2	2	2	10	AFRICAN_LOVEGRASS
4070171	4	3.6	5.7	2.1	UCARTY ROCK EAST RD	East	30-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS TAGASASTE
4070172	1	0	0.6	0.6	MITCHELL RD	North	26-Oct-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	1	12	11	
4070172	2	0.6	1.5	0.9	MITCHELL RD	North	26-Oct-04	larkin	20	0	0	0	0	1	1	1	1	2	1	2	1	6	4	AFRICAN_LOVEGRASS
4070172	3	1.5	1.9	0.4	MITCHELL RD	North	26-Oct-04	larkin	20	2	2	2	2	2	2	2	2	2	2	0	2	10	12	AFRICAN_LOVEGRASS
4070172	4	1.9	3.6	1.7	MITCHELL RD	North	26-Oct-04	larkin	20	2	2	2	2	2	2	2	2	2	2	2	2	12	12	AFRICAN_LOVEGRASS
4070174	1	0	2.9	2.9	HAGBOOM WEST RD	West	21-Oct-	boase	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	VELDT_GRASS AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070180	1	0	2.1	2.1	WOODS RD	South	22-Oct-04	boase	20	1	2	0	1	0	1	1	1	2	2	2	2	6	9	
4070182	1	14.04	15.24	1.2	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	
4070182	2	15.24	15.84	0.6	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	0	0	0	0	1	0	0	0	0	0	2	1	3	1	
4070182	3	15.84	19.74	3.9	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	1	1	1	1	1	1	2	2	1	1	1	1	7	7	AFRICAN_LOVEGRASS
4070182	4	19.74	20.24	0.5	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	2	2	2	1	1	1	2	1	2	1	1	1	10	7	AFRICAN_LOVEGRASS
4070182	5	20.24	21.24	1	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	0	0	0	0	1	1	0	0	0	0	1	1	2	2	AFRICAN_LOVEGRASS
4070182	6	21.24	22.84	1.6	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	1	1	0	0	0	0	0	0	0	0	2	2	3	3	AFRICAN_LOVEGRASS
4070182	7	22.84	23.04	0.2	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	2	1	1	0	1	0	2	0	1	0	2	2	9	3	AFRICAN_LOVEGRASS
4070182	8	23.04	23.74	0.7	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	2	2	2	2	2	1	2	1	2	1	2	1	12	8	AFRICAN_LOVEGRASS
4070182	9	23.74	27.14	3.4	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	1	1	0	0	2	1	0	0	1	0	1	1	5	3	AFRICAN_LOVEGRASS
4070182	10	27.14	27.94	0.8	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	2	2	1	1	2	1	1	1	2	1	1	1	9	7	AFRICAN_LOVEGRASS PATERSONS_CURSE
4070182	11	27.94	28.64	0.7	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	2	2	2	2	2	1	2	2	2	2	1	1	11	10	AFRICAN_LOVEGRASS
4070182	12	28.64	29.84	1.2	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	2	2	0	0	1	1	0	0	1	1	2	2	6	6	AFRICAN_LOVEGRASS PATERSONS_CURSE
4070182	13	29.84	30.74	0.9	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	1	2	0	1	0	1	0	1	0	1	2	2	3	8	AFRICAN_LOVEGRASS PATERSONS_CURSE
4070182	14	30.74	31.04	0.3	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	2	2	1	1	1	1	1	1	2	1	1	1	8	7	AFRICAN_LOVEGRASS
4070182	15	31.04	33.84	2.8	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	1	1	0	0	1	1	0	1	0	1	2	2	4	6	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
4070182	16	33.84	34.24	0.4	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	2	2	1	2	1	2	1	2	1	2	2	0	8	10	AFRICAN_LOVEGRASS
4070182	17	34.24	36.14	1.9	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	1	1	0	0	0	1	0	0	0	0	2	2	3	4	AFRICAN_LOVEGRASS
4070182	18	36.14	37.74	1.6	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	1	1	0	0	0	1	0	1	0	0	2	2	3	5	AFRICAN_LOVEGRASS
4070182	19	37.74	38.24	0.5	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	2	2	2	1	2	2	2	0	2	1	2	2	12	8	AFRICAN_LOVEGRASS
4070182	20	38.24	39.14	0.9	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	1	2	0	1	0	1	0	1	0	1	2	2	3	8	AFRICAN_LOVEGRASS
4070182	21	39.14	40.64	1.5	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	1	1	1	1	1	1	1	1	0	0	2	2	6	6	AFRICAN_LOVEGRASS
4070182	22	40.64	41.84	1.2	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	2	2	1	1	1	0	1	1	2	1	2	2	9	7	AFRICAN_LOVEGRASS
4070182	23	41.84	43.64	1.8	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070182	24	43.64	48.64	5	DOWERIN-KALANNIE RD	North	25-Oct-04	larkin	20	2	2	2	2	2	2	2	2	2	2	1	1	11	11	AFRICAN_LOVEGRASS
4070183	1	0	2.9	2.9	MECKERING-DOWERIN RD	North	30-Oct-04	boase	20	1	2	0	2	0	1	0	1	2	2	2	2	5	10	
4070183	2	2.9	4.6	1.7	MECKERING-DOWERIN RD	North	30-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS
4070183	3	4.6	5.1	0.5	MECKERING-DOWERIN RD	North	30-Oct-04	boase	20	2	2	2	2	2	2	2	2	2	2	2	2	10	10	
4070183	4	5.1	6.6	1.5	MECKERING-DOWERIN RD	North	30-Oct-04	boase	20	2	2	2	2	2	2	2	2	2	2	2	2	10	10	
4070183	5	6.6	7.1	0.5	MECKERING-DOWERIN RD	North	30-Oct-04	boase	20	2	2	0	0	0	0	0	0	2	1	2	2	6	5	
4070183	6	7.1	7.8	0.7	MECKERING-DOWERIN RD	North	30-Oct-04	boase	20	2	2	1	1	1	1	2	2	2	2	2	2	9	8	
4070183	7	7.8	11.1	3.3	MECKERING-DOWERIN RD	North	30-Oct-04	boase	20	2	2	0	0	0	0	0	0	1	1	2	2	5	5	AFRICAN_LOVEGRASS
4070183	8	11.1	13.1	2	MECKERING-DOWERIN RD	North	30-Oct-	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	2	2	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
							04																	
4070183	9	13.1	18	4.9	MECKERING-DOWERIN RD	North	30-Oct-04	boase	20	2	2	0	0	1	1	0	0	1	1	2	2	6	6	TAGASASTE AFRICAN_LOVEGRASS
4070183	10	18	20.2	2.2	MECKERING-DOWERIN RD	North	30-Oct-04	boase	20	0	0	0	0	0	0	0	0	0	0	2	2	1	1	JUNCUS_ACUTUS
4070183	11	20.2	20.7	0.5	MECKERING-DOWERIN RD	North	30-Oct-04	boase	20	2	2	1	1	1	1	1	1	0	0	2	2	6	6	AFRICAN_LOVEGRASS
4070183	12	20.7	22.9	2.2	MECKERING-DOWERIN RD	North	27-Oct-04	erin	20	2	2	1	0	1	1	1	1	2	2	2	2	9	8	AFRICAN_LOVEGRASS VELDT_GRASS COUCH
4070183	13	22.9	24.1	1.2	MECKERING-DOWERIN RD	North	27-Oct-04	erin	20	2	2	0	0	0	0	0	0	1	1	2	2	5	5	AFRICAN_LOVEGRASS VELDT_GRASS COUCH
4070183	14	24.1	24.9	0.8	MECKERING-DOWERIN RD	North	27-Oct-04	erin	20	2	2	1	1	1	1	2	2	1	2	2	2	9	10	AFRICAN_LOVEGRASS VELDT_GRASS COUCH
4070183	15	24.9	26.2	1.3	MECKERING-DOWERIN RD	North	27-Oct-04	erin	20	2	2	0	0	0	0	0	0	2	2	2	2	6	6	AFRICAN_LOVEGRASS VELDT_GRASS
M016	1	10.14	10.54	0.4	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	1	1	1	1	1	1	1	2	2	1	8	8	AFRICAN_LOVEGRASS VELDT_GRASS
M016	2	10.54	11.04	0.5	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	0	0	0	1	0	0	2	1	1	1	5	5	AFRICAN_LOVEGRASS VELDT_GRASS
M016	3	11.04	12.14	1.1	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	0	1	0	1	0	1	1	2	2	1	5	8	AFRICAN_LOVEGRASS VELDT_GRASS
M016	4	12.14	14.24	2.1	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	2	2	1	1	1	1	1	2	2	1	9	9	AFRICAN_LOVEGRASS VELDT_GRASS
M016	5	14.24	14.94	0.7	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	0	0	0	0	2	0	2	1	2	1	8	4	AFRICAN_LOVEGRASS VELDT_GRASS
M016	6	14.94	15.54	0.6	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	1	1	0	0	0	0	2	2	0	0	1	1	4	4	AFRICAN_LOVEGRASS VELDT_GRASS
M016	7	15.54	16.74	1.2	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	1	1	0	0	0	0	1	0	0	0	2	1	4	2	AFRICAN_LOVEGRASS
M016	8	16.74	16.94	0.2	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	2	1	2	1	2	1	2	1	0	1	10	7	AFRICAN_LOVEGRASS
M016	9	16.94	19.14	2.2	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	1	2	0	1	0	1	0	2	1	2	2	1	4	9	AFRICAN_LOVEGRASS

