Roadside Vegetation and Conservation Values in the City of Geraldton-Greenough

Photo by C. Wilson

March 2009

Roadside Conservation Committee

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Executive Summary

This report provides an overview of the conservation status of roadside remnant vegetation in the City of Geraldton-Greenough. The report primarily provides detailed results of the roadside survey and is accompanied by management recommendations. It also briefly describes the natural environment in Geraldton-Greenough, legislative considerations and threats to conservation values.

Aware of the need to conserve roadside remnants, the City of Geraldton-Greenough and local community members liaised with the Roadside Conservation Committee (RCC) in 2007 to survey roadsides in their City. Surveys to assess the conservation values of roadside remnants were conducted between September and October 2007. The majority, 93.71%, of the Cities 551.6 km of rural roadsides were assessed by the RCC for their conservation status and maps were produced via a Geographic Information System (GIS). Roadside locations of six nominated weeds and salt affected roadsides were also recorded and mapped onto separate clear overlays.

The results of the survey indicated that high conservation value roadsides covered 10.1% of the roadsides surveyed in the City, with medium-high conservation value roadsides accounting for 20.0%. Medium-low and low conservation value roadsides occupied 26.4% and 43.5%, 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:

- formulating a roadside vegetation management plan for roads maintenance work;
- identifying degraded areas for strategic rehabilitation or specific management techniques and weed control 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.

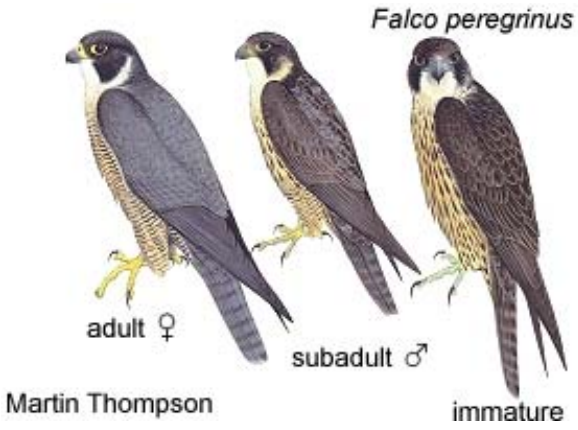
Progressive surveys of some Shires have revealed an alarming decline in the conservation status of many roadside reserves. In some cases the conservation value has declined at a rate of approximately 10% in 9 years. This trend indicates that without appropriate protection and management, roadside reserves 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 City of Geraldton-Greenough to utilise the RCV map in 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 Peregrine Falcon (*Falco peregrinus*) has been recorded in the City of Geraldton-Greenough.
Illustration by M. Thompson, 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, more than 50% of Declared Rare Flora (DRF) have at least one roadside population and three species are known only to exist on roadsides;
- 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, in both the land adjoining the road reserve and further afield; 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 Department of Environment and Conservation (DEC) 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 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 designed 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, however 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 policy on fire management is:

- roadside burning should not take place without the consent of the managing authority;
- Local Government Authorities should adopt by-laws to control roadside burning;
- roadside burning should be planned as part of a total Shire/area Fire Management Plan;
- only one side of a road should be burnt in any one year;
- 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;
- no firebreaks within the Road Reserve should be permitted unless the width of the roadside vegetation strip is greater than 20m;
- a firebreak on any road reserve should be permitted only when, in the opinion of the road manager, one is necessary for the protection of the roadside vegetation. The road manager shall specify the maximum width to which the break may be constructed; and
- in the case of any dispute concerning roadside fire management, the Fire and Emergency Services Authority (FESA) 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 habitat retention for associated fauna and also retention of some of the scenic values associated with the road.

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.

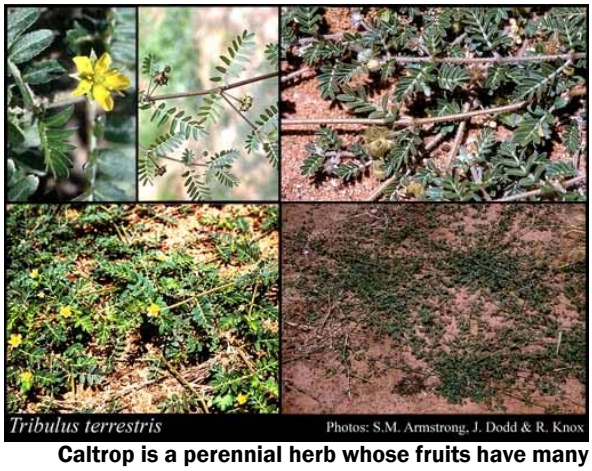
Before a decision is made to burn a road verge, the impact on natural, cultural and landscape values should be carefully considered.
Photo D. Lamont

2.4 Weeds

Weeds are generally disturbance opportunists and as such the road verge often provides a vacant niche which is 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 71 weed species in the City of Geraldton-Greenough (Appendix 4). The roadside survey recorded populations of six significant weeds, and their locations were mapped by the RCC onto clear overlays. The six nominated weeds were:

- Afghan thistle *(Solanum hoplopetalum)*;
- Apple of Sodom (*Solanum linnaeanum*);
- Caltrop (*Tribulus terrestris*)
- Saffron Thistle (*Carthamus lanatus*);
- Onion Weed (*Asphodelus fistulosus*); and
- Wild Lantana (*Lantana camara*).



Caltrop is a perennial herb whose fruits have many spines.

Photography by S.M Armstrong, J. Dodd & R. Knox. Photo used with the permission of the WA Herbarium, DEC (http://florabase.calm.wa.gov.au/help/photos#reuse)

Roadside populations of these weeds can be observed on the weed overlays provided with the Geraldton-Greenough Roadside Conservation Value map (2008). The Roadside Conservation Value map and weed overlays will assist the City 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.

The Onion weed is a small annual native to Southern Europe and India.

Photography by M. Kealley, S.J. Patrick & K.C. Richardson. Photo used with the permission of the WA Herbarium, DEC (http://florabase.calm.wa.gov.au/help/photos#reuse)

The Afghan Thistle has hundreds of spines generally greater than 1cm in length.

Photography by J. Dodd. Photo used with the permission of the WA herbarium, DEC (http://florabase.calm.wa.gov.au/help/photos#reuse)

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 Environment and Conservation (DEC) 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 detail these requirements. Clearing applications are assessed against twelve clearing principles, which incorporate the:

- biological value of the remnant vegetation;
- potential impact on wetlands, water sources 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. For example, where clearing is for a once-off clearing event such as pasture clearing or an agricultural development, an area permit is required. Where ongoing clearing is necessary for a specific purpose, such as road widening programs, a purpose permit is needed. Shire road maintenance activities are exempt, to the width and height previously legally cleared for that purpose (refer to Schedule 2 of the *Environmental Protection (Clearing of Native Vegetation) Regulations* 2004).

It is recommended that a precautionary 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/or
- 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 WestNet 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 that the site should receive and be consulted prior to any work being initiated in the area.

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 ESAs to prevent inadvertent or inappropriate damage to rare flora or other values being protected. Markers of a uniform shape and colour will make recognition easier for other authorities using road reserves.

5.0 Flora Roads

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

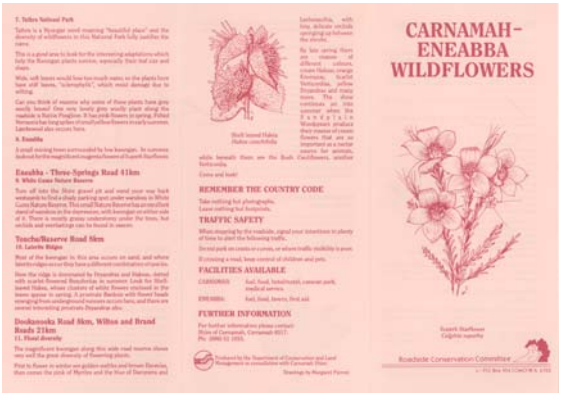
Roadsides are one of the most accessible places for tourists to view wildflowers.
Photo by DEC

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

In order to plan roadworks so that important areas of roadside vegetation are not disturbed, road managers should be aware of these areas. To ensure this is not overlooked it is suggested that areas declared as Flora Roads be included in the Shire's *Special Environmental Area Register*.

Attractive roadsides are an important focus in Western Australia, the "Wildflower State". 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 (provided by the RCC).



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

PART B

THE NATURAL ENVIRONMENT IN GERALDTON-GREENOUGH

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. 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 has recorded over 944 species of native plants from the City of Geraldton-Greenough. The most prolific genera are *Acacia* (41 spp.), *Verticordia* (32 spp.), *Melaleuca* (25 spp.) and *Grevillea* (7 spp.). The complete list of recorded flora can be seen in Appendix 4 of this report.

***Leucopogon marginatus* is a Declared Rare Flora (DRF) found on roadsides in the City of Geraldton-Greenough.**
Photography by H. Adamson. Photo used with the permission of the WA Herbarium, DEC.
(http://florabase.calm.wa.gov.au/browse/photo/6412)

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 (ESAs) and should be delineated by yellow stakes with an identification plate attached. The RCC suggests using the publication *Guidelines for Managing Special Environmental Areas in Transport Corridors* 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 RCC. For information regarding DRF, contact the Department of Environment and Conservation (DEC) Flora Officer for the Mid West Region. If roadworks are to be carried out near DRF sites, it is advisable to contact DEC at least six weeks in advance.

As of February 2008, 11 locations of Declared Rare and Priority Flora are known to occur within City of Geraldton-Greenough. Four of these locations occur in roadsides vested in the City of Geraldton-Greenough. In total, there is one species of Declared Rare Flora (DRF) and one species of Priority Flora that occur in these roadside locations in the City, these are:

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

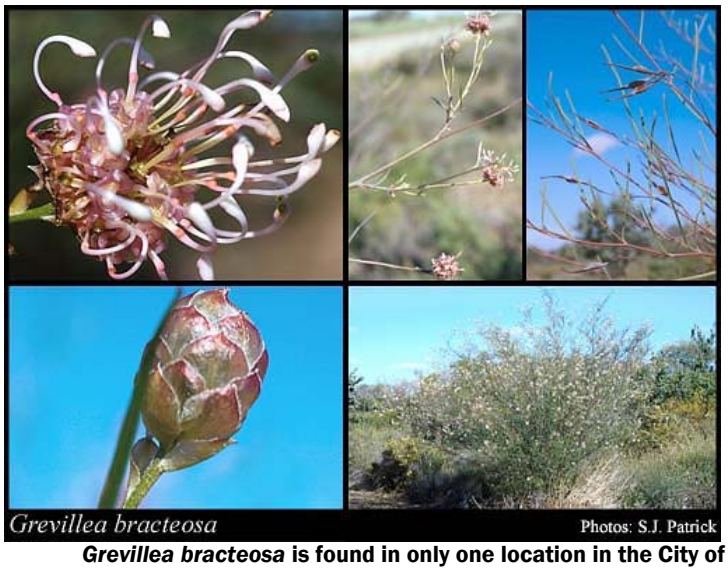
Declared Rare Flora

- *Grevillea bracteosa*

Priority Flora

- *Acacia megacephala* **(P2)**

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



Grevillea bracteosa **is found in only one location in the City of Geraldton-Greenough and is at risk due to road and railworks.**

Photography by S.J Patrick. Photo used with the permission of the WA Herbarium, DEC
http://florabase.calm.wa.gov.au/help/photos#reuse

3.0 Fauna

The Western Australian Museum records approximately 207 species of fauna from the Geraldton-Greenough area (Appendix 5). WA Museum fauna records comprise specimen records, museum collections and observations from 1850 to present and therefore it is intended to act only as a general representation of the fauna in the area. Of the fauna species recorded in the Geraldton-Greenough area, there were 63 bird, 10 amphibia, 17 mammal, 48 fish and 69 reptile species.

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.

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 Environment and Conservation (DEC), nine species of threatened and priority fauna have been recorded or sighted throughout the City of Geraldton-Greenough, and these are listed below.

- **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.

- **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.

- **Gilled Slender Bluetongue *(Cyclodomorphus branchialis)***

The Gilled Slender Bluetongue is a ground-dwelling and largely nocturnal skink, and can usually be found sheltering in spinifex, leaf litter and under fallen timber.

- **Bothriembryon Whitleyi (*Bothriembryon whitleyi*)**

This species of snail has been rarely collected in the past 50 years.

- **Small Fan Winged Katydid (*Psacadonotus seriatus*)**

This species has only been observed at Champion Bay near Geraldton.

- **Tammar Wallaby (*Macropus eugenii derbianus*)**

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

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

The Peregrine Falcon is uncommon and prefers areas with rocky ledges, cliffs, watercourses, open woodland or margins with cleared land.

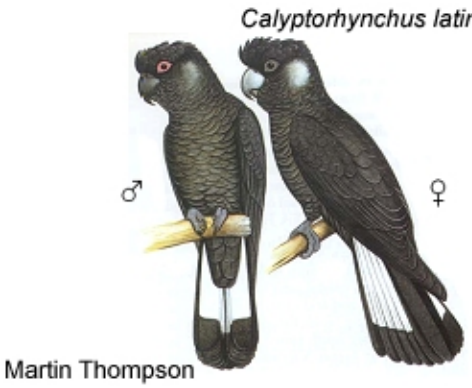
- **White-browed Babbler**

(*Pomatostomus superciliosus ashbyi*)

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

- **Leatherback Turtle (*Dermochelys coriacea*)**

Leatherback Turtles have been recorded at numerous locations along the WA coast.



Carnaby's Black-Cockatoo can be found nesting in mature hollow-bearing trees.
Illustration by Martin Thompson, Photo used with the permission of the WA Museum, FaunaBase (http://museum.wa.gov.au/faunabase.htm).

The Tammar Wallaby has not been seen in the Geraldton-Greenough region for over 20 years.

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

4.0 Remnant Vegetation Cover

Only 15.0% of the original native vegetation remains in what was the Shire of Greenough 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. Greenough has only 15.0% remaining which is considered low. The remaining vegetation can easily be further depleted if proactive measures are not taken to manage this priceless resource.

Table 1. Remnant vegetation remaining in the agricultural areas of the Shire of Greenough and surrounding Shires (Shepherd, Beeston and Hopkins, 2001).

Shire/City	Total Area (Ha)	Area Inside Ag. Clearing Line (Ha)	Vegetation Cover Remaining (inside agricultural clearing line)	
			(Ha)	(%)
Greenough	**177,404**	**177,404**	**26,612**	**15.0**
Mullewa	1,076,999	496,895	35,336	7.1
Irwin	238,186	238,186	114,164	47.9
Mingenew	194,452	194,452	12,854	6.6
Carnamah	286,940	286,940	111,632	38.9
Northhampton	1,354,323	428,156	83,759	19.6

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

Remnant roadside vegetation connects the landscape.
Photo by Main Roads WA

PART C

ROADSIDE SURVEYS IN THE CITY OF GERALDTON-GREENOUGH

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 (515.88 km, or 93.71%) of the City of Geraldton-Greenough's 551.6 km of rural roads were surveyed and then assessed to determine the conservation status of the road reserves. Fieldwork was carried out throughout the months of September and October 2007. The enthusiastic effort of the roadside surveyors with the support provided by Geraldton-Greenough City Council ensured that this project was successfully completed. The roadside surveyors were:

- Meg Brooks;
- Tim Aards;
- Thomas Cribb;
- Serena Alkira;
- Milan Chesi;
- Paul Higgs;
- Marie-Ange Pujola;
- Dianna Cowan;
- Owen Shepherd;
- Ann Gunness;
- Irene Shepherd;
- Jeremy Spackman-Alkira
- Kerrie Crib; and
- Jane Ellery.

1.1 Methods

Roadside surveys are undertaken in a vehicle, generally with two people per vehicle. The passenger records the roadside attributes using the RCC's iPAQ hand-held personal computers. At the end of the survey, the iPAQs are returned to the RCC, where the survey information is analysed and mapped.

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 (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;
- presence of 6 nominated weeds; and
- presence of salt affected roadside.

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

1.2 Mapping Roadside Conservation Values

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

Digital information was obtained from the Department of Environment and Conservation (DEC), Main Roads WA and the Department of Agriculture and Food 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 and 80%;
- medium to high diversity of native flora, i.e. between 6 and 19 species;
- few to half weeds, i.e. between 20 and 80% of the total plants; and
- medium to high value as a biological corridor.

Medium-high conservation value roadsides contains a moderate number of native species, some disturbance and weed invasion, but have relatively intact natural structure. 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 and 80%;
- medium to low diversity of native flora, i.e. between 0 and 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 and 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 ROADSIDE CONSERVATION VALUE MAP (RCV MAP)

The Roadside Conservation Value map (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 or 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 Cities 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.

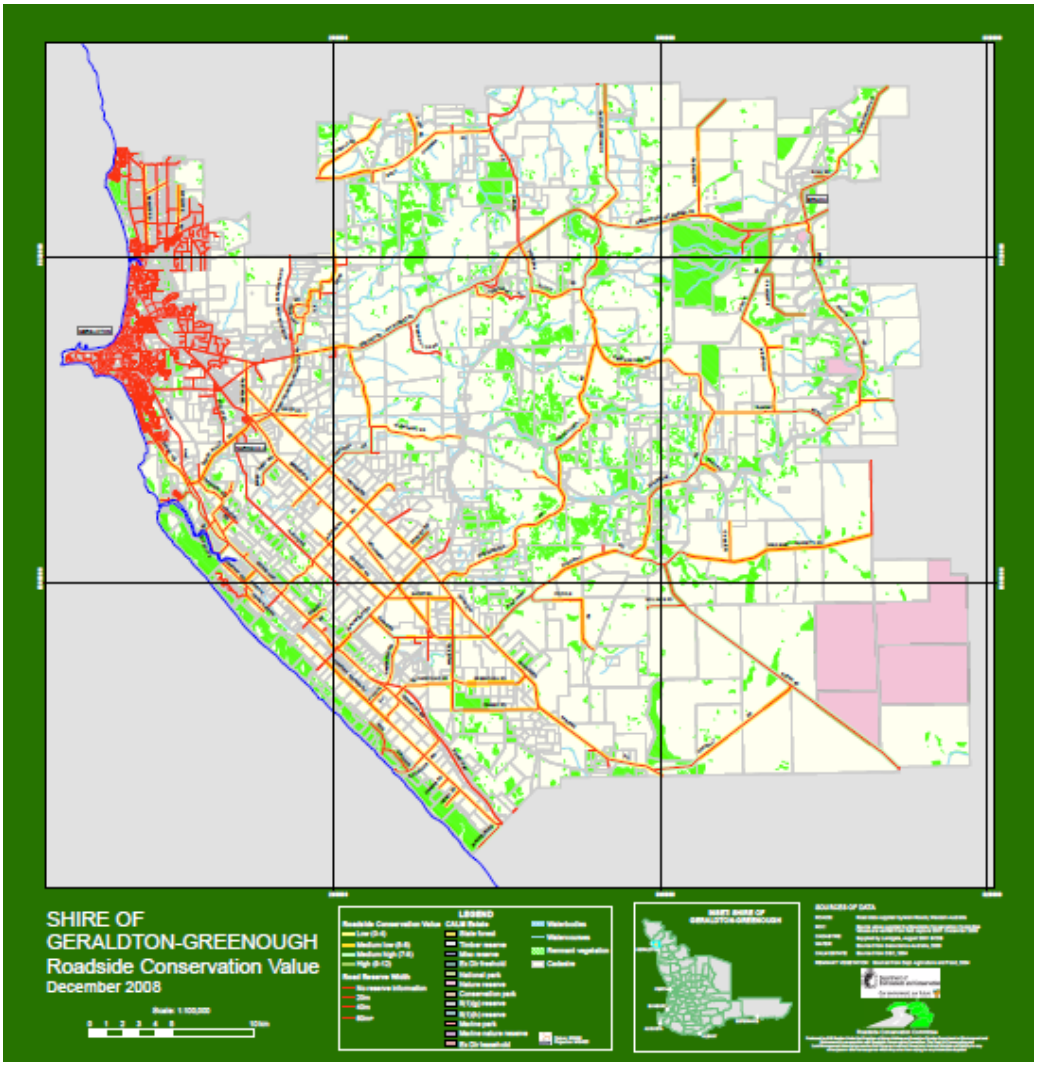


Figure 1. Roadside Conservation Map of Geraldton-Greenough

As well as providing a road reserve planning and management tool, the RCV 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 DEC

3.0 RESULTS

Using the information collected by the roadside survey, totals of the attributes used to calculate roadside conservation values in the City of Geraldton-Greenough 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: City of Geraldton-Greenough

Length of roadsides surveyed: 515.8km (1031.6 km of road)

Roadside Conservation Status

	Total (km)	(%)
High (9-12)	104.10	10.1
Medium-high (7-8)	206.06	20.0
Medium-low (5-6)	273.03	26.4
Low (0-4)	448.42	43.5
Total	1031.61	100.0

Native Vegetation in Roadsides

	Total (km)	(%)
2-3 vegetation layers	459.48	44.6
1 vegetation layer	280.00	27.1
0 vegetation layers	292.13	28.3
Total	1031.61	100.0

Number of Native Plant Species

	Total (km)	(%)
Over 20 species	78.44	7.6
6 to 19 species	239.87	23.3
0 to 5 species	713.30	69.1
Total	1031.61	100.0

Predominant Adjoining Land Use

	Total (km)	(%)
Agricultural: completely cleared	578.49	56.1
Agricultural: scattered vegetation	319.19	30.9
Uncleared native vegetation	85.56	8.3
Drain	0.70	0.1
Plantation of non-natives	2.67	0.3
Railway	30.02	2.9
Urban or Industrial	8.48	0.8
Other	6.50	0.6
Total	1031.61	100.0

Weed Infestation

	Total (km)	(%)
Light <20% weeds	237.02	23.0
Medium 20-80% weeds	326.09	31.6
Heavy >80% weeds	468.50	45.4
Total	1031.61	100.0

Roadside Conservation Values

Score	Total (km)	(%)
0	3.10	0.3
1	64.49	6.3
2	192.48	18.7
3	104.63	10.1
4	83.72	8.1
5	134.10	13.0
6	138.93	13.5
7	118.94	11.5
8	87.12	8.4
9	58.96	5.7
10	31.44	3.0
11	10.00	1.0
12	3.70	0.4
Total	1031.61	100.0

Width of Vegetated Roadside

	Total (km)	(%)
1 to 5 m	873.68	84.7
5 to 20 m	86.43	8.4
Over 20 m	26.30	2.5
Unknown	45.20	4.4
Total	1031.61	100.0

Extent of Native Vegetation

	Total (km)	(%)
Over 80%	101.90	9.9
20% to 80%	408.04	39.5
Less than 20%	521.67	50.6
Total	1031.61	100.0

Value as a Biological Corridor

	Total (km)	(%)
High	102.60	10.0
Medium	441.86	42.8
Low	487.15	47.2
Total	1031.61	100.0

Roadside surveys were carried out in the City of Geraldton-Greenough

Table 2. Summary of results from the roadside survey in the City of Geraldton-Greenough

Width of Road Reserve

The width of road reserves in the City of Geraldton-Greenough was recorded in increments of 20 metres (Table 4). The majority of road reserves were 20 metres in width, with 426.28km (82.65%) of roads falling into this category. Roads with unknown reserves covered 1.80km (0.35%), and reserves of 80m covered 14.40 metres (2.79%). Of the remaining roads, 66.91km (12.97%) were 40 metres in width and 6.41km (1.24%) of road reserves were 60 meters wide.

Width of Road Reserve - Geraldton-Greenough		
	Total km	**%**
Unknown	1.80	.35
20 m	426.28	82.65
40 m	66.91	12.97
60 m	6.41	1.24
80 m	14.40	2.79
Total	515.8	100.0

Table 3. Width of road reserves in the City of Geraldton-Greenough.

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 (Table 5). The majority of roadside vegetation, 873.68km (84.69%), was between 1 to 5 metres in width, followed by 86.43m (8.38%) of roadsides where the width of vegetation fell between 5 to 20 metres in width. Roadside vegetation over 20 metres in width spanned 26.30km (2.55%) of the roadsides surveyed, whilst the width was unknown for 45.20km (4.38%) of the roadsides surveyed.

Width of Vegetated Roadside - Geraldton-Greenough		
	Total km	**%**
1-5 m	873.68	84.69
5-20 m	86.43	8.38
Over 20 m	26.30	2.55
Unknown	45.20	4.38
Total	1031.6	100.00

Table 4. Width of vegetation on roadsides in the City of Geraldton-Greenough.

Native Vegetation on Roadsides

The number of native vegetation layers present, i.e. tree, shrub and/or ground layers, determined the 'native vegetation on roadside' value. Sections with two to three layers of native vegetation covered 44.6% of roadsides (459.48km), 27.1% (280.00km) of roadsides had only one layer and 28.3% (292.13km) had no layers of native vegetation (Table 3 and Figure 1).

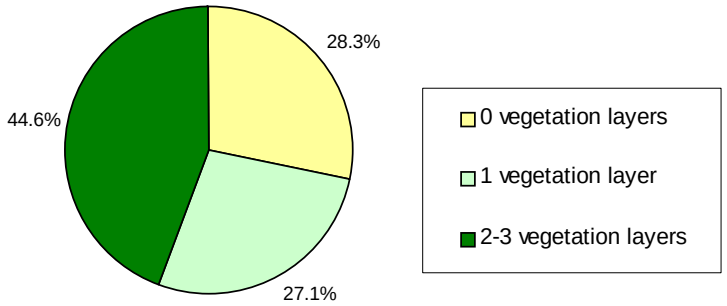


Figure 2. Native vegetation on roadsides in the City of Geraldton-Greenough.

