Roadside Vegetation and Conservation Values in the Shire of Manjimup

Declared Rare Flora; such as *Caladenia harringtoniae* survives along roadsides in the Shire of Manjimup.
Photography by A.P. Brown. Photo used with the permission of the WA Herbarium, CALM http://florabase.calm.wa.gov.au/help/photos#reuse.

June 2005

Roadside Conservation Committee

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APPENDICES

Acknowledgments go to the roadside surveyors:

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D. Fry	**Green Corps 2000**	**Green Corps 2001**	

Executive Summary

This report provides an overview of roadside conservation issues relevant to the Shire of Manjimup. Primarily providing detailed results of the roadside survey, with accompanying management recommendations, it also briefly describes the natural environment in the Manjimup area.

Aware of the need to conserve roadside remnants, Manjimup-based CALM staff and community volunteers liaised with the Roadside Conservation Committee (RCC) between 2000-2001 to survey roadside vegetation in the Shire. The enthusiastic efforts of the volunteer surveyors, Green Corps teams and project coordinator Ian Wilson, ensured that this project was successfully completed.

The majority (1104.5 km) of the Shire of Manjimup's 1458 km of roadsides were assessed by the RCC for their roadside conservation status and maps produced via a Geographic Information System (GIS). The survey indicated that high conservation value roadsides covered approximately 66.7% of the roadsides surveyed, with medium-high conservation value roadsides accounting for 16.0%. Medium-low and low conservation value roadsides covered 6.9% and 10.3% of the total surveyed, respectively. A number of weeds were recorded and mapped also; a more detailed analysis of results is presented in this report.

It is envisaged that the prime use of the 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 as a road reserve planning and management tool, for example;

- identifying degraded areas for strategic rehabilitation or in need of specific management techniques and weed control programs;
- prioritising roadside vegetation protection and/or rehabilitation programs;
- 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, Natural Resource Management (NRM) or similar projects for 'whole of' landscape projects.

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

However, proactive and innovative management of roadside vegetation has the potential to abate and reverse this general decline. Opportunities exist for the Shire of Manjimup to utilise the RCV map into many facets of its Landcare, tourism, road maintenance operations and 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 which have become severly disadvantaged by becoming isolated within a mosaic of man-made biogeographical islands of small native vegetation remnants. These are typically unreliable for sustaining wildlife due to food shortages, disease and reduced genetic diversity caused by a diminishing gene pool. Nevertheless, the presence of native vegetation along roadsides can often assist in alleviating this isolation effect by providing connectivity between bush remnants, thereby facilitating the movement of biota across the landscape.

Remnant vegetation includes more than just trees, comprising a diverse mix of trees, shrubs and ground covers (creepers, grasses and herbs) which when intact provide valuable food and shelter for local biodiversity. Existing native vegetation generally requires less maintenance if left undisturbed.

High conservation value roadsides form significant tracts of remnant vegetation.
Photo D. Lamont.

Remnants in transport corridors are also valuable because they:

- are often the only remaining example of original vegetation within extensively cleared areas;
- are easier to maintain and generally less fire prone than introduced vegetation;
- provide habitat for many native species of plants, mammals, reptiles, amphibians and invertebrates;
- provide wildlife corridors linking other areas of native vegetation;
- often contain rare and endangered plants and animals. Currently, roadside plants represent more than 80 per cent of the known populations of 40 of the declared rare species, and three of these are known only to exist in roadside populations;
- provide the basis for our important wildflower tourism industry. The aesthetic appeal of well-maintained roadsides should not be overlooked, and they have the potential to improve local tourism and provide a sense of place;
- often contain sites of historic or cultural significance;
- provide windbreaks and stock shelter areas for adjoining farmland by helping to stabilise temperature and reduce evaporation.
- assist with erosion and salinity control, and not only in the land adjoining the road reserve per se;
- are generally far less of a fire threat than annual weeds;
- provide a benchmark for the study of soil change throughout the advancement of agriculture;
- are a vital source of local seed for revegetation projects in the absence of other alternatives;

- provide a valuable source of seed for regeneration projects. This is especially pertinent to shrub species, as clearing and grazing beneath farm trees often removes this layer;

Approval of the local shire and a CALM permit are required prior to collection.

In a time of rapid change, where the demands placed on the natural resources are numerous, it is vital that there is a coordinated management of lands across all tenures and boundaries to ensure the sustainability and integrity of the natural biota ecosystem processes, agricultural lands and service infrastructure.

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

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

Amendments to the *Environmental Protection Act* 1986 have put in place a permit application process designed to assess vegetation clearing based upon a number of clearing principles which ensure ecological, conservation and land degradation issues are considered. Under the Act clearing native vegetation requires a permit unless it is for exempt purposes. These amendments are design to provide improved protection for

native vegetation, maintain biodiversity and allow for some incidental clearing activities to continue, such as day-to-day farming practices, without the need for a permit.

2.3 Fire

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

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

The RCC's policies on fire management are:

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

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

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

The impact of a fire on natural, cultural and landscape values should be carefully considered.
Photo D. Lamont

2.4 Weeds

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

Once weeds become established in an area, they become a long-term management issue, costing considerable resources to control or eradicate. The WA Herbarium records 190 weed species in the Shire of Manjimup, see Appendix 4.

Throughout the roadside survey, 10 types of weeds were recorded, and their locations mapped by the RCC onto clear overlays. These were:

- Pampas grass (*Cortaderia selloana*),
- Watsonia (*Watsonia spp.*),
- Broombush (*Genista spp*.),
- Victorian tea tree (*Leptospermum laevigatum*),
- Tagasaste (*Chamaecytisus palmensis*),
- Arum lily (*Zantedeschia aethiopica*),
- Blackberry (*Rubus fruticosus*),
- Bridal creeper (*Asparagus asparagoides*),
- Wild radish (*Raphanus raphanistrum*), and
- Paterson's curse (*Echium plantagineum*),

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

Further information on the presence of the ten nominated weed types is presented in Part C of this report. Roadside populations of these weeds can be observed on the weed overlays provided with the Manjimup Roadside Conservation Value map (2003). The Roadside Conservation Value map and weed overlays will assist the Shire and community in coordinating strategic weed control projects, with the highest priority to protect and preserve the high conservation value roadsides, working towards rehabilitating those with a lower conservation value.

Arum lily
Photography by R. Knox, K. Dean, R. Randall & Anon. Photo used with the permission of the WA Herbarium, CALM http://florabase.calm.wa.gov.au/help/photos#reuse.

2.5 Collection of native plant material from roadsides

The Shire of Manjimup does not generally allow the collection of wildflowers or seed from native plants within road reserves. Exceptions may be granted for special cases, and for particular species. Under the *Wildlife Conservation Act* the Department of Conservation and Land Management may issue a licence following Shire approval.

Collecting seed from a roadside may be the only option in cases where there are no other sources of seed for revegetation, although, it has the potential to impact negatively on the roadside flora. Collection of native plant material from roadsides:

- further depletes the already scarce resource,
- can detract from the integrity of the roadside,
- reduces the amount of seed available for natural regeneration,
- reduces the ability of the area to regenerate after disturbances such as fire, and
- threatens roadside plant communities with the potential introduction and spread of two major threats – *Phytophthora* dieback and weeds.

2.6 *Phytophthora* Dieback

The *Phytophthora* species dieback is made up of several types of introduced fungi. About one third of native plants in Western Australia's south-west are susceptible, including species of Banksia, Hakea, Eucalyptus, Melaleuca, Verticordia, Acacia and Grevillea. The Shire of Manjimup is a known *Phytophthora* dieback risk area as it has an annual rainfall of more than 800 mm. The *Phytophthora* fungus infects the roots and inhibits the uptake of water and nutrients, eventually causing death. It is more widespread and severe in the higher rainfall zone, waterlogged sites and multiple use, forested areas.

Phytophthora spreads by the movement of spores in water, or by the spread of infected soil. The spores can be introduced to uninfected areas by human activities, particularly through the soil carried on vehicle tyres or footwear. Daily activities, such as routine maintenance or construction, have the potential to spread *Phytophthora* fungi. Currently, there is no practical method of eradicating *Phytophthora* once it is established in an area.

The Dieback Working Group published a booklet titled *Managing Phytophthora Dieback in Bushland: A guide for Landholders and Community Conservation Groups* (2000), that provides detailed information on minimising the risk of introducing or spreading *Phytophthora*.

Impact of *Phytopthora* Dieback
Photo Dieback Working Group

2.7 Salinity

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

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

Based on figures supplied by the Department of Agriculture WA for the *Salinity Investment Framework Interim Report* (2003), Table 1 shows that, in the Shire of Manjimup, salinity has the potential to effect 414.3 ha of land and to degrade 3.18 km roads.

Shire	Area potentially affected by salinity (Ha)	% Area potentially affected by salinity	Roads Potentially Affected by Salinity (km)				Total (km)
			Highways (km)	Local roads (km)	Main roads (km)	Other Roads (km)	
Manjimup	414.3	0.06	0.00	0.90	0.50	2.23	3.18
Plantagenet	4,615.0	0.95	1.13	11.58	1.40	11.70	25.80
Bridgetown-Greenbushes	241.0	0.18	0.00	1.93	0.00	5.00	6.93
Cranbrook	10,131.0	3.10	1.43	32.68	2.03	18.78	54.90
Boyup Brook	3,423.0	1.21	0.00	17.00	1.18	11.18	29.35
Denmark	80.0	0.04	0.03	0.30	0.00	0.53	0.85

Table 1. The effect of salinity on road infrastructure in the Shire of Manjimup and surrounding Shires.
(Adapted from material produced by the Department of Agriculture WA for Department of Environment 2003, Salinity Investment Framework Interim Report- Phase 1, 2003, Department of Environment, Salinity and Land Use Impacts Series No. SLUI 32.)

3.0 Legislative Requirements

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

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

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

State legislation:

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

Commonwealth legislation:

- *Environment Protection and Biodiversity Conservation Act* 1999

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

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

This assessment process is designed to provide a more comprehensive and stringent land clearing control system. There are two land clearing permits available, an area permit and a purpose permit. Where clearing

is for a once-off clearing event such as pasture clearing or an agricultural development for example, an area permit is required. Where ongoing clearing is necessary as part of a maintenance program for road or railway reserves for example, a purpose permit is needed. The exemptions are designed to enable farmers and landholders to continue regular incidental clearing without having to apply for a permit. In the case of Shire road construction and maintenance activities, clearing is allowed to occur if it is to the width and height previously cleared for that purpose. A permit will be required if clearing is needed to establish a new road, widen an existing road surface into roadside vegetation or create a new gravel pit on uncleared land for example.

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

4.0 Special Environment Areas

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

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

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

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

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

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

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

5.0 Flora Roads

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

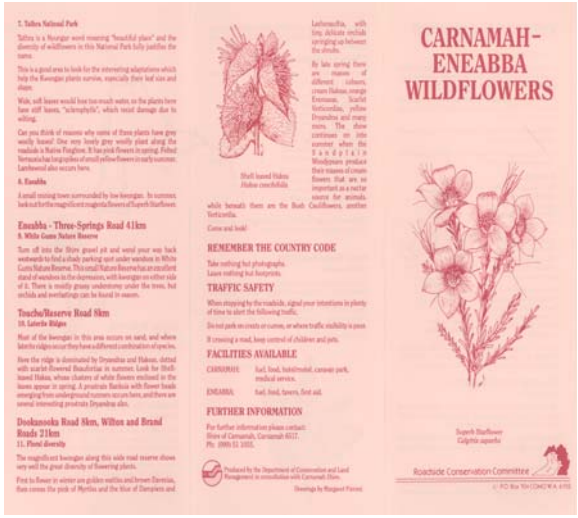
Roadsides are one of the most accessible places for tourists to view wildflowers.
Photo by CALM

Although presently there are no Flora Roads designated within the Shire of Manjimup, the roadside survey and the roadside conservation value (RCV) map highlighted a number of roadsides that have the potential to be declared as Flora Roads. These, and other roads may be investigated further to see if they warrant a declaration as a Flora Road, see Part C of this report. This has the dual effect of drawing the attention of tourists to the high conservation value roadside and also alerting all that work in the roadside environment that the marked section of roadside requires due care to protect the values present.