ROAD#	Sect #	OD Start	OD Finish	Sect length	Road Name	Direction	Date	Observer	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
		(km)	(km)	(km)					(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	(weeds listed if present)
M016	10	19.14	20.34	1.2	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	2	0	2	0	1	1	2	1	1	2	10	6	COUCH VELDT_GRASS
M016	11	21.86	22.76	0.9	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	1	1	0	1	2	2	0	1	2	2	7	9	PATERSONS_CURSE AFRICAN_LOVEGRASS
M016	12	22.76	24.86	2.1	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	1	2	0	1	0	1	0	2	0	1	2	2	3	9	AFRICAN_LOVEGRASS VELDT_GRASS
M016	13	24.86	25.46	0.6	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	1	0	0	1	1	0	2	2	2	0	8	5	AFRICAN_LOVEGRASS
M016	14	25.46	28.86	3.4	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	1	1	1	1	1	1	2	2	2	2	9	9	VELDT_GRASS AFRICAN_LOVEGRASS
M016	15	28.86	29.86	1	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	1	0	1	0	1	0	1	0	2	2	8	4	AFRICAN_LOVEGRASS
M016	16	29.86	32.76	2.9	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	1	1	1	1	1	1	2	2	2	2	9	9	AFRICAN_LOVEGRASS VELDT_GRASS
M016	17	32.76	34.46	1.7	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	1	1	1	1	1	1	1	1	2	2	8	8	VELDT_GRASS
M016	18	34.46	35.66	1.2	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	0	0	0	0	0	0	0	0	2	2	4	4	AFRICAN_LOVEGRASS TAGASASTE
M016	19	35.66	37.66	2	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	2	2	2	2	2	2	2	2	0	0	10	10	AFRICAN_LOVEGRASS TAGASASTE
M016	20	37.66	41.56	3.9	GOOMALLING-MERREDIN HWY	East	27-Oct-04	vanessa	40	2	2	1	0	1	1	1	0	2	1	2	2	9	6	AFRICAN_LOVEGRASS VELDT_GRASS PATERSONS_CURSE