Number of Native Plant Species

The number of native plant species provides a measure of the diversity of the roadside vegetation. Survey sections with over 20 plant species spanned 7.6% (78.44km) of the roadsides surveyed. Roadside sections with 6 to 19 plant species accounted for 23.3% (239.87km) of the roadside. Over two thirds of the roadsides or 69.1% (713.30km) contained less than 5 plant species (Table 3 and Figure 2).

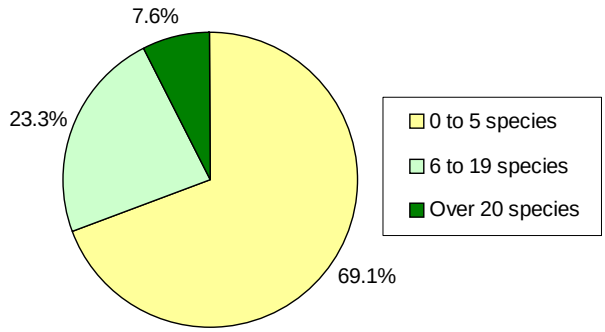


Figure 3. Number of native plant species in roadsides in the City of Geraldton-Greenough.

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 9.9% (101.90km) of the roadsides surveyed. Survey sections with medium vegetation cover, i.e. 20% to 80%, accounted for 39.5% (408.04km) of the roadsides. The remaining 50.6% (521.67km) had less than 20% native vegetation and therefore a low 'extent of native vegetation' value (Table 3 and Figure 3).

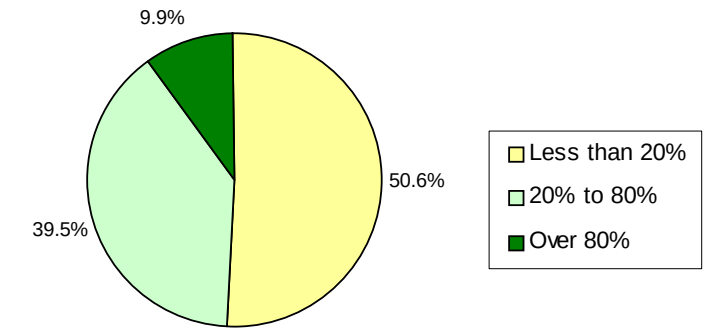


Figure 4. Extent of native vegetation in roadsides in the City of Geraldton-Greenough.

Value as a Biological Corridor

This characteristic considered the presence of four attributes: connection of uncleared areas; presence of flowering shrubs; presence of large trees with hollows; and presence of hollow logs. Roadsides determined to have high value as a biological corridor were present along 10.0% (102.60km) of the roadsides surveyed. Roadsides with medium value as biological corridors made up 42.8% (441.86km), and roadsides with low value as a biological corridor occurred along 47.2% (487.15km) of the roadsides surveyed (Table 3 and Figure 4).

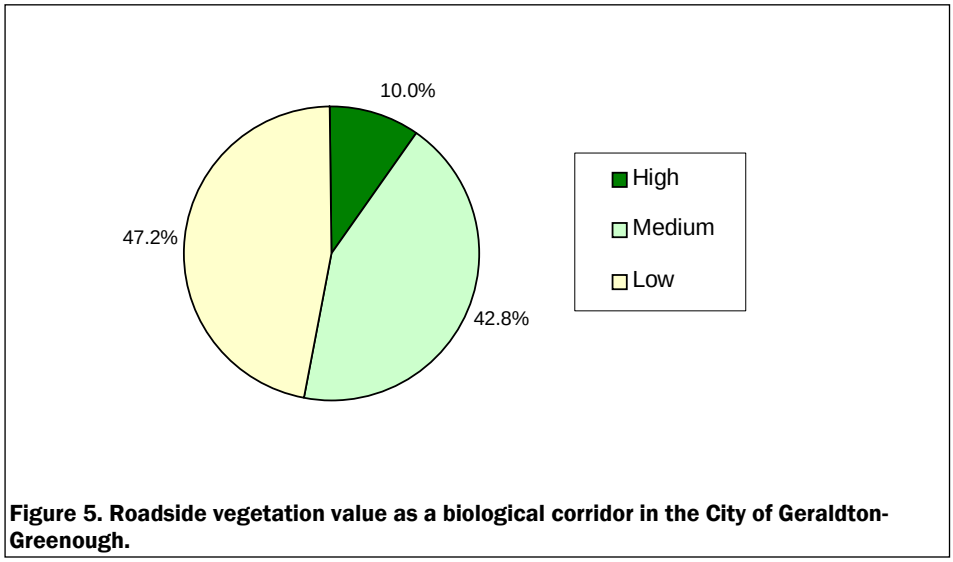


Figure 5. Roadside vegetation value as a biological corridor in the City of Geraldton-Greenough.

Weed Infestation

Light levels of weed infestation (weeds comprising less than 20% of total plants), were recorded on 23.0% (237.02km) of the roadsides surveyed, medium level weed infestation (weeds comprising 20-80% of the total plants) occurred on 31.6% (326.09km) of the roadsides and 45.4% of roadsides (468.50km) were heavily infested with weeds (weeds comprising more than 80% of the total plants) (Table 3 and Figure 5).

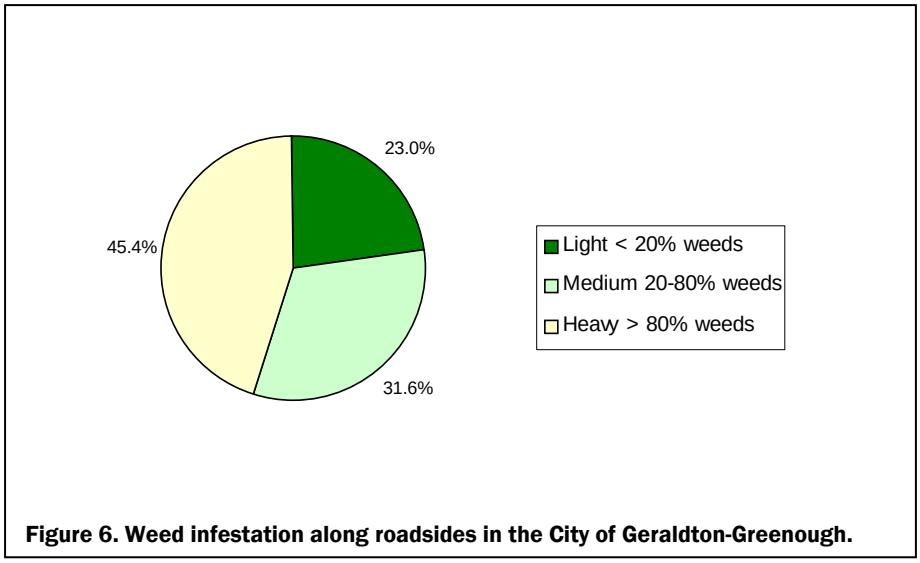


Figure 6. Weed infestation along roadsides in the City of Geraldton-Greenough.

Predominant Adjoining Land Use

Uncleared native vegetation was present on 8.3% (85.56km) of the land adjoining roadsides, whilst 56.1% (578.49km) of roadsides adjoined land that had been completely cleared for agriculture. Land cleared for agriculture, containing a scattered distribution of native vegetation comprised 30.9% (319.19km) of the roadsides. Railway reserves adjoined 2.9% (30.02km) of the roadsides, urban or industrial land uses adjoined 0.8% (8.48km), and other land uses were found on .6% (6.50km) of the roadsides. Plantations of non-native flora were found on 0.3% (2.67km) of roadside and Drain reserves were recorded on 0.1% (.70km) (Table 3 and Figure 6).

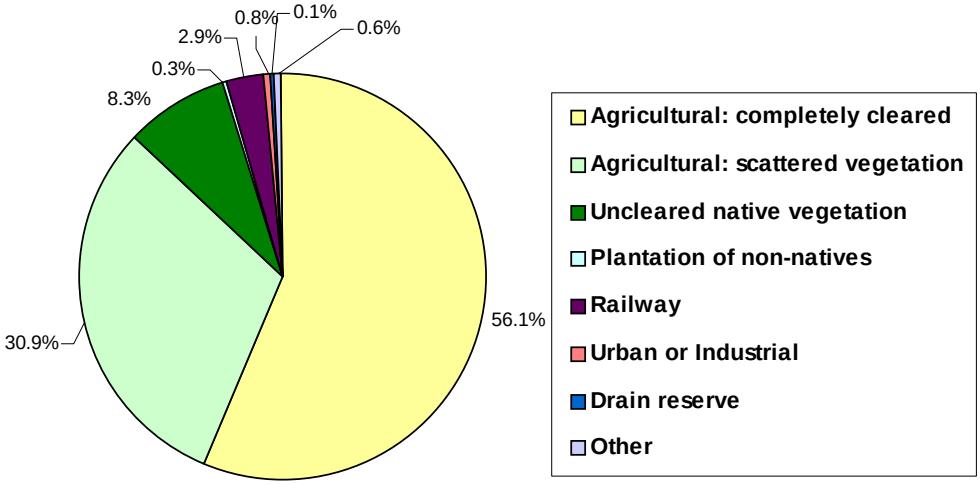


Figure 7. Predominant adjoining land use in the City of Geraldton-Greenough.

Nominated Weeds

The following weeds are depicted on clear overlays accompanying the 2008 Roadside Conservation Value map:

- Afghan Thistle *(Solanum hoplopetalum)*;
- Apple of Sodom (*Solanum linnaeanum*);
- Caltrop (*Tribulus terrestris*)
- Saffron Thistle (*Carthamus lanatus*);
- Onion Weed (*Asphodelus fistulosus*); and
- Wild Lantana (*Lantana camara*).

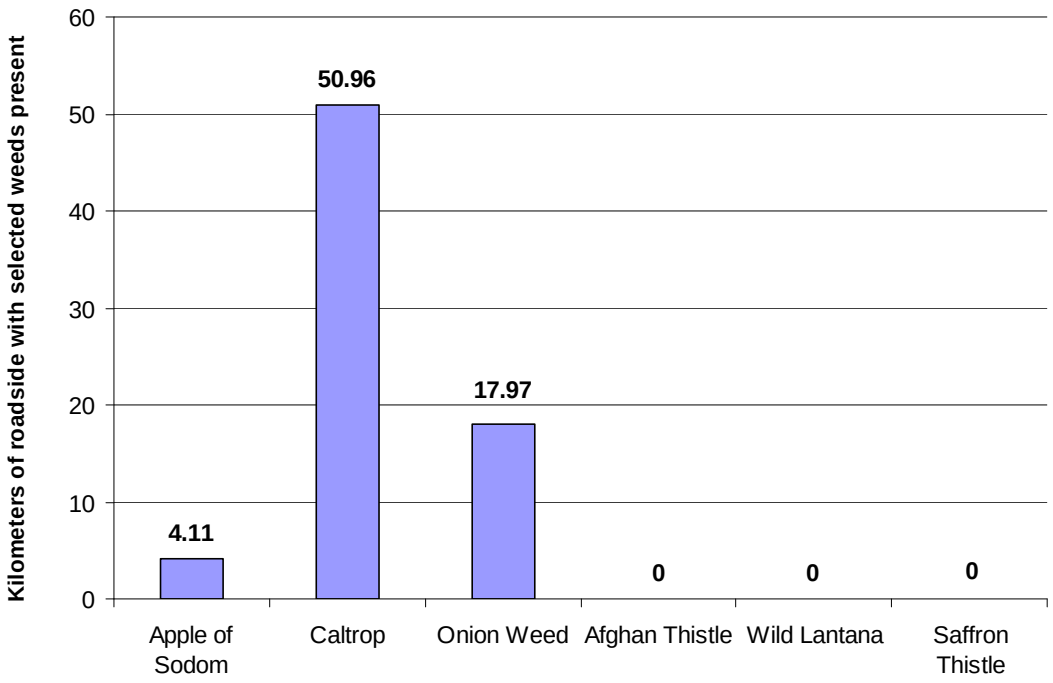
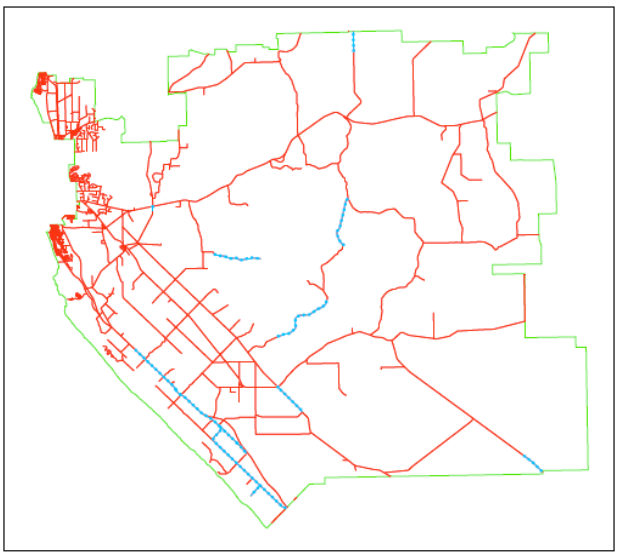


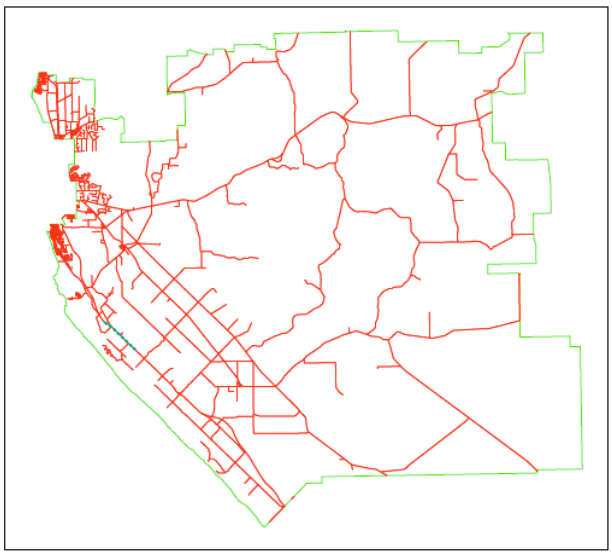
Figure 8. Presence of nominated weed groups along roads in the City of Geraldton-Greenough.

These weeds were only recorded as being present or absent in each roadside section. The density of weed infestations was not recorded and nor was there a separate recording for the left and right sides of the roads. Figure 7 displays the length of roads (km) in which each weed was observed. As such, this length provides a general indication of the extent of each weeds presence in the Shire's roadsides.

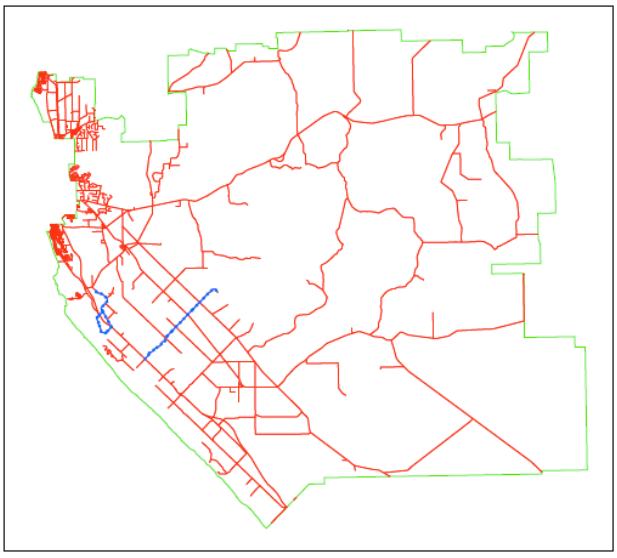
Of the nominated weeds species, the Caltrop was the most prevalent, and was found to occur on 50.96km of the roads surveyed. The next most commonly occurring weeds were Onion Weed and Apple of Sodom, which were present along 17.97 and 4.11km of roads respectively. Afghan Thistle, Wild Lantana and Saffron Thistle were not recorded to be occurring along roadsides in the City of Geraldton-Greenough (Figure 7). The maps in Figure 8 indicate which roadside sections contained each weed.



Caltrop



Apple of Sodom



Onion Weed

Figure 9. Spatial extent of nominated weeds of roadsides in the City of Geraldton-Greenough.

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 (Figure 8). The most occurring roadside conservation value score was 2, with 192.48km of roadsides recording this score. Following this roadsides recording a score of 6 covered 138.93km, a score of 5 covered 134.10km, and a score of 7 was surveyed along 118.94km of roadsides. Roadsides with a score of 3 covered 104.63km, a score of 8 covered 87.12km, and roadsides with a score of 4 spanned 83.72km. Roadsides with a score of 1 spanned 64.49km, a score of 9 spanned 58.96km and roadsides scoring 10 covered 31.44km. A score of 11 spanned 10.00km, a score of 12 covered 3.70km, and 3.10km of roadsides scored 0.

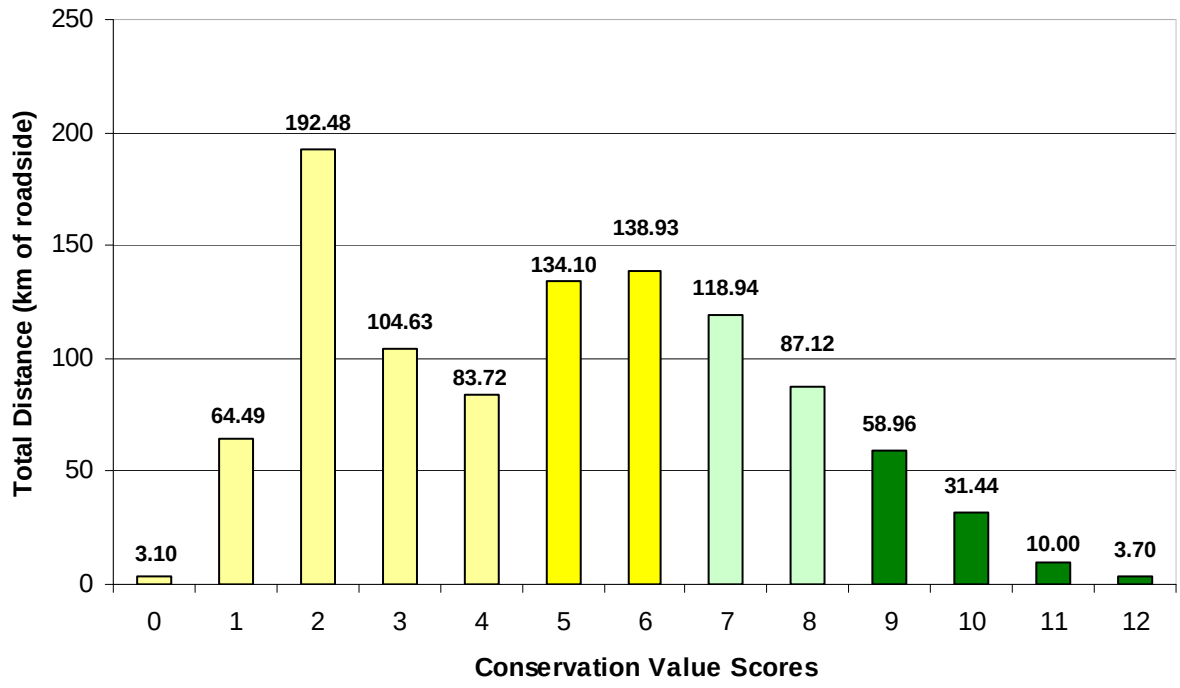


Figure 10. Conservation value scores of all roadsides surveyed in the City of Geraldton-Greenough.

Conservation Status

The conservation status category indicates the combined conservation value of roadsides surveyed in the City of Geraldton-Greenough. Roadside sections of high conservation value covered 10.1% (104.10km) of the roadsides surveyed. Medium-high conservation value roadsides accounted for 20.0% of the total surveyed (206.06km), medium-low conservation roadside covered 26.4% (273.03km) of the total roadsides surveyed. Roadsides of low conservation value occupied 43.5% (448.42km) of the roadsides surveyed (Table 3 and Figure 10).

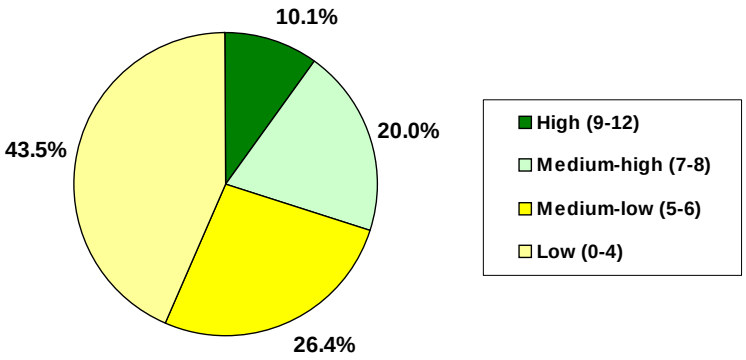


Figure 11. Conservation status of roadsides in the City of Geraldton-Greenough.

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* (Appendix 7).

Although presently there are no Flora Roads designated within the City of Geraldton-Greenough, the roadside survey and the 2008 RCV map highlighted a number of roadsides that have the potential to be declared as Flora Roads. Roadsides, or large sections of roadsides, determined as having high conservation value in the City of Geraldton-Greenough include:

- Parts of Wicherina South Road; and
- Blayney 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, there are often important conservation values within the road reserve and thus this section provides general management procedures and 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:

- *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 them into tourist, wildflower and/or scenic drives.

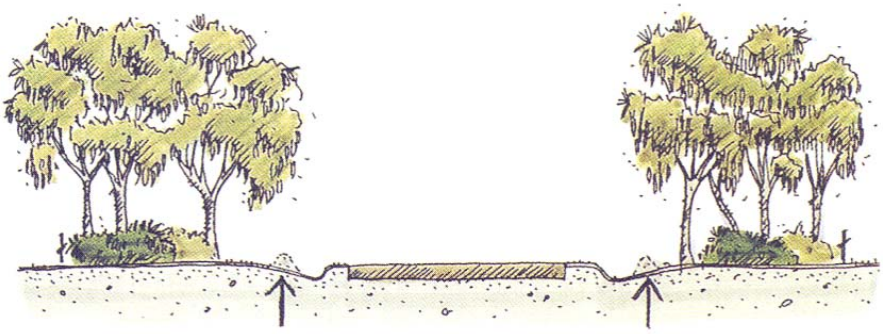
1.3 Improve roadside sections of medium to low conservation value by:

- 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
- encouraging revegetation projects by adjacent landholders.

2.0 Minimising Disturbance

Minimal disturbance can be achieved by:

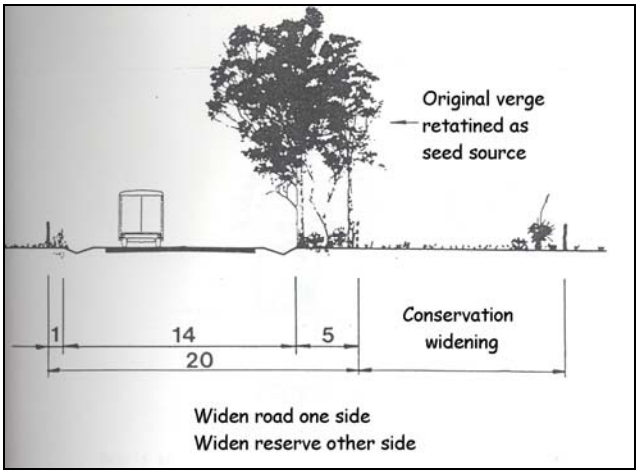
- adopting a road design that occupies the minimum space;
- diverting the line of a table drain to avoid disturbing valuable flora;
- pruning branches, rather than removing the whole tree or shrub;
- not dumping spoil on areas of native flora;
- applying the Fire Threat Assessment (see RCC Roadside Manual) before burning roadside vegetation, using methods other than fuel reduction burns to reduce fire threat;
- encouraging adjacent landholders to set back fences to allow roadside vegetation to proliferate;
- encouraging adjacent landholders to plant windbreaks or farm tree lots adjacent to roadside vegetation to create a denser windbreak or shelterbelt; and
- encouraging revegetation projects by adjacent landholders.



Avoid windrowing drain material into vegetation

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.

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.



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; and
- 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. For training enquiries please contact the RCC Executive Officer on (08) 9334 0423.