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

Attractive roadside drives are an important focus in Western Australia, the "Wildflower State". Declared Flora Roads will, by their very nature, be attractive to tourists and would often be suitable as part of a tourist drive network. Consideration should be given to:

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



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

PART B

The Natural Environment in Manjimup

1.0 INTRODUCTION

The Shire of Manjimup is located 306 km south of Perth in Western Australia's Warren Region. The major agricultural pursuits and industries in the area are timber, horticulture, beef, fruit, vegetables, dairy, viticulture and aquaculture. Tourism is also an important industry, with the area's spectacular natural resources, such as the Beedelup falls, the Tree Top walk, Valley of the Giants, Gloucester Tree, Windy harbour and various forest drives being salient features of the area.

The Shire of Manjimup covers an area of 6,894 square kms and supports a population of approximately 10,030 people. The area experiences a mediterranean climate with an average annual rainfall of 1023 mm. Seasonal temperatures are characterised by warm summers, with maxima averaging from the mid to high twenties, and mild winters, with maxima in the mid teens. Mean daily maximum and minimum temperatures and rainfall statistics are shown below.

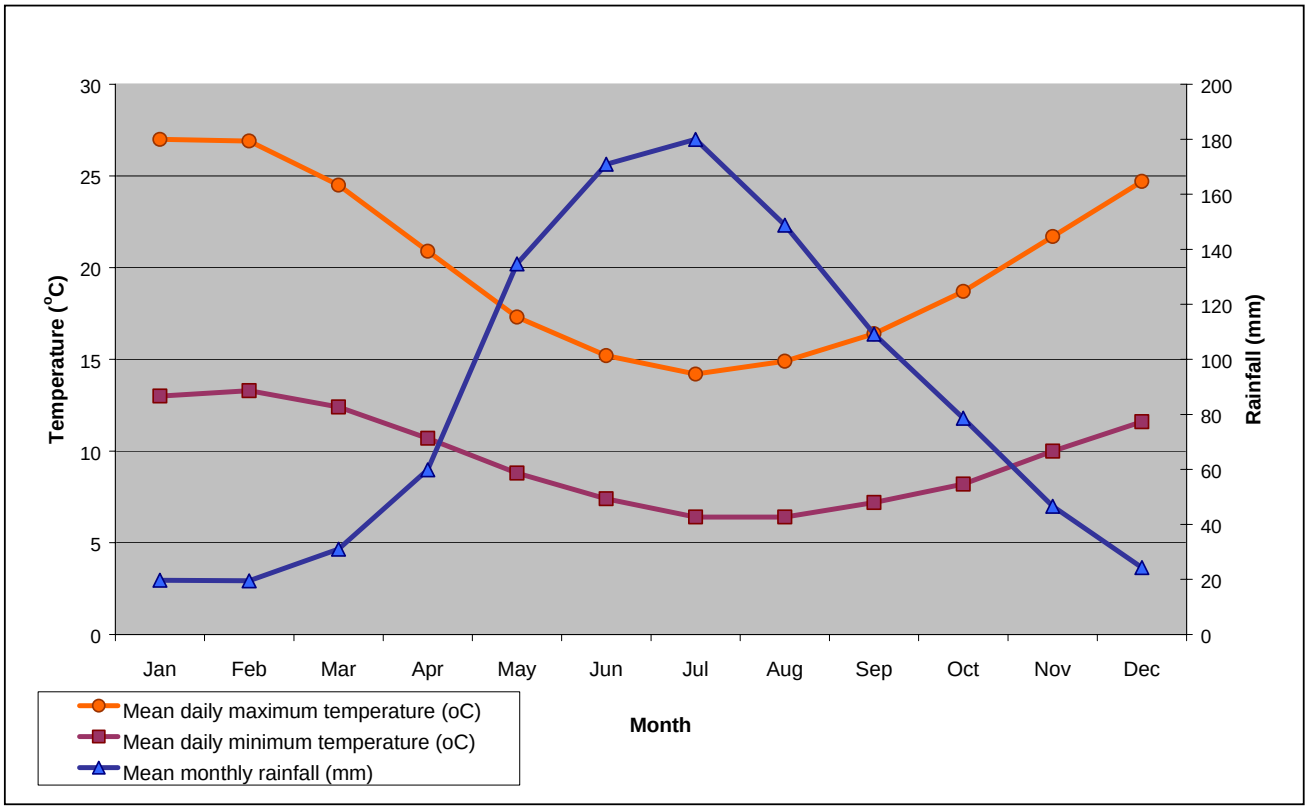


Figure 1 – Mean daily maximum and minimum temperature (°C) and rainfall (mm) in the Shire of Manjimup, based on climate averages from the Manjimup weather station 009573. (Bureau of Meteorology, 2003).

2.0 Flora

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

The WA herbarium records more than 1,550 different species of plants from the Shire of Manjimup (see Appendix 4) and these include: 57 *Stylidium spp*., 51 *Acacia spp*., 47 *Caladenia spp*., 30 *Schoenus spp*., 21 *Eucalypt spp*. and 23 *Boronia spp*.

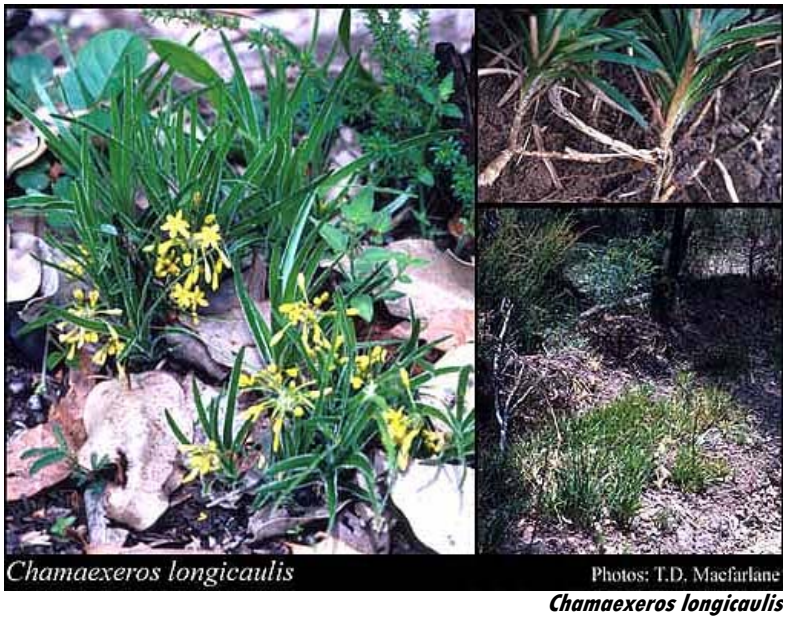
3.0 Declared Rare Flora

Declared Rare Flora (DRF) refers to species, or populations of native plants that are of great significance and should be treated with special care when road and utility service, construction or maintenance is undertaken. Populations of DRF along roadsides are designated Special Environmental Areas (SEA's) and are marked out by yellow stakes with an identification plate welded on.

It is the responsibilty of the road manager to ensure these markers are installed, and guides for this are outlined in 'Guidelines for Managing SEA's in transport corridors', available from the Roadside Conservation Committee. DRF sites in the Shire of Manjimup need to be checked for the presence of appropriate markers, and their locations be made known to all involved in the management and planning of works within the roadside environment.

Manjimup has 28 populations of 13 DRF and priority species on roadsides, with 10 of these sites vested in the Shire. These include the following species:

- *Meziella trifida*
- *Leucopogon polystachyus*
- *Stylidium rhipidium*
- *Diuris drummondii*
- *Caladenia christineae*
- *Caladenia harringtoniae*
- *Thelymitra jacksonii*
- *Chamaexeros longicaulis*
- *Hemiandra australis*
- *Meeboldina crassipes*
- *Euphrasia scabra*
- *Eryngium spp.* and
- *Lomandra ordii.*



Chamaexeros longicaulis
Photography by T.D.Macfarlane. Photo used with the permission of the WA Herbarium, CALM http://florabase.calm.wa.gov.au/help/photos#reuse.

For more information regarding DRF it is advisable to contact the District Flora Officer for the Donelly District (08) 9776 1207. If roadworks are to be carried out near DRF sites, or the yellow stakes have been disturbed, it is advisable to contact CALM at least six weeks in advance.

Thelymitra jacksonii

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

Roadside populations of DRF should be clearly marked using theses yellow posts.

Photo K. Jackson.

4.0 Fauna

Threatened and priority fauna observed in the Shire of Manjimup, based on information from the Department of Conservation and Land Management, indicates that 34 species have been recorded or sighted throughout the Shire. These include:

- Chuditch (*Dasyurus geoffroii*)
- Numbat (*Myrmecobius fasciatus*)
- Western Ringtail Possum (*Pseudocheirus occidentalis*)
- Quokka (*Setonix brachyurus*)
- Western Long-billed Corella (*Cacatua pastinator pastinator*)
- Baudin's Black-Cockatoo (*Calyptorhynchus baudinii*)
- Loggerhead Turtle (*Caretta caretta*)
- Cape Leeuwin Freshwater Snail (*Austroassiminea letha*)
- Tingle Moggridgea Spider (*Moggridgea tingle*)
- Peregrine Falcon (*Falco peregrinus*)
- Poorginup Swamp Watermite (*Acerella poorginup*)

Chuditch

Photo by Bert and Babs Wells, courtesy of CALM.

- Doeg's Watermite (*Pseudohydraphantes doegi*)
- Brush-tailed Phascogale (*Phascogale tapoatafa*)
- Forest Red-tailed Black-Cockatoo (*Calyptorhynchus banksii naso*)
- Masked Owl (*Tyto novaehollandiae novaehollandiae*)
- Woylie (*Bettongia pennicillata ogilbyi*)
- Quenda (*Isoodon obesulus fusciventer*)
- Tammar Wallaby (*Macropus eugenii derbianus*)
- Western Brush Wallaby (*Macropus irma*)
- Water-rat (*Hydromys chrysogaster*)
- Nornalup Frog (*Geocrinia lutea*)

Red-tailed Black-Cockatoo
Photo by Bert and Babs Wells, courtesy of CALM

5.0 Remnant Vegetation Cover

The Shire of Manjimup retains 83.9% of its original native vegetation, and these are located in a variety of tenures, from nature and crown reserves to privately owned bushland. As a consequence, the presence of native vegetation in transport corridors is of vital importance. The presence of bush corridors to connect these areas is paramount to the survival of our native flora and fauna. A comparison of vegetation remnants in Manjimup and with surrounding Shires is seen in Table 2.

Shire	Native Vegetation Cover Remaining (%)
Boyup Brook	45.2%
Bridgetown-Greenbushes	67.9%
Cranbrook	37.7%
Denmark	83.2%
Manjimup	83.9%
Nannup	94.0%

Table 2. Remnant vegetation remaining in Manjimup and surrounding Shires. (Shepherd, Beeston and Hopkins, 2001).

Looking beyond just the levels of remaining remnant vegetation remaining, Table 3 outlines the 32 vegetation associations known from the Shire of Manjimup, and these provide an indication of the assemblages of native vegetation communities present prior to European settlement. It should be noted that these assemblages are indicative of the Shire per se and not specifically representative of roadside remnants.