Appendix

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APPENDIX 3

Road names and lengths: Shire of Dowerin

(Source- Main Roads WA 2004)

Road #	Road Name	Road length (km)
4070167	AIR ST	0.11
4070143	AMERY NORTH RD	8.34
4070142	AMERY SOUTH RD	4.18
4070008	AMERY-BENJABBERRING RD	14.74
4070085	ANDERSON ST	0.48
4070068	AVERY RD	1.77
4070077	BAILEY EAST WEST RD	5.21
4070038	BAILEY RD	7.97
4070153	BEAR RD	1.77
4070133	BEBBINGTON RD	2.98
4070118	BEL ST	0.40
4070013	BERRING EAST RD	5.15
4070128	BERRING-NAMBLING RD	3.22
4070134	BERRY RD	0.89
4070040	BOORALAMING WEST RD	14.60
4070132	BORGWARD EAST RD	1.53
4070078	BORGWARD RD	0.97
4070099	BORGWARD ST	0.32
4070130	BOTHERLING EAST RD	4.19
4070135	BRADLEY RD	0.40
4070070	BRUCE RD	5.40
4070151	BYWATER RD	1.93
4070152	CADOUX PUMP RD	0.97
4070120	CAMPBELL RD	0.32
4070012	CEMETERY RD	11.62
4070082	CLINIC RD	17.27
4070173	CLINIC WEST RD	0.70
4070033	COOK RD	5.65
4070094	COTTRELL ST	1.03
4070101	COUPER RD	1.85
4070116	COUPER ST	0.16
4070109	CULBARTING ROCK RD	2.49
4070001	CUNDERDIN-MINNIVALE RD	27.70
4070107	DAM RD	4.18
4070168	DEVINE RD	1.80
4070098	DOWALL ST	0.72
4070025	DOWERIN KOORDA RD	22.00
4070182	DOWERIN-KALANNIE RD	48.64
4070064	DOWERIN-KONNONGORRING RD	4.35
4070087	DUDLEY ST	0.34
4070086	EAST ST	0.64
4070060	EATON RD	2.09
4070049	EATON SAND HOLE RD	3.20
4070097	EDDY ST	0.80
4070179	EJANDING BIN RD	0.80
4070028	EJANDING EAST RD	9.70
4070147	EJANDING SCHOOL RD	0.48
4070148	EJANDING SIDING RD	0.90
4070149	EJANDING SOUTH RD	1.80
4070010	EJANDING WEST RD	12.45
4070114	ERHARDT ST	0.13
4070161	FAIRLIE RD	1.30
4070011	FIFTY FOUR GATE WEST RD	17.40