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 ______________
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 20m	☐	☐
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	☐	☐

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	☐	☐
NOMINATED WILDCARD		
OFFICE USE ONLY		
Conservation value score	☐	☐

Appendix

2

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
5051003	1	0.00	3.01	3.01	BURMA RD	South East	20-Sep-07	40	2	2	2	2	1	1	2	2	1	1	2	2	**9**	**9**	
5051003	2	3.01	6.67	3.66	BURMA RD	South East	20-Sep-07	40	2	2	1	1	1	1	2	2	1	1	1	1	**8**	**8**	
5051003	3	6.67	11.33	4.66	BURMA RD	South East	20-Sep-07	40	2	2	1	1	1	1	2	2	1	1	1	1	**8**	**8**	SALT_AFFECTED_ROADSIDE
5051003	4	11.33	13.29	1.96	BURMA RD	South East	20-Sep-07	40	2	2	1	1	1	1	2	2	1	1	1	1	**8**	**8**	
5051003	5	13.29	17.65	4.36	BURMA RD	South East	20-Sep-07	40	2	2	1	1	1	1	2	2	1	2	0	1	**7**	**9**	
5051003	6	17.65	20.01	2.36	BURMA RD	South East	20-Sep-07	40	2	2	1	1	0	0	2	2	1	1	1	1	**7**	**7**	CALTROP
5051004	1	0.00	2.30	2.30	ELLENDALE RD	North	20-Sep-07	40	1	1	1	1	1	1	1	1	1	1	1	1	**6**	**6**	
5051004	2	2.30	4.10	1.80	ELLENDALE RD	North	20-Sep-07	20	0	0	0	0	0	0	1	2	0	0	0	0	**1**	**2**	
5051004	3	4.10	5.00	0.90	ELLENDALE RD	North	20-Sep-07	20	2	2	2	1	1	1	2	1	1	1	1	1	**9**	**7**	
5051004	4	5.00	6.30	1.30	ELLENDALE RD	North	20-Sep-07	20	0	0	0	0	0	0	2	1	0	0	1	1	**3**	**2**	
5051004	5	6.30	7.00	0.70	ELLENDALE RD	North	20-Sep-07	20	2	2	1	1	1	1	1	1	1	1	1	1	**7**	**7**	
5051004	6	7.00	8.90	1.90	ELLENDALE RD	North	20-Sep-07	20	2	2	1	1	1	1	1	1	1	1	1	1	**7**	**7**	
5051004	7	8.90	10.10	1.20	ELLENDALE RD	North	20-Sep-07	20	1	1	0	0	0	0	2	2	0	0	1	1	**4**	**4**	
5051004	8	10.10	11.89	1.79	ELLENDALE RD	North	20-Sep-07	20	1	0	0	0	0	0	2	2	0	0	2	2	**5**	**4**	
5051005	1	0.00	2.33	2.33	CONNOLLY RD	West	20-Sep-07	40	1	1	0	0	0	0	1	1	1	1	2	2	**5**	**5**	
5051005	2	2.33	2.96	0.63	CONNOLLY RD	West	20-Sep-07	40	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051005	3	2.96	4.09	1.13	CONNOLLY RD	West	20-Sep-07	40	2	1	0	0	0	0	1	1	0	0	1	2	**4**	**4**	
5051005	4	4.09	5.22	1.13	CONNOLLY RD	West	20-Sep-07	20	0	1	0	0	0	0	1	1	0	0	1	1	**2**	**3**	
5051005	5	5.22	7.45	2.23	CONNOLLY RD	West	20-Sep-07	20	1	0	1	0	0	0	1	1	1	0	1	1	**5**	**2**	
5051005	6	7.45	10.48	3.03	CONNOLLY RD	West	20-Sep-07	20	2	2	1	1	1	1	2	2	1	1	0	0	**7**	**7**	
5051006	1	0.00	0.40	0.40	ALLANOOKA SPRINGS RD	South East	20-Sep-07	20	0	0	0	0	0	0	2	2	0	0	1	1	**3**	**3**	CALTROP
5051006	2	0.40	3.40	3.00	ALLANOOKA SPRINGS RD	South East	20-Sep-07	20	0	2	0	1	0	0	1	1	0	1	0	1	**1**	**6**	CALTROP
5051006	3	3.40	7.57	4.17	ALLANOOKA SPRINGS RD	South East	20-Sep-07	40	1	0	1	0	0	0	2	1	0	0	1	1	**5**	**2**	
5051006	4	7.57	10.27	2.70	ALLANOOKA SPRINGS RD	South East	20-Sep-07	20	0	0	0	0	0	0	1	0	0	0	1	1	**2**	**1**	
5051006	5	10.27	10.87	0.60	ALLANOOKA SPRINGS RD	South East	20-Sep-07	20	2	2	1	1	1	1	2	2	0	1	0	0	**6**	**7**	
5051006	6	10.87	12.07	1.20	ALLANOOKA SPRINGS RD	South East	20-Sep-07	20	1	2	0	1	0	0	1	2	0	1	1	2	**3**	**8**	
5051006	7	12.07	14.27	2.20	ALLANOOKA SPRINGS RD	South East	20-Sep-07	20	1	1	1	1	0	0	1	1	0	0	1	1	**4**	**4**	
5051007	1	0.00	0.60	0.60	GREENOUGH RD	East	23-Sep-07	20	0	1	0	0	0	0	2	1	0	0	1	2	**3**	**4**	
5051007	2	0.60	0.90	0.30	GREENOUGH RD	East	23-Sep-07	20	1	1	0	0	0	0	1	1	1	1	1	1	**4**	**4**	

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
5051007	3	0.90	1.40	0.50	GREENOUGH RD	East	23-Sep-07	20	2	2	1	1	0	0	1	1	0	0	2	1	**6**	**5**	
5051007	4	1.40	2.20	0.80	GREENOUGH RD	East	23-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051007	5	2.20	3.80	1.60	GREENOUGH RD	East	23-Sep-07	20	2	0	1	0	0	0	0	0	0	0	2	2	**5**	**2**	
5051007	6	3.80	4.10	0.30	GREENOUGH RD	East	23-Sep-07	20	2	2	1	1	0	1	1	1	1	1	2	0	**7**	**6**	
5051007	7	4.10	4.70	0.60	GREENOUGH RD	East	23-Sep-07	20	1	1	1	1	0	0	1	1	1	1	2	2	**6**	**6**	
5051008	1	0.00	2.20	2.20	ARTHUR RD	South East	23-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051008	2	2.20	3.20	1.00	ARTHUR RD	South East	23-Sep-07	20	1	0	1	0	0	0	1	0	0	0	2	1	**5**	**1**	
5051008	3	3.20	3.90	0.70	ARTHUR RD	South East	23-Sep-07	20	1	1	1	0	0	0	2	0	0	0	2	2	**6**	**3**	
5051008	4	3.90	4.30	0.40	ARTHUR RD	South East	23-Sep-07	20	1	0	1	0	0	0	1	0	0	0	2	2	**5**	**2**	
5051008	5	4.30	4.70	0.40	ARTHUR RD	South East	23-Sep-07	20	1	2	0	0	0	0	0	0	0	0	2	2	**3**	**4**	
5051008	6	4.70	5.40	0.70	ARTHUR RD	South East	23-Sep-07	20	0	1	0	0	0	0	0	0	0	0	2	2	**2**	**3**	
5051008	7	5.40	7.40	2.00	ARTHUR RD	South East	23-Sep-07	20	2	2	1	1	0	0	0	1	0	0	1	2	**4**	**6**	
5051008	8	7.40	8.20	0.80	ARTHUR RD	South East	23-Sep-07	20	0	1	0	0	0	0	0	0	0	0	2	2	**2**	**3**	
5051008	9	8.20	9.50	1.30	ARTHUR RD	South East	23-Sep-07	20	2	2	0	1	0	0	0	0	0	0	1	1	**3**	**4**	
5051008	10	9.50	10.00	0.50	ARTHUR RD	South East	23-Sep-07	20	2	2	1	1	0	0	1	1	0	0	1	1	**5**	**5**	
5051008	11	10.00	10.90	0.90	ARTHUR RD	South East	23-Sep-07	20	2	0	1	0	0	0	1	0	0	0	2	2	**6**	**2**	
5051008	12	10.90	11.70	0.80	ARTHUR RD	South East	23-Sep-07	20	1	1	0	0	0	0	0	0	0	0	2	2	**3**	**3**	
5051008	13	11.70	12.80	1.10	ARTHUR RD	South East	23-Sep-07	20	1	1	0	0	0	0	0	0	0	0	2	2	**3**	**3**	
5051008	14	12.80	14.00	1.20	ARTHUR RD	South East	23-Sep-07	20	2	2	0	1	0	0	1	0	0	0	2	2	**5**	**5**	
5051008	15	14.00	15.00	1.00	ARTHUR RD	South East	23-Sep-07	20	1	1	0	0	0	0	1	1	0	0	2	1	**4**	**3**	
5051008	16	15.00	15.40	0.40	ARTHUR RD	South East	23-Sep-07	20	1	0	1	0	0	0	0	0	0	0	2	1	**4**	**1**	
5051008	17	15.40	19.80	4.40	ARTHUR RD	South East	23-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051008	18	19.80	20.70	0.90	ARTHUR RD	South East	23-Sep-07	20	1	2	0	1	0	0	0	1	0	1	1	2	**2**	**7**	
5051008	19	20.70	21.30	0.60	ARTHUR RD	South East	23-Sep-07	20	1	2	0	1	0	0	1	1	0	1	2	2	**4**	**7**	
5051009	1	1.70	2.90	1.20	MACARTNEY RD	North East	1-Oct-07	20	1	1	0	1	0	0	1	1	1	1	2	2	**5**	**6**	
5051009	2	2.90	3.10	0.20	MACARTNEY RD	North East	1-Oct-07	20	1	1	0	1	0	1	1	1	1	1	2	0	**5**	**5**	
5051009	3	3.10	4.80	1.70	MACARTNEY RD	North East	1-Oct-07	20	2	2	1	1	0	1	1	1	1	1	2	2	**7**	**8**	
5051009	4	4.80	6.80	2.00	MACARTNEY RD	North East	1-Oct-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051009	5	6.80	7.30	0.50	MACARTNEY RD	North East	1-Oct-07	20	2	2	1	1	0	0	1	1	1	1	2	2	**7**	**7**	
5051009	6	7.30	9.40	2.10	MACARTNEY RD	North East	1-Oct-07	20	1	1	1	0	0	0	1	1	1	1	2	2	**6**	**5**	
5051010	1	0.00	0.80	0.80	EVANS RD	East	1-Oct-07	20	2	2	0	0	0	0	1	1	1	1	1	2	**5**	**6**	
5051010	2	0.80	1.60	0.80	EVANS RD	East	1-Oct-07	20	0	0	0	0	0	0	1	1	0	0	2	2	**3**	**3**	

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
5051010	3	1.60	2.80	1.20	EVANS RD	East	1-Oct-07	20	2	2	1	1	0	0	1	1	1	1	2	2	**7**	**7**	
5051010	4	2.80	3.40	0.60	EVANS RD	East	1-Oct-07	20	1	0	1	0	0	0	1	1	1	0	2	2	**6**	**3**	
5051010	5	3.40	4.16	0.76	EVANS RD	East	1-Oct-07	20	1	1	0	0	0	0	1	1	0	1	0	0	**2**	**3**	
5051011	1	0.00	0.70	0.70	GREENOUGH RIVER RD	West	18-Sep-07	20	2	2	1	1	2	1	2	2	1	1	1	2	**9**	**9**	
5051011	2	0.70	0.90	0.20	GREENOUGH RIVER RD	West	18-Sep-07	20	2	0	1	0	1	0	1	1	1	0	0	0	**6**	**1**	
5051011	3	0.90	1.50	0.60	GREENOUGH RIVER RD	West	18-Sep-07	20	2	2	1	1	1	2	2	2	0	1	0	0	**6**	**8**	
5051011	4	1.50	2.00	0.50	GREENOUGH RIVER RD	West	18-Sep-07	20	0	0	0	0	0	0	1	1	0	0	1	0	**2**	**1**	
5051011	5	2.00	2.20	0.20	GREENOUGH RIVER RD	West	18-Sep-07	20	2	2	1	1	1	1	2	2	0	0	0	0	**6**	**6**	
5051012	1	0.00	5.20	5.20	RUDDS GULLY RD	North East	18-Sep-07	40	2	2	0	0	0	0	1	1	1	1	1	1	**5**	**5**	
5051012	2	5.20	5.81	0.61	RUDDS GULLY RD	North East	18-Sep-07	40	2	1	1	0	0	0	1	1	1	0	0	1	**5**	**3**	
5051013	1	0.00	1.90	1.90	EAST CHAPMAN RD	East	25-Sep-07	20	0	2	0	1	0	0	0	1	0	0	1	2	**1**	**6**	
5051013	2	1.90	3.20	1.30	EAST CHAPMAN RD	East	25-Sep-07	20	2	2	1	1	0	0	1	1	0	0	1	2	**5**	**6**	
5051013	3	3.20	10.00	6.80	EAST CHAPMAN RD	East	25-Sep-07	20	0	0	0	0	0	0	0	0	0	0	1	2	**1**	**2**	
5051013	4	10.00	10.60	0.60	EAST CHAPMAN RD	East	25-Sep-07	20	0	0	0	0	0	0	0	0	1	1	0	2	**1**	**3**	
5051013	5	10.60	11.30	0.70	EAST CHAPMAN RD	East	25-Sep-07	20	2	2	0	0	0	0	0	0	0	0	2	2	**4**	**4**	
5051015	1	0.00	0.30	0.30	NORTHERN GULLY RD	North	15-Sep-07	20	2	2	1	1	1	1	0	0	1	1	1	1	**6**	**6**	
5051015	2	0.30	0.90	0.60	NORTHERN GULLY RD	North	15-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051015	3	0.90	1.50	0.60	NORTHERN GULLY RD	North	15-Sep-07	20	2	2	1	1	1	1	0	0	1	2	1	0	**6**	**6**	
5051015	4	1.50	1.90	0.40	NORTHERN GULLY RD	North	15-Sep-07	20	2	0	1	0	1	1	0	0	1	0	1	1	**6**	**1**	
5051015	5	1.90	2.20	0.30	NORTHERN GULLY RD	North	15-Sep-07	20	2	0	1	0	1	0	0	0	1	0	1	1	**6**	**1**	
5051015	6	2.20	2.60	0.40	NORTHERN GULLY RD	North	15-Sep-07	20	1	0	2	0	1	0	2	0	1	0	1	2	**8**	**2**	
5051015	7	2.60	3.60	1.00	NORTHERN GULLY RD	North	15-Sep-07	20	2	2	1	1	1	1	0	0	2	2	1	2	**7**	**8**	
5051015	8	3.60	4.30	0.70	NORTHERN GULLY RD	North	15-Sep-07	20	2	2	1	1	1	1	0	0	1	1	2	1	**7**	**6**	

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
5051015	9	4.30	6.30	2.00	NORTHERN GULLY RD	North	15-Sep-07	20	2	2	1	0	1	1	0	0	1	1	2	1	**7**	**5**	
5051015	10	6.30	6.60	0.30	NORTHERN GULLY RD	North	15-Sep-07	20	2	1	1	0	1	0	0	0	2	2	2	2	**8**	**5**	
5051015	11	6.60	7.20	0.60	NORTHERN GULLY RD	North	15-Sep-07	20	2	1	1	0	1	1	0	0	1	1	2	2	**7**	**5**	
5051015	12	7.20	7.70	0.50	NORTHERN GULLY RD	North	15-Sep-07	20	2	2	0	0	0	0	0	0	1	1	2	2	**5**	**5**	CALTROP
5051015	13	7.70	9.10	1.40	NORTHERN GULLY RD	North	15-Sep-07	20	2	2	1	1	2	2	2	2	1	1	2	2	**10**	**10**	CALTROP
5051016	1	0.00	0.90	0.90	VALENTINE RD	North	15-Sep-07	20	1	1	0	0	0	0	0	0	1	1	2	2	**4**	**4**	
5051016	2	0.90	1.60	0.70	VALENTINE RD	North	15-Sep-07	20	2	2	0	1	1	1	0	0	1	1	2	1	**6**	**6**	
5051016	3	1.60	2.00	0.40	VALENTINE RD	North	15-Sep-07	20	1	1	0	0	0	0	0	0	0	0	2	2	**3**	**3**	
5051016	4	2.00	3.10	1.10	VALENTINE RD	North	15-Sep-07	20	1	1	1	1	0	0	0	0	1	1	2	2	**5**	**5**	
5051016	5	3.10	4.00	0.90	VALENTINE RD	North	15-Sep-07	20	1	1	0	0	0	0	0	0	1	1	2	2	**4**	**4**	
5051016	6	4.00	5.40	1.40	VALENTINE RD	North	15-Sep-07	20	1	1	1	1	0	1	0	0	1	1	2	2	**5**	**6**	
5051016	7	5.40	7.90	2.50	VALENTINE RD	North	15-Sep-07	20	2	2	1	1	2	2	2	2	1	1	2	2	**10**	**10**	
5051017	1	0.00	1.30	1.30	ERADU NORTH RD	North	15-Sep-07	20	2	2	1	1	1	1	2	2	2	2	0	1	**8**	**9**	
5051017	2	1.30	1.50	0.20	ERADU NORTH RD	North	15-Sep-07	20	2	2	1	2	2	2	2	2	1	1	0	0	**8**	**9**	
5051017	3	1.50	1.90	0.40	ERADU NORTH RD	North	15-Sep-07	20	2	2	1	1	1	1	2	2	2	2	1	1	**9**	**9**	
5051017	4	1.90	3.70	1.80	ERADU NORTH RD	North	15-Sep-07	20	2	2	1	1	1	2	1	2	1	2	1	1	**7**	**10**	
5051017	5	3.70	4.60	0.90	ERADU NORTH RD	North East	15-Sep-07	20	2	2	1	1	1	1	2	0	1	2	1	1	**8**	**7**	
5051017	6	4.60	5.70	1.10	ERADU NORTH RD	North East	15-Sep-07	20	2	2	0	0	0	1	2	2	0	1	1	1	**5**	**7**	
5051017	7	5.70	6.70	1.00	ERADU NORTH RD	North East	15-Sep-07	20	1	2	0	0	1	1	1	1	1	1	2	2	**6**	**7**	
5051017	8	6.70	7.60	0.90	ERADU NORTH RD	North East	15-Sep-07	20	2	2	1	1	0	0	2	2	1	1	2	2	**8**	**8**	
5051017	9	7.60	10.90	3.30	ERADU NORTH RD	North East	15-Sep-07	20	2	2	1	1	1	1	2	2	1	1	2	2	**9**	**9**	
5051018	1	0.00	0.40	0.40	ERADU SOUTH RD	South	15-Sep-07	20	1	2	0	0	0	0	0	0	1	1	1	1	**3**	**4**	
5051018	2	0.40	0.70	0.30	ERADU SOUTH RD	South	15-Sep-07	20	2	2	0	0	1	1	0	0	1	1	1	1	**5**	**5**	
5051018	3	0.70	1.00	0.30	ERADU SOUTH RD	South	15-Sep-07	20	2	2	1	1	1	1	2	2	1	2	1	0	**8**	**8**	

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
5051018	4	1.00	2.40	1.40	ERADU SOUTH RD	South	15-Sep-07	20	2	2	1	1	1	1	2	2	1	2	2	2	**9**	**10**	
5051018	5	2.40	4.70	2.30	ERADU SOUTH RD	South	15-Sep-07	20	2	2	1	1	1	1	2	2	1	1	0	2	**7**	**9**	
5051018	6	4.70	5.20	0.50	ERADU SOUTH RD	South	15-Sep-07	20	1	1	0	0	0	0	0	0	0	0	2	2	**3**	**3**	
5051018	7	5.20	5.50	0.30	ERADU SOUTH RD	South	15-Sep-07	20	2	2	2	2	2	2	2	2	1	1	0	0	**9**	**9**	
5051018	8	5.50	6.80	1.30	ERADU SOUTH RD	South	15-Sep-07	20	2	2	1	0	1	0	0	1	1	0	2	2	**7**	**5**	
5051018	9	6.80	7.00	0.20	ERADU SOUTH RD	South	15-Sep-07	20	2	1	1	0	2	0	2	1	1	0	2	1	**10**	**3**	
5051018	10	7.00	7.20	0.20	ERADU SOUTH RD	South	15-Sep-07	20	2	2	1	1	1	1	2	1	1	1	0	0	**7**	**6**	
5051018	11	7.20	7.50	0.30	ERADU SOUTH RD	South	15-Sep-07	20	1	1	0	0	0	0	0	0	0	0	1	2	**2**	**3**	
5051018	12	7.50	9.10	1.60	ERADU SOUTH RD	South	15-Sep-07	20	2	2	1	1	1	1	2	2	1	1	1	1	**8**	**8**	
5051018	13	9.10	10.10	1.00	ERADU SOUTH RD	South	15-Sep-07	20	2	2	1	2	2	2	1	1	2	2	2	2	**10**	**11**	
5051018	14	10.10	11.60	1.50	ERADU SOUTH RD	South	15-Sep-07	20	2	2	0	1	1	1	2	2	1	1	0	0	**6**	**7**	
5051018	15	11.60	12.50	0.90	ERADU SOUTH RD	South	15-Sep-07	20	2	0	1	0	1	0	2	0	1	0	2	2	**9**	**2**	
5051019	1	0.00	0.70	0.70	SANDSPRINGS RD	North West	17-Sep-07	20	1	2	0	0	0	0	0	0	0	0	2	2	**3**	**4**	
5051019	2	0.70	1.90	1.20	SANDSPRINGS RD	North West	17-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051019	3	1.90	2.10	0.20	SANDSPRINGS RD	North West	17-Sep-07	20	0	1	0	0	0	0	0	0	0	0	1	1	**1**	**2**	
5051019	4	2.10	5.40	3.30	SANDSPRINGS RD	North West	17-Sep-07	20	0	0	0	0	0	0	0	0	0	1	1	1	**1**	**2**	
5051019	5	5.40	6.70	1.30	SANDSPRINGS RD	North West	17-Sep-07	20	2	2	1	0	0	0	0	0	1	1	2	2	**6**	**5**	
5051019	6	6.70	7.20	0.50	SANDSPRINGS RD	North West	17-Sep-07	20	2	2	1	2	0	0	0	0	0	0	0	0	**3**	**4**	
5051019	7	7.20	12.50	5.30	SANDSPRINGS RD	North West	17-Sep-07	20	2	2	1	1	0	0	0	0	1	1	1	1	**5**	**5**	
5051019	8	12.50	13.70	1.20	SANDSPRINGS RD	North West	17-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051020	1	0.00	0.70	0.70	MINNENOOKA RD	North	26-Sep-07	20	1	1	1	1	0	0	0	0	1	2	2	0	**5**	**4**	
5051020	2	0.70	1.60	0.90	MINNENOOKA RD	North	26-Sep-07	20	2	2	0	0	0	0	0	0	1	1	2	2	**5**	**5**	

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
5051020	3	1.60	3.50	1.90	MINNENOOKA RD	North	26-Sep-07	20	1	0	0	0	0	0	0	0	1	0	2	2	**4**	**2**	
5051020	4	3.50	9.90	6.40	MINNENOOKA RD	North	26-Sep-07	20	1	1	0	1	0	0	0	0	1	2	2	2	**4**	**6**	CALTROP
5051020	5	9.90	10.40	0.50	MINNENOOKA RD	North	26-Sep-07	20	1	0	1	0	0	0	0	0	2	0	2	2	**6**	**2**	
5051020	6	10.40	10.95	0.55	MINNENOOKA RD	North	26-Sep-07	20	1	1	1	1	0	0	0	0	1	2	2	2	**5**	**6**	
5051020	7	10.95	14.80	3.85	MINNENOOKA RD	North	26-Sep-07	20	2	2	1	0	0	0	0	0	2	2	2	2	**7**	**6**	
5051020	8	14.80	16.50	1.70	MINNENOOKA RD	North	26-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051020	9	16.50	21.50	5.00	MINNENOOKA RD	North	26-Sep-07	20	1	1	1	1	0	0	0	0	2	2	2	2	**6**	**6**	CALTROP
5051021	1	0.00	0.70	0.70	KOJARENA SOUTH RD	West	17-Sep-07	20	2	2	1	1	2	2	1	1	1	1	1	1	**8**	**8**	
5051021	2	0.70	1.30	0.60	KOJARENA SOUTH RD	West	17-Sep-07	20	0	2	0	1	0	1	0	1	0	1	2	0	**2**	**6**	
5051021	3	1.30	3.50	2.20	KOJARENA SOUTH RD	West	17-Sep-07	20	2	2	0	0	0	0	0	0	1	1	2	1	**5**	**4**	
5051021	4	3.50	4.20	0.70	KOJARENA SOUTH RD	West	17-Sep-07	20	2	2	1	1	1	2	1	2	1	1	1	0	**7**	**8**	
5051021	5	4.20	5.40	1.20	KOJARENA SOUTH RD	West	17-Sep-07	20	2	1	1	1	0	0	2	2	1	0	2	2	**8**	**6**	
5051021	6	5.40	6.20	0.80	KOJARENA SOUTH RD	West	17-Sep-07	20	2	2	1	1	1	1	1	1	1	1	2	2	**8**	**6**	
5051022	1	0.00	0.20	0.20	GLENGARRY RD	South	26-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051022	2	0.20	0.40	0.20	GLENGARRY RD	South	26-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051022	3	0.40	1.00	0.60	GLENGARRY RD	South	26-Sep-07	20	1	1	1	1	0	0	0	0	1	1	2	2	**5**	**5**	
5051022	4	1.00	2.60	1.60	GLENGARRY RD	South	26-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051022	5	2.60	4.60	2.00	GLENGARRY RD	South	26-Sep-07	20	1	1	1	1	0	0	0	0	1	1	2	2	**5**	**5**	
5051022	6	4.60	6.50	1.90	GLENGARRY RD	South	26-Sep-07	20	1	1	0	0	0	0	0	0	1	1	2	2	**4**	**4**	
5051022	7	6.50	11.10	4.60	GLENGARRY RD	South	26-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	CALTROP
5051024	1	0.00	0.70	0.70	GEORGINA RD	North East	18-Sep-07	20	1	0	0	0	0	0	0	0	0	0	1	2	**2**	**2**	ONION_WEED
5051024	2	0.70	1.60	0.90	GEORGINA RD	North East	18-Sep-07	20	1	2	1	1	0	1	1	2	1	1	1	0	**5**	**7**	ONION_WEED
5051024	3	1.60	3.20	1.60	GEORGINA RD	North East	18-Sep-07	20	0	1	0	0	0	0	0	0	0	0	1	2	**1**	**3**	ONION_WEED
5051024	4	3.20	3.90	0.70	GEORGINA RD	North East	18-Sep-07	20	0	1	0	0	0	0	1	1	0	0	1	0	**2**	**2**	ONION_WEED
5051024	5	3.90	6.70	2.80	GEORGINA RD	North East	18-Sep-07	20	0	1	0	1	0	0	0	0	1	1	1	1	**2**	**4**	ONION_WEED
5051024	6	6.70	7.60	0.90	GEORGINA RD	North East	18-Sep-07	20	2	1	1	0	0	0	0	0	0	0	1	2	**4**	**3**	ONION_WEED
5051024	7	7.60	9.70	2.10	GEORGINA RD	North East	18-Sep-07	20	1	1	1	0	1	0	0	0	1	0	2	2	**6**	**3**	ONION_WEED