The *National Targets for Biodiversity Conservation* (2001-2005, Environment Australia) state the need to have protection measures in place for those vegetation associations that are below 30%. Vegetation associations represented by less than 30% remnant vegetation cover are considered ecologically endangered and in need of protection and restoration wherever they are located. There are 3 vegetation associations below or near the 30% target of vegetation coverage in the Shire of Manjimup, see Table 3. Vegetation associations with

between 10-30% are considered vulnerable, between 30-50% are considered depleted (of the pre 1750 extent).

Beard's Vegetation Association #	Description	% Remaining
1	Tall forest; Karri	66.2
3	Medium forest; jarrah-marri	72.1
22	Low woodland; *Agonis flexuosa*	65.8
23	Low woodland; jarrah-banksia	67.2
27	Low woodland; paperbark	66.1
37	Shrublands; tea-tree thicket	55.9
51	Segdeland; reed swamps, occasionally with heath	51.7
128	Bare areas; rock outcrops	79.1
129	Bare areas; drift sand	54.1
949	Low woodland; banksia	82.6
965	Medium woodland; jarrah and marri	4.7
973	Low forest; paperbark (M*elaleuca rhaphiophylla)*	30.9
975	Low woodland; jarrah	76.3
990	Low forest; peppermint (*Agonis flexuosa*)	60.8
999	Medium woodland; marri	11.8
1002	Medium open woodland; jarrah	95.3
1109	Shrublands; pappermint scrub	69.7
1111	Medium woodland; yate (*E.occidentalis)*	71.8
1112	Mosaic; Tall forest; karri; Tall forest; jarrah and marri	79.0
1113	Shrublands; *Jacksonia horrida* heath	60.6
1115	Medium woodland; marri and yate	81.3
1116	Tall forest; jarrah	75.6
1130	Tall forest; karri and red tingle (*E.jacksonii*)	77.0
1131	Medium forest; bushy yate *(E. cornuta)*	78.9
1132	Medium forest; marri	80.5
1134	Medium woodland; jarrah (south coast)	83.1
1139	Tall forest; karri and yellow tingle (*E.guilfoylei*i)	76.6
1144	Tall forest; karri and marri (*Corymbus calophylla*)	69.7
1150	Tall forest; karri, red tingle & yellow tingle	78.8
1152	Medium forest; jarrah and yellow tingle	81.2
1157	Tall forest; jarrah and marri	81.5

Table 3. Vegetation associations occurring in the Shire of Manjimup, and the percentage of their original extent remaining in Western Australia. (Shepherd, Beeston and Hopkins, 2001).

PART C

Roadside Surveys in Manjimup

1.0 INTRODUCTION

The roadside survey and mapping program program was developed to provide a method of readily determining the conservation status of roadside vegetation. 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 (1104.5 km) of the Shire of Manjimup's 1458 km of roadsides were assessed for their conservation status and mapped. Fieldwork was carried out throughout the months of October, November and December in 2000 and January and July in 2001.

The enthusiastic efforts of the volunteer surveyors, Green Corps teams and project coordinator Ian Wilson ensured that this project was successfully completed.

1.1 Methods

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, see Appendix 2. This provides both a convenient and uniform method of scoring.

Ideally, the survey is undertaken by a group of local volunteers, who, aided by their knowledge of the area, are able to provide an accurate and cost effective method of data collection. Community participation also ensures a sense of ownership of the end product, which increases the likelihood of its acceptance and use by the local community and road managers (Lamont and Blyth, 1995).

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

- native vegetation on roadside;
- extent of native vegetation along roadside;
- number of native species;
- weed infestation;
- value as a biological corridor; and
- predominant adjoining land use.

Each of these attributes was given a score ranging from 0 to 2 points. Their combined scores provided a conservation score ranging from 0 to 12. The conservation values, in the form of conservation status categories, are represented 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**

Table 4: Colour codes used to depict the conservation status of roadsides.

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;
- dominant native species;
- 10 nominated weeds;
- fauna observed;
- general comments.

It is felt that the recording of these attributes will provide a community database that would provide information useful in many spheres local government and community interest.

1.2 Mapping Roadside Conservation Values

A computer generated map (using a Geographic Information System, or GIS), depicting the conservation status of the roadside vegetation and the width of the road reserves within the Shire of Manjimup was produced at a scale of 1:150 000. The data used to produce both the map and the following figures and tables are presented in Appendix 3.

Data obtained from the Department of Conservation and Land Management, Main Roads WA and the Department of Agriculture was used in the base map, and depicts the location of remnant vegetation on both the Crown estate and privately owned land.

2.0 USING THE RCV MAP

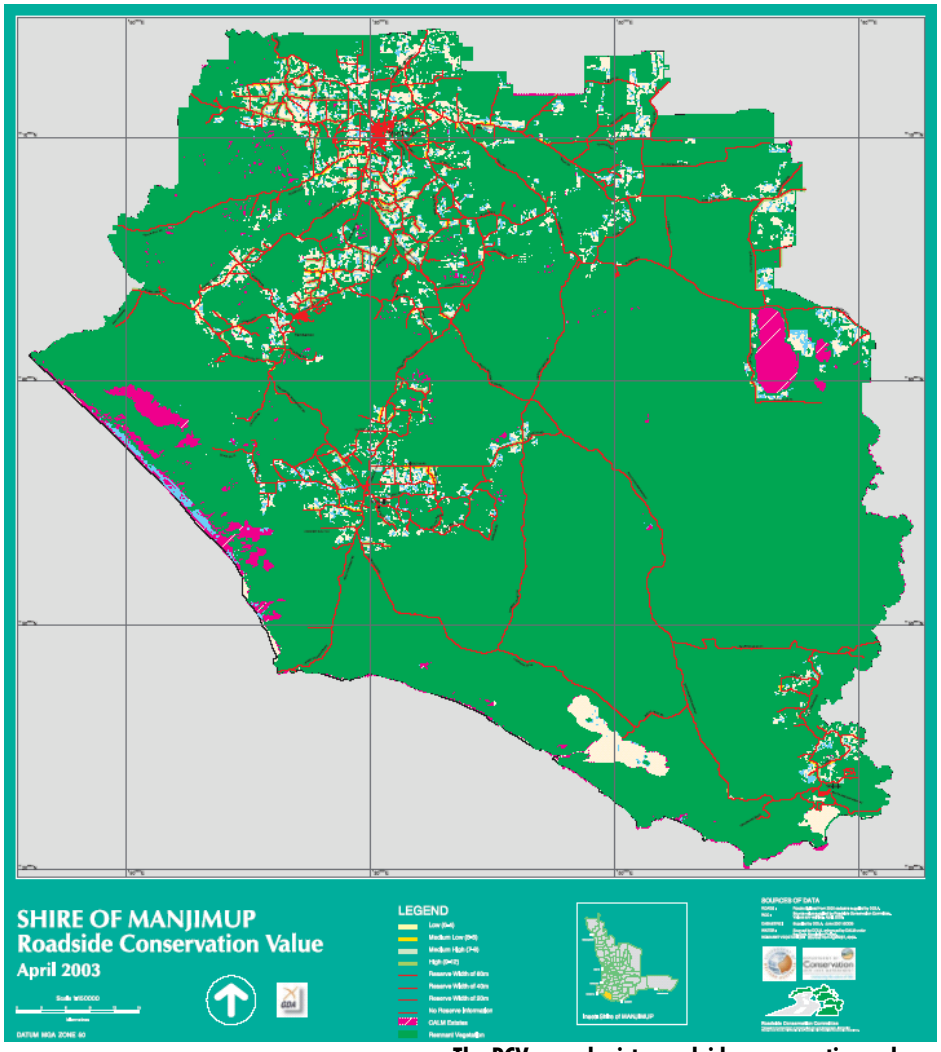
The roadside conservation values map initially provides an inventory of the *status quo* of the condition of the roadside vegetation. This is important as the quality of roadside vegetation has far reaching implications for sustaining biodiversity, tourism and Landcare values. Moreover the data and map can be incorporated as a management and planning tool for managing the roadsides *per se*, as it enables the condition of roadside vegetation to be easily assessed. This information can then be used to identify environmentally sensitive areas, high conservation roadsides or strategically important areas, and thus ensure their conservation. Conversely, it enables degraded areas to be identified as areas important for strategic rehabilitation or in need of specific management techniques and weed control programs.

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

- Regional or district fire management plans;
- 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;
- Landcare and/or Bushcare projects would be able to incorporate the information from this survey into 'whole of' landscape projects.

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

Weed control along a roadside
Photo MRWA



The RCV map depicts roadside conservation values.

3.0 SURVEY DATA RESULTS

A summary of the general roadside conditions in the Shire of Manjimup is presented in Table 5. 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 Roadside Information: Shire of Manjimup

Length of roadsides surveyed: 2208.9 km

Conservation Status

	total km	%
Low	228.3	10.3
Medium-low	152.8	6.9
Medium-high	353.9	16.0
High	1474.0	66.7
Total	2208.9	100.0

Conservation Values

	total km	%
0	7.0	0.3
1	16.1	0.7
2	59.8	2.7
3	75.0	3.4
4	70.4	3.2
5	49.7	2.2
6	103.2	4.7
7	117.1	5.3
8	236.8	10.7
9	348.9	15.8
10	980.2	44.4
11	136.4	6.2
12	8.4	0.4
Total	2208.9	100.0

Native Vegetation on Roadside

	total km	%
0 Vegetation layers	102.5	4.6
1 Vegetation layer	144.1	6.5
2-3 Vegetation layers	1962.3	88.8
Total	2208.9	100.0

Extent of Native Vegetation

	total km	%
<20%, Low	378.7	17.1
20-80%, Medium	639.4	28.9
>80%, Good	1183.4	53.6
No data	7.4	0.3
Total	2208.9	100.0

Number of Native Plant Species

	total km	%
0-5	307.7	13.9
6-19.	548.1	24.8
Over 20	1306.7	59.2
No data	46.4	2.1
Total	2208.9	100.0

Weed Infestation

	total km	%
Heavy	166.7	7.5
Medium	359.3	16.3
Light	1680.9	76.1
No data	2.0	0.1
Total	2208.9	100.0

Value as a Biological Corridor

	total km	%
Low	271.9	12.3
Medium	683.8	31.0
High	1253.3	56.7
Total	2208.9	100.0

Adjoining Landuse

	total km	%
Cleared	167.4	7.6
Drain	0.0	0.0
Industrial/urban	0.0	0.0
Plantation	77.0	3.5
Railway	4.7	0.2
Scattered	901.7	40.8
Uncleared	1057.6	47.9
Other	0.6	0.0
Total	2208.9	100.0

Roadside surveys carried out between 2000-2001.

Table 5: Summary of the roadside conditions in the Shire of Manjimup.

Roadside Conservation Status

Roadside sections of high conservation value covered 66.7% of the length of roadsides surveyed (1474.0 km). Medium-high conservation value roadsides accounted for 16.0% of the total surveyed (353.9 km), medium-low conservation roadside covered 6.9% of the total surveyed (152.8 km). Areas of low conservation value occupied 10.3% of the roadsides surveyed (228.3 km), Table 5, Figure 2.