Road #	Road Name	Road length (km)
4070136	FRASER RD	4.02
4070092	FRASER ST	0.26
4070170	GANGELL RD	3.72
4070029	GASKIN RD	7.12
4070066	GEORGE RD	3.94
4070144	GODDARD SIDING RD	1.08
4070176	GOLF COURSE RD	0.50
4070115	GRIFFITH ST	0.08
4070051	GRIFFITH-WHALEY RD	4.20
4070048	HAGBOOM RD	2.98
4070127	HAGBOOM SOUTH RD	2.12
4070174	HAGBOOM WEST RD	2.90
4070020	HALE RD	2.35
4070117	HALLIDAY ST	0.40
4070052	HARRIS EAST RD	6.04
4070039	HARRIS RD	4.70
4070138	HATWELL RD	0.44
4070090	HAYTER ST	0.09
4070022	HAYWOOD BOUNDARY RD	7.07
4070021	HAYWOOD WEST RD	7.56
4070125	HENNESSEY RD	1.77
4070154	HENNING NORTH RD	2.80
4070073	HENNING RD	7.99
4070027	HESFORD RD	5.79
4070095	HILDA ST	0.32
4070015	HINDMARSH BACK RD	15.02
4070004	HINDMARSH RD	13.14
4070140	HOLLINS RD	3.38
4070124	HUDSON RD	8.80
4070131	HUGHES RD	1.80
4070100	HUGHES ST	0.16
4070067	IRVINE RD	2.57
4070096	JACKSON ST	0.16
4070072	JONES RD	5.56
4070112	JONES ST	1.53
4070159	KALGUDDERING EAST RD	1.90
4070063	KALGUDDERING RD	3.91
4070031	KING RD	6.71
4070003	KOOMBEKINE NORTH RD	18.99
4070023	KOORDA-WONGAN HILLS RD	22.81
4070178	LAKE KOOMBEKINE RD	1.18
4070081	LAWRENCE RD	3.94
4070108	LAWRENCE SOUTH RD	1.56
4070122	LEE RD	1.53
4070175	LOWNDES RD	1.45
4070123	LYNN RD	2.25
4070156	MAINS RD	2.46
4070055	MAISEY RD	4.34
4070089	MAISEY ST	1.13
4070164	MANMANNING RD	5.58
4070036	MANMANNING TOWN RD	3.25
4070104	MC KAY RD	9.55
4070058	MC MORRAN RD	2.22
4070042	MCHUGH RD	8.45
4070113	MCHUGH ST	0.73
4070139	MCKINNON RD	2.82
4070071	MCPHERSON RD	2.61
4070184	MECKERING RD	0.88
4070183	MECKERING-DOWERIN RD	25.62

Road #	Road Name	Road length (km)
4070059	MELVIN RD	2.41
4070088	MEMORIAL AVE	0.80
4070079	METCALF EAST RD	4.67
4070146	METCALF NORTH RD	2.66
4070080	METCALF RD	6.05
4070091	METCALF ST	1.29
4070145	MILES RD	0.48
4070026	MINNIVALE NORTH EAST RD	6.45
4070172	MITCHELL RD	3.60
4070083	MONTAGUE RD	2.82
4070041	MOONIJIN EAST RD	2.84
4070163	MOONIJIN WEST RD	11.08
4070044	MORRELL NORTH RD	3.70
4070062	NAMBLING NORTH RD	5.64
4070006	NAMBLING RD	2.23
4070162	NAMBLING SOUTH RD	22.58
4070074	NORMAN RD	3.78
4070137	NORRIS RD	0.97
4070110	NORRIS ST	0.40
4070141	OLD KALANNIE RD	1.29
4070009	OLD KOORDA RD	20.27
4070165	OLD NALKAIN RD	3.70
4070177	O'LOGHLEN ST	0.28
4070030	PARKER RD	7.70
4070084	PETERS RD	1.61
4070158	PHILLIPS NORTH RD	0.38
4070043	PHILLIPS RD	5.95
4070016	PICKERING RD	5.30
4070111	PLACE ST	0.92
4070034	PULFORD RD	0.60
4070056	QUELAGETTING WEST RD	4.80
4070005	RABBIT PROOF FENCE RD	52.91
4070106	RAILWAY RD	5.93
4070002	REDDING RD	0.90
4070102	RICHARDS RD	1.85
4070045	RIFLE RANGE RD	3.10
4070017	ROBINSON RD	8.39
4070046	SANDERS RD	7.00
4070103	SCHELL RD	2.25
4070155	SHANKLAND RD	5.54
4070157	SHARMAN RD	2.17
4070166	SMITH RD	0.55
4070018	SPARK RD	9.24
4070075	STACY RD	2.11
4070093	STACY ST	0.97
4070181	STEWART ST	1.44
4070105	STOUT RD	1.69
4070129	THOMAS RD	5.88
4070121	THOMAS ST	0.24
4070014	THORNETT RD	9.40
4070054	TODD RD	3.22
4070150	TURRIFF RD	2.12
4070047	TWENTY SIX GATE RD	7.00
4070061	TWINE RD	3.44
4070019	UBERIN RD	23.89
4070126	UCARTY RD	2.85
4070171	UCARTY ROCK EAST RD	5.60
4070057	UCARTY ROCK RD	1.77
4070007	UCARTY SOUTH RD	18.65

Road #	Road Name	Road length (km)
4070053	UNDERWOOD FLAT RD	4.02
4070037	WARD RD	11.06
4070119	WARD ST	1.05
4070169	WATERCARRIN RD	5.85
4070065	WEBB RD	3.20
4070160	WHEAT BIN RD	1.00
4070069	WHITSED RD	3.06
4070076	WILKINS RD	8.45
4070050	WILLIAMS NORTH RD	7.24
4070035	WILLIAMS RD	8.15
4070032	WINDSOR RD	7.06
4070180	WOODS RD	2.15