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
5051025	1	0.00	0.40	0.40	ANGELS RD	North East	25-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051025	2	0.40	2.00	1.60	ANGELS RD	North East	25-Sep-07	20	2	2	0	0	0	0	1	1	0	0	2	2	**5**	**5**	
5051025	3	2.00	3.50	1.50	ANGELS RD	North East	25-Sep-07	20	1	2	0	0	0	0	0	0	0	0	2	2	**3**	**4**	SALT_AFFECTED_ROADSIDE
5051025	4	3.50	4.90	1.40	ANGELS RD	North East	25-Sep-07	20	2	2	1	1	1	1	0	0	0	0	2	2	**6**	**6**	
5051025	5	4.90	5.42	0.52	ANGELS RD	North East	25-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051026	1	0.00	0.50	0.50	DEEPDALE RD	South	23-Sep-07	20	0	1	0	1	0	0	0	0	0	0	2	2	**2**	**4**	
5051026	2	0.50	1.00	0.50	DEEPDALE RD	South	23-Sep-07	20	2	2	0	0	0	0	0	0	0	0	0	2	**2**	**4**	
5051026	3	1.00	1.60	0.60	DEEPDALE RD	South	23-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	0	**2**	**0**	
5051026	4	1.60	2.20	0.60	DEEPDALE RD	South	23-Sep-07	20	2	2	1	1	0	0	0	0	0	0	2	0	**5**	**3**	
5051026	5	2.20	2.70	0.50	DEEPDALE RD	South	23-Sep-07	20	2	0	1	0	0	0	0	0	0	0	2	2	**5**	**2**	
5051026	6	2.70	3.22	0.52	DEEPDALE RD	South	23-Sep-07	20	1	1	0	0	0	0	0	0	0	0	2	2	**3**	**3**	
5051027	1	0.00	5.21	5.21	COMPANY RD SOUTH	North	7-Oct-07	20	2	2	0	0	0	0	1	1	1	1	2	2	**6**	**6**	
5051027	2	5.21	7.60	2.39	COMPANY RD SOUTH	North	7-Oct-07	20	0	0	0	0	0	0	0	0	0	0	1	2	**1**	**2**	
5051028	1	0.00	1.00	1.00	KENNEDY RD	South East	1-Oct-07	20	1	1	0	0	0	0	0	0	0	0	2	2	**3**	**3**	
5051028	2	1.00	3.50	2.50	KENNEDY RD	South East	1-Oct-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051028	3	3.50	6.05	2.55	KENNEDY RD	South East	1-Oct-07	20	1	1	1	0	0	0	0	0	1	1	2	2	**5**	**4**	
5051029	1	0.00	2.50	2.50	COMPANY RD	North	7-Oct-07	20	1	1	0	0	0	0	1	1	0	0	1	1	**3**	**3**	
5051031	1	0.00	0.40	0.40	MOONYOOMOOKA - NARNGULU RD	South West	26-Sep-07	40	1	1	2	1	0	0	2	0	2	1	2	2	**9**	**5**	CALTROP
5051031	2	0.40	0.90	0.50	MOONYOOMOOKA - NARNGULU RD	South West	26-Sep-07	40	1	0	1	0	0	0	2	0	2	0	2	2	**8**	**2**	
5051031	3	0.90	3.90	3.00	MOONYOOMOOKA - NARNGULU RD	South West	26-Sep-07	40	1	1	1	1	0	0	2	1	2	1	2	2	**8**	**6**	
5051031	4	3.90	4.20	0.30	MOONYOOMOOKA - NARNGULU RD	South West	26-Sep-07	40	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051031	5	4.20	5.05	0.85	MOONYOOMOOKA - NARNGULU RD	South West	26-Sep-07	40	1	1	0	0	0	0	1	0	0	0	2	2	**4**	**3**	
5051032	1	0.00	0.40	0.40	BOOTENAL RD	North East	26-Sep-07	40	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051032	2	0.40	1.32	0.92	BOOTENAL RD	North East	26-Sep-07	40	0	1	0	1	0	0	0	1	0	1	2	2	**2**	**6**	
5051032	3	1.32	3.02	1.70	BOOTENAL RD	North East	26-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051032	4	3.02	6.31	3.29	BOOTENAL RD	North East	26-Sep-07	40	1	1	1	1	0	0	1	1	2	2	2	2	**7**	**7**	
5051032	5	6.31	7.90	1.59	BOOTENAL RD	North East	26-Sep-07	20	1	1	1	1	0	0	2	2	1	1	2	2	**7**	**7**	

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
5051033	1	0.00	2.20	2.20	CRAMPTON RD	South	7-Oct-07	20	1	1	0	0	0	0	1	1	0	0	1	2	**3**	**4**	CALTROP
5051033	2	2.20	3.56	1.36	CRAMPTON RD	South	7-Oct-07	40	2	0	1	0	1	0	1	1	2	0	1	1	**8**	**2**	CALTROP
5051038	1	0.00	1.20	1.20	SUTCLIFF RD	North	2-Oct-07	20	2	2	0	0	0	0	0	0	0	0	2	2	**4**	**4**	
5051038	2	1.20	3.05	1.85	SUTCLIFF RD	North	2-Oct-07	20	2	2	1	1	1	1	0	0	2	2	0	0	**6**	**6**	
5051040	1	0.00	0.90	0.90	BEATTIE RD	North	24-Oct-07	20	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	
5051040	2	0.90	1.40	0.50	BEATTIE RD	North	24-Oct-07	20	0	0	0	0	0	0	0	0	0	0	1	0	**1**	**0**	
5051040	3	1.40	3.90	2.50	BEATTIE RD	North	24-Oct-07	20	0	2	0	1	0	1	0	0	0	0	1	1	**1**	**5**	SALT_AFFECTED_ROADSIDE
5051040	4	3.90	4.40	0.50	BEATTIE RD	North	24-Oct-07	20	1	1	0	0	0	0	0	0	0	0	1	1	**2**	**2**	
5051040	5	4.40	5.40	1.00	BEATTIE RD	North	24-Oct-07	20	2	2	0	0	0	0	0	0	0	0	0	2	**2**	**4**	
5051042	1	0.00	1.60	1.60	GILES RD	North	26-Sep-07	20	0	2	0	2	0	1	1	2	0	0	0	1	**1**	**8**	
5051042	2	1.60	2.00	0.40	GILES RD	North	26-Sep-07	20	2	2	0	0	0	0	0	0	0	0	2	2	**4**	**4**	
5051042	3	2.00	2.30	0.30	GILES RD	North	26-Sep-07	20	0	0	0	0	0	0	0	0	0	2	2	0	**2**	**2**	
5051042	4	2.30	2.70	0.40	GILES RD	North	26-Sep-07	20	0	1	0	0	0	0	0	0	0	0	2	2	**2**	**3**	
5051042	5	2.70	3.90	1.20	GILES RD	North	26-Sep-07	20	2	2	1	1	1	1	0	0	0	0	2	2	**6**	**6**	
5051042	6	3.90	4.26	0.36	GILES RD	North	26-Sep-07	20	2	2	1	1	1	1	0	0	0	2	2	0	**6**	**6**	
5051042	7	4.26	4.60	0.34	GILES RD	North	26-Sep-07	20	2	2	1	1	2	2	2	2	2	2	0	0	**9**	**9**	
5051042	8	4.60	4.80	0.20	GILES RD	North	26-Sep-07	20	2	2	2	2	2	2	2	2	0	0	2	2	**10**	**10**	
5051042	9	4.80	5.20	0.40	GILES RD	North	26-Sep-07	20	2	0	1	0	0	0	1	0	0	0	2	2	**6**	**2**	
5051042	10	5.20	7.20	2.00	GILES RD	North	26-Sep-07	20	2	2	1	1	0	0	0	0	0	0	2	2	**5**	**5**	
5051042	11	7.20	8.00	0.80	GILES RD	North	26-Sep-07	20	2	2	0	0	0	0	0	0	0	0	2	2	**4**	**4**	
5051042	12	8.00	8.20	0.20	GILES RD	North	26-Sep-07	20	2	2	2	2	0	0	2	2	2	2	0	0	**8**	**8**	
5051042	13	8.20	8.70	0.50	GILES RD	North	26-Sep-07	20	2	0	0	0	0	0	0	0	0	0	2	2	**4**	**2**	
5051043	1	0.00	1.00	1.00	SCOTT RD	North	25-Sep-07	20	0	2	0	2	0	2	0	2	0	0	2	2	**2**	**10**	
5051043	2	1.00	2.20	1.20	SCOTT RD	North	25-Sep-07	20	2	2	1	1	1	1	0	0	0	0	2	2	**6**	**6**	
5051044	1	0.00	1.50	1.50	CRIDDLE RD	East	20-Sep-07	20	2	2	0	1	1	1	2	2	1	1	1	1	**7**	**8**	
5051044	2	1.50	2.50	1.00	CRIDDLE RD	East	20-Sep-07	20	1	0	1	0	0	0	1	0	1	0	1	2	**5**	**2**	
5051044	3	2.50	6.00	3.50	CRIDDLE RD	East	20-Sep-07	20	1	1	1	1	0	0	1	1	1	1	1	2	**5**	**6**	
5051044	4	6.00	6.60	0.60	CRIDDLE RD	South	20-Sep-07	20	0	2	0	1	0	1	1	1	0	1	1	1	**2**	**7**	
5051045	1	0.00	1.30	1.30	HAMERSLEY RD	North	1-Oct-07	20	0	0	0	0	0	0	0	0	0	0	2	1	**2**	**1**	
5051045	2	1.30	2.00	0.70	HAMERSLEY RD	North	1-Oct-07	20	2	1	1	1	0	0	1	1	1	1	2	2	**7**	**6**	
5051045	3	2.00	3.20	1.20	HAMERSLEY RD	North	1-Oct-07	20	0	2	0	0	0	0	0	0	1	1	2	2	**3**	**5**	
5051046	1	0.00	2.00	2.00	WICHERINA SOUTH RD	South	17-Sep-07	20	2	2	2	2	2	2	2	2	2	2	2	0	**12**	**10**	
5051046	2	2.00	3.10	1.10	WICHERINA SOUTH RD	South	17-Sep-07	20	2	2	2	2	2	2	2	2	2	2	2	1	**12**	**11**	

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
5051046	3	3.10	4.70	1.60	WICHERINA SOUTH RD	South	17-Sep-07	20	2	2	2	2	2	2	2	2	1	2	2	1	**11**	**11**	
5051046	4	4.70	5.10	0.40	WICHERINA SOUTH RD	South	17-Sep-07	20	2	2	1	2	1	2	1	2	1	1	2	0	**8**	**9**	
5051046	5	5.10	6.10	1.00	WICHERINA SOUTH RD	South	17-Sep-07	20	1	2	0	2	0	2	0	2	1	1	2	2	**4**	**11**	
5051046	6	6.10	7.40	1.30	WICHERINA SOUTH RD	East	17-Sep-07	20	1	1	0	0	0	0	0	0	0	0	2	2	**3**	**3**	
5051046	7	7.40	8.40	1.00	WICHERINA SOUTH RD	South East	17-Sep-07	20	1	1	0	0	0	0	1	1	1	1	2	1	**5**	**4**	
5051046	8	8.40	10.40	2.00	WICHERINA SOUTH RD	South East	17-Sep-07	20	1	1	1	0	0	0	0	0	1	1	2	2	**5**	**4**	
5051046	9	10.40	10.70	0.30	WICHERINA SOUTH RD	South East	17-Sep-07	20	2	0	1	0	2	0	2	0	1	0	0	2	**8**	**2**	
5051046	10	10.70	12.10	1.40	WICHERINA SOUTH RD	South East	17-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051046	11	12.10	12.50	0.40	WICHERINA SOUTH RD	South East	17-Sep-07	20	1	1	1	1	0	0	1	1	0	0	2	1	**5**	**4**	
5051048	1	0.00	1.20	1.20	SHORT RD	East	23-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051048	2	1.20	1.50	0.30	SHORT RD	East	23-Sep-07	20	0	1	0	0	0	0	0	1	0	0	2	2	**2**	**4**	
5051048	3	1.50	2.50	1.00	SHORT RD	East	23-Sep-07	20	2	1	1	0	0	0	0	0	0	0	2	2	**5**	**3**	
5051048	4	2.50	2.80	0.30	SHORT RD	East	23-Sep-07	20	2	1	1	1	0	0	1	1	0	0	2	2	**6**	**5**	
5051048	5	2.80	3.70	0.90	SHORT RD	East	23-Sep-07	20	2	2	1	1	0	0	0	0	0	0	2	2	**5**	**5**	
5051048	6	3.70	4.01	0.31	SHORT RD	East	23-Sep-07	20	0	1	0	0	0	0	0	0	0	0	2	2	**2**	**3**	
5051057	1	0.00	3.40	3.40	JANDANOL RD	North West	18-Sep-07	20	1	1	0	0	0	0	0	0	0	0	2	2	**3**	**3**	ONION_WEED
5051057	2	3.40	3.84	0.44	JANDANOL RD	North West	18-Sep-07	20	1	0	0	0	0	0	0	0	1	0	2	2	**4**	**2**	
5051058	1	0.00	0.30	0.30	DEVLIN POOL RD	West	18-Sep-07	20	1	2	0	1	0	0	1	1	1	1	1	2	**4**	**7**	ONION_WEED
5051058	2	0.30	1.20	0.90	DEVLIN POOL RD	West	18-Sep-07	20	2	2	2	2	1	2	2	2	1	1	0	0	**8**	**9**	ONION_WEED
5051058	3	1.20	2.50	1.30	DEVLIN POOL RD	South	18-Sep-07	20	2	2	2	2	0	2	2	2	1	1	1	0	**8**	**9**	ONION_WEED
5051058	4	2.50	3.07	0.57	DEVLIN POOL RD	South	18-Sep-07	20	1	1	0	0	0	0	0	0	0	0	1	2	**2**	**3**	ONION_WEED
5051059	1	0.00	0.70	0.70	FLAT ROCKS RD	North West	7-Oct-07	20	0	0	0	0	0	0	1	1	0	0	2	2	**3**	**3**	
5051059	2	0.70	2.50	1.80	FLAT ROCKS RD	West	7-Oct-07	60	2	2	2	2	1	1	1	1	1	1	0	0	**7**	**7**	
5051060	1	0.00	0.70	0.70	WALTER RD	South	23-Sep-07	20	2	1	1	1	0	0	1	1	0	0	2	2	**6**	**5**	
5051060	2	0.70	1.20	0.50	WALTER RD	South	23-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
5051060	3	1.20	1.70	0.50	WALTER RD	South	23-Sep-07	20	2	2	1	0	0	0	1	1	1	1	2	2	**7**	**6**	
5051060	4	1.70	2.00	0.30	WALTER RD	South	23-Sep-07	20	0	0	1	1	0	0	1	1	0	0	2	0	**4**	**2**	
5051060	5	2.00	2.24	0.24	WALTER RD	South	23-Sep-07	20	2	2	2	2	0	0	2	2	1	1	1	2	**8**	**9**	
5051060	6	2.24	4.60	2.36	WALTER RD	South	23-Sep-07	20	2	2	2	2	2	2	2	2	1	1	0	2	**9**	**11**	
5051060	7	4.60	7.00	2.40	WALTER RD	South	23-Sep-07	20	2	2	2	0	1	0	2	1	1	1	0	2	**8**	**6**	
5051061	1	0.00	0.60	0.60	FRASER RD	East	23-Sep-07	20	2	2	2	2	1	1	2	2	1	1	0	0	**8**	**8**	
5051061	2	0.60	2.20	1.60	FRASER RD	East	23-Sep-07	20	2	2	2	0	2	0	2	1	1	1	0	2	**9**	**6**	
5051061	3	2.20	3.10	0.90	FRASER RD	East	23-Sep-07	20	2	2	1	1	1	0	1	1	1	1	1	1	**7**	**6**	
5051061	4	3.10	4.90	1.80	FRASER RD	East	23-Sep-07	20	1	1	1	2	0	0	1	2	0	0	2	2	**5**	**7**	
5051061	5	4.90	5.30	0.40	FRASER RD	East	23-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051062	1	0.00	1.30	1.30	MC CARLEY RD	South	23-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051062	2	1.30	1.60	0.30	MC CARLEY RD	South	23-Sep-07	20	2	0	1	0	0	0	1	1	0	0	2	2	**6**	**3**	
5051067	1	0.00	1.64	1.64	TRAMWAY RD	East	25-Oct-07	20	1	1	0	0	0	0	0	0	0	0	2	2	**3**	**3**	
5051070	1	0.00	0.20	0.20	NORTHERN GULLY SOUTH RD	South	17-Sep-07	20	0	2	0	0	0	0	0	0	0	0	0	2	**0**	**4**	
5051070	2	0.20	0.80	0.60	NORTHERN GULLY SOUTH RD	South	17-Sep-07	20	2	2	1	1	2	1	1	1	1	1	2	2	**9**	**8**	
5051070	3	0.80	1.70	0.90	NORTHERN GULLY SOUTH RD	South	17-Sep-07	20	2	2	1	1	1	2	1	2	1	1	2	1	**8**	**9**	
5051070	4	1.70	2.20	0.50	NORTHERN GULLY SOUTH RD	South	17-Sep-07	20	2	2	1	1	1	1	2	2	1	1	0	0	**7**	**7**	
5051070	5	2.20	3.80	1.60	NORTHERN GULLY SOUTH RD	South	17-Sep-07	20	2	2	1	1	1	1	1	1	1	1	0	1	**6**	**7**	
5051070	6	3.80	5.30	1.50	NORTHERN GULLY SOUTH RD	South	17-Sep-07	20	2	2	1	1	1	1	1	1	1	1	2	1	**8**	**7**	
5051089	1	0.00	1.34	1.34	DUNCAN RD	East	7-Oct-07	20	1	0	0	0	0	0	0	0	0	0	2	2	**3**	**2**	
5051090	1	0.00	0.85	0.85	KNAPPS RD	West	7-Oct-07	20	0	0	0	0	0	0	1	1	0	0	2	2	**3**	**3**	
5051142	1	0.00	1.10	1.10	SHIELDS RD	East	15-Sep-07	20	0	2	0	1	0	0	0	1	0	1	1	1	**1**	**6**	
5051142	2	1.10	1.90	0.80	SHIELDS RD	East	15-Sep-07	20	2	2	1	1	2	1	1	1	1	1	2	2	**9**	**8**	
5051142	3	1.90	2.20	0.30	SHIELDS RD	East	15-Sep-07	20	1	2	1	2	1	2	1	2	1	1	2	2	**7**	**11**	
5051144	1	0.00	2.58	2.58	OLIVER RD	North	20-Sep-07	20	0	1	0	0	0	0	1	1	0	0	1	2	**2**	**4**	
5051145	1	0.00	1.10	1.10	BRICE RD	East	26-Sep-07	40	1	1	0	0	0	0	2	1	2	1	2	2	**7**	**5**	
5051145	2	1.10	3.30	2.20	BRICE RD	East	26-Sep-07	40	0	1	0	0	0	0	0	0	0	1	2	2	**2**	**4**	

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
5051145	3	3.30	3.80	0.50	BRICE RD	North	26-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051145	4	3.80	4.90	1.10	BRICE RD	North	26-Sep-07	20	1	0	0	0	0	0	0	0	0	0	2	2	**3**	**2**	
5051146	1	0.00	2.30	2.30	WILLIAMS RD	West	20-Sep-07	20	2	2	1	1	1	1	1	1	1	1	2	2	**8**	**8**	
5051147	1	0.00	1.30	1.30	BLAYNEY RD	East	17-Sep-07	20	2	2	2	2	2	2	2	2	2	1	0	2	**10**	**11**	
5051147	2	1.30	2.90	1.60	BLAYNEY RD	East	17-Sep-07	20	2	2	2	2	2	2	1	1	1	1	2	2	**10**	**10**	
5051147	3	2.90	4.20	1.30	BLAYNEY RD	East	17-Sep-07	20	2	2	2	2	2	2	2	2	1	1	1	1	**10**	**10**	
5051148	1	0.00	1.00	1.00	NOEL RD	East	17-Sep-07	20	2	1	1	0	0	0	0	0	1	1	2	2	**6**	**4**	
5051196	1	0.00	1.10	1.10	WEST BANK RD	West	7-Oct-07	20	2	2	1	1	0	0	1	1	1	1	1	1	**6**	**6**	
5051216	1	0.00	0.50	0.50	MITCHELL RD	South	26-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051222	1	9.46	10.56	1.10	PHELPS RD	South East	18-Sep-07	20	0	1	0	0	0	0	0	0	0	0	1	1	**1**	**2**	
5051225	1	0.00	0.50	0.50	BYNES PARK RD	West	26-Sep-07	40	1	1	1	1	0	0	1	1	2	1	2	2	**7**	**6**	
5051225	2	0.50	1.30	0.80	BYNES PARK RD	West	26-Sep-07	40	1	1	1	2	0	0	2	2	2	2	2	2	**8**	**9**	
5051225	3	1.30	2.10	0.80	BYNES PARK RD	West	26-Sep-07	20	1	1	0	1	0	0	0	1	1	2	2	2	**4**	**7**	
5051226	1	0.00	0.40	0.40	BRIDGID RD	South West	18-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051227	1	0.61	1.21	0.60	GILBERT RD	East	2-Oct-07	20	2	2	1	1	0	0	1	1	0	0	1	1	**5**	**5**	
5051227	2	1.21	1.61	0.40	GILBERT RD	East	2-Oct-07	20	0	0	0	0	0	0	1	1	0	0	0	0	**1**	**1**	
5051227	3	1.61	1.93	0.32	GILBERT RD	East	2-Oct-07	20	0	0	0	0	0	0	1	1	0	0	0	1	**1**	**2**	
5051229	1	0.00	0.30	0.30	HENRY RD	West	7-Oct-07	20	2	2	1	1	0	0	1	1	1	1	1	1	**6**	**6**	CALTROP
5051229	2	0.30	1.34	1.04	HENRY RD	West	7-Oct-07	20	1	1	0	0	0	0	1	1	0	0	2	2	**4**	**4**	CALTROP
5051232	1	0.00	1.00	1.00	CHINTAPEE RD	South East	26-Sep-07	60	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051280	1	0.00	1.90	1.90	WOOLANOOKA RD	North West	26-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051281	1	0.00	0.50	0.50	BRADLEY RD	South East	23-Sep-07	20	2	2	1	0	0	0	0	0	1	1	2	2	**6**	**5**	
5051281	2	0.50	1.44	0.94	BRADLEY RD	North East	23-Sep-07	20	2	2	2	2	1	1	1	1	1	1	2	2	**9**	**9**	
5051282	1	0.00	0.30	0.30	ROSE RD	North East	15-Sep-07	20	2	1	1	0	0	0	2	0	1	1	1	2	**7**	**4**	
5051282	2	0.30	0.86	0.56	ROSE RD	West	15-Sep-07	20	2	2	2	2	2	1	2	2	1	2	1	0	**10**	**9**	
5051283	1	0.00	0.96	0.96	CANT RD	West	20-Sep-07	20	2	2	0	0	0	0	2	2	1	1	1	1	**6**	**6**	
5051284	1	0.00	1.80	1.80	MCCONKEY RD	North	18-Sep-07	20	0	1	0	0	0	0	0	0	0	0	1	1	**1**	**2**	ONION_WEED
5051330	1	0.00	1.40	1.40	REYNOLDS RD	North West	7-Oct-07	20	0	0	0	0	0	0	0	0	0	0	1	1	**1**	**1**	
5051332	1	0.00	1.00	1.00	WAKEFORD RD	West	7-Oct-07	20	2	2	1	1	1	1	1	2	1	1	1	1	**7**	**8**	
5051332	2	1.00	2.00	1.00	WAKEFORD RD	South West	7-Oct-07	20	2	2	2	2	1	1	2	2	1	1	0	0	**8**	**8**	
5051336	1	0.00	0.70	0.70	JORDAN RD	South West	25-Sep-07	20	0	2	0	2	0	2	2	2	0	2	2	0	**4**	**10**	
5051400	1	0.00	0.70	0.70	WALKAWAY - NANGETTY RD	South East	20-Sep-07	20	0	2	0	1	0	0	1	1	0	0	2	2	**3**	**6**	