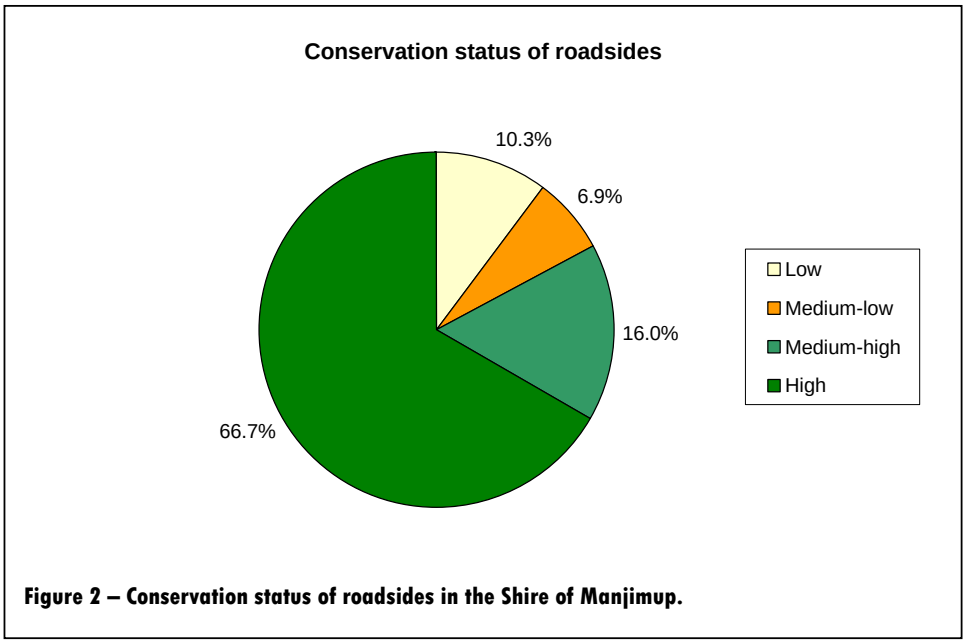


Figure 2 – Conservation status of roadsides in the Shire of Manjimup.

Native Vegetation on Roadsides

The number of native vegetation layers present, either the tree, shrub or ground layers determines the 'native vegetation on roadside' value. Sections with two to three layers of native vegetation covered 88.8% of the roadside (1962.3 km). 6.5% had only one layer (144.1 km) and 4.6% had no layers of native vegetation (102.5 km), Table 5, Figure 3.

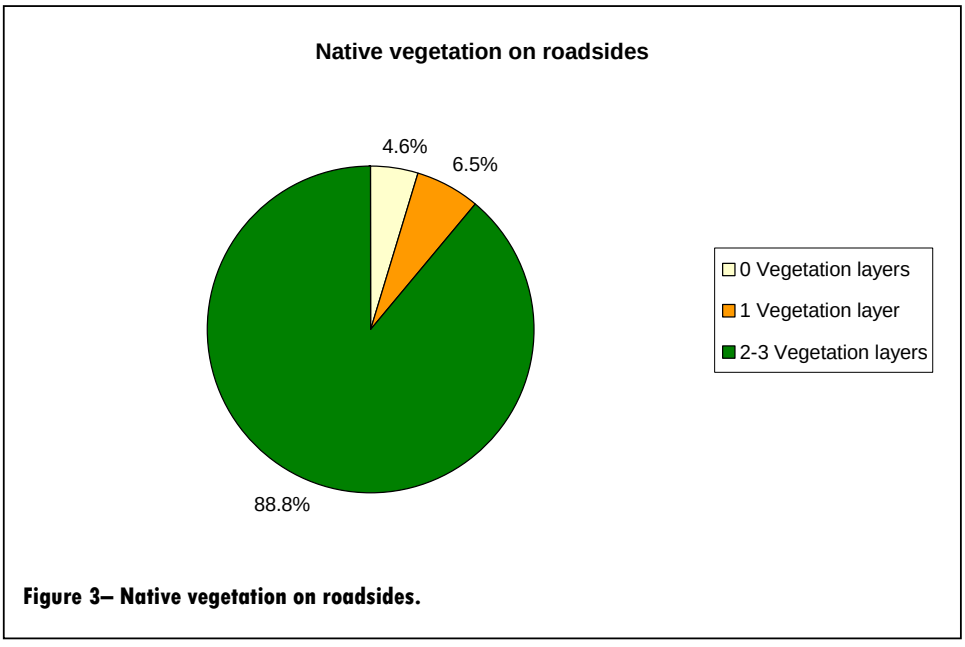


Figure 3– Native vegetation on roadsides.

\Extent of Vegetation

Roadside vegetation with extensive cover, i.e. greater than 80%, occurred along 53.6% of the length of road surveyed (1183.4 km). Survey sections with 20% to 80% vegetation cover accounted for 28.9% of the roadsides (639.4 km). The remaining 17.1% had less than 20% native vegetation (378.7 km), and therefore, a low 'extent of native vegetation' value. No data was recorded for 0.3% (7.4 kms) of roadsides, see Table 5, Figure 4.

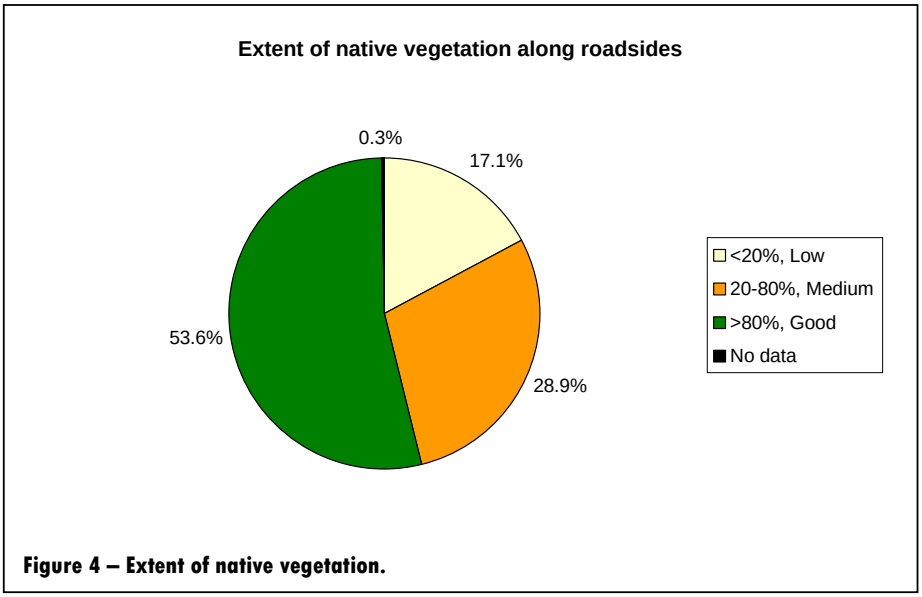


Figure 4 – Extent of native vegetation.

Number of Native Species

The 'number of native species' score provided a measure of the diversity of the roadside vegetation. Survey sections with more than 20 plant species spanned 1306.7 km (59.2%) of the roadside. Roadside sections with 6 to 19 plant species accounted for 548.1 km (24.8%) of the roadside. The remaining 307.7 kms (13.9%) had less than 5 plant species. No data was collected for 46.4 kms (2.1%) of roadsides,see Table 5, Figure 5.

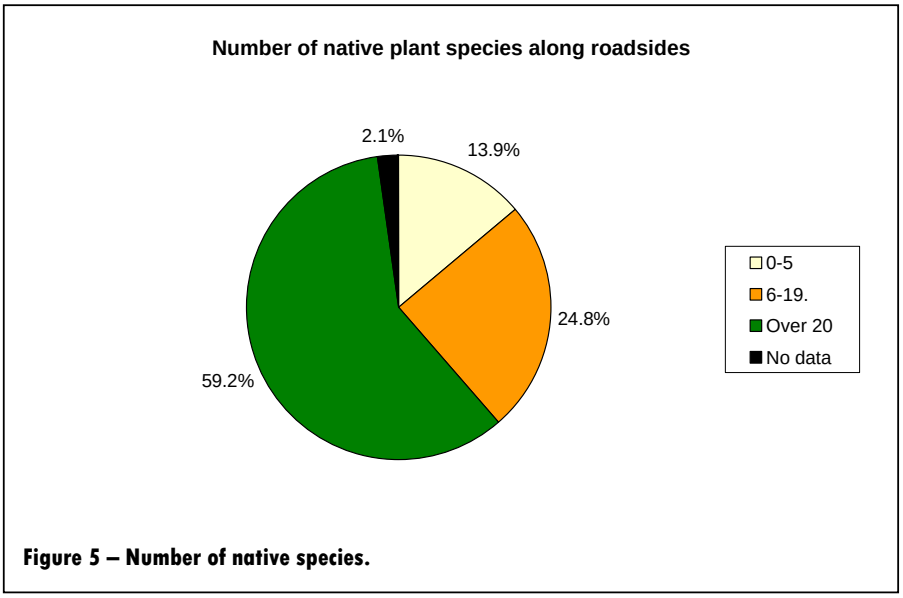


Figure 5 – Number of native species.

Value as a Biological Corridor

Roadsides determined to have high value as biological corridors (as determined by the roadside surveyors) were present along 56.7% (1253.3 km) of the roadside, medium value made up 31.0% (683.8 km), and roadsides with low value as a biological corridor occurred along 12.3% (271.9 km) of the roadsides surveyed, see Table 5, Figure 6.

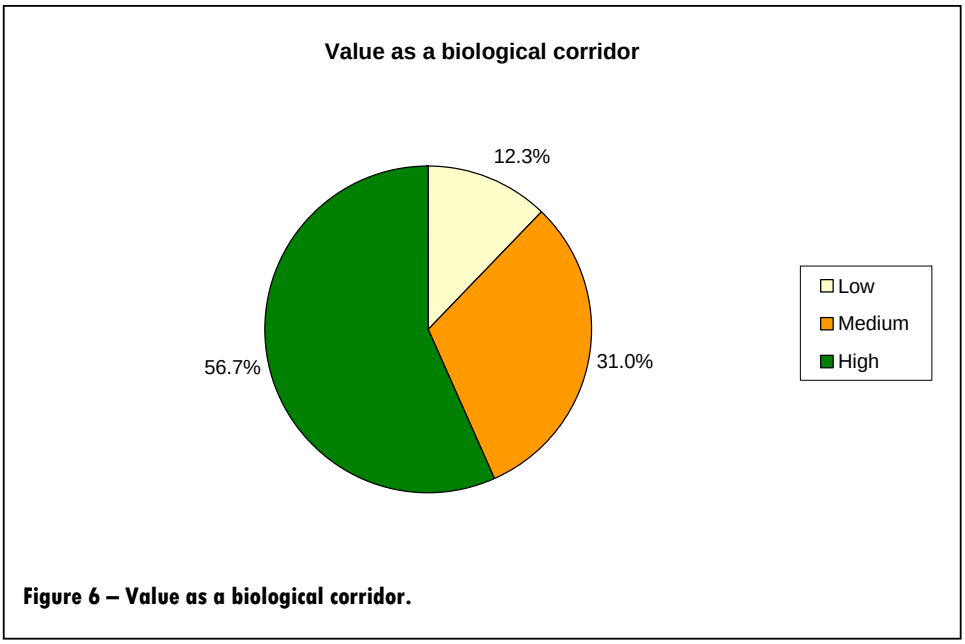


Figure 6 – Value as a biological corridor.

Weed Infestation

76.1% (1680.9 km) of the roadsides surveyed were only lightly infested by weeds, medium level weed infestation occurred on 16.3% (359.3 km) of the roadsides. 7.5% (166.7 km) were heavily infested with weeds and there was no weed data recorded for 0.1%, see Table 5, Figure 7.