Appendix

4

APPENDIX 4

Flora species in the Shire of Dowerin

(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 acuminata subsp. acuminata ms
Acacia andrewsii
Acacia assimilis
Acacia assimilis subsp. assimilis
Acacia bidentata
Acacia brumalis
Acacia campylophylla P2
Acacia cochlocarpa subsp. velutinosa ms P1
Acacia cupularis
Acacia densiflora
Acacia dielsii
Acacia dissona var. indoloria P3
Acacia duriuscula
Acacia enervia subsp. explicata
Acacia ephedroides
Acacia eremophila var. eremophila
Acacia ericksoniae ms
Acacia erinacea
Acacia fauntleroyi
Acacia fragilis
Acacia heteroneura var. petila
Acacia jacksonioides
Acacia lasiocalyx
Acacia lasiocarpa var. bracteolata
Acacia latipes
Acacia leptopetala
Acacia ligustrina
Acacia lirellata subsp. compressa ms P2
Acacia longispinea
Acacia merrallii
Acacia microbotrya
Acacia moirii subsp. recurvistipula
Acacia multispicata
Acacia nigripilosa subsp. nigripilosa ms
Acacia phaeocalyx P3
Acacia restiacea
Acacia saxatilis
Acacia sclerophylla var. sclerophylla
Acacia sericocarpa
Acacia spinosissima
Acacia stereophylla var. stereophylla
Acacia tratmaniana
Acacia ulicina
**Adonis microcarpa*
**Agave americana*
Allocasuarina acutivalvis subsp. acutivalvis
Allocasuarina campestris
Allocasuarina drummondiana
Allocasuarina huegeliana
**Alternanthera pungens*
Alyxia buxifolia
Andersonia aff. lehmanniana
Anthotium rubriflorum
Aristida contorta
Astartea heteranthera
Astroloma serratifolium
Atriplex amnicola
Atriplex nummularia
Atriplex spongiosa
Austrostipa elegantissima

Baeckea crispiflora
Baeckea cryptonoma ms
Baeckea megaflora ms
Baeckea muricata
Baeckea recurva ms
Banksia attenuata
Beaufortia bracteosa
Beaufortia micrantha
Beaufortia squarrosa
Billardiera bicolor
Billardiera coriacea
Boronia coerulescens subsp. spicata
Borya constricta
Borya sphaerocephala
Bossiaea concinna
**Brassica napus*
Bulbine semibarbata
Burchardia congesta

Caladenia dimidia ms
Caladenia drummondii
Caladenia falcata
Caladenia filifera
Caladenia flaccida subsp. pulchra ms
Caladenia flava subsp. flava ms
Caladenia hirta subsp. rosea ms
Caladenia longicauda subsp. eminens ms
Caladenia multiclavia
Caladenia radialis

Caladenia roei
Caladenia saccharata
Caladenia x cala ms
Callistemon phoeniceus
Callitris canescens
Calothamnus brevifolius P3
Calothamnus gilesii
Calothamnus sanguineus
Calytrix depressa
Calytrix ecalycata
Calytrix gracilis
Calytrix leschenaultii
Calytrix parvivallis P2
Calytrix sapphirina
Calytrix violacea
Cassytha glabella forma dispar
Caustis dioica
**Centaurea melitensis*
Ceratogyne obionoides
Chamelaucium brevifolium
Chamelaucium ciliatum
Chamelaucium drummondii subsp. hallii ms
Chamelaucium micranthum
Chamelaucium pauciflorum thryptomenioides ms
Chenopodium pumilio
Chondrilla juncea
Chorizema humile R
Clematis delicata ms
Comesperma integerrimum
Commersonia pulchella
Conospermum eatoniae P3
Conostylis aculeata
Conostylis caricina subsp. elachys P1
Conostylis petrophiloides
Conostylis prolifera
Conostylis wonganensis R
Cotula coronopifolia
Cryptandra dielsii ms P2
Cryptandra minutifolia subsp. minutifolia
Cryptandra wilsonii
Cyanicula deformis ms
Cyanicula gemmata ms
Cyphanthera microphylla

Dactyloctenium radulans
Dampiera lavandulacea
Dampiera sacculata
Dampiera wellsiana
Daviesia cunderdin R
Daviesia euphorbioides R
Daviesia hakeoides subsp. hakeoides
Daviesia hakeoides subsp. subnuda
Daviesia hakeoides subsp. subnuda ms
Daviesia nematophylla
Daviesia nudiflora subsp. amplectens
Daviesia nudiflora subsp. amplectens ms
Daviesia pachyloma
Daviesia smithiorum
Didymanthus roei
Diplolaena velutina
Dodonaea bursariifolia
Dodonaea caespitosa
Dodonaea divaricata
Dodonaea inaequifolia
Dodonaea larreoides
Dodonaea pinifolia
Dodonaea viscosa subsp. angustissima
Dodonaea viscosa subsp. spatulata
Drosera heterophylla
Drosera macrantha subsp. macrantha
Drosera subhirtella subsp. subhirtella
Dryandra conferta var. conferta ms
Dryandra fraseri var. fraseri
Dryandra horrida P3
Dryandra purdieana
Dryandra sessilis var. sessilis
Dryandra shanklandiorum P4