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
5051400	2	0.70	1.40	0.70	WALKAWAY - NANGETTY RD	East	20-Sep-07	20	2	2	0	1	0	0	0	0	1	1	2	2	**5**	**6**	
5051400	3	1.40	2.10	0.70	WALKAWAY - NANGETTY RD	East	20-Sep-07	20	0	0	0	0	0	0	1	1	0	0	2	2	**3**	**3**	
5051400	4	2.10	2.90	0.80	WALKAWAY - NANGETTY RD	East	20-Sep-07	20	2	0	1	0	0	0	1	1	0	0	2	2	**6**	**3**	
5051400	5	2.90	3.39	0.49	WALKAWAY - NANGETTY RD	East	20-Sep-07	20	2	2	1	1	0	0	1	1	1	1	2	2	**7**	**7**	
5051400	6	3.39	4.19	0.80	WALKAWAY - NANGETTY RD	East	20-Sep-07	40	0	2	0	1	0	1	2	2	0	2	1	1	**3**	**9**	
5051400	7	4.19	7.09	2.90	WALKAWAY - NANGETTY RD	East	20-Sep-07	20	2	2	1	1	1	1	1	2	1	1	2	2	**8**	**9**	
5051400	8	7.09	8.79	1.70	WALKAWAY - NANGETTY RD	East	20-Sep-07	20	2	0	1	0	0	0	1	1	1	0	2	2	**7**	**3**	
5051400	9	8.79	13.09	4.30	WALKAWAY - NANGETTY RD	East	20-Sep-07	20	1	2	0	1	0	0	1	1	1	1	2	1	**5**	**6**	
5051400	10	13.09	13.98	0.89	WALKAWAY - NANGETTY RD	East	20-Sep-07	20	2	2	0	0	0	0	2	2	1	1	2	2	**7**	**7**	
5051400	11	13.98	14.69	0.71	WALKAWAY - NANGETTY RD	East	20-Sep-07	20	1	1	0	0	0	0	1	1	0	0	1	1	**3**	**3**	
5051400	12	14.69	17.79	3.10	WALKAWAY - NANGETTY RD	East	20-Sep-07	20	2	2	1	1	1	1	2	2	1	1	1	1	**8**	**8**	
5051400	13	17.79	20.39	2.60	WALKAWAY - NANGETTY RD	East	20-Sep-07	20	2	1	0	0	0	0	2	2	0	0	2	2	**6**	**5**	
5051400	14	20.39	22.89	2.50	WALKAWAY - NANGETTY RD	East	20-Sep-07	20	1	1	1	1	0	0	1	1	1	1	2	2	**6**	**6**	
5051400	15	22.89	24.39	1.50	WALKAWAY - NANGETTY RD	East	20-Sep-07	20	2	2	1	1	0	0	1	1	1	1	1	1	**6**	**6**	
5051400	16	24.39	29.39	5.00	WALKAWAY - NANGETTY RD	East	20-Sep-07	20	1	1	1	1	0	0	1	1	1	1	2	2	**5**	**5**	
5051409	1	0.00	0.24	0.24	REDHEAD ST	East	18-Sep-07	20	0	0	0	0	0	0	0	0	0	0	1	1	**1**	**1**	
5051410	1	0.00	1.28	1.28	MEADOWCROFT ST	North	18-Sep-07	20	0	2	0	1	0	0	0	0	0	0	2	1	**2**	**4**	
5051414	1	0.45	0.95	0.50	CROWTHER RD	South East	7-Oct-07	40	2	2	1	1	0	0	1	1	0	0	1	1	**5**	**5**	
5051414	2	0.95	2.05	1.10	CROWTHER RD	South East	7-Oct-07	20	2	2	0	0	0	0	0	0	0	0	1	1	**3**	**3**	
5051436	1	0.00	0.40	0.40	RAMSAY RD	South East	15-Sep-07	20	2	2	1	1	0	0	1	1	1	1	1	1	**6**	**6**	
5051436	2	0.40	0.90	0.50	RAMSAY RD	South West	15-Sep-07	20	1	0	0	0	0	0	0	0	0	0	2	2	**3**	**2**	
5051436	3	0.90	1.20	0.30	RAMSAY RD	South West	15-Sep-07	20	1	0	0	0	0	0	0	0	0	0	1	2	**2**	**2**	
5051436	4	1.20	2.50	1.30	RAMSAY RD	South West	15-Sep-07	20	2	2	0	0	0	0	0	0	0	0	1	1	**3**	**3**	

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
5051436	5	2.50	2.70	0.20	RAMSAY RD	South West	15-Sep-07	20	2	2	1	1	1	1	2	2	0	0	0	0	**6**	**6**	
5051436	6	2.70	5.80	3.10	RAMSAY RD	South West	15-Sep-07	20	2	2	1	1	1	1	1	1	1	1	2	2	**8**	**8**	
5051436	7	5.80	6.20	0.40	RAMSAY RD	South West	15-Sep-07	20	2	0	0	0	0	0	0	0	0	0	2	2	**4**	**2**	
5051436	8	6.20	9.80	3.60	RAMSAY RD	South West	15-Sep-07	20	0	0	0	0	0	0	0	0	0	0	1	1	**1**	**1**	
5051437	1	0.00	4.10	4.10	RED EMPEROR	West	7-Oct-07	20	1	1	2	2	2	2	2	2	2	2	0	0	**9**	**9**	
5051438	1	0.00	0.30	0.30	HILLRIVER RD	North	26-Sep-07	20	2	2	1	1	0	0	2	2	0	0	2	2	**7**	**7**	
5051438	2	0.30	2.10	1.80	HILLRIVER RD	West	26-Sep-07	20	0	0	0	0	0	0	0	0	0	0	2	2	**2**	**2**	
5051441	1	0.00	1.00	1.00	GLYNN RD	West	18-Sep-07	20	0	0	0	0	0	0	0	0	0	0	1	1	**1**	**1**	
5051460	1	0.00	0.70	0.70	SHOWGROUND RD	West	1-Oct-07	20	1	1	0	0	0	0	0	0	1	1	2	2	**4**	**4**	
5051460	2	0.70	2.20	1.50	SHOWGROUND RD	East	1-Oct-07	20	0	0	0	0	0	0	1	1	0	0	2	2	**3**	**3**	
5051460	3	2.20	3.40	1.20	SHOWGROUND RD	East	1-Oct-07	20	1	1	0	0	0	0	0	1	1	1	1	2	**3**	**5**	
5051460	4	3.40	3.85	0.45	SHOWGROUND RD	East	1-Oct-07	20	1	1	0	0	0	0	1	1	1	1	0	1	**3**	**4**	
5051492	1	0.00	0.35	0.35	BOOTENAL WEST RD	East	26-Sep-07	20	0	1	1	1	0	0	1	1	0	0	2	2	**4**	**5**	
H004	1	329.41	345.29	15.88	BRAND HWY	North	7-Oct-07	20	0	0	0	0	0	0	2	1	0	0	1	1	**3**	**2**	CALTROP
H004	2	345.29	346.00	0.71	BRAND HWY	North	7-Oct-07	20	2	1	0	0	0	0	1	1	1	1	1	1	**5**	**4**	CALTROP
H004	3	346.00	351.41	5.41	BRAND HWY	North	7-Oct-07	20	0	0	0	0	0	0	1	2	0	0	1	1	**2**	**3**	CALTROP
H004	4	351.41	355.52	4.11	BRAND HWY	North	7-Oct-07	40	2	0	1	0	1	0	1	1	1	0	1	1	**7**	**2**	APPLE_OF_SODOM
H004	5	355.52	356.13	0.61	BRAND HWY	North	7-Oct-07	60	2	0	1	0	1	0	1	1	1	0	1	1	**7**	**2**	
H004	6	356.13	356.73	0.60	BRAND HWY	North	7-Oct-07	60	2	2	1	1	1	1	2	1	1	1	2	2	**9**	**8**	
H004	7	356.73	359.13	2.40	BRAND HWY	North	7-Oct-07	60	2	2	1	1	1	1	1	1	1	1	1	2	**7**	**8**	
H004	8	359.13	361.28	2.15	BRAND HWY	North	7-Oct-07	40	1	1	1	0	1	0	2	1	1	0	0	2	**6**	**4**	
H004	9	361.28	361.83	0.55	BRAND HWY	North	7-Oct-07	40	1	1	1	0	0	0	1	1	0	0	0	0	**3**	**2**	
H004	10	361.83	363.28	1.45	BRAND HWY	North	7-Oct-07	40	2	2	2	0	1	0	1	2	1	1	0	0	**7**	**5**	

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
H050	1	9.75	11.55	1.80	GERALDTON - MT MAGNET RD	East	26-Sep-07	0	1	0	0	0	0	0	0	0	0	0	2	2	**3**	**2**	
H050	2	11.55	13.55	2.00	GERALDTON - MT MAGNET RD	East	26-Sep-07	80	2	2	1	1	1	1	0	0	0	0	2	2	**6**	**6**	
H050	3	13.55	23.75	10.20	GERALDTON - MT MAGNET RD	East	26-Sep-07	80	2	2	2	2	1	1	0	0	0	2	2	2	**7**	**7**	
H050	4	23.75	25.95	2.20	GERALDTON - MT MAGNET RD	East	26-Sep-07	80	0	2	0	1	0	1	0	0	0	0	2	2	**2**	**6**	
H050	5	25.95	26.18	0.23	GERALDTON - MT MAGNET RD	East	17-Sep-07	40	2	0	1	0	1	0	1	2	1	0	0	1	**6**	**3**	
H050	6	26.18	26.50	0.32	GERALDTON - MT MAGNET RD	East	17-Sep-07	40	2	2	1	1	2	1	1	1	1	1	0	1	**7**	**7**	
H050	7	26.50	28.63	2.13	GERALDTON - MT MAGNET RD	East	17-Sep-07	40	1	2	0	2	1	2	0	2	1	1	2	1	**5**	**10**	
H050	8	28.63	29.45	0.82	GERALDTON - MT MAGNET RD	East	17-Sep-07	40	2	2	1	2	2	2	1	2	0	0	1	1	**7**	**9**	
H050	9	29.45	30.28	0.82	GERALDTON - MT MAGNET RD	East	17-Sep-07	40	2	2	2	2	2	2	1	2	1	1	2	1	**10**	**10**	
H050	10	30.28	31.30	1.03	GERALDTON - MT MAGNET RD	East	17-Sep-07	40	1	2	0	2	1	2	0	1	1	1	1	1	**4**	**9**	
H050	11	31.30	31.60	0.30	GERALDTON - MT MAGNET RD	East	15-Sep-07	20	2	2	1	1	1	2	0	2	1	2	0	1	**5**	**10**	
H050	12	31.60	33.60	2.00	GERALDTON - MT MAGNET RD	East	15-Sep-07	20	1	1	0	1	0	2	0	0	0	2	2	1	**3**	**7**	
H050	13	33.60	34.20	0.60	GERALDTON - MT MAGNET RD	East	15-Sep-07	20	2	2	1	1	1	2	0	0	1	2	2	1	**7**	**8**	
H050	14	34.20	36.10	1.90	GERALDTON - MT MAGNET RD	East	15-Sep-07	20	2	1	1	1	2	1	0	0	1	1	2	2	**8**	**6**	
H050	15	36.10	36.70	0.60	GERALDTON - MT MAGNET RD	East	15-Sep-07	20	2	2	2	2	2	1	2	2	2	2	2	1	**12**	**10**	
H050	16	36.70	37.30	0.60	GERALDTON - MT MAGNET RD	East	15-Sep-07	20	2	1	0	0	1	1	0	0	1	1	1	1	**5**	**4**	
H050	17	37.30	37.92	0.62	GERALDTON - MT MAGNET RD	East	15-Sep-07	20	1	2	1	1	1	1	0	0	1	1	2	2	**6**	**7**	
H050	18	37.92	39.30	1.38	GERALDTON - MT MAGNET RD	East	15-Sep-07	20	1	1	1	1	0	0	0	0	1	1	2	2	**5**	**5**	
H050	19	39.30	39.80	0.50	GERALDTON - MT MAGNET RD	East	15-Sep-07	20	2	2	1	1	1	1	0	2	1	1	2	1	**7**	**8**	
H050	20	39.80	42.60	2.80	GERALDTON - MT MAGNET RD	East	15-Sep-07	20	2	2	2	2	2	2	0	2	2	2	1	0	**9**	**10**	
H050	21	42.60	44.80	2.20	GERALDTON - MT MAGNET RD	East	15-Sep-07	20	2	1	1	1	1	1	0	0	1	1	2	2	**7**	**6**	
H050	22	44.80	45.10	0.30	GERALDTON - MT MAGNET RD	East	15-Sep-07	20	2	2	1	1	1	1	2	2	2	1	0	2	**8**	**9**	

Road#	Sect#	OD Start (km)	OD Finish (km)	Sect length	Road Name	Direction	Date	Width	Native Vegetation		Extent of Vegetation		# Native Plant Species		Weeds		Value as Biol. Corridor		Adjoining Landuse		Conservation Value Score (0-12)		Overlay Data
								(m)	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	**Left**	**Right**	(Listed if Present)
H050	23	45.10	46.51	1.41	GERALDTON - MT MAGNET RD	East	15-Sep-07	20	2	2	1	1	2	2	2	2	0	0	0	2	**7**	**9**	
M054	1	6.21	7.01	0.80	GERALDTON - WALKAWAY RD	South East	1-Oct-07	20	0	0	0	0	0	0	0	0	0	0	2	1	**2**	**1**	
M054	2	7.01	7.21	0.20	GERALDTON - WALKAWAY RD	South East	1-Oct-07	20	1	1	0	0	0	0	0	0	1	1	2	1	**4**	**3**	
M054	3	7.21	19.91	12.70	GERALDTON - WALKAWAY RD	South East	1-Oct-07	20	0	0	0	0	0	0	0	0	0	0	2	1	**2**	**1**	
M054	4	19.91	20.82	0.91	GERALDTON - WALKAWAY RD	South East	1-Oct-07	20	2	2	0	1	0	0	1	1	1	1	2	1	**6**	**6**	
M054	5	20.82	22.42	1.60	GERALDTON - WALKAWAY RD	South East	1-Oct-07	20	2	2	0	1	0	0	0	0	1	1	2	1	**5**	**5**	
M054	6	22.42	22.82	0.40	GERALDTON - WALKAWAY RD	South East	1-Oct-07	20	0	0	0	0	0	0	0	0	0	0	2	1	**2**	**1**	
M054	7	22.82	23.72	0.90	GERALDTON - WALKAWAY RD	South East	1-Oct-07	20	1	1	0	0	0	0	1	0	0	0	2	1	4	2	

Key to table interpretation:
OD Start/Finish: is the odometer reading for the section start and finish points.
Direction: is the direction travelled by the surveyors when assessing the roadside.
Width: is the width of the road reserve.

The following attributes are ranked from 0 (lowest level) to 2 (highest level) as per the descriptions below.
Native Vegetation: score based on the number of native vegetation layers present (ie) tree, shrub and/or ground cover layers.
Extent of Vegetation: score is based on the proportion of native vegetation in the total roadside vegetation.
#Native Plant Species: score is based on the diversity of plants species in the roadside vegetation.
Value as Biological Corridor: score is based on the number of roadside vegetation attributes present that are important as fauna habitat.
Adjoining Landuse: score is based on the extent of native vegetation in the surrounding landscape (higher scores indicate lower levels of native vegetation in the surrounding landscape).
Weeds: score is based on level of weed infestation (higher scores indicate lower levels of weed infestation).

Appendix

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APPENDIX 3

Road names and lengths: City of Geraldton-Greenough

(Source: Main Roads WA 2008)

Road Number	Road Name	Road Length (km)
5051214	AARON CL	0.18
5050290	ABALONE PL	0.16
5051157	ABATTOIR ACCESS RD	0.7
5051071	ABATTOIR RD	0.93
5050291	ABBOTT PL	0.08
5050179	ABELIA ST	0.71
5050188	ABRAHAM ST	1.93
5050142	ABROLHOS ST	0.22
5051412	ABROLOHOS CL	0.25
5051245	ACACIA ST	0.28
5051075	ACKLAND RD	1.01
5050138	ADAM ST	0.11
5050347	ADEENA CL	0.2
5051112	ADELAIDE ST	0.45
5051053	ADLAM ST	0.21
5051413	AFRICAN REEF BVD	2.89
5050047	AINSWORTH ST	0.96
5050292	AITKEN PL	0.09
5051525	AJAX DR	0.6
5051475	ALANTIC BR	0.16
5051069	ALBERT RD	0.7
5050046	ALBERT ST	0.33
5051041	ALEXANDER DR	4.98
5050192	ALEXANDER ST	0.72
5050216	ALICE ST	0.08
5051006	ALLANOOKA SPRINGS RD	14.27
5050134	ALLEN ST	0.64
5051305	ALLENDER PL	0.17
5050293	AMALDA PL	0.14
5051535	AMAR CT	0.34
5051165	AMOS PL	0.06
5050213	ANCHOR WY	0.08
5051375	ANCHORAGE LKT	0.2
5051176	ANDERSON DR	0.2
5050128	ANDERSON ST	2.4
5051025	ANGELS RD	5.42
5051563	ANGLER PDE	0.22
5050023	ANZAC TCE	0.24
5051170	APPLEBY CL	0.1
5051482	ARCHDALE RISE	0.16
5050187	ARCHER ST	0.5
5050204	ARMSTRONG ST	0.12
5051037	ARNOLD RD	1.01
5050048	ARNOLD ST	0.19
5051008	ARTHUR RD	21.38
5051252	ASHER CT	0.07
5050239	ASHTON CL	0.51

5050027	ASKEW RD	0.3
5050248	ASSEN ST	1.05
5050294	ASTROLABE L	0.16
5051186	ASTRON WY	0.14
5051313	AUGER GRN	0.17
5050004	AUGUSTUS ST	1.23
5051345	AVALON PL	0.35
5051528	AWANUI ST	0.34
5051139	BAGHDAD CT	0.26
5050205	BAKER ST	0.24
5050295	BALDWIN PL	0.14
5050272	BALER ST	0.41
5051479	BALGUDDA PDE	0.05
5050161	BANKSIA ST	0.46
5050296	BARKER ST	0.18
5051249	BARRETT DR	0.99
5050259	BARTLETT ST	0.16
5051449	BASILE CT	0.23
5050144	BASTON ST	0.04
5050297	BATAVIA PL	0.19
5050226	BATEMAN ST	0.22
5051205	BATTEN PL	0.04
5050049	BAYLY ST	1.18
5050430	BAYLY ST WEST	0.14
5051373	BAYSIDE BVD	0.34
5051050	BAYVIEW ST	0.87
5051572	BEACHCOMBER HILL	0.37
5051457	BEACON RISE	0.35
5051324	BEACONSFIELD RD	0.57
5050392	BEAGLE PL	0.13
5051040	BEATTIE RD	5.4
5051497	BEATTIE RD LINK	0.07
5051346	BEAUFORT ST	0.16
5050126	BEAVER ST	0.81
5050123	BEDFORD ST	0.59
5051470	BEELA RD	0.09
5051350	BEGONIA CT	0.1
5051395	BELL CT	0.06
5051379	BELLIMOS DR	1.31
5050298	BEN - LEDI WY	0.21
5050256	BENNETT ST	0.46
5050068	BERESFORD AV	0.22
5050140	BERTIE ST	0.12
5050175	BETULA ST	0.13
5050235	BIRCH ST	0.09
5050429	BISHOPS CT	0.08
5051092	BLACKBURN CR	0.3
5051147	BLAYNEY RD	4.2
5050057	BLENCOWE RD	1.23
5051459	BLUEFIN DR	0.07
5051295	BLUEWATER CL	0.17
5051496	BOAT COVE	0.06
5051253	BOAZ ST	0.25

5050346	BOGLE WY	0.28
5050353	BONAMIA RD	0.54
5051032	BOOTENAL RD	7.92
5051492	BOOTENAL WEST RD	0.35
5051386	BORDER DR	1.43
5051036	BORE RD	0.81
5050091	BORONIA AV	0.27
5050093	BOSLEY ST	0.69
5050207	BOSUNS CR	0.31
5051538	BOTTLEBRUSH CL	0.13
5050300	BOURDMAN PL	0.12
5050124	BOX ST	0.59
5050125	BOYD ST	1.12
5050393	BRADFORD ST	1.36
5051281	BRADLEY RD	1.44
5050033	BRADLEY ST	0.22
5050054	BREDE ST	1.78
5051145	BRICE RD	3.4
5051226	BRIDGID RD	0.4
5051359	BRIERLY CT	0.28
5050394	BRIGALOW CRES.	0.08
5051123	BRIGHTON CL	0.21
5051111	BRISBANE ST	0.15
5051481	BRITANNIA PDE	0.3
5050323	BROADBANK L	0.13
5050301	BROADFIELD CL	0.24
5050198	BROADHEAD AV	0.26
5051558	BROCKAGH DR	0.22
5051342	BROCKMAN CL	0.41
5050118	BROOME ST	0.97
5051154	BROWN ST	0.11
5050209	BUCCANEERS WY	0.15
5051122	BUCHANAN PL	0.21
5051055	BUCKINGHAM ST	0.35
5050131	BUGARA ST	0.22
5050014	BURGES ST	0.86
5051331	BURGESS CR	0.43
5051003	BURMA RD	20
5051390	BUSHY RD	0.15
5051225	BYNES PARK RD	2.1
5050143	CAIRNCROSS ST	0.37
5051297	CALAMAR PL	0.5
5051220	CALILAH RD	0.08
5050386	CALLISTEMON CT(DAMPEIRA)	0.17
5051276	CALYTHRIX CT	0.25
5050338	CAMERON RD	0.12
5051356	CANDLEBARK AV	0.61
5051283	CANT RD	0.96
5051553	CANTER CT	0.15
5050157	CAPRICE RD	0.12
5050206	CAPTAINS CR	0.33
5051160	CARNALEA RD	1.54
5051116	CARR ST	0.55

5050003	CARSON TCE	0.74
5050171	CARTER ST	0.27
5050168	CASSIA ST	0.4
5050395	CASSIN PL.	0.06
5051353	CASURINA CL	0.17
5050020	CATHEDRAL AV	1.61
5050108	CATHERINE ST	0.49
5051500	CATSPAW CT	0.2
5050114	CECILY ST	0.16
5051299	CEDAR CR	0.62
5050098	CENTAUR RD	0.2
5050081	CENTRAL RD	1
5050173	CHALLENER ST	0.2
5050408	CHAMPION BAY RISE	0.22
5051096	CHANT CT	0.11
5050008	CHAPMAN RD	12.16
5050303	CHAPMAN SVC RD	0.13
5050358	CHAPMAN VALLEY RD	4.24
5050104	CHARLES ST	0.72
5050095	CHARON RD	0.26
5051232	CHINTAPEE RD	1.55
5050069	CHRISTIE ST	0.29
5051493	CLARA CT	0.17
5050371	CLARK ST	0.13
5050349	CLARKSON ST	0.09
5050354	CLEMATIS CR	0.42
5050190	CLEOPATRA RD	0.21
5051425	COAKER ST	0.08
5051570	COASTSIDE CR	0.41
5051066	COLLINS RD	1.26
5051531	COLONEN ST	0.05
5051432	COLUMBUS BVD	1.05
5051261	COMMANDER CT	0.22
5051029	COMPANY RD (NORTH)	2.5
5051027	COMPANY RD (SOUTH)	7.6
5050412	COMPASS LINK	0.14
5050174	COMPTON ST	0.25
5051314	CONCH RISE	0.2
5050357	CONNELLY RD	0.11
5051005	CONNOLLY RD	10.5
5050304	CONNOLLY ST	0.27
5051268	CONSTANTINE RD	0.68
5050305	CONUS WY	0.46
5050039	CONWAY ST	0.35
5051393	COOK RISE	0.11
5050383	COOPER CCT	0.57
5051065	COOPER ST	2.3
5051458	CORAL CT	0.04
5051387	CORRIDALE CL	0.14
5051562	COVERSIDE WY	0.34
5051221	COWAN RD	1
5050279	COWRIE PL	0.1
5050208	COXSWAINS CR	0.14