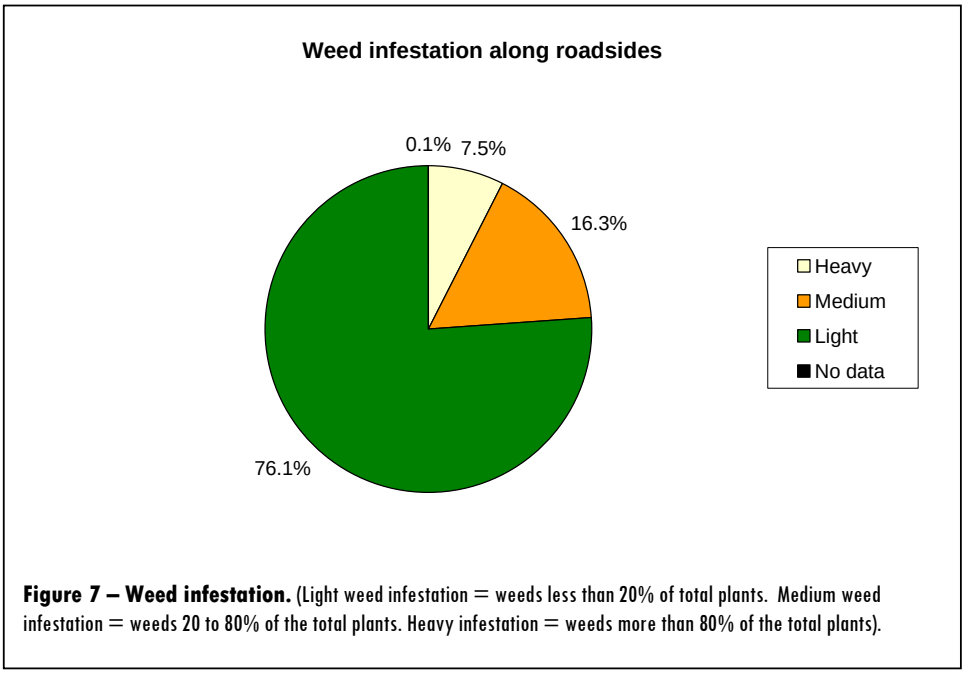


Figure 7 – Weed infestation. (Light weed infestation = weeds less than 20% of total plants. Medium weed infestation = weeds 20 to 80% of the total plants. Heavy infestation = weeds more than 80% of the total plants).

Predominant Adjoining Landuse

A scattered distribution of native vegetation was present on 40.8% of the land adjoining roadsides, whilst 7.6% of roadsides surveyed were adjoined by land that had been completely cleared. 47.9% of the roadsides surveyed were bordered by land that was uncleared native vegetation. Railway reserves adjoined 0.2% of the roadsides surveyed, and plantations made up the remaining 3.5%, see Table 5, Figure 8.

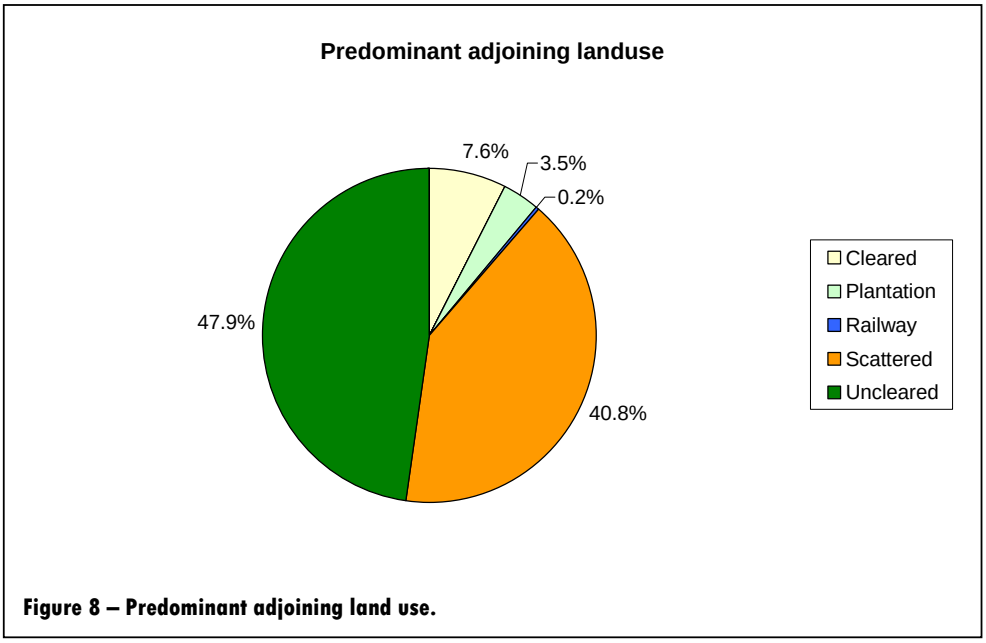


Figure 8 – Predominant adjoining land use.

Nominated Weeds

Of the 11 nominated weeds surveyed throughout 2000-2001, Watsonia was present along 596 kms of the roadsides surveyed (27%), whilst Blackberry was recorded along 518 kms of roadside (23.5%). Broombush was the next most commonly recorded weed, occurring along 158.3 kms (7.2%), Wild radish was present along 131.6 kms (6%), Tagasaste 85.7 kms (4%), Patersons curse 48 kms (2.2%), Bridal creeper 22.5 kms (1%), Victorian tea tree 10.2 kms (0.5%), Pampas grass 7.4 kms (0.3%), Arum lily 1 km (0.05%) and Cape tulip 0 kms. Other weeds observed along roadsides covered 515.4 kms (23%) of the total roads surveyed, see Figure 9.

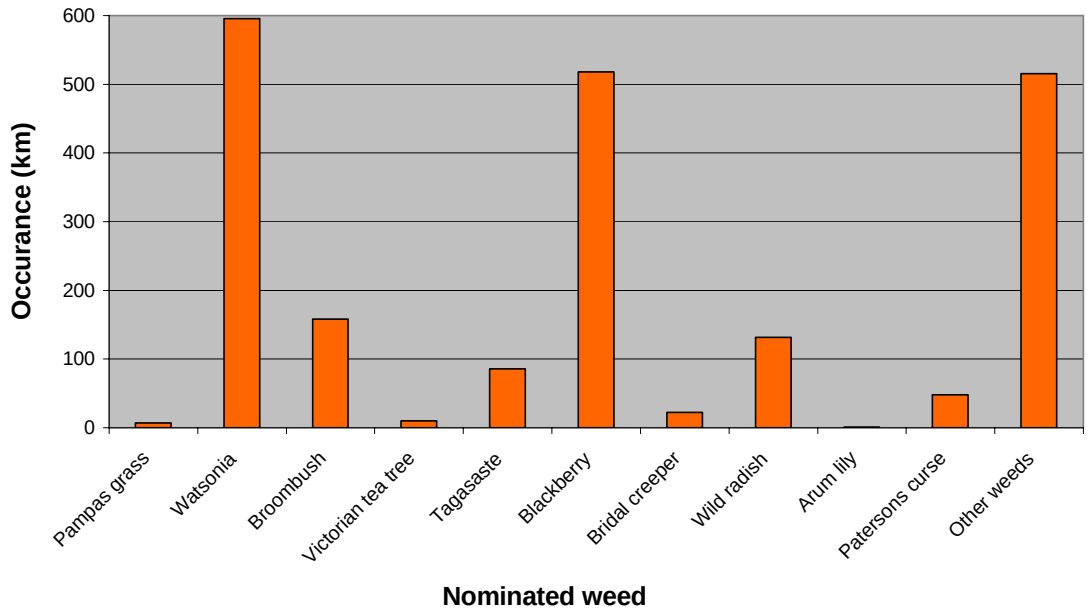


Figure 9 – Occurrence of nominated weeds along roadsides in the Shire of Manjimup.

High Conservation Value Roadsides as 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. Roadsides determined as having high conservation value in the Shire of Manjimup include:

- Allen road
- Andrews road
- Appadene road
- Balbarrup road
- Bottomley road
- Bridge road
- Burganganup road
- Channybearup road
- Churches road
- Clarke road
- Cosy Creek road
- Dachet road
- Deeside Coast road
- Double Bridge road
- Fernhill road
- Froomes road
- Gabbedy road
- Graphite road
- Henwood road
- Hillbrook road
- Horne road
- Jacksonii road
- Kamann road
- Ladycroft road
- Mitchelldean road
- Mordalup road
- Neds road
- Paganini road
- Piano Gully road
- Pindicup road
- Ralphs road
- Riverway road
- Starkies road
- Tattenham road
- Tinks road
- Wheatley Coast road
- Yanmah road

Note- not a complete list, consult the 2003 Roadside Conservation Value Map.

These, and other roads may be investigated further to see if they warrant a declaration as a Flora Road. This has a twofold effect of drawing the attention of tourists to the high conservation value roadside and it also alerts all that work in the roadside environment that the marked section of roadside requires due care to protect the values present.

In order to plan roadworks so that important areas of roadside vegetation are not disturbed, road managers should know of these areas. It is suggested that the Shire establish a *Register of Roads Important for Conservation*.

Tourism

Attractive roadside drives are an important drawcard in this, the "Wildflower State". Declared Flora Roads will, by their very nature, be attractive to tourists and would often be suitable as part of a tourist drive network..

Roadsides are one of the most accessable places for tourists to view wildflowers.

Consideration should be given to:

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

Management

Management objectives should involve disturbing the roadside flora as little as possible, consistent with the provision of a safe and efficient roadway. The management of Flora Roads should aim to:

- minimise disturbance,
- control weeds,
- encourage natural regeneration.

The techniques referred to in Section D of this report can be implemented to minimise disturbance to roadside vegetation. Most importantly, staff should be instructed and supervised so that incremental widening does not occur at every pass of the grader. Environmental assessments (pre-construction check-lists) should be completed prior to any upgrading 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 always be used.

PART D

Roadside Management Techniques

1.0 MANAGEMENT TECHNIQUES

This section provides management recommendations that will assist in retaining and enhancing roadside conservation value. These guidelines are taken from the Roadside Conservation Committee's Roadside Manual and or the Roadside Handbook. The Executive Officer of the Roadside Conservation Committee is also available to assist on all roadside conservation matters, and can be contacted on (08) 9334 0423. The primary aim of road management is the creation and maintenance of a safe, efficient road system. However, the following management procedures should be adopted.

High Conservation Value Roadsides		
Management Goal	☞	Maintain and enhance the native plant communities.
Management Guidelines	🕮	Minimal disturbance to existing vegetation. Disturbance leads to weed invasion, which downgrades the conservation value, and increases the fire threat.

Medium Conservation Value Roadsides		
Management Goal	☞	Maintain native vegetation wherever possible, and encourage its regeneration.
Management Guidelines	🕮	Minimise disturbance to existing vegetation.

Low Conservation Value Roadsides		
Management Goal	☞	Retain remnant trees and shrubs and encourage their regeneration. Encourage revegetation projects using indigenous plants.
Management Guidelines	🕮	Minimise soil disturbance to reduce weed invasion. Encourage revegetation projects by adjacent landholders.

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;
- observing dieback control measures as required;
- apply the Fire Threat Assessment (Roadside Manual) before burning roadside vegetation;
- use methods other than fuel reduction burns to reduce fire threat; if roadside burning must be undertaken, incorporate it into a district fire management program;
- encourage adjacent landholders to set back fences to allow roadside vegetation to proliferate;
- encourage adjacent landholders to plant windbreaks or farm tree lots adjacent to roadside vegetation to create a denser windbreak or shelterbelt;
- encourage revegetation projects by adjacent landholders.