Elythranthera brunonis
**Eragrostis cilianensis*
**Eragrostis curvula*
**Eragrostis minor*
Eremaea pauciflora
Eremophila drummondii
Eremophila glabra subsp. albicans
Eremophila subfloccosa subsp. subfloccosa
Eriachne ovata
Eriochilus dilatatus subsp. undulatus ms
Eriostemon tomentellus
Erymophyllum ramosum subsp. ramosum
Erymophyllum tenellum
Eucalyptus aff. leptophylla
Eucalyptus arachnaea subsp. arachnaea
Eucalyptus burracoppinensis
Eucalyptus capillosa subsp. capillosa
Eucalyptus capillosa subsp. polyclada
Eucalyptus celastroides subsp. virella
Eucalyptus ceratocorys
Eucalyptus densa subsp. densa
Eucalyptus eremophila
Eucalyptus eremophila subsp. eremophila
Eucalyptus erythronema var. erythronema
Eucalyptus erythronema var. marginata
Eucalyptus flocktoniae
Eucalyptus gardneri subsp. gardneri
Eucalyptus hypochlamydea subsp. ecdysiastes ms
Eucalyptus hypochlamydea subsp. hypochlamydea ms
Eucalyptus incrassata
Eucalyptus kochii subsp. kochii
Eucalyptus kochii subsp. plenissima
Eucalyptus leptopoda subsp. leptopoda

Eucalyptus livida
Eucalyptus loxophleba subsp. loxophleba
Eucalyptus obtusiflora
Eucalyptus oldfieldii
Eucalyptus olivina
Eucalyptus pyriformis
Eucalyptus rigidula
Eucalyptus salmonophloia
Eucalyptus salubris
Eucalyptus semivestita ms
Eucalyptus sheathiana
Eucalyptus stowardii
Eucalyptus stricklandii
Eucalyptus subangusta subsp. subangusta
Eucalyptus subangusta subsp. virescens P1
Eucalyptus transcontinentalis
Eucalyptus vegrandis
Eucalyptus yilgarnensis
Exocarpos aphyllus

Gastrolobium bennettsianum
Gastrolobium callistachys P4
Gastrolobium calycinum
Gastrolobium parviflorum
Gastrolobium spinosum var. triangulare
**Gazania linearis*
Gilberta tenuifolia
Glischrocaryon aureum
Glischrocaryon aureum var. angustifolium
Goodenia caerulea
Goodenia helmsii
Grevillea dryandroides
Grevillea dryandroides subsp. hirsuta R
Grevillea eremophila
Grevillea excelsior
Grevillea haplantha subsp. recedens
Grevillea hookeriana
Grevillea nana subsp. nana
Grevillea paniculata
Grevillea paradoxa
Grevillea petrophiloides
Grevillea pterosperma
Grevillea rosieri P2
Grevillea roycei P2
Grevillea shuttleworthiana subsp. shuttleworthiana
Grevillea spinosissima P3
Grevillea umbellulata subsp. umbellulata
Grevillea uncinulata subsp. uncinulata
Guichenotia macrantha
Guichenotia micrantha
Gunniopsis intermedia
Gunniopsis quadrifida
**Gynandriris setifolia*
Gyrostemon subnudus

Hakea francisiana
Hakea lissocarpha
Hakea meisneriana
Hakea multilineata
Hakea petiolaris subsp. trichophylla ms
Hakea scoparia
Hakea trifurcata
Halosarcia pergranulata subsp. pergranulata
Halosarcia syncarpa
Helichrysum leucopsideum
Heliotropium curassavicum
Hemiandra incana
Hemigenia dielsii
Hibbertia aff. commutata
Hibbertia eatoniae
Hibbertia exasperata
Hibbertia glomerosa
Hibbertia polystachya
**Hordeum vulgare*
Hyalosperma glutinosum
Hyalosperma glutinosum subsp. glutinosum
Hybanthus floribundus subsp. curvifolius
Hybanthus floribundus subsp. floribundus
Hydrocotyle pilifera var. glabrata
Hydrocotyle rugulosa
Hypocalymma angustifolium
Hypocalymma puniceum