5050170	CRABBE ST	0.1
5050261	CRAIG CT	0.13
5050306	CRAINE PL	0.12
5051246	CRAMER CT	0.07
5051033	CRAMPTON RD	3.56
5050127	CRAWFORD ST	0.76
5050013	CREAM ST	0.14
5051044	CRIDDLE RD	6.6
5050396	CRIPPS WY	0.1
5050283	CRITCH PL	0.14
5051414	CROWTHER RD	2.05
5050007	CROWTHER ST	1.16
5050103	CROWTHERTON ST	0.71
5051517	CRUSADER HTS	0.22
5051200	CUE WY	0.12
5050015	CUNNINGHAM ST	0.22
5050275	CURLEWIS ST	0.02
5050431	CURRELL WY	0.32
5051542	CURTIN GR	0.21
5050250	CUTLER ST	0.11
5050162	CYPRESS ST	0.55
5051502	DAISY CT	0.21
5051311	DAKIN COVE	0.11
5050037	DAMPIER ST	0.38
5051433	DANTE TARN	0.18
5051472	DARWINIA CL	0.28
5051039	DAVID RD	5.3
5051191	DAVIES RD	0.28
5050228	DAVIS ST	0.1
5050262	DAWSON ST	0.17
5051137	DAYANA DR	1.09
5050063	DEAN ST	0.52
5051026	DEEPDALE RD	3.22
5051416	DERNA PDE	0.85
5051328	DESMOND ST	0.06
5050242	DEVENISH ST	0.43
5051058	DEVLIN POOL RD	3.07
5051367	DEWER ST	0.09
5050172	DHU ST	0.18
5051300	DIANELLA CT	0.11
5050166	DIGBY ST	0.24
5051100	DINES PL	0.07
5050177	DIOSMA ST	0.48
5051079	DOLPHIN ST	0.2
5051308	DONCON RD	0.2
5050374	DORDRECHT PL	0.12
5050050	DOROTHY ST	0.75
5051385	DORSET DR	0.37
5051494	DOVEPL	0.18
5051266	DRABBLE RD	0.65
5050385	DRENTHE PL	0.22
5051384	DRESSAGE CT	1.68
5050129	DREW ST	1.28

5051473	DROSERA ST	0.05
5051511	DROVERS L	0.5
5051034	DRUMMOND COVE RD	0.58
5050040	DUBOULAY ST	0.18
5050307	DUCLAS PL	0.14
5050146	DUKE ST	0.12
5051068	DULCHEV WY	0.34
5051089	DUNCAN RD	1.34
5051150	DUNCAN ST	0.22
5050021	DURLACHER ST	3.52
5050390	DURLACHER ST (STH)	0.41
5050387	DWYER ST	0.26
5051307	EAKINS CR	1.15
5050308	EARLE PL	0.05
5051013	EAST CHAPMAN RD	11.33
5050094	EASTBOURNE RD	0.37
5051114	EASTCOTT WY	0.47
5050309	EASTERN CL	0.06
5050028	EASTERN RD	1.21
5051383	EASTLYN DR	0.84
5050002	EASTWOOD RD	1.59
5050310	EATON PL	0.43
5050361	EDDINGTON CL	0.16
5051485	EDGEWATER CL	0.15
5050433	EDWIN CR	0.33
5051552	EGO CREEK LOOP	0.67
5050080	EIGHTH ST	1.13
5051073	EIGHTH ST EAST	1.15
5050006	ELIOT ST	0.71
5050311	ELIOT ST ACCESS RD	0.03
5050087	ELIZABETH ST	0.21
5051004	ELLENDALE RD	11.89
5050112	ELPHICK AV	0.34
5050194	ELVA ST	0.23
5051256	ENDEAVOUR DR	0.29
5051017	ERADU NORTH RD	10.9
5051018	ERADU SOUTH RD	12.5
5051405	ERIC SEWELL WY	0.34
5050289	ERIC ST	0.14
5050184	ERICA ST	0.1
5051072	ERLA PL	0.78
5051523	ESSIE ST	0.04
5051567	ESTUARY WY	0.23
5051507	ETTRICK "B" CT	0.12
5051175	ETTRICK CT	0.19
5051540	EUCALYPTUS RD	0.37
5050191	EURYALUS RD	0.1
5051267	EUSTACE RD	0.1
5051370	EVANA TCE	0.56
5051010	EVANS RD	4.16
5050016	EVANS ST	0.34
5050137	EVE ST	0.3
5051264	FAIRFAX RD	0.94

5051152	FAIRFAX ST	0.09
5050391	FALLOWFIELD ST	0.1
5051124	FALMOUTH CL	0.2
5051110	FARANDA ST	0.44
5050377	FATHERS CT	0.08
5050178	FELICIA ST	0.58
5050169	FERN ST	0.08
5050077	FIFTH ST	0.96
5050073	FIRST ST	0.71
5051394	FISHER COVE	0.09
5050019	FITZGERALD ST	1.55
5051059	FLAT ROCKS RD	2.53
5051527	FLAVIO CR	0.31
5051474	FLEETWING ST	0.15
5050058	FLORES RD	4.5
5050407	FOLEY CT	0.08
5050251	FONG COVE	0.09
5051082	FORDEN ST	0.64
5050042	FORESHORE DR	0.56
5050426	FORESHORE DR (MARINA)	0.37
5050022	FORREST ST	0.59
5051129	FORRESTER RD	1
5050312	FORTYN CT	0.05
5051182	FOSKEW WY	0.83
5050378	FOSTER PL	0.39
5050076	FOURTH ST	0.89
5051430	FOXGLOVE PL	0.27
5050017	FRANCIS ST	1.1
5050375	FRANCISCO CL	0.06
5051061	FRASER RD	5.3
5050030	FRASER ST	0.71
5050366	FREDERICK ST	0.11
5050344	FREWER PL	0.14
5050105	FULLER ST	0.48
5051498	FUSCHIA ST	0.24
5050085	GALE RD	0.21
5050397	GALELANDS CL	0.04
5051138	GALILEE WY	1.1
5050313	GARDNER ST	0.19
5051532	GARNET BR	0.05
5050155	GASCOYNE PL	0.06
5051209	GASKIN DR	0.32
5050064	GEORGE RD	3.01
5051024	GEORGINA RD	9.78
5050055	GERTRUDE ST	1.16
5051227	GILBERT RD	1.93
5051042	GILES RD	8.74
5051080	GILMORE ST	0.4
5050369	GLASS CR	0.54
5051428	GLASSFORD VSTA	0.56
5051091	GLENDINNING RD	2.5
5051319	GLENFIELD BEACH DR	1.45
5051557	GLENFIN ST	0.22

5051302	GLENGARRY CT	0.34
5051022	GLENGARRY RD	11.1
5051076	GLENVIEW ST	0.92
5051441	GLYNN RD	1
5050254	GOLDSWORTHY CR	0.28
5051338	GOODWIN RD	1.08
5051464	GORDON GARRAT DR	1.15
5050096	GORGON RD	0.33
5051180	GOULDS RD	4
5051223	GRAEME RD	0.2
5050202	GRANT ST	0.17
5050372	GRAY ST	0.13
5050117	GREEN ST	1.34
5051007	GREENOUGH RD	4.7
5051011	GREENOUGH RIVER RD	2.21
5051179	GREGORY RD	0.17
5050018	GREGORY ST	1.36
5050367	GRENVILLE DR	0.09
5050355	GREVILLIA ST	0.09
5050197	GRIDLEY ST	0.13
5051316	GROSVENOR CL	0.55
5050100	GUARA DR	0.23
5050246	GUMMER AV	0.22
5050212	GUNNERS L	0.15
5051063	HACKETT RD	1.33
5050302	HADDA WY	0.38
5051188	HAGAN RD	0.9
5050243	HAIGH ST	0.53
5050195	HAKEA ST	0.54
5050237	HALE ST	0.41
5051469	HALFMOON DR	0.32
5051035	HALL RD	4.95
5050288	HALLET PL	0.12
5051045	HAMERSLEY RD	3.22
5050253	HAMERSLEY ST	0.47
5050315	HAMMOND PL	0.21
5051495	HAMPSHIRE DR	0.44
5051241	HAMPTON RD	1.55
5051326	HANLON ST	0.3
5051094	HANNAH RD	0.08
5051520	HARBOUR RDGE	0.16
5050266	HARDMAN RD	0.59
5050384	HARRIS CT	0.14
5050109	HARRISON ST	0.81
5050379	HART CT	0.05
5051325	HART ST	0.2
5050316	HEAL CL	0.06
5050183	HEBE ST	0.09
5050327	HELM WY	0.06
5050318	HEMSLEY PL	0.16
5051229	HENRY RD	1.34
5050066	HENRY ST	0.44
5050317	HEPBURN ST	0.22

5050380	HERMAN WY	0.22
5050029	HERMITAGE ST	0.26
5051278	HIBERTIA ST	0.12
5050352	HIBISCUS ST	0.09
5050240	HIGHBURY ST	1.32
5051521	HIGHLAND LOOP	0.05
5051443	HILL CREEK RD	1.35
5051438	HILL RIVER WY	2.1
5050214	HILL WY	0.17
5051207	HILLVIEW DR	0.77
5051512	HOBART PL	0.1
5050221	HOGAN ST	0.17
5050203	HOLLAND ST	0.39
5051442	HOLLINGSWORTH PL	0.09
5051354	HONEYSUCKLE DR	0.85
5051211	HOOD ST	0.04
5050120	HORAN ST	0.13
5051555	HORSESHOE CT	0.43
5050111	HOSKEN ST	0.64
5051153	HOSKEN ST	0.13
5050133	HOUSTON PL	0.13
5050132	HOUSTON ST	0.37
5050218	HOUTMAN ST	0.18
5050163	HOVEA ST	0.2
5050082	HOWARD ST	0.73
5050182	HOWES ST	0.27
5050284	HOWES ST EXT	0.1
5051210	HULL ST	0.25
5051543	HUMBLE CL	0.08
5050110	HUNGERFORD ST	0.33
5050089	HUTCHINSON ST	0.46
5051488	IDUNA RD	0.48
5050176	ILEX PL	0.02
5051526	ILMA RISE	0.51
5051508	INTOMBI RISE	0.21
5051513	INVINCIBLE RISE	0.23
5051056	IRENE ST	0.1
5051047	IVAN GOULDS RD	3.7
5051522	IVY WY	0.05
5051194	JABIRU WY	0.27
5051289	JACARANDA CT	0.17
5051506	JACKSON LOOP	0.5
5051167	JACOB PL	0.11
5050409	JADE PL	0.03
5050158	JAMES ST	0.22
5051260	JAMES ST	0.68
5050339	JANDA PL	0.05
5051057	JANDANOL RD	3.84
5050196	JARRAH ST	0.28
5050092	JASMIN ST	0.1
5051133	JENARK RD	1.1
5050319	JENNER CT	0.26
5050225	JENSEN ST	0.11

5051401	JEUNE RD	0.63
5051213	JOEL CT	0.16
5050052	JOHNSTON ST	0.43
5051151	JON JIM L	0.07
5051336	JORDAN RD	0.7
5050038	JOSE ST	0.35
5051164	JOSHUA WY	0.25
5051270	KAAR ST	0.1
5051085	KANE ST	0.1
5051254	KARLOO CT	0.06
5050432	KEANE DR	0.42
5050274	KEATING ST	0.21
5050154	KELLY ST	0.3
5051156	KEMP ST	0.61
5050106	KEMPTON ST	1.99
5051028	KENNEDY RD	6.05
5050236	KENNY CR	1.1
5050320	KENT ST	0.09
5051516	KIAORA MEWS	0.15
5051074	KIELY RD	4.6
5050145	KING ST	0.13
5051090	KNAPPS RD	0.85
5051021	KOJARENA SOUTH RD	6.2
5050321	KONONEN PL	0.22
5050130	KOOJARRA ST	0.66
5050097	KOOLAMA RD	0.22
5050156	KOOLINDA ST	0.15
5051193	KULTOWN DR	0.92
5051371	KURRAJONG ENT	0.08
5050410	LAGOON ENT	0.21
5051431	LANCEWOOD CT	0.11
5051444	LANDFILL L	0.9
5050363	LANDS EDGE CL	0.17
5050167	LANTANA ST	0.21
5051490	LAPWING WY	0.04
5050231	LARKIN ST	0.45
5050119	LAWLEY ST	0.8
5051105	LAWSON PL	0.12
5051095	LAZARUS RD	0.3
5051388	LEICESTER PL	0.37
5050026	LESTER AV	0.51
5051177	LEVETT RD	0.4
5050267	LEVY ST	0.21
5050147	LEWIS ST	0.15
5051544	LIFFORD ST	0.32
5051093	LOCKYER RD	0.18
5050322	LOGAN PL	0.15
5051178	LOGUE CT	0.19
5051263	LONGVA RD	2.33
5050067	LORNA ST	0.53
5051195	LOWAN CT	0.12
5051408	LUDERICK ST	0.2
5051573	LUGGER OTLK	0.36

5051099	LUNT CT	0.09
5050061	MABEL ST	0.49
5051009	MACARTNEY RD	11.2
5051189	MACEDONIA DR	0.92
5050381	MACEY CT	0.21
5051537	MACRANDA PL	0.06
5051476	MAGNOLIA WYND	0.14
5051358	MAHOGONY CT	0.09
5051051	MAIDSTONE ST	0.53
5050025	MAITLAND ST	0.63
5050107	MALCOLM ST	0.49
5050034	MALEY PL	0.11
5050032	MALEY WY	0.52
5051303	MALLEE CT	0.2
5051471	MANNING PL	0.45
5051277	MARIANTHUS CL	0.23
5050001	MARINE TCE	4.75
5050211	MARINES L	0.16
5051392	MARINULA RD	0.57
5050071	MARK ST	0.86
5051084	MARK WY	0.64
5051202	MARLIN PL	0.05
5050350	MARRI CT	0.04
5050083	MARSDEN ST	0.23
5050376	MARSH PL	0.17
5051149	MARTIN ST	0.12
5051190	MARY ST	0.7
5051569	MAST TOP LKT	0.21
5051088	MATHEW ST	0.04
5050398	MAYHILL QYS	0.21
5051098	MAYNE PL	0.12
5051062	MC CARLEY RD	1.6
5050340	MCALEER DR	1.42
5051284	MCCONKEY RD	1.8
5051306	MCDERMOTT AV	0.42
5050334	MCGAURAN L	0.13
5051104	MCGRAGH CT	0.12
5051218	MCGUINNESS RD	1.11
5050257	MCLAREN WY	0.29
5051556	MEADOW L	0.83
5051410	MEADOWCROFT ST	1.28
5051445	MELALEUCA DR	0.87
5051109	MELBOURNE ST	0.15
5050185	MELIA ST	0.09
5050280	MELLOWS PL	0.19
5051169	MERSEY DR	0.3
5051407	MERU RD	0.31
5050399	MILDWATERS PL	0.2
5050252	MILFORD ST	0.4
5051158	MILLS RD	0.77
5051244	MIMOSA CT	0.24
5051020	MINNENOOKA RD	21.4
5050411	MISTO WY	0.14

5051546	MISTRAL CRST	0.32
5051216	MITCHELL RD	0.5
5050115	MITCHELL ST	1.38
5050324	MITRA PL	0.08
5051107	MOFFATT PL	0.13
5051320	MOLONEY ST	1.62
5050368	MONSOON L	0.24
5051031	MOONYOONOOKA - NARNGULU RD	5.05
5051023	MOONYOONOOKA - NARRATARRA RD	6.31
5050436	MOORINGS LOOP	0.91
5051130	MORESBY RD	1.15
5050113	MORRIS ST	0.19
5050153	MOSES ST	0.08
5051274	MUGANA CR	0.38
5051272	MULLIAN WY	0.21
5051501	MULLIAN WY	0.03
5051439	MULLOWAY PL	0.4
5050341	MUREX WY	0.12
5051208	MURRAY RD	0.09
5050425	MUSEUM PL	0.12
5050406	NAGLE CL	0.26
5051255	NAOMI WY	0.31
5051377	NAUTICAL LKT	0.13
5050325	NAUTILUS CR	0.35
5050373	NEMESIS PL	0.07
5051376	NEPTUNE CNR	0.44
5051440	NERANG CL	1.85
5051185	NERREL ST	0.3
5051539	NETTLE CL	0.02
5051077	NEWHAVEN ST	0.56
5050260	NEWMAN ST	0.61
5051049	NEWMARRACARRA RD	4.22
5050273	NEWTON RD	0.11
5050135	NICHOLS ST	0.16
5050249	NIGEL CR	0.18
5050224	NIXON ST	0.23
5051148	NOEL RD	1
5051054	NORMAN ST	0.39
5051534	NORTH ISLAND LOOP	0.76
5051015	NORTHERN GULLY RD	9.05
5051070	NORTHERN GULLY SOUTH RD	5.3
5050101	NYRANG RD	0.11
5050219	O"CONNOR ST	0.17
5051269	O'BRIEN CT	0.03
5051519	OCEAN QUEEN DR	0.58
5050011	OCEAN ST	0.33
5051309	OCEANSIDE DR	0.47
5050247	O'COLLINS ST	0.16
5050258	ODGERS ST	0.16
5051187	OKAHOMA RD	0.73
5051228	OLD CEMETERY RD	0.43
5051424	OLDACRE CT	0.24
5050181	OLEANDER CR	0.39

5050010	OLIVE ST	0.36
5051144	OLIVER RD	2.58
5050286	OMEGA PL	0.18
5051257	ONEDIN CT	0.09
5050121	ONEIL ST	0.26
5050232	ONSLOW ST	0.47
5050060	ORD ST	0.4
5050223	OSBORNE ST	0.18
5051240	PADBURY RD	1.8
5051291	PALM CT	0.07
5051259	PANORAMA HTS	0.17
5051446	PAPERBARK L	0.22
5051184	PARGI CL	0.07
5051052	PARINGA ST	0.58
5050102	PARK AV	0.26
5051087	PARK CL	0.06
5051201	PARK PL	0.05
5051363	PARK VISTA SQ	0.26
5051120	PARSON PL	0.12
5051118	PASCOE PL	0.12
5050217	PASS ST	1.18
5050314	PASSAT L	0.18
5050233	PATIO PL	0.12
5051247	PAULA MASLEN PL	0.08
5051549	PEAD ST	0.06
5051565	PEAK ST	0.3
5051081	PEARSON ST	0.5
5050413	PEBBLE VIEW	0.19
5050370	PELGROM WY	0.2
5051310	PELICAN RISE	0.23
5050229	PELSART ST	0.19
5050400	PENNY L	0.05
5051126	PENZANCE WY	0.2
5051551	PEPPER GTE	0.21
5051389	PEPPIN PL (PROPOSED)	0.27
5050270	PETCHELL ST	0.54
5051317	PETER WY	0.1
5051222	PHELPS RD	11.2
5050043	PHELPS ST	0.9
5050264	PHILIP PL	0.04
5051217	PHILIPS RD	1.15
5051279	PHILPOT RD	0.5
5051530	PIAVE ST	0.05
5050326	PINNA WY	0.58
5051119	PINNER PL	0.11
5051197	PINYALI WY	0.74
5051134	PIPING L	0.91
5051550	PIRROTINA LINK	0.15
5050072	PLACE RD	3.36
5050189	PLYMOUTH RD	0.21
5050012	POINT ST	0.48
5050200	POLLARD ST	0.14
5050220	POLLETT ST	0.37

5051136	POLO RD	1.76
5051381	POLWARTH PDE	1.02
5051086	POOLE CL	0.06
5050136	POPE ST	0.45
5051312	PORTACELLO CIR	0.3
5051566	PORTSIDE RD	0.3
5050244	PORTWAY	0.62
5051548	POSEIDON DR	0.35
5050234	POST OFFICE L	0.1
5051329	PRENDERGASTS L	0.43
5050278	PRESTON ST	0.12
5050051	QUARRY ST	0.66
5051365	QUAYSIDE VSTA	0.73
5050088	QUEEN ST	0.21
5051127	QUEENSCLIFF CL	0.17
5050116	RAILWAY ST	1.19
5050423	RAILWAY ST ACCESS	0.04
5051436	RAMSAY RD	9.8
5050343	RAMSHAW PL	0.07
5051437	RED EMPEROR	4.1
5051409	REDHEAD ST	0.24
5051568	REEF BVD	0.56
5051304	REG PERCY ST	0.58
5050084	REILLY RD	0.28
5051330	REYNOLDS RD	1.4
5051406	RICH MASLEN ST	0.47
5051234	RIDGEHAVEN CT	0.23
5051265	RIDGEWAY CL	0.3
5051102	RIDLEY RD	1.2
5050056	RIFLE RANGE RD	0.46
5050405	RIFLE RANGE RD (SOUTH)	0.86
5051547	RIPPLE LINK	0.08
5050268	RITCHIE WY	0.13
5051168	RIVER RD	0.51
5051288	RIVER VALLEY RD	0.54
5050265	ROBERTS RD	0.12
5050122	ROBINSON ST	0.38
5051198	ROBYN PL	0.09
5051554	RODING CT	0.38
5051510	ROE L	0.5
5050281	ROEBUCK PL	0.07
5050285	ROEBUCK ST	0.38
5051391	ROLLAND DR	0.26
5051380	ROMMEY RTT	0.25
5051282	ROSE RD	0.86
5050150	ROSE ST	0.09
5051321	ROSS ARITI RD	0.35
5051171	ROTHER RD	0.6
5051101	ROWAN RD	0.97
5050149	RUBY ST	0.06
5051012	RUDDS GULLY RD	5.81
5051343	RUMBLE WY	0.24
5051499	RUSTIC CT	0.17

5051162	RUTH ST	0.09
5050434	SAIL BVD	0.45
5050210	SAILORS L	0.17
5051166	SAMUEL PL	0.06
5051248	SANDALWOOD CT	0.11
5050348	SANDAY CT	0.09
5051121	SANDER ST	0.24
5051128	SANDOWN CL	0.19
5051019	SANDSPRINGS RD	13.74
5050024	SANFORD ST	1.12
5050329	SARDAM PL	0.05
5051230	SAUNDERS RD	0.42
5051571	SCHOONER PASS	0.23
5050180	SCOTT RD	1.1
5051043	SCOTT RD	2.19
5051262	SCOTT RD	1.03
5051503	SEACREST "A" WY	0.05
5051117	SEACREST ST	0.37
5051203	SEACREST WY	0.21
5051292	SEAHAVEN VIEW	0.27
5051235	SEARS CT	0.3
5050437	SEASHORE GDNS	0.15
5051258	SEAVIEW BVD	0.71
5050074	SECOND ST	0.77
5050365	SELBY PL	0.13
5050330	SEPARATION POINT CL	1.04
5050342	SERVICE RD	0.18
5050428	SERVICE RD ACCESS	0.02
5050362	SETTLERS CL	0.1
5050079	SEVENTH ST	1.06
5051174	SEVERIN CL	0.1
5050382	SEWELL PL	0.09
5050331	SEXTANT L	0.17
5051233	SEXTON DR	1.15
5051396	SHEARWATER CL	0.1
5051108	SHELDON PL	0.17
5050005	SHENTON ST	2.24
5050227	SHEPHEARD CL	0.15
5050271	SHERLOCK WY	0.37
5051142	SHIELDS RD	2.2
5051398	SHOALHAVEN WY	0.18
5051451	SHOREVIEW ST	0.39
5051048	SHORT RD	4.01
5050086	SHORT ST	0.24
5051460	SHOWGROUND RD	3.85
5051468	SIERRA VSTA	0.08
5051529	SILVERY WAVE VSTA	0.32
5051318	SIMON DR	0.21
5051341	SIMONS CT	0.34
5050141	SIMPSON ST	0.55
5050078	SIXTH ST	1.01
5050435	SKIPPER PORT	0.22
5051564	SLIPKNOT ST	0.17

5051382	SMART DR	0.41
5050139	SMITH ST	0.1
5051293	SMUGGLERS PASS	0.37
5051097	SNELL CT	0.11
5050151	SNOWDON ST	0.27
5051163	SOLOMON CCT	0.93
5051296	SOMERSET PL	0.11
5051337	SOUTHGATES ACCESS RD	0.6
5050215	SPALDING ST	0.17
5051545	SPINDRIFT VSTA	0.39
5051294	SPYGLASS HILL	0.19
5050389	ST GEORGES CL	0.27
5050401	STANFORD CL	0.08
5050201	STANLEY ST	0.12
5051322	STANSFIELD RD	2.12
5051560	STARBOARD WY	0.28
5051290	STEADMAN CL	0.14
5050402	STELLA MARIS DVE.	0.43
5051106	STELLA ST	0.35
5051064	STEPHEN RD	0.79
5051397	STILLWATER AV	0.92
5050332	STOKES CT	0.19
5050255	STONE ST	0.09
5050388	STOW ST	0.49
5050059	STRICKLAND ST	0.81
5050424	STRICKLAND ST ACCESS	0.06
5050036	STROUD ST	0.58
5051131	STUART RD	1.82
5051352	SUGARWOOD	0.25
5050345	SULLIVAN CT	0.25
5051275	SUNNYBANKS DR	1.64
5051204	SURF PL	0.04
5051484	SURFSIDE TCE	0.57
5051038	SUTCLIFFE RD	3.05
5051411	SUTCLIFFE RD SOUTH	0.55
5051447	SUTHERLAND DR	0.35
5050099	SWAN DR	0.71
5051574	SWELL TCE	0.37
5050193	SYDNEY ST	0.64
5051206	TAILER ST	0.23
5051271	TALLAROOK WY	0.93
5050165	TAMAR ST	0.28
5051541	TAMARISK WY	0.57
5051273	TAMBA ST	0.09
5050351	TAMBLYN ST	0.55
5051340	TAPPAK ST	0.57
5051524	TARTAN WY	0.1
5051243	TERSONIA WY	1.74
5051173	TEVIOT CL	0.11
5051172	THAMES DR	0.37
5051559	THE QUARTERDECK	0.17
5050075	THIRD ST	0.84
5050245	THOMAS AV	0.29