Tree Roads

Tree roads are defined as those roadsides with a sufficient density of mature trees to create an attractive tunnel effect. Besides the aesthetic benefits, these areas also provide valuable habitat for birds and other arboreal fauna. Since mature trees are slow growing and hard to replace, care should be taken to conserve these avenues wherever possible. The following points should be considered when working on tree roads:

- prune offending branches rather than remove the whole tree;
- cut branches off close to limb or tree trunk;
- divert line of table drain to avoid disturbing tree roots;
- import fill to build up formation, rather than using side-borrow from roadside;
- when using herbicide for weed control on the roadside do not use a soil residual type, such as Simazine or Atrazine. Eucalypts are especially sensitive to these;
- encourage the adjoining landholders to plant shelter belts on their property that will complement the roadside vegetation.

Special Environment Areas

A Special Environmental Area is a section of roadside, which has such significance that it requires special protection. Reasons for establishing Special Environmental Areas can include:

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

Special Environmental Areas can be delineated by the use of site markers. Workers who come across a 'Special Environmental Area' marker in the field should not disturb the area between the markers unless specifically instructed. If in doubt, the Supervisor, Shire Engineer or CEO should be contacted.

Western Power and West Net rail also have systems for marking sites near power or rail lines. Examples of these are seen in the figure below.

Special Environmental Area Register

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

Figure 10 - Special Environmental Area site marker.

The Special Environmental Area Register should be consulted by the

appropriate person prior to starting work on any particular road, to ensure that inadvertent damage does not occur. All Special Environment Area sites should be marked on the Shire map, which records Roadside Conservation Value

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

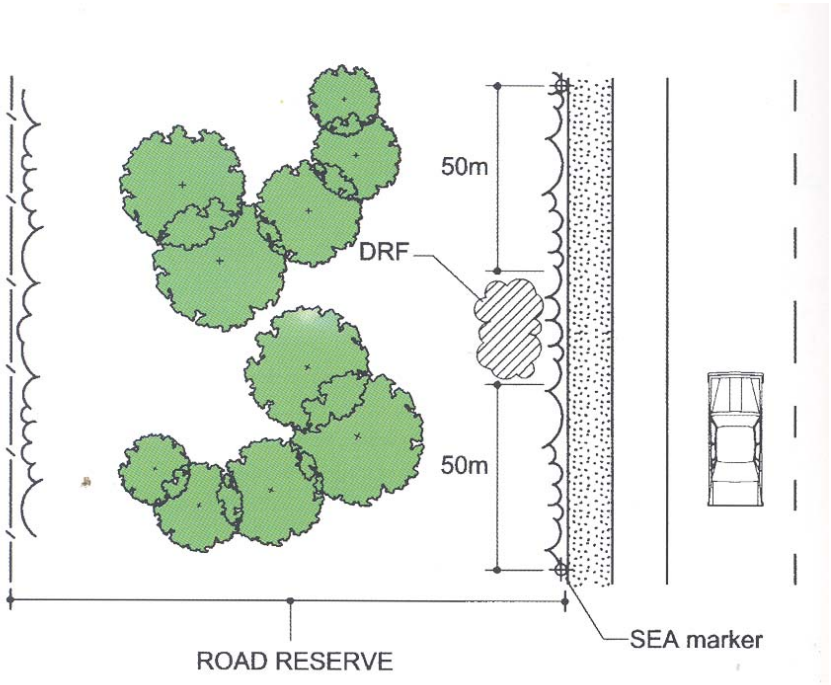


Figure 11 - Marking Special Environment Area (SEA) sites in the field. In this case, a declared rare flora (DRF) site has been marked.

When notified of a population needing marking, the Local Authority should contact the appropriate Department of Conservation and Land Management Regional or District office for assistance to ensure the exact site location and correct positioning of marker posts.

2.0 ROADSIDE PLANNING, STRATEGIES AND ACTION PLANS

2.1 Planning

The RCC is able to provide good models of Roadside Management Plans and encourages all shires to adopt this practice of planning for roadside conservation. The following actions greatly enhance likelihood of a plan that changes behaviour and results in on-ground actions:

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

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

The objective of all roadside management planning 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

2.2 Strategies

The development of a strategy enables potentially competing uses to coexist and ensures that roadsides are managed in a coordinated approach. When producing regional strategies the RCC suggests that:

- organisational support from local government is essential from the outset;

- strategies should take no longer that 12 months to produce (including a period for community comment);
- communities need to be provided with background information to make formal decisions.

Management strategies should be produced to address local issues, rather than be to a standard format. Issues can be categorised as:

➢ **Functional**

- Fire prevention
- Installation and maintenance of services
- Road construction and maintenance
- Stockpile and dumpsite management
- Vegetation removal
- Vehicle and machinery activity
- Water supply catchments

➢ **Cultural and Recreational**

- Cultural and heritage values
- Horse riding
- Visual amenity and landscape values
- Wayside stops

➢ **Landcare**

- Apiculture
- Insect Pests
- Pest animals
- Ploughing, cultivating or grading
- Revegetation and site rehabilitation
- Weeds

➢ **Conservation**

- Protecting and conserving remnant native vegetation
- Rare, threatened or significant flora and fauna
- Regeneration of native plant communities
- Roadside marking of special environmental areas
- Unused road reserves
- Wetlands
- Wildlife habitat
- Wildlife corridors

2.3 Roadside Action Plans

A Roadside Action Plan is prepared for an individual road and contains a works program that will enable conservation values and other road uses to be managed compatibly.

Roadside Action Plans are based on the guidelines that are produced as part of the roadside strategy.

The RCC suggests that Roadside Action Plans be:

- short term documents (to be reviewed within 2 years);
- prepared on a need basis;
- prepared after consultation with major stakeholders;
- a maximum of 2 pages per road;
- names a person or agency responsible for implementing the management recommendations.

REFERENCES

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Appendix

1

APPENDIX 1

Definitions of Remnant Vegetation Types, Beeston et al (1993).

Vegetation classed as **"remnant vegetation"** has one or more of the following characteristics:

* Most closely reflects the natural state of vegetation for a given area.
* Has an intact understorey (if forest or woodland).
* Has minimal disturbance by agents of human activity.

Vegetation classed as **"modified vegetation"** has one or more of the following characteristics:

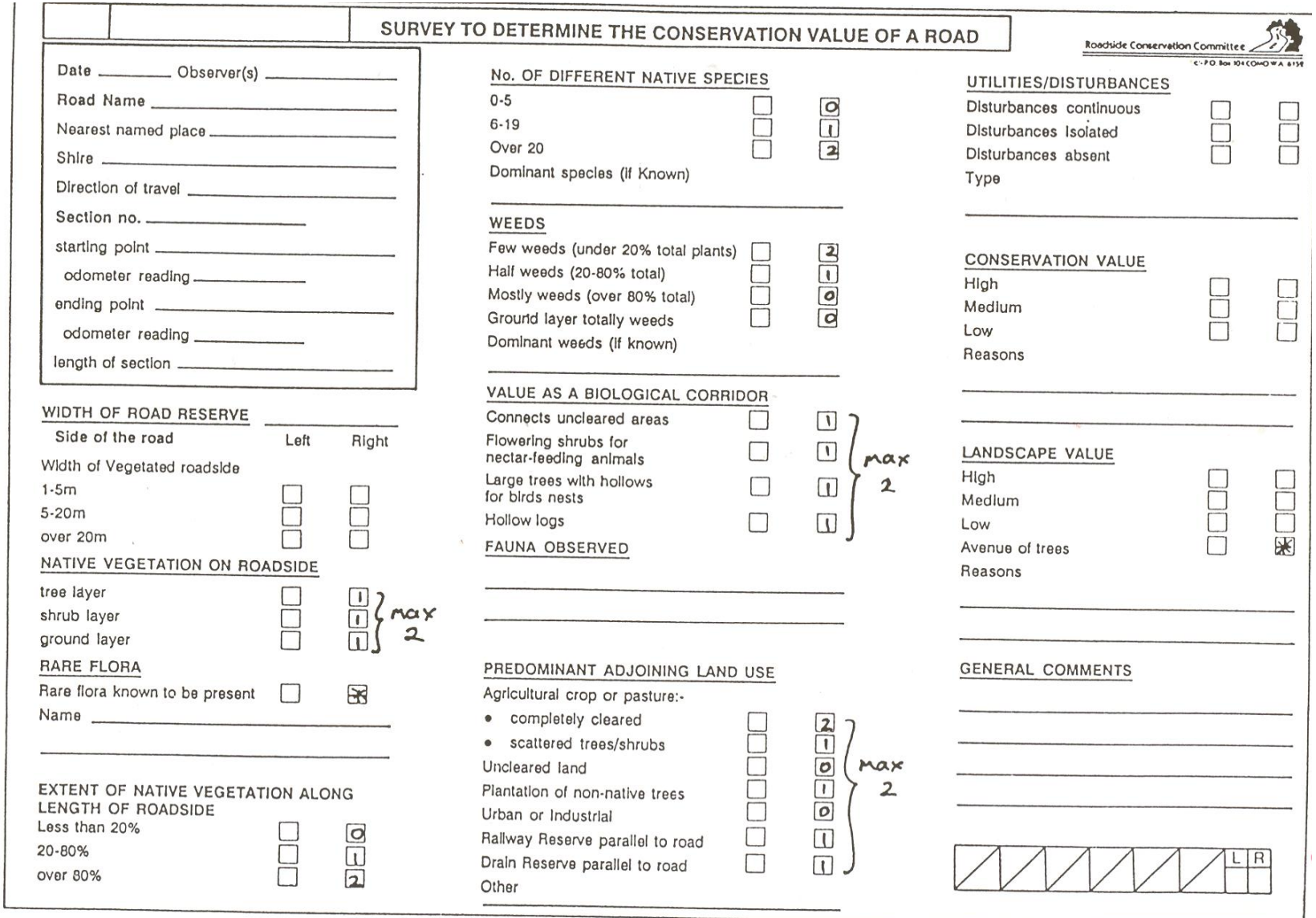
* Degraded understorey (i.e. reduction in the number of native species, includes weeds).
* Obvious human disturbance, i.e. clearing, mining, grazing, weeds.
* Affected by salt.
* Narrow corridors of vegetation (usually along roads and railway lines or windbreaks), which are more likely to be affected by edge effects.

Vegetation classed as **"scattered vegetation"** has:

* No understorey
* Parkland cleared i.e. scattered single trees.
* No significant signs or chance of regeneration.

Appendix

2



SURVEY TO DETERMINE THE CONSERVATION VALUE OF A ROAD

Roadside Conservation Committee
C - P.O. Box 104 COMO W.A. 6152

Date _____ Observer(s) _____
Road Name _____
Nearest named place _____
Shire _____
Direction of travel _____
Section no. _____
starting point _____
odometer reading _____
ending point _____
odometer reading _____
length of section _____

WIDTH OF ROAD RESERVE _____

Side of the road	Left	Right
Width of Vegetated roadside		
1-5m	☐	☐
5-20m	☐	☐
over 20m	☐	☐

NATIVE VEGETATION ON ROADSIDE

tree layer	☐	1	max 2
shrub layer	☐	1	
ground layer	☐	1	

RARE FLORA

Rare flora known to be present	☐	☒

Name _____

EXTENT OF NATIVE VEGETATION ALONG LENGTH OF ROADSIDE

Less than 20%	☐	0
20-80%	☐	1
over 80%	☐	2

No. OF DIFFERENT NATIVE SPECIES

0-5	☐	0
6-19	☐	1
Over 20	☐	2

Dominant species (if Known) _____

WEEDS

Few weeds (under 20% total plants)	☐	2
Half weeds (20-80% total)	☐	1
Mostly weeds (over 80% total)	☐	0
Ground layer totally weeds	☐	0

Dominant weeds (if known) _____

VALUE AS A BIOLOGICAL CORRIDOR

Connects uncleared areas	☐	1	max 2
Flowering shrubs for nectar-feeding animals	☐	1	
Large trees with hollows for birds nests	☐	1	
Hollow logs	☐	1	

FAUNA OBSERVED _____

PREDOMINANT ADJOINING LAND USE

Agricultural crop or pasture:-			
• completely cleared	☐	2	max 2
• scattered trees/shrubs	☐	1	
Uncleared land	☐	0	
Plantation of non-native trees	☐	1	
Urban or Industrial	☐	0	
Railway Reserve parallel to road	☐	1	
Drain Reserve parallel to road	☐	1	

Other _____

UTILITIES/DISTURBANCES

Disturbances continuous	☐	☐
Disturbances Isolated	☐	☐
Disturbances absent	☐	☐

Type _____

CONSERVATION VALUE

High	☐	☐
Medium	☐	☐
Low	☐	☐

Reasons _____

LANDSCAPE VALUE

High	☐	☐
Medium	☐	☐
Low	☐	☐
Avenue of trees	☐	✱

Reasons _____

GENERAL COMMENTS _____

L R

Fig. 4. Example of the survey sheet developed to assess conservation value of roadsides in Western Australia. Scores given to each attribute are indicated.