Isoetes caroli
Isopogon scabriusculus subsp. scabriusculus ms
Isotropis juncea

Jacksonia densiflora
Jacksonia fasciculata
Jacksonia racemosa
Juncus radula

Kennedia prostrata
Keraudrenia integrifolia
Kunzea pulchella

**Lamarckia aurea*
Laxmannia grandiflora subsp. grandiflora
Laxmannia paleacea
Lechenaultia floribunda
Lepidium phlebopetalum
Lepidosperma costale
Leptosema aphyllum ms
Leptosema daviesioides
Leptospermum erubescens
Leucopogon conostephioides
Leucopogon woodsii
Lobelia alata
Logania flaviflora
Lomandra collina
**Lupinus angustifolius*
Lysiana casuarinae

Lysiosepalum rugosum

Maireana trichoptera
Mallophora globiflora
Marianthus erubescens
Melaleuca acuminata subsp. websteri ms
Melaleuca adnata
Melaleuca carrii ms
Melaleuca conothamnoides
Melaleuca coronicarpa
Melaleuca fulgens subsp. fulgens
Melaleuca lateriflora subsp. lateriflora ms
Melaleuca laxiflora
Melaleuca macronychia subsp. macronychia
Melaleuca pauperiflora subsp. fastigiata
Melaleuca platycalyx
Melaleuca radula
Melaleuca sclerophylla P3
Melaleuca spicigera
Melaleuca tuberculata
Melaleuca uncinata
**Mesembryanthemum nodiflorum*
Microcorys eremophiloides R
Microcybe multiflora subsp. multiflora
Micromyrtus obovata
Micromyrtus racemosa var. "unsorted"
Micromyrtus racemosa var. carinata ms
Mirbelia ramulosa
Mirbelia trichocalyx
Myriocephalus occidentalis

Nemcia obovata

Olearia conspicua ms
Olearia dampieri subsp. eremicola ms
Olearia muelleri
Olearia muricata
Olearia pimeleoides
Olearia subspicata
**Orobanche minor*
Orthrosanthus laxus var. gramineus
Orthrosanthus laxus var. laxus
**Oxalis purpurea*

**Pentaschistis airoides*
Persoonia pungens P3
Persoonia quinquenervis
Persoonia rufiflora
Persoonia saundersiana
Persoonia stricta
Petrophile brevifolia
Petrophile ericifolia subsp. subpubescens ms
Petrophile seminuda
Petrophile wonganensis
Phebalium ambiguum
Phebalium drummondii P1
Phebalium filifolium
Phebalium tuberculosum
Pileanthus peduncularis
Pimelea brevifolia subsp. modesta
Pimelea imbricata var. piligera
Pittosporum phylliraeoides
Pityrodia teckiana
Platysace cirrosa
Platysace trachymenioides
Podolepis canescens
Podolepis capillaris
Podolepis lessonii
Podolepis tepperi
Podotheca gnaphalioides
**Polygonum bellardii*
Prasophyllum gracile
Prostanthera nanophylla P3
Psammomoya choretroides
Ptilotus holosericeus
Ptilotus humilis subsp. humilis
Ptilotus spathulatus forma spathulatus
Ptilotus stirlingii var. pumilus P1
Ptilotus stirlingii var. stirlingii

Radyera farragei
Regelia ciliata
Rhagodia preissii subsp. preissii
Rhodanthe manglesii
Rhodanthe polycephala
Rhyncharrhena linearis

Santalum acuminatum
Sarcozona praecox
Scaevola humifusa
Scaevola spinescens
Schoenus clandestinus
Scholtzia drummondii
Scholtzia involucrata
Sclerolaena diacantha
Sclerolaena eurotioides
Sclerostegia moniliformis
Senecio glossanthus
Senna artemisioides subsp. filifolia
Senna glutinosa subsp. charlesiana
Solanum oldfieldii
Spiculaea ciliata
Stackhousia monogyna
Stenanthemum pomaderroides
Stylidium aff. leptophyllum
Stylidium calcaratum
Stylidium dichotomum
Stylidium leptophyllum
Synaphea constricta P3
Synaphea interioris
Synaphea polymorpha
Synaphea spinulosa

Tecticornia verrucosa
Templetonia aculeata
Templetonia egena
Templetonia smithiana
Templetonia sulcata
Thelymitra antennifera
Thomasia tenuivestita P1
Thryptomene australis
Thryptomene kochii
Thryptomene mucronulata
Thryptomene racemulosa
Thysanotus patersonii
Thysanotus rectantherus
Thysanotus sparteus
Thysanotus speckii
Trachymene cyanopetala
Trachymene ornata
Tribonanthes longipetala
Triglochin sp.A Perth Flora(A.S.George 4100)
Triodia longipalea
**Triticum aestivum*
Trymalium daphnifolium

Urodon capitatus

Verticordia acerosa var. preissii
Verticordia auriculata
Verticordia brachypoda
Verticordia chrysantha
Verticordia chrysanthella
Verticordia densiflora var. cespitosa
Verticordia densiflora var. densiflora
Verticordia eriocephala
Verticordia hughanii R
Verticordia insignis subsp. compta
Verticordia mitchelliana
Verticordia monadelpha var. monadelpha
Verticordia pennigera
Verticordia picta
Verticordia pritzelii
Verticordia serrata var. ciliata
Verticordia tumida subsp. tumida
Verticordia venusta P3

Wahlenbergia tumidifructa
Waitzia acuminata var. acuminata
Westringia cephalantha
Westringia rigida
Wurmbea dioica subsp. alba
Wurmbea graniticola

Xylomelum angustifolium

Appendix

5

APPENDIX 5

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

Information provided by Western Australian Museum, Fauna Base, latitude/longitude coordinates -30.80, 116.9333 and –31.4333, 117.2833.