5051250	TI - TREE ST	0.18
5051344	TILTILI RISE	0.88
5051434	TOBA NOOK	0.19
5051135	TOBIN WY	0.91
5051140	TOPAROA CT	0.15
5051125	TORQUAY PL	0.18
5051067	TRAMWAY RD	1.64
5051159	TRANT RD	1.12
5050062	TRIGG ST	0.5
5050276	TRITON PL	0.11
5050333	TUART ST	0.55
5050287	TUDOR PL	0.08
5051315	TURBAN CT	0.19
5051480	TURNSTONE WY	0.1
5051533	TURTLE DOVE RISE	0.29
5051487	TUTA CT	0.06
5051450	TYNE CT	0.08
5050186	ULMUS ST	0.1
5051335	UN - NAMED RD	0.95
5051115	UPTON CT	0.06
5051251	URAWA ST	0.3
5050065	URCH ST	0.72
5051016	VALENTINE RD	7.88
5051323	VENTURA PL	0.58
5051348	VERBENA PL	0.23
5051287	VERITA RD	0.4
5051351	VERONICA CT	0.22
5051242	VERTICORDIA DR	0.45
5050152	VICTORIA ST	0.29
5050044	VIEW ST	0.22
5051478	VIEWCREST DR	0.14
5051509	VIKING L	0.13
5051333	VINCE CT	0.1
5050222	VINCENT ST	0.17
5050148	VIOLET ST	0.08
5050277	VOLUTE ST	1.06
5050299	VULCAN AV	0.18
5051486	WAHN AV	0.53
5051332	WAKEFORD RD	2
5050053	WALDECK ST	0.64
5051400	WALKAWAY - NANGETTY RD	29.37
5051448	WALLABI DR	0.32
5051483	WALLABI DR	0.12
5050403	WALSHE ST.	0.1
5051060	WALTER RD	6.9
5050070	WALTER ST	0.28
5050230	WALTON CL	0.05
5050360	WANDOO ST	0.28
5051301	WARATAH CT	0.4
5050269	WARD ST	0.1
5051374	WATERFRONT CIR	0.95
5050263	WATSON CT	0.06
5051103	WATTERSON RD	0.23

5050090	WATTLE AV	0.21
5051418	WAVE CREST CIR	0.7
5050238	WAVERLEY ST	1
5051113	WEBBER RD	2.76
5050282	WEBBERTON RD	0.9
5050364	WEEKS CT	0.04
5051339	WEELOO RD	0.43
5051491	WELLINGTON RD	0.54
5050160	WELLS ST	0.39
5051196	WEST BANK RD	1.1
5051334	WHITEHILL RD	1.35
5050035	WHITFIELD PL	0.09
5050031	WHITFIELD ST	0.71
5050328	WHITWORTH DR	0.57
5051239	WICHERINA DAM RD	1.6
5051046	WICHERINA SOUTH RD	12.56
5050427	WIEBBE HAYES LN	0.17
5050199	WIGLEY PL	0.05
5051518	WILDROSE CR	0.35
5050009	WILLCOCK DR	2.28
5050159	WILLIAM ST	0.13
5051146	WILLIAMS RD	2.3
5051298	WILLOW CT	0.17
5051083	WILTON CL	0.12
5050404	WINDSOR CT	0.06
5051561	WINDWARD WY	0.12
5051477	WINNETTA RDGE	0.98
5050045	WITTENOOM ST	0.95
5050359	WOODHOUSE PL	0.09
5050241	WOODMAN ST	0.4
5051280	WOOLANOOKA RD	1.9
5051030	WOORREE L	0.94
5051369	YALLALONG ENT	0.08
5051014	YANGET RD	7.65
5051536	YARLOO WY	0.04
5051183	YARRAMAN RD	0.32
5051514	YOLANDA EDGE	0.33
5050164	ZAMIA ST	0.2
5050335	ZEEWYCK CT	0.2
5051361	ZENOBIA PL	0.1
5051215	ZIMMRI ST	0.36
5050336	ZODIAC L	0.18
5050337	ZUYTDORP CT	0.24

Appendix

4

APPENDIX 4

Flora species in the City of Geraldton-Greenough (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 alata var. *biglandulosa*
**Acacia blakelyi*
Acacia idiomorpha
Acacia lasiocarpa var. *lasiocarpa*
Acacia latipes
Acacia rostellifera
Acacia scirpifolia
Acacia spathulifolia
Acacia sphenophylla
Acacia stereophylla var. *stereophylla*
Acacia ulicina
Acacia xanthina
Acacia acuaria
Acacia bidentata
Acacia comans
Acacia congesta subsp. *congesta*
Acacia cyclops
Acacia daphnifolia
Acacia ericifolia
Acacia erinacea
Acacia guinetii **P4**
Acacia jacksonioides
Acacia lasiocarpa
Acacia latipes subsp. *latipes*
Acacia leptospermoides subsp. *leptospermoides*
Acacia leptospermoides subsp. *psammophila* **P3**
Acacia ligulata
Acacia megacephala **P2**
Acacia multispicata
Acacia neurophylla subsp. *erugata*
Acacia oldfieldii
Acacia oxyclada
Acacia restiacea
Acacia saligna
Acacia saligna subsp. *lindleyi*
Acacia sessilis
Acacia signata
Acacia sp. Northampton (B.R. Maslin 7798)
Acacia sphacelata subsp. *sphacelata*
Acacia tetragonophylla
Acacia ulicina
Acacia xanthina
Acanthocarpus canaliculatus
Acanthocarpus parviflorus **P3**
Acanthocarpus preissii
Acanthocarpus sp. Ajana (C.A. Gardner 8596)
Actinobole uliginosum
Actinostrobus arenarius
Actinotus leucocephalus
Actites megalocarpus
Adenanthos cygnorum subsp. *cygnorum*
Adriana quadripartita
Aeonium arboreum
Aira caryophyllea
Aira cupaniana
Allium orientale
Allocasuarina campestris
Allocasuarina dielsiana
Allocasuarina huegeliana
Allocasuarina humilis
Allocasuarina thuyoides
Alternanthera nodiflora
Alyogyne hakeifolia
Alyogyne huegelii var. *grossulariifolia*
Alyogyne huegelii var. *huegelii*
Alyogyne huegelii var. *wrayae*
Alyogyne pinoniana
Alyogyne huegelii
Alyogyne wrayae
Alyxia buxifolia
**Amaranthus viridis*
**Ammi majus*
Amphibolis antarctica
Amphibolis griffithii
Amphipogon caricinus
Amphipogon caricinus var. *caricinus*
Amyema fitzgeraldii
Amyema miraculosa
Amyema miraculosa subsp. *miraculosa*
Amyema preissii
Anagallis arvensis var. *caerulea*
Angianthus cunninghamii
Angianthus tomentosus
Anigozanthos humilis
Anigozanthos humilis subsp. *humilis*
Anthobolus foveolatus
Anthocercis intricate **P3**
Anthocercis ilicifolia subsp. *ilicifolia*
Anthocercis littorea
Anthotroche walcottii
Aphanopetalum clematideum
Aphelia cyperoides
Arctotheca calendula
Arctotheca populifolia
Argemone ochroleuca subsp. *ochroleuca*
Aristida contorta
Aristida holathera
Aristida holathera var. *holathera*
Arrhenatherum bulbosum
Asclepias curassavica
Aspicilia calcarea
Asteridea asteroides
Asteridea nivea
Asteridea pulverulenta
Astroloma glaucescens
Astroloma microdonta
Astroloma pedicellatum
Astroloma serratifolium
Atriplex amnicola
Atriplex cinerea
Atriplex isatidea
Atriplex semilunaris
Austrodanthonia setacea
Austrostipa crinita
Austrostipa elegantissima
Austrostipa exilis
Austrostipa flavescens
Austrostipa hemipogon
Austrostipa macalpinei
Austrostipa tenuifolia
Austrostipa variabilis
**Avena barbata*

Baeckea crispiflora
Baeckea grandiflora
Baeckea sp. Mingenew (M.E. Trudgen 12029)
Baeckea sp. Walkaway (A.S. George 11249) **P3**
Baeckea staminosa **P1**
Banksia attenuata
Banksia elegans **P4**

Banksia lanata
Banksia leptophylla
Banksia leptophylla var. *melletica*
Banksia lindleyana
Banksia prionotes
Banksia scabrella **P4**
Banksia sceptrum
Bartsia trixago
Bassia scoparia
Beaufortia aestiva
Beaufortia elegans
Beaufortia sprengelioides
Beyeria viscosa
Boerhavia coccinea
Bolboschoenus caldwellii
Boronia coerulescens
Boronia coerulescens subsp. *spinescens*
Boronia cymosa
Boronia ramosa
Boronia ramosa subsp. *anethifolia*
Bonamia rosea
Boronia scabra subsp. *scabra*
Borya sphaerocephala
Bossiaea spinescens
Bothriochloa ewartiana
**Brachychiton populneus* subsp. *populneus*
Brachyloma pirara
Brachypodium distachyon
Brachyscome bellidioides
Brachyscome ciliocarpa
Brachyscome iberidifolia
Brachyscome oncocarpa
Brachyscome perpusilla
Brassica tournefortii
Briza maxima* **Y
Briza minor* **Y
**Bromus catharticus*
**Bromus diandrus*
**Bromus hordeaceus*
**Bromus madritensis*
**Bromus rubens*
Buellia alboatra
Buglossoides arvensis
Burchardia congesta
Bursaria occidentalis

Caesia sp. *Wongan* (K.F. Kenneally 8820)
Caesia micrantha
Cakile maritima
Caladenia crebra
Caladenia flava subsp. *flava*
Caladenia flava subsp. *maculata*
Caladenia footeana
Caladenia hoffmanii
Caladenia latifolia
Caladenia longicauda subsp. *borealis*
Caladenia pendens subsp. *pendens*
Caladenia radialis
Calandrinia brevipedata
Calandrinia corrigioloides
Calandrinia disperma
Calandrinia granulifera
Calandrinia liniflora
Calandrinia polyandra
Calandrinia remota
Calandrinia sp. Blackberry (D.M. Porter 171)
Calectasia browneana
Callistemon phoeniceus
Callophycus costatus
Calocephalus francisii
Caloplaca erythrosticta
Caloplaca kantvilasii
Calothamnus homalophyllus
Calothamnus glaber
Calothamnus quadrifidus
Calothamnus sanguineus
Calotis hispidula
Calytrix brevifolia
Calytrix depressa
Calytrix flavescens
Calytrix gracilis
Calytrix leschenaultii
Calytrix oldfieldii
Calytrix strigosa
Calytrix variabilis
Candelariella xanthostigmoides
**Carpobrotus virescens*
Carpobrotus modestus
Carthamus lanatus
Cassytha aurea var. *aurea*
Cassytha aurea var. *hirta*
Cassytha flava
Cassytha pomiformis
Cassytha racemosa
Cassytha racemosa forma pilosa
Cassytha racemosa forma racemosa
Casuarina obesa
Caulerpa brownii
Caulerpa racemosa
**Cenchrus ciliaris*
**Cenchrus echinatus*
**Cenchrus longispinus*
**Centaurium erythraea*
Centrolepis aristata
Centrolepis drummondiana
Centrolepis inconspicua
Centrolepis pilosa
Cephalipterum drummondii
Cephalosorus carpesioides
Cerastium glomeratum
Chamaescilla corymbosa var. *corymbosa*
Chamelaucium drummondii subsp. *drummondii*
Chamelaucium micranthum
Chamelaucium pauciflorum
Chamelaucium psammophilum
Chamelaucium uncinatum
Cheilanthes sieberi
Cheilanthes sieberi subsp. *sieberi*
**Chenopodium murale*
**Chenopodium pumilio*
Chloris truncata
**Chondrilla juncea*
Chordifex sinuosus
Choretrum pritzelii
Chorizema humile **R**
Chorizema racemosum
Chrysanthemum coronarium
Cirsium arvense* **Y
Cladonia tessellata
Clematicissus angustissima
Clematis linearifolia
Comesperma acerosum **P3**
Comesperma calymega
Comesperma integerrimum
Comesperma scoparium
Comesperma volubile
Commersonia gaudichaudii
Commicarpus australis
Conospermum boreale
Conospermum boreale subsp. *ascendens*
Conospermum boreale subsp. *boreale*
Conospermum stoechadis subsp. *stoechadis*
Conospermum triplinervium
Conospermum wycherleyi
Conostylis aculeata subsp. *rhipidion*
Conostylis androstemma
Conostylis aurea
Conostylis candicans subsp. *calcicola*
Conostylis canteriata
Conostylis dielsii subsp. *teres* **R**
Conostylis micrantha **R**
Conostylis prolifera
Conostylis stylidioides
Conostylis resinosa
Conostylis robusta
Convolvulus remotus

Corymbia calophylla
Corynotheca micrantha var. *acanthoclada*
Corynotheca micrantha var. *micrantha*
Cotula coronopifolia
Crassula colorata
Crassula colorata var. *acuminata*
Crassula colorata var. *colorata*
Crassula decumbens
Cristonia biloba
Cryptandra arbutiflora var. *borealis*
Cryptandra scoparia var. *microcephala* **P2**
Cryptandra mutila
Cryptandra myriantha
Cryptandra nudiflora **P3**
Cryptandra pungens
Cryptandra scoparia var. *microcephala* **P2**
Cryptandra spyridioides
**Cuscuta epithymum*
Cuscuta planiflora
Cyanicula gemmata
Cyclospermum leptophyllum
Cynanchum floribundum
Cyperus cunninghamii
Cyperus rigidellus
**Cyperus rotundus*
Cyphanthera racemosa
Cyrtostylis huegelii
Cystoseira trinodis

Dampiera altissima
Dampiera incana var. *fuscescens*
Dampiera krauseana **P2**
Dampiera lindleyi
Dampiera linearis
Dampiera oligophylla
Dampiera spicigera
Darwinia pauciflora
Darwinia sp. Watheroo (I.R. McGill 20)
Dasyphila preissii
**Datura inoxia*
Daviesia cardiophylla
Daviesia daphnoides
Daviesia divaricata
Daviesia divaricata subsp. *lanulosa*
Daviesia physodes
Desmazeria rigida
Desmocladus asper
Desmocladus parthenicus
Desmocladus semiplanus
Dianella revoluta
Dianella revoluta var. *divaricata*
Dicrastylis incana **P2**
Dioscorea hastifolia
Diplolaena ferruginea
Diplolaena geraldtonensis
Diplolaena grandiflora
Diplolaena leemaniana
Diplopeltis huegelii subsp. *huegelii*
Diplopeltis huegelii subsp. *subintegra*
Diplopeltis petiolaris
Dittrichia graveolens
Diuris laxiflora
Diuris setacea
Diuris sp. Eneabba (A.H. Burbidge 3941)
Dodonaea aptera
Dodonaea ericoides
Dodonaea inaequifolia
Dodonaea larreoides
Drosera bulbosa subsp. *bulbosa*
Drosera glanduligera
Drosera humilis
Drosera macrantha
Drosera macrantha subsp. *macrantha*
Drosera menziesii subsp. *thysanosepala*
Drosera neesii subsp. *borealis*
Drosera rosulata
Drummondita ericoides **R**
Dryandra carlinoides
Dryandra fraseri var. *ashbyi*
Dryandra fraseri var. *fraseri*
Dryandra sessilis var. *cygnorum*
Dryandra sessilis var. *flabellifolia*
Dryandra shuttleworthiana
Duboisia hopwoodii

Ecdeiocolea monostachya
Echium plantagineum* **Y
**Ehrharta brevifolia*
Ehrharta calycina* **Y
Ehrharta longiflora* **Y
Enchylaena tomentose var. *tomentosa*
**Eragrostis curvula*
Eremaea acutifolia **P2**
Eremaea beaufortioides
Eremaea brevifolia
Eremaea ebracteata var. *brachyphylla*
Eremaea ebracteata var. *ebracteata*
Eremocarpus setiger
Eremophila brevifolia **P2**
Eremophila glabra subsp. *albicans*
Eremophila glabra subsp. *carnosa*
Eremophila pantonii
**Erodium aureum*
**Erodium cygnorum*
Eruca sativa
Erythroclonium sonderi
Eucalyptus arachnaea
Eucalyptus arachnaea subsp. *arachnaea*
Eucalyptus baudiniana
Eucalyptus blaxellii **R**
**Eucalyptus camaldulensis* var. *obtuse*
Eucalyptus diminuta **P4**
Eucalyptus dolichocera
Eucalyptus ebbanoensis subsp. *photina* **P4**
Eucalyptus eudesmioides
Eucalyptus falcate subsp. *opima*
Eucalyptus gittinsii
Eucalyptus horistes
Eucalyptus jucunda
Eucalyptus loxophleba subsp *loxophleba*
Eucalyptus loxophleba subsp. *supralaevis*
Eucalyptus macrocarpa subsp. *lachantha* **P4**
Eucalyptus obtusiflora
Eucalyptus oraria
Eucalyptus rigidula
**Eucalyptus* sp. Badgingarra (D. Nicolle & M. French DN 3515)
Eucalyptus synandra **R**
Euphorbia australis
Euphorbia peplus
Euphorbia tannensis subsp. *eremophila*
Euphorbia terracina
Exocarpos sparteus

Festuca rubra
Ficinia nodosa
Flavoparmelia rutidota
**Fumaria capreolata*

Gahnia lanigera
Galium murale
Gastrolobium laytonii
Gastrolobium oxylobioides
Gastrolobium propinquum **P1**
Gastrolobium spinosum
Gastrolobium triangulare
**Gazania linearis*
Geleznowia verrucosa
Geleznowia verrucosa subsp. *Kalbarri* (L.M.Broadhurst 123) **P3**
Geleznowia verrucosa subsp. *verrucosa*
Gilberta tenuifolia
Glischrocaryon aureum
Glischrocaryon aureum var. *aureum*
Gnephosis tenuissima
Gompholobium muticum
Gompholobium shuttleworthii
Gompholobium tomentosum

Gomphrena celosioides
Gonocarpus confertifolius var. *helmsii*
Gonocarpus nodulosus
Goodenia berardiana
Goodenia coerulea
Goodenia mimuloides
Grevillea amplexans
Grevillea amplexans subsp. *amplexans*
Grevillea argyrophylla
Grevillea biformis subsp. *biformis*
Grevillea biternata
Grevillea bracteosa **R**
Grevillea candelabroides
Grevillea commutata subsp. *commutata*
Grevillea commutata subsp. *pinnatisecta*
Grevillea didymobotrya subsp. *involuta*
Grevillea dielsiana
Grevillea erinacei **P3**
Grevillea eriostachya
Grevillea fililoba **P1**
Grevillea granulosa **P3**
Grevillea hirtella **P3**
Grevillea intricata
Grevillea leucopteris
Grevillea phanerophlebia **R**
Grevillea pinaster
Grevillea polybotrya
Grevillea triloba **P3**
Grevillea vestita
Grevillea vestita subsp. *isopogoides*
Guichenotia angustifolia
Guichenotia ledifolia
Guichenotia macrantha
Guichenotia micrantha
Gunniopsis quadrifida
Gyrostemon racemiger
Gyrostemon ramulosus
Gyrostemon subnudus

Haemodorum discolour
Haemodorum simplex
Haemodorum simulans
Haemodorum spicatum
Hakea auriculata
Hakea bucculenta
Hakea circumalata
**Hakea costata*
Hakea eneabba
**Hakea francisiana*
Hakea lissocarpha
Hakea orthorrhyncha var. *filiformis*
Hakea platysperma
Hakea polyanthema **P3**
Hakea preissii
**Hakea pycnoneura*
Hakea smilacifolia
Hakea stenocarpa
Hakea trifurcata
Halgania anagalloides
Halgania argyrophylla
Halgania gustafsenii var. *Mid West* (G.Perry)
Halgania sericiflora
Haloragis trigonocarpa
Hannafordia quadrivalvis subsp. *quadrivalvis*
Hedypnois rhagadioloides subsp. *cretica*
Helianthus annuus
Heliotropium ammophilum
Helminthocladia australis
Hemigenia diplanthera
Hemigenia saligna **P3**
Hemigenia scabra
Hennedya crispa
Heterodoxia denticulata
Hibbertia hypericoides
Hibbertia mylnei
Hibbertia acerosa
Hibbertia conspicua
Hibbertia desmophylla
Hibbertia potentilliflora
Hibbertia rupicola
Hibbertia spicata
Hibbertia spicata subsp. *spicata*
Hibbertia subvaginata
Hibiscus huegelii **Y**
Homalocalyx inerrabundus **P2**
Homalocalyx chapmanii **P1**
Hovea trisperma
Hovea pungens
Hyalosperma cotula
Hyalosperma glutinosum
Hybanthus calycinus
Hybanthus floribundus subsp. *floribundus*
Hydrocotyle pilifera var. *glabrata*
Hyparrhenia hirta
Hypocalymma angustifolium
Hypochaeris glabra
Hypoxis glabella
Hypoxis glabella var. *leptantha*
Hypoxis occidentalis
Hypoxis occidentalis var. *occidentalis*

Ipomoea indica
Ipomoea cairica
Isoetopsis graminifolia
**Isolepis cernua* var. *setiformis*
Isolepis congrua
Isopogon divergens
Isopogon linearis
Isotoma hypocrateriformis
Isotoma hypocrateriformis var. *trichogramma*
Isotropis cuneifolia subsp. *cuneifolia*
Isotropis cuneifolia

Jacksonia angulata
Jacksonia cupulifera
Jacksonia arenicola
Jacksonia calcicola
Jacksonia hakeoides
Jacksonia nutans
Jacksonia rigida
Jacksonia sternbergiana
Jasminum calcarium
Juncus kraussii subsp.*australiensis*
Juncus radula
**Juncus acutus* subsp.*acutus*

Kennedia prostrata
Keraudrenia hermanniifolia
Kickxia elatine subsp. *crinita*
Kuetzingia angusta
Kuetzingia canaliculate

Labichea lanceolata subsp. *lanceolata*
Labichea teretifolia subsp. *grandistipulata*
Labichea lanceolata
Lablab purpureus
Lachnostachys eriobotrya
Lachnostachys verbascifolia var. *verbascifolia*
Lagenophora huegelii
Lamarckia aurea
Lantana strigocamara
Lasiopetalum angustifolium
Lasiopetalum drummondii
Laxmannia omnifertilis
Laxmannia sessiliflora subsp. *sessiliflora*
Lechenaultia linarioides
Lechenaultia floribunda
Lechenaultia longiloba **P4**
Lenormandia latifolia
Lenormandiaspectabilis
Lepidium lyratogynum
Lepidium africanum
Lepidobolus preissianus
Lepidosperma costale
Lepidosperma tenue
Lepidosperma brunonianum

Lepidosperma costale
Lepidosperma drummondii
Lepidosperma tenue
Leptosema aphyllum
Leptospermum erubescens
Leptospermum oligandrum
Leucopogon sp. Mid West (J.S. Beard 7388)
Leucopogon conostephioides
Leucopogon hispidus
Leucopogon marginatus **R**
Leucopogon oblongus **P2**
Leucopogon ozothamnoides
Leucopogon sp. Burma Road (M. Hislop 2032)
Leucopogon sp. Mid West (J.S Beard 7388)
Leucopogon teretostylus **P1**
Levenhookia leptantha
Levenhookia octomaculata **P3**
Limonium sinuatum
Linaria maroccana
Lobelia alata
Lobelia rhytidosperma
Logania litoralis
Logania spermacocea
Lolium rigidum
Lolium temulentum forma temulentum
Lomandra micrantha subsp. *micrantha*
Lotus australis
Lupinus cosentinii
Lycium ferocissimum
Lyginia imberbis
Lysinema ciliatum

Macarthuria australis
Malleostemon hursthousei
Malleostemon peltiger
Marianthus bicolor
Marianthus ringens
Marsilea hirsuta
**Medicago laciniata* var. *laciniata*
**Medicago minima*
**Medicago polymorpha*
Melaleuca cardiophylla
Melaleuca depressa
Melaleuca fulgens subsp. *steedmanii*
Melaleuca hollidayi
Melaleuca huegelii subsp.*huegelii*
**Melaleuca lanceolata*
Melaleuca megacephala
Melaleuca radula
Melaleuca acuminata subsp. *websteri*
Melaleuca aspalathoides
Melaleuca campanae
Melaleuca cardiophylla
Melaleuca concreta
Melaleuca coronicarpa
Melaleuca hamulosa
Melaleuca huegelii subsp. *huegelii*
Melaleuca huttensis **P1**
Melaleuca leiopyxis
Melaleuca leuropoma
Melaleuca radula
Melaleuca rhaphiophylla
Melaleuca scabra
Melaleuca stereophloia
Melaleuca trichophylla
Melaleuca viminea
Melaleuca viminea subsp. *viminea*
Melilotus indicus
**Mesembranthemum crystallinum*
Mesomelaena pseudostygia
Metamastophora flabellata
Micromyrtus racemosa var. *north-west* (R.J. Cranfield 2891)
Microtis graniticola
Millotia myosotidifolia
Mirbelia ramulosa
Mirbelia floribunda
Mirbelia ramulosa
Mirbelia spinosa
Mirbelia trichocalyx
Monoculus monstrosus
Monotaxis bracteata
Muehlenbeckia adpressa
Muehlenbeckia florulenta
Myoporum insulare
Myoporum caprarioides
Myoporum montanum
Myriodesma quercifolium