Appendix

3

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130001	1	2.6	DONNELLY RD	20	2	2	0	1	1	1	1	1	1	1	S	S	6	7
2130001	2	2.907	DONNELLY RD		0	2	0	2	0	2	1	1	0	2	S	U	2	9
2130002	1	5.957	JONES RD	20	2	2	1	1	2	2	1	1	2	2	S	S	9	9
2130003	1	1.07	MITCHELLDEAN RD		1	1	0	0	0	0	2	2	0	0	S	P	4	4
2130003	2	2.22	MITCHELLDEAN RD		2	2	2	2	2	2	2	2	1	1	S	S	10	10
2130003	3	0.75	MITCHELLDEAN RD		1	1	0	0	0	0	0	0	0	0	S	S	2	2
2130003	4	2.1	MITCHELLDEAN RD	20	2	2	1	1	2	2	2	2	1	1	S	S	9	9
2130003	5	2.7	MITCHELLDEAN RD	20	2	2	1	1	2	2	2	2	1	1	S	S	9	9
2130004	1	2.009	WREN RD	20	2	2	2	2	2	2	2	2	2	2	S	S	11	11
2130004	2	0.7	WREN RD	20	0	0	0	0	0	0	2	2	0	0	S	S	3	3
2130006	1	1.2	DAMPER GULLY RD	20	2	2	1	1	1	1	0	0	1	1	S	S	6	6
2130006	2	1.347	DAMPER GULLY RD		2	2	0	2	0	2	1	2	1	2	S	U	5	10
2130007	1	3.6	LADYCROFT RD		2	2	2	1	2	2	2	1	2	2	S	S	11	9
2130007	2	0.5	LADYCROFT RD		1	1	2	0	2	0	2	0	2	0	U	S	9	2
2130007	3	0.6	LADYCROFT RD		2	2	0	2	1	1	1	1	1	2	S	S	6	9
2130008	1	1.017	HODGSONS RD	20	2	2	2	2	2	2	2	2	2	2	S	S	11	11
2130010	1	1.799	FRYERS RD	20	2	2	2	2	2	2	2	2	2	2	S	S	11	11
2130011	1	1.9	DOAKS RD	20	2	2	2	2	2	2	1	1	2	2	C	C	11	11
2130011	2	0.544	DOAKS RD		2	2	2	0	2	0	2	1	2	1	U	S	10	5
2130012	1	1.2	PAGANINI RD	20	2	2	2	2	1	1	0	0	2	1	S	S	8	7
2130012	2	1.2	PAGANINI RD	20	2	2	0	0	0	0	0	0	0	0	S	S	3	3
2130012	3	0.9	PAGANINI RD	20	2	2	1	1	1	1	1	1	1	2	S	S	7	8
2130012	4	0.413	PAGANINI RD		2	2	2	1	2	1	1	1	2	1	U	S	9	7
2130015	1	3.5	RALSTON RD	20	2	2	1	1	1	1	1	1	2	2	S	S	8	8
2130015	2	7.342	RALSTON RD	20	2	2	1	1	2	2	2	2	2	1	S	S	10	9
2130016	1	2.447	RINGBARK RD	20	2	2	1	1	1	1	2	2	1	2	S	P	8	9
2130017	1	2.361	BURNSIDE RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130018	1	2.56	DIXVALE RD	20	2	2	1	1	1	1	2	2	2	2	S	S	9	9
2130020	1	5	YANMAH RD	20	2	2	1	1	1	1	1	1	1	1	S	S	7	7
2130020	2	0.6	YANMAH RD		2	2	2	1	0	0	2	1	2	2	U	C	8	8
2130020	3	1.02	YANMAH RD		2	2	1	2	1	2	2	2	2	2	S	U	9	10
2130020	4	0.65	YANMAH RD		2	2	2	1	2	1	2	2	2	1	U	S	10	8
2130020	5	2.65	YANMAH RD		2	2	1	1	1	1	2	2	1	2	S	P	8	9
2130025	1	0.4	APPADENE RD		2	2	0	0	2	2	2	2	2	2	U	U	8	8
2130025	2	0.5	APPADENE RD	20	2	2	0	0	2	2	2	2	2	2	U	S	8	9

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130025	3	2.7	APPADENE RD		2	2	1	1	2	2	2	2	2	2	S	S	10	10
2130025	4	0.5	APPADENE RD		2	2	1	2	2	2	2	2	0	2	S	U	8	10
2130025	5	0.5	APPADENE RD		0	2	0	2	0	2	0	2	0	2	P	U	1	10
2130025	6	0.5	APPADENE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130025	7	0.975	APPADENE RD	20	0	0	0	0	0	0	0	0	0	0	U	U	0	0
2130025	8	0.6	APPADENE RD	20	0	0	0	0	0	0	0	0	0	0	C	C	2	2
2130026	1	2.6	WAUGHS RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130026	2	0.533	WAUGHS RD		2	0	0	0	1	0	2	0	1	1	S	U	7	1
2130026	3	1.4	WAUGHS RD		2	2	0	2	0	2	1	2	1	1	S	U	5	9
2130030	1	6.47	BALBURRUP RD	20	2	2	0	0	1	1	0	0	0	0	S	S	4	4
2130031	1	0.9	COSY CREEK RD		2	2	2	2	2	2	2	2	2	2	U	S	10	11
2130031	2	0.5	COSY CREEK RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130031	3	1	COSY CREEK RD	20	1	1	0	1	0	1	0	2	0	2	C	U	3	7
2130031	4	1.3	COSY CREEK RD	20	0	2	0	1			0	0	0	1	S	S	1	5
2130031	5	1	COSY CREEK RD	20	2	2	1	1	0	0	1	1	2	2	S	S	7	7
2130031	6	0.6	COSY CREEK RD	20	2	2	0	1	0	0	1	1	0	1	S	S	4	6
2130031	7	0.5	COSY CREEK RD		2	2	1	2	1	2	1	2	1	2	S	U	7	10
2130032	1	0.5	DAWSONS RD	20	2	2	1	0	1	1	1	1	0	1	S	S	6	6
2130032	2	0.976	DAWSONS RD	20	2	2	0	2	1	1	0	2	0	2	U	U	3	9
2130033	1	0.607	LIDDELOW RD	20	1	1	1	1	0	0	0	0	1	0	S	S	4	3
2130034	1	0.5	PERUP RD	20	2	2	1	1	0	0	0	0	0	0	S	S	4	4
2130034	2	1.2	PERUP RD		1	1	0	2	1	2	1	2	1	2	S	S	5	10
2130034	3	1.7	PERUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130034	4	0.7	PERUP RD		2	2	0	0		0	0	0	0	1	S	S	3	4
2130034	5	0.5	PERUP RD		2	2		2	2	2	1	1	2	2	S	U	8	9
2130034	6	0.5	PERUP RD	20	1	0	0	0	0	0	0	0	0	0	S	P	2	1
2130034	7	2.7	PERUP RD	20	2	2	0	0	1	1	0	0	0	0	S	S	4	4
2130034	8	2.4	PERUP RD	20	2	2	1	1	2	2	0	0	1	2	S	S	7	8
2130034	9	1.4	PERUP RD	20	2	2	0	2		2	0	2	1	2	S	U	4	10
2130034	10	1.7	PERUP RD	20	2	2	0	2	2	2	0	0	0	2	S	S	5	9
2130034	11	3	PERUP RD		2	2	1	2	2	2	0	2	2	2	S	U	8	10
2130034	12	3	PERUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130034	13	1.3	PERUP RD		2	2	0	2	1	2	0	2	1	2	S	U	5	10
2130034	14	4.2	PERUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130034	15	0.5	PERUP RD		2	2	2	2	2	2	2	2	2	2	U	S	10	11