Note: not a comprehensive list.

* represents an introduced species.

BIRD SPECIES

Accipitridae	
Hamirostra isura	Square-tailed Kite
Aegothelidae	
Aegotheles cristatus cristatus	Australian Owlet-nightjar
Cracticidae	
Cracticus tibicen	Australian Magpie
Falconidae	
Falco peregrinus	Peregrine Falcon (Protected)
Meliphagidae	
Epthianura albifrons	White-fronted Chat
Manorina flavigula	Yellow-throated Miner
Pachycephalidae	
Oreoica gutturalis gutturalis	Southern Crested Bellbird (Near Threatened)
Pachycephala rufiventris rufiventris	Rufous Whistler
Pardalotidae	
Hylacola cauta whitlocki	Shy Heathwren (Near Threatened)
Pardalotus striatus	Striated Pardalote
Pomatostomidae	
Pomatostomus superciliosus ashbyi	White-browed Babbler (Near Threatened)
Psittacidae	
Calyptohynchus latirostris	Carnaby's Black Cockatoo (Endangered)
Neophema elegans	Elegant Parrot
Platycercus zonarius	Ringneck "28" Parrot
Polytelis anthopeplus anthopeplus	Regent Parrot
Tytonidae	
Tyto alba	Barn Owl

MAMMAL SPECIES

Bovidae	
**Bos Taurus*	Hereford Cattle
**Ovis aries*	Sheep
Dasyuridae	
Dasyurus geoffroii	Chuditch (Threatened/Vulnerable)
Sminthopsis crassicaudata	Fat-tailed Dunnart
Peramelidae	
Isoodon obesulus fusciventer	Quenda (Near Threatened)

Sminthopsis dolichura	Little Long-tailed Dunnart

Muridae

Sminthopsis murina	Common Dunnart

Vespertilionidae

**Mus musculus*	House Mouse

REPTILE SPECIES

Agamidae

Chalinolobus gouldii	Gould's Wattled Bat
Ctenophorus maculatus griseus	Spotted Sand Dragon
Ctenophorus ornatus	Ornate Crevice Dragon
Moloch horridus	Thorny Devil
Pogona minor	Dwarf Bearded Dragon
Pogona minor minor	Western Bearded Dragon

Boidae

Aspidites ramsayi	Woma Python (Endangered)

Elapidae

Brachyurophis semifasciata	Southern Shovel-nosed Snake
Demansia psammophis reticulata	Yellow-faced Whipsnake
Parasuta gouldii	Gould's Hooded Snake
Pseudechis australis	King Brown Snake
Pseudonaja modesta	Ringed Brown Snake
Pseudonaja nuchalis	Western Brown Snake

Gekkonidae

Diplodactylus granariensis	Wheatbelt Stone Gecko
Diplodactylus pulcher	Granite Gecko
Gehyra variegata	Tree Dtella
Heteronotia binoei	Bynoe's Prickly Gecko
Oedura reticulata	Reticulated Velvet Gecko

Pygopodidae

Delma australis	Marble-faced Delma (Endangered)
Delma grayii	Gray's Legless Lizard
Lialis burtonis	Burton's Snake-lizard
Pygopus lepidopodus	Common Scaly Foot

Scincidae

Cryptoblepharus plagiocephalus	Speckled Skink
Ctenotus schomburgkii	Barred Wedgesnout Ctenotus
Egernia stokesii badia	Western Spiny-tailed Skink (Endangered)
Lerista macropisthopus macropisthopus	
Lerista muelleri	Wood Mulch Slider (Endangered)
Menetia greyii	Common Dwarf Skink
Morethia obscura	Woodland Flecked Skink
Tiliqua occipitalis	Western Blue-tongue Lizard
Tiliqua rugosa rugosa	Bobtail

Typhlopidae

Ramphotyphlops australis	Southern Blind Snake
Ramphotyphlops waitii	Beaked Blind Snake

AMPHIBIA SPECIES

Myobatrachidae

Heleioporus albopunctatus	Western Spotted Frog
Myobatrachus gouldii	Turtle Frog
Neobatrachus kunapalari	Kunapalari Frog
Neobatrachus pelobatoides	Humming Frog
Neobatrachus sp	
Neobatrachus sutor	Shoemaker Frog
Pseudophryne guentheri	Gunther's Toadlet / Crawling Frog

Appendix

6

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 include 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

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 an Environmentally Sensitive 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.

Appendix

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, CALM) establish a *Register of Roads Important for Conservation* also. This register should be consulted prior to any works being initiated in the area.