Neurachne alopecuroidea
Neurymenia fraxinifolia
**Nicotiana glauca*
Nicotiana occidentalis subsp. *hesperis*
Nicotiana occidentalis subsp. *obliqua*
Nitraria billardierei

Olax aurantia
Olearia axillaris
Olearia homolepis
Olearia dampieri subsp. *dampieri*
Olearia dampieri subsp. *eremicola*
Olearia revoluta
Opercularia spermacocea
Opercularia vaginata
Opuntia engelmannii
Orobanche minor
Osmundaria prolifera
Oxalis perennans
Oxalis pes-caprae
Oxalis purpurea

Pachydictyon paniculatum
Panicum decompositum
Parapholis incurva
Paraserianthes lophantha subsp. *lophantha*
Parentucellia latifolia
Parietaria cardiostegia
**Parietaria debilis*
Paspalidium basicladum
Paspalum distichum
Patersonia occidentalis var. *occidentalis*
**Pennisetum setaceum*
**Pennisetum villosum*
Pentaptilon careyi
Pentaschistis airoides subsp. *airoides*
Persoonia stricta
Pertusaria thiospoda
Pertusaria trimera
Petrophile conifera
Petrophile axillaris
Petrophile brevifolia
Petrophile macrostachya
Petrophile megalostegia
Petrophile scabriuscula
Petrophile semifurcata
Petrorhagia dubia
Phacelocarpus peperocarpos
Pheladenia deformis
Phyllanthus calycinus
Phyllanthus maitlandianus
Phyllanthus calycinus
Phyllanthus scaber
Picris angustifolia subsp. *angustifolia*
Pileanthus filifolius
Pileanthus vernicosus
Pileanthus peduncularis subsp. *peduncularis*
Pimelea argentea
Pimelea floribunda
Pimelea gilgiana
Pimelea microcephala subsp. *microcephala*
Pimelea angustifolia
Pimelea imbricata var. *piligera*
Pimelea leucantha
Pimelea microcephala subsp. *microcephala*
Pittosporum angustifolium
Pittosporum ligustrifolium
Pittosporum phylliraeoides

Pityrodia loxocarpa
Pityrodia oldfieldii
Pityrodia verbascina
Pityrodia hemigenioides
Pityrodia loxocarpa
Pityrodia oldfieldii
Pityrodia verbascina
**Plantago coronopus* subsp. *commutata*
Plantago debilis
Platysace effusa
Platysace juncea
Platysacexerophila
Poa poiformis
**Poa annua*
Podolepis capillaris
Podolepis lessonii
Podotheca gnaphalioides
Pogonolepis stricta
**Polycarpon tetraphyllum*
Polygonum aviculare
Polysiphonia decipiens
Poranthera drummondii
Prasophyllum gracile
Prosopis juliflora var. *juliflora*
Prostanthera magnifica
Psammomoya choretroides
Pterochaeta paniculata
Ptilotus divaricatus var. *divaricatus*
Ptilotus drummondii var. *minor*
Ptilotus eriotrichus
Ptilotus gaudichaudii var. *parviflorus*
Ptilotus stirlingii var. *stirlingii*
Ptilotus villosiflorus
Ptilotus declinatus
Ptilotus divaricatus
Ptilotus divaricatus var. *divaricatus*
Ptilotus drummondii var. *minor*
Ptilotus eriotrichus
Ptilotus exaltatus var. *exaltatus*
Ptilotus humilis subsp. *humilis*
Ptilotus manglesii
**Ptilotus polystachyus*
Ptilotus polystachyus var. *polystachyus*
Ptilotus sp. Northampton (R. Davis 10952)
Ptilotus stirlingii
Ptilotus stirlingii var. *stirlingii*
Ptilotus villosiflorus
Puncteli subalbicans
Pyxine cocoes

Radyera farragei
Raphanus raphanistrum
Reichardia tingitana
**Reseda alba*
**Reseda luteola*
Rhagodia latifolia subsp. *recta*
Rhagodia preissii subsp. *obovata*
Rhagodia baccata subsp. *dioica*
Rhagodia latifolia
Rhagodia latifolia subsp. *recta*
Rhagodia preissii subsp. *obovata*
Rhodanthe chlorocephala subsp. *rosea*
Rhodanthe citrina
Rhodanthe oppositifolia subsp.*oppositifolia*
Rhodanthe spicata
Rhodanthe stricta
Rhodanthe chlorocephala subsp. *rosea*
Rhodanthe chlorocephala subsp. *splendida*
Rhodanthe manglesii
Rhodanthe propinqua
Ricinocarpos psilocladus
Ricinus communis
**Romulea rosea*
Rorippa nasturtium-aquaticum
**Rostraria cristata*
**Rostraria pumila*
Rulingia densiflora
Rulingia borealis

Salsola tragus
Salsola australis
**Salvia verbenaca*
Samolus repens var. *floribundus*
Samolus repens var. *paucifolius*
Santalum acuminatum
Sargassum ilicifolium
Scaevola crassifolia
Scaevola globulifera
Scaevola phlebopetala
Scaevola porocarya
Scaevola thesioides subsp. *thesioides*
Scaevola tomentosa
Scaevola virgata
Scaevola canescens
Scaevola globosa **P3**
Scaevola lanceolata
Scaevola phlebopetala
Scaevola porocarya
Scaevola spinescens
Scaevola thesioides subsp. *thesioides*
Scaevola tomentosa
Schoenia cassiniana
Schoenia filifolia subsp. *subulifolia* **R**
Schoenus grandiflorus
Schoenus brevisetis
Schoenus clandestinus
Schoenus humilis
Schoenus nanus
Schoenus odontocarpus
Schoenus pleiostemoneus
Schoenus sculptus
Schoenus sp. G Broad Sheath (K.L. Wilson)
Schoenus unispiculatus
Scholtzia ciliata
Scholtzia oligandra
Scholtzia umbellifera
Scholtzia ciliata
Scholtzia drummondii
Scholtzia laxiflora
Scholtzia parviflora
Scholtzia sp. Burma Road (A.C. Burns 138)
Scholtzia sp. Eradu (R.D. Royce 8016) **P2**
Scholtzia sp. Gunyidi (J.D. Briggs 1721) **P2**
Scholtzia sp. Kojarena (A.M. Ashby 1904) **P1**
Scholtzia sp. Northampton (A. Strid 20714)
Scholtzia umbellifera
Senecio pinnatifolius
Senecio pinnatifolius var. *latilobus*
Senna artemisioides subsp. *filifolia*
Senna artemisioides subsp. *stricta*
Senna glutinosa subsp. *chatelainiana*
Sida calyxhymenia
Sinapis arvensis
Solanum nigrum
Solanum oldfieldii
Solanum orbiculatum subsp. *orbiculatum*
Solanum lasiophyllum
Sonchus oleraceus
Sowerbaa laxiflora
Spergularia marina
Sphaerolobium drummondii
Sphaerolobium gracile
Spinifex longifolius
Sporobolus virginicus
Spyridium globulosum
Stachystemon axillaris **P4**
Stackhousia dielsii
Stackhousia monogyna
Stenanthemum gracilipes **P1**
Stenanthemum notiale subsp. *notiale*
Stenanthemum sp. Burma Road (G.J. Keighery)
Stirlingia latifolia
Stylidium crossocephalum
Stylidium elongatum
Stylidium leptophyllum
Stylidium adpressum

Stylidium caricifolium
Stylidium confluens
Stylidium diuroides subsp. *Paucifoliatum* **P4**
Stylidium elongatum
Stylidium kalbarriense
Stylidium maitlandianum
Stylidium petiolare
Stylidium piliferum
Stylidium pseudocaespitosum **P2**
Stylidium purpureum
Stylidium repens
Stylidium rigidulum
Stylobasium australe
Stylobasium spathulatum
Stypandra glauca
Synaphea recurve

Tamarix aphylla
Teloschistes chrysophthalmus
Templetonia retusa
Templetonia biloba
Tersonia cyathiflora
Tetragonia decumbens
Tetragonia implexicoma
Tetrariamicrocarpa
Thelymitra antennifera
Themeda triandra
**Thinopyrum distichum*
Thomasia grandiflora
Threlkeldia diffusa
Thryptomene stenophylla
Thryptomene baeckeacea
Thryptomene denticulata
Thryptomene racemulosa
Thryptomene sp. Moresby Range (A.S. George 14873)
Thryptomene sp. Yuna Reserve (A.C. Burns 100)
Thryptomene stenophylla **P2**
Thryptomene strongylophylla
Thysanotus arenarius
Thysanotus brittanii
Thysanotus manglesianus
Thysanotus patersonii
Thysanotus pyramidalis
Thysanotus sparteus
Thysanotus thyrsoideus
Tolypiocladia glomerulata
Trachyandra divaricata
Trachymene ceratocarpa
Trachymene pilosa
Trachymene cyanopetala
Trachymene ornata
Trichodesma zeylanicum
Tricoryne elatior
**Trifolium subterraneum*
Triglochin calcitrapa
Triglochin nana
Triodia danthonioides
Tripterococcus brunonis

**Urochloa panicoides*
Urospermum picroides
Ursinia anthemoides
**Urtica urens*
Usnea scabrida

Velleia cycnopotamica
Velleia rosea
Verbesina encelioides
Verreauxia reinwardtii
Verticordia capillaris
Verticordia centipeda
Verticordia chrysantha
Verticordia chrysanthella
Verticordia chrysostachys var. *pallida* **P3**
Verticordia densiflora var. *roseostella* **P3**
Verticordia densiflora var. *stelluligera*
Verticordia grandis
Verticordia huegelii var. *stylosa*
Verticordia lepidophylla var. *lepidophylla*
**Verticordia monadelpha* var. *callitricha*
**Verticordia monadelpha* var. *monadelpha*
Verticordia muelleriana subsp. *minor* **P2**
Verticordia nobilis
Verticordia oculata
Verticordia picta
Verticordia spicata subsp. *spicata*
Verticordia centipeda
Verticordia chrysantha
Verticordia chrysanthella
Verticordia chrysostachys var. *chrysostachys*
Verticordia chrysostachys var. *pallida* **P3**
Verticordia densiflora var. densiflora
Verticordia densiflora var. *roseostella* **P3**
Verticordia densiflora var. *stelluligera*
Verticordia grandis
Verticordia laciniata
Verticordia monadelpha var. *monadelpha*
Verticordia muelleriana
Verticordia muelleriana subsp. *minor* **P2**
Verticordia nobilis
Verticordia penicillaris **P4**
Verticordia pennigera
Verticordia picta
Vittadinia cervicularis
Vittadinia cervicularis var. *occidentalis* **P1**
Vulpia bromoides
**Vulpia myuros*

**Wahlenbergia capensis*
Waitzia acuminata var. *acuminata*
Waitzia acuminata var. *albicans*
Waitzia nitida
Westringia dampieri
Wurmbea dioica subsp. *alba*
Wurmbea densiflora
Wurmbea dioica subsp. *alba*
Wurmbea monantha
Wurmbea tubulosi **R**

Xanthoparmelia sleei **Y**
Xanthoria elixii
Xanthoria parietina
Xanthorrhoea preissii

**Zaluzianskya divaricata*
Zygophyllum fruticulosum
Zygophyllum apiculatum

Appendix

5

APPENDIX 5

Fauna species in the City of Geraldton-Greenough (Source: W.A Museum, 2006)

Information provided by Western Australian Museum, Fauna Base, latitude/longitude coordinates: 28.636, 115.148 and 29.032, 114.613

Note: not a comprehensive list.

BIRD SPECIES		
Acanthizidae	*Acanthiza chrysorrhoa*	Yellow-rumped Thornbill
	Aphelocephala leucopsis castaneiventris	
	Gerygone fusca	Western Warbler
	Sericornis frontalis maculatus	
Accipitridae	*Accipiter fasciatus fasciatus*	Brown Goshawk
Anatidae	*Anas castanea*	Chestnut Teal
	Anas rhynchotis rhynchotis	Blue-winged Shoveller
	Aythya australis	White-eyed Duck
Anhingidae	*Anhinga melanogaster novaehollandiae*	
Ardeidae	*Ardea novaehollandiae*	White-faced Heron
Artamidae	*Artamus cinereus*	Black-faced Woodswallow
Casuariidae	*Dromaius novaehollandiae*	
Columbidae	*Streptopelia senegalensis senegalensis*	Senegal Turtle-Dove
Coraciidae	*Eurystomus orientalis pacificus*	
Corvidae	*Corvus coronoides perplexus*	
Cracticidae	*Cracticus nigrogularis*	Pied Butcherbird
	Cracticus tibicen	Australian Magpie
	Cracticus torquatus	Grey Butcherbird
	Strepera versicolor plumbea	
Cuculidae	*Chrysococcyx lucidus plagosus*	
Dicaeidae	*Dicaeum hirundinaceum*	Mistletoebird
Falconidae	*Falco cenchroides cenchroides*	Nankeen Kestrel
	Falco longipennis longipennis	Little Falcon
	Falco peregrinus	Peregrine Falcon
Halcyonidae	*Todiramphus pyrrhopygia*	Red-backed Kingfisher
Hydrobatidae	*Oceanites marinus dulciae*	
Laridae	*Catharacta antarctica lonnbergi*	
	Sterna albifrons	White-Shalfted Little Tern
	Sterna nereis nereis	Fairy Tern
Maluridae	*Malurus lamberti assimilis*	
	Malurus splendens	Splendid Wren
Meliphagidae	*Anthochaera carunculata*	Red Wattlebird
	Epthianura tricolor	Crimson Chat
	Lichenostomus ornatus	Yellow-plumed Honeyeater

	Lichenostomus penicillatus	White-plumed Honeyeater
	Lichenostomus virescens	Singing Honeyeater
	Manorina flavigula	White-Rumped Miner
Meropidae	*Merops ornatus*	Rainbow Bee-eater
Motacillidae	*Motacilla alba ocularis*	
Otididae	*Ardeotis australis*	Australian Bustard
Pachycephalidae	*Oreoica gutturalis*	Crested Bellbird
Pardalotidae	*Pardalotus striatus*	Striated Pardalote
Passeridae	*Passer montanus*	Eurasian Tree Sparrow
	Taeniopygia guttata castanotis	
Petroicidae	*Eopsaltria georgiana*	White-breasted Robin
Pomatostomidae	*Pomatostomus superciliosus*	White-browed Babbler
Procellariidae	*Halobaena caerulea*	Blue Petrel
Psittacidae	*Cacatua pastinator butleri*	
	Cacatua roseicapilla assimilis	
	Calyptorhynchus banksii naso	Red-tailed Black Cockatoo
	Calyptorhynchus latirostris	Carnaby`s Cockatoo
	Nymphicus hollandicus	Cockatie
	Platycercus zonarius	Australian Ringneck
	Polytelis anthopeplus anthopeplus	Regent Parrot
Rallidae	*Gallirallus philippensis mellori*	
	Porzana fluminea	Australian Spotted Crake
Strigidae	*Ninox novaeseelandiae*	Boobook Owl
Sylviidae	*Cincloramphus cruralis*	Brown Songlark
Turnicidae	*Turnix velox*	
Tytonidae	*Tyto alba*	Barn Owl
	Tyto alba delicatula	
	Tyto novaehollandiae	Masked Owl
Zosteropidae	*Zosterops lateralis gouldi*	

MAMMAL SPECIES

Bovidae	*Bos taurus*	Cow
Dasyuridae	*Sminthopsis crassicaudata*	Fat-tailed dunnart
	Sminthopsis dolichura	Little Long-tailed Dunnart
Delphinidae	*Tursiops truncatus*	Bottle-nosed dolphin
Felidae	*Felis catus*	Cat
Leporidae	*Oryctolagus cuniculus*	Rabbit
Macropodidae	*Macropus fuliginosus*	Western Grey Kangaroo
	Macropus robustus erubescens	Biggada

Molossidae	*Tadarida australis*	White-striped Freetail-bat
Muridae	*Mus musculus*	House mouse
	Pseudomys albocinereus	Ash-grey Mouse
	Rattus rattus	Black rat
Pteropodidae	*Pteropus scapulatus*	Little Red Flying-fox
Tachyglossidae	*Tachyglossus aculeatus*	Short-beaked echidna
Tarsipedidae	*Tarsipes rostratus*	Honey Possum
Vespertilionidae	*Nyctophilus geoffroyi*	Lesser long-eared bat
Ziphiidae	*Hyperoodon planifrons*	Southern Bottlenose Whale

REPTILE SPECIES

Agamidae	*Ctenophorus maculatus maculatus*	Spotted Sand Dragon
	Ctenophorus nuchalis	Central Netted Dragon
	Ctenophorus reticulatus	Western Netted Dragon
	Lophognathus longirostris	Long-nosed Water Dragon
	Moloch horridus	Thorny Devil
	Pogona minor minor	Western Bearded Dragon
	Rankinia adelaidensis	Western Heath Dragon
	Rankinia adelaidensis adelaidensis	
Boidae	*Antaresia stimsoni stimsoni*	Western Stimson`s Python
	Aspidites ramsayi	Ramsay`s python
	Morelia spilota imbricata	Southern Carpet Python
Cheloniidae	*Caretta caretta*	Loggerhead Turtle
Elapidae	*Brachyurophis semifasciata*	Shovel-nosed snake
	Demansia psammophis reticulata	
	Disteira major	Olive-headed sea snake
	Elapognathus coronatus	Crowned snake
	Hydrophis elegans	Bar-bellied sea snake
	Neelaps bimaculatus	Black-naped snake
	Parasuta gouldii	Gould`s snake
	Parasuta monachus	Monk snake
	Pseudechis australis	Mulga snake
	Pseudonaja modesta	Ringed brown snake
	Pseudonaja nuchalis	Gwardar
	Simoselaps bertholdi	Jan`s banded snake
	Simoselaps littoralis	West coast banded snake
Gekkonidae	*Crenadactylus ocellatus*	Clawless Gecko
	Crenadactylus ocellatus ocellatus	Clawless Gecko
	Diplodactylus alboguttatus	White-spotted Ground
Gecko	*Diplodactylus granariensis granariensis*	Wheatbelt Stone Gecko
	Diplodactylus ornatus	Ornate Stone Gecko
	Gehyra variegata	Variegated Tree Dtella
	Heteronotia binoei	Bynoe`s Gecko
	Nephrurus levis occidentalis	
	Strophurus spinigerus	Western Spiny-tailed Gecko
	Strophurus spinigerus spinigerus	Southwestern Spiny-tailed
	Underwoodisaurus milii	Barking Gecko

Pygopodidae	*Aprasia repens*	Sandplain Worm Lizard
	Delma fraseri fraseri	Fraser`s Legless Lizard
	Delma grayii	Side-barred Delma
	Delma tincta	
	Lialis burtonis	Burton`s Legless Lizard
	Pletholax gracilis gracilis	
	Pygopus lepidopodus	Common Scaly-foot
	Pygopus nigriceps	Hooded Scaly-foot
Scincidae	*Cryptoblepharus plagiocephalus*	Wall Skink
	Ctenotus australis	
	Ctenotus fallens	
	Ctenotus impar	Odd-striped Skink
	Ctenotus pantherinus pantherinus	Leopard Skink
	Cyclodomorphus branchialis	Gilled Slender Bluetongue
	Cyclodomorphus celatus	Coastal Slender Bluetongue
	Eremiascincus richardsonii	Banded Skink
	Lerista distinguenda	
	Lerista elegans	
	Lerista gerrardii	
	Lerista lineopunctulata	
	Lerista praepedita	
	Menetia greyii	Common Dwarf Skink
	Morethia lineoocellata	
	Morethia obscura	Woodland Flecked Skink
	Tiliqua occipitalis	Western Bluetongue
	Tiliqua rugosa rugosa	Southwestern Bobtail
Typhlopidae	*Ramphotyphlops australis*	
	Ramphotyphlops hamatus	
	Ramphotyphlops leptosoma	
	Ramphotyphlops pinguis	
	Ramphotyphlops waitii	
Varanidae	*Varanus gouldii*	Gould`s Sand Monitor
	Varanus tristis	Black-headed Monitor

FISH SPECIES

Acanthuridae	*Naso hexacanthus*	
Antennariidae	*Antennarius striatus*	
Aploactinidae	*Paraploactis intonsa*	
Apogonidae	*Apogon victoriae*	
Atherinidae	*Atherinomorus ogilbyi*	
	Craterocephalus cuneiceps	
Bathysauridae	*Saurida* sp.	
Batrachoididae	*Halophryne diemensis*	
Belonidae	*Ablennes hians*	
Callionymidae	*Callionymus limiceps*	
Centropomidae	*Psammoperca waigiensis*	Sand Bass
Cichlidae	*Oreochromis* sp.	
	Tilapia zillii	

Clinidae	*Heteroclinus whitleyi*	
Cynoglossidae	*Paraplagusia bilineata*	Patterned Tongue Sole
Dactylopteridae	*Dactyloptena orientalis*	
Fistulariidae	*Fistularia petimba*	
Haemulidae	*Plectorhinchus flavomaculatus*	
Hemigaleidae	*Hemipristis* sp.	Fossil Shark
Heterodontidae	*Heterodontus portusjacksoni*	Port Jackson Shark
Kyphosidae	*Neatypus obliquus*	
Leptoscopidae	*Crapatalus arenarius*	
Lutjanidae	*Lutjanus quinquelineatus*	Five-lined Seaperch
Monacanthidae	*Anacanthus barbatus*	Bearded Leatherjacket
Monodactylidae	*Monodactylus argenteus*	Diamond Fish
Mugilidae	*Aldrichetta forsteri*	Yelloweye Mullet
Odacidae	*Siphonognathus argyrophanes*	
Orectolobidae	*Orectolobus* sp.	
Ostraciidae	*Lactoria cornuta*	Long-horned Cowfish
Paralichthyidae	*Pseudorhombus* sp.	
Pegasidae	*Pegasus volitans*	
Plotosidae	*Plotosus lineatus*	
Poeciliidae	*Gambusia affinis*	
	Gambusia holbrooki	
Pomacanthidae	*Chaetodontoplus conspicillatus*	
	Chaetodontoplus personifer	Yellowtail Angelfish
Rachycentridae	*Rachycentron canadus*	Cobia
Scombridae	*Scomberomorus commerson*	Spanish Mackerel
Scorpaenidae	*Apistops caloundra*	
	Centropogon latifrons	
Siganidae	*Siganus fuscescens*	Black Spinefoot
Sillaginidae	*Sillago schomburgkii*	Yellowfin Whiting
	Sillago sp.	
Soleidae	*Phyllichthys punctatus*	Spotted Sole
Syngnathidae	*Phyllopteryx taeniolatus*	
Terapontidae	*Amniataba caudavittata*	Yellowtail Trumpeter
Triglidae	*Chelidonichthys kumu*	Red Gurnard

Xiphiidae	*Xiphias gladius*	Broad-billed Swordfish

AMPHIBIA SPECIES

Hylidae	*Litoria moorei*	Motorbike Frog
Myobatrachidae	*Crinia pseudinsignifera*	Bleating Froglet
	Heleioporus albopunctatus	Western Spotted Frog
	Heleioporus eyrei	Moaning Frog
	Limnodynastes dorsalis	Banjo Frog
	Myobatrachus gouldii	Turtle Frog
	Neobatrachus kunapalari	Wheatbelt Frog
	Neobatrachus pelobatoides	Humming Frog
	Neobatrachus wilsmorei	Wilsmore`s Frog
	Pseudophryne guentheri	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 includes material for making didgeridoos, other types of craftwood, and stakes or poles for various purposes.

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

In some instances the Roadside Conservation Committee (RCC) is supportive of the sustainable harvesting of flora, such as salvage (removal of dead material that is not significant wildlife habitat or is material to be destroyed by road works), or the selective collection of seed for revegetation. However, each case should be viewed on its merits and any decision to facilitate harvesting from roadsides should be referred to the Department of Environment and Conservation (DEC) and/or the RCC for advice. Licences allowing the taking of roadside flora may be issued by DEC 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 DEC. In issuing a licence, DEC is required to be assured that the activity will not compromise the conservation of the flora. In determining this, DEC 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 DEC 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 DEC, 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 DEC.
- ✓ 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 DEC.

- ✓ 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 DEC.
- ✓ No flora of special conservation concern (Declared Rare Flora or Priority Flora) should be removed without special authorisation through DEC.
- ✓ No commercial harvesting of any plant product should be allowed for any reason between the markers that delineate a Special Environmental Area.
- ✓ Flora harvesting should be prohibited from designated Flora Roads.
- ✓ Care should be taken that access to Dieback infected areas is limited to the drier months of the year, and vehicular access disallowed.
- ✓ Safety should always be of prime concern and every effort should be made to ensure that personal safety is a key consideration in any harvesting operation.
- ✓ Flora harvesters should not operate from the roadside in areas where the vegetation is close to the road, where vehicles cannot be safely parked off the road, or where there is poor driver visibility.

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