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130034	16	6	PERUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130034	17	0.5	PERUP RD		2	2	1	2	2	2	0	1	2	2	S	U	8	9
2130034	18	0.5	PERUP RD	20	1	1	0	0	0	0	0	0	1	0	S	S	3	2
2130034	19	0.6	PERUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130034	20	4.9	PERUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130034	21	0.5	PERUP RD		2	2	2	2	2	2	2	2	2	2	U	S	10	11
2130034	22	1.8	PERUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130034	23	0.5	PERUP RD	20	2	2	0	0	1	1	0	0	2	1	P	S	6	5
2130034	24	1.6	PERUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130034	25	0.9	PERUP RD		2	1	2	0	2	0	2	0	2	0	U	U	10	1
2130034	26	0.648	PERUP RD		2	2	2	2	2	2	1	1	2	2	U	U	9	9
2130035	1	0.9	MORGANS RD	20	2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130035	2	0.7	MORGANS RD	20	2	2	1	1	1	1	1	1	2	2	P	C	8	9
2130035	3	0.734	MORGANS RD	20	2	2	0	0	0	0	0	0	0	1	C	C	4	5
2130036	1	3.5	BALBARRUP RD	20	2	2	1	1	1	1	0	0	1	2	S	S	6	7
2130036	2	0.5	BALBARRUP RD		2	2	1	1	2	2	1	0	2	2	U	S	8	8
2130036	3	1.4	BALBARRUP RD	20	2	2	0		1	1	0	0	0	0	S	S	4	4
2130036	4	0.5	BALBARRUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130036	5	0.83	BALBARRUP RD	20	2	2	2	1	2	1	2	1	2	2	U	U	10	7
2130037	1	0.5	SPRINGDALE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130037	2	0.6	SPRINGDALE RD		2	2	1	2	1	2	2	2	1	2	S	U	8	10
2130037	3	2.857	SPRINGDALE RD		2	2	2	2	2	2	1	1	2	2	U	U	9	9
2130039	1	0.87	FERNHILL RD	20	1	1	1	1	1	1	2	2	1	0	S	S	7	6
2130039	2	0.86	FERNHILL RD	20	1	2	0	2	0	2	2	2	0	0	S	S	4	9
2130039	3	0.5	FERNHILL RD	20	1	1	1	1	0	0	1	1	0	0	S	S	4	4
2130040	1	0.7	DINGUP RD	20	2	2	1	1	1	1	1	1	0	0	S	C	6	7
2130040	2	1.3	DINGUP RD		2	2	1	2	1	2	1	1	1	2	U	U	6	9
2130040	3	0.898	DINGUP RD	20	2	2	0	0	0	0	0	0	0	1	S	S	3	4
2130041	1	0.55	FRANCO RD	20	2	2	0	0	1	1	0	0	0	1	S	S	4	5
2130041	2	0.9	FRANCO RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130041	3	0.954	FRANCO RD	20	1	1	0	0	1	1	0	0	0	0	S	S	3	3
2130042	1	3.6	SPRINGALL RD	20	1	1	0	0	0	0	0	0	0	0	S	S	2	2
2130042	2	1	SPRINGALL RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130043	1	0.7	POZZI RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130043	2	0.5	POZZI RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130043	3	0.8	POZZI RD		2	2	0	0	2	2	1	1	1	1	U	P	6	7
2130043	4	0.5	POZZI RD	20	2	2	2	2	2	2	2	2	1	1	S	S	10	10
2130043	5	1.1	POZZI RD		2	2	2	2	1	2	2	2	1	2	P	U	9	10
2130043	6	1.013	POZZI RD		2	2	2	2	0	0	1	1	1	2	P	U	7	7
2130044	1	0.532	STARKIES RD		2	2	1	1	2	2	1	1	1	2	S	S	8	9
2130044	2	0.56	STARKIES RD	20	2	2	1	1	1	1	1	1	1	2	S	S	7	8
2130044	3	1.05	STARKIES RD	20	2	2	1	1	2	2	1	1	1	1	S	S	8	8
2130044	4	0.925	STARKIES RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130044	5	0.825	STARKIES RD		0	2	0	1	0	1	2	2	1	1	U	S	3	8
2130044	6	0.7	STARKIES RD		2	1	0	1	0	1	1	1	1	1	P	S	5	6
2130046	1	1.25	MIDDLESEX RD	20	2	2	1	1	1	1	2	2	1	2	S	S	8	9
2130046	2	0.53	MIDDLESEX RD	20	2	2	1	1	1	1	1	2	2	1	U	S	7	8
2130046	3	0.85	MIDDLESEX RD	20	2	1	1	0	1	0	2	2	2	1	S	S	9	5
2130046	4	2.15	MIDDLESEX RD	20	2	2	1	1	1	1	1	1	1	1	S	S	7	7
2130046	5	2.75	MIDDLESEX RD	20	2	2	1	1	1	1	1	2	1	1	S	S	7	8
2130046	6	1.25	MIDDLESEX RD	20	2	2	1	2	1	1	1	1	1	1	S	S	7	8
2130046	7	0.75	MIDDLESEX RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130046	8	1.35	MIDDLESEX RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130046	9	0.539	MIDDLESEX RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130047	1	0.518	VIC RD	20	2	2	2	2	1	1	2	2	1	1	S	S	9	9
2130048	1	1	IRISH POINT	20	2	2	0	0	0	0	2	2	1	1	S	S	6	6
2130048	2	1.246	IRISH POINT	20	2	2	0	0	0	0	2	2	1	1	S	S	6	6
2130048	3	0.5	IRISH POINT	20	2	1	2	0	2	0	2	2	2	2	U	C	10	7
2130048	4	0.824	IRISH POINT		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130050	1	0.6	PIANO GULLY RD	20	2	2	0	0	0	0	2	2	1	1	U	U	5	5
2130050	2	1	PIANO GULLY RD	20	2	2	2	2	0	0	2	2	1	1	P	U	8	7
2130050	3	0.8	PIANO GULLY RD	20	2	2	2	2	0	1	2	2	1	1	S	U	8	8
2130050	4	1.1	PIANO GULLY RD	20	2	2	2	2	1	1	2	2	1	1	U	U	8	8
2130050	5	1.602	PIANO GULLY RD	20	2	2	2	2	0	0	2	2	1	1	P	C	8	9
2130051	1	0.54	BLACK GEORGES RD		2	1	2	0	2	0	2	2	1	2	U	C	9	7
2130051	2	0.54	BLACK GEORGES RD	20	2	1	2	1	1	0	1	2	1	1	C	C	9	7
2130051	3	0.54	BLACK GEORGES RD	20	1	1	1	1	0	0	2	2	1	1	C	C	7	7
2130051	4	0.65	BLACK GEORGES RD		2	2	2	2	1	2	2	2	1	1	U	U	8	9
2130051	5	0.54	BLACK GEORGES RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130051	6	1.316	BLACK GEORGES RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130051	7	1.2	BLACK GEORGES RD	20	2	2	2	2	1	1	2	2	1	2	S	S	9	10
2130051	8	0.54	BLACK GEORGES RD	20	2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130051	9	1.1	BLACK GEORGES RD	20	2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130052	1	0.65	PIPE CLAY RD	20	2	2	1	1	1	0	1	1	1	1	S	S	7	6
2130052	2	0.55	PIPE CLAY RD	20	1	1	0	0	0	0	1	1	1	1	S	S	4	4
2130052	3	0.55	PIPE CLAY RD		2	2	2	2	2	2	2	2	2	2	U	S	10	11
2130052	4	1.1	PIPE CLAY RD	20	2	2	0	0	2	2	0	0	1	1	S	S	6	6
2130052	5	0.552	PIPE CLAY RD	20	2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130052	6	0.65	PIPE CLAY RD	20	2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130053	1	0.5	ANGELS RD	20	2	2	2	2	2	2	2	2	1	1	S	S	10	10
2130053	2	0.5	ANGELS RD		2	2	2	1	2	1	2	2	1	1	U	S	9	8
2130053	3	1.85	ANGELS RD	20	2	2	2	2	1	1	2	2	1	1	S	S	9	9
2130053	4	0.6	ANGELS RD	20	1	2	1	2	1	2	2	2	1	1	S	S	7	10
2130053	5	0.991	ANGELS RD	20	1	1	0	0	0	0	0	0	1	1	S	S	3	3
2130058	1	1.35	FRANKLINS RD		2	2	2	2	2	2	2	2	1	1	U	S	9	10
2130058	2	0.6	FRANKLINS RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130058	3	2.15	FRANKLINS RD	20	2	2	2	1	2	2	2	2	1	1	S	S	10	9
2130060	1	0.85	SMITHS BROOK RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130060	2	0.95	SMITHS BROOK RD	20	2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130060	3	1.16	SMITHS BROOK RD	20	2	2	1	1	1	1	2	2	2	1	U	U	8	7
2130060	4	0.85	SMITHS BROOK RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130060	5	0.65	SMITHS BROOK RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130061	1	0.55	PEPPERMINT GROVE RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130061	2	1.65	PEPPERMINT GROVE RD		2	2	2	1	2	2	2	2	2	0	U	P	10	8
2130061	3	0.65	PEPPERMINT GROVE RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130061	4	1.05	PEPPERMINT GROVE RD		2	2	2	2	1	2	2	2	1	1	S	P	9	10
2130061	5	1.65	PEPPERMINT GROVE RD		2	2	2	2	1	1	2	2	1	1	S	P	9	9
2130061	6	0.65	PEPPERMINT GROVE RD		1	1	2	2	2	2	2	2	1	1	S	S	9	9
2130061	7	0.85	PEPPERMINT GROVE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130061	8	0.85	PEPPERMINT GROVE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130061	9	0.75	PEPPERMINT GROVE RD	20	1	1	1	1	0	0	2	2	0	1	S	S	5	6
2130061	10	2.1	PEPPERMINT GROVE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130062	1	1.4	SEARS RD		2	2	1	2	1	2	1	1	0	2	S	U	6	9
2130062	2	1.3	SEARS RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130062	3	2.067	SEARS RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130063	1	0.5	LEFROY RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130063	2	1.148	LEFROY RD	20	2	2	2	2	1	1	1	1	2	2	S	S	9	9
2130064	1	0.673	STYLES RD		0	2	2	2	2	2	2	2	2	2	S	U	9	10
2130067	1	2.8	TINKS RD	20	2	2	2	2	2	2	1	1	2	2	U	U	9	9
2130067	2	0.7	TINKS RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130067	3	0.5	TINKS RD	20	2	2	1	1	1	1	2	2	1	1	C	C	9	9
2130067	4	0.538	TINKS RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130069	1	0.5	SEVEN DAY RD	20	0	0	0	0	0	0	0	0	0	0	S	S	1	1
2130069	2	0.5	SEVEN DAY RD	20	1	1	0	0	0	0	0	0	0	0	U	S	1	2
2130069	3	0.8	SEVEN DAY RD	20	2	2			0	2	0	0	0	0	U	S	2	5
2130069	4	0.5	SEVEN DAY RD	20	0	0	0	0	0	0	0	0	0	0	P	S	1	1
2130069	5	5.8	SEVEN DAY RD	20	2	2	0	0	1	1	1	1	1	2	S	S	6	7
2130069	6	0.7	SEVEN DAY RD		2	2	2	1	2	1	2	2	2	0	U	S	10	7
2130069	7	1	SEVEN DAY RD	20	2	1	0	0	0	0	1	1	0	0	S	P	4	3
2130069	8	3	SEVEN DAY RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130069	9	22.9	SEVEN DAY RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130070	1	0.5	BOTTOMLEY RD	20	2	2	1	0	2	2	1	1	1	1	P	S	8	7
2130070	2	0.9	BOTTOMLEY RD	20	2	2	2	1	2	2	2	2	2	1	U	S	10	9
2130070	3	0.822	BOTTOMLEY RD		2	2	2	2	2	2	2	2	2	2	U	S	10	11
2130074	1	0.6	TYNANS RD	20	2	2	0	0	0	0	1	1	0	1	S	U	4	4
2130074	2	2.09	TYNANS RD	20	0	1	0	0	0	0	0	0	1	1	S	S	2	3
2130075	1	1.15	CHURCHES RD		2	2	2	2	2	2	1	1	2	2	U	U	9	9
2130075	2	1.45	CHURCHES RD	20	0	0	0	0	0	0	0	0	0	0	S	S	1	1
2130075	3	0.8	CHURCHES RD	20	1	1	0	0	1	1	2	2	0	0	S	S	5	5
2130075	4	0.95	CHURCHES RD	20	0	0	0	0	0	0	0	0	2	0	U	S	2	1
2130076	1	1.318	CHURCHES RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130077	1	1.3	IREDELL RD		2	2	2	1	2	2	2	2	2	2	U	U	10	9
2130077	2	1.435	IREDELL RD		0	0	0	0	0	0	2	2	0	0	S	P	3	3
2130079	1	0.3	CHANNYBEARUP RD		2	2	1	1	1	1	1	0	2	2	S	S	8	7
2130079	2	1.1	CHANNYBEARUP RD	20	0	1	0	1	0	0	0	1	0	0	C	C	2	5
2130079	3	0.8	CHANNYBEARUP RD	20	2	1	1	0	1	0	1	1	0	0	S	U	6	2
2130079	4	5.1	CHANNYBEARUP RD	20	1	1	0	0	0	0	0	0	0	0	P	C	2	3
2130079	5	2.3	CHANNYBEARUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130079	6	0.5	CHANNYBEARUP RD		1	1	0	0	0	0	1	1	0	0	S	U	3	2
2130079	7	2.9	CHANNYBEARUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130079	8	1	CHANNYBEARUP RD		2	0	2	0	2	1	2	2	2	0	U	S	10	4
2130079	9	4.75	CHANNYBEARUP RD	20	2	2	1	1	2	2	2	2	1	1	U	U	8	8
2130079	10	3.65	CHANNYBEARUP RD	20	0	0	0	0	0	0	0	0	0	0	S	P	1	1
2130079	11	0.8	CHANNYBEARUP RD	20	2	1	2	0	2	0	2	0	2	0	U	P	10	2
2130079	12	0.5	CHANNYBEARUP RD	20	2	0	2	0	2	0	2	0	2	0	S	P	11	1
2130079	13	0.5	CHANNYBEARUP RD	20	0	0	0	0	0	0	0	0	0	0	S	S	1	1
2130079	14	1	CHANNYBEARUP RD	20	0	2	0	2	0	2	0	2	0	2	S	P	1	11
2130079	15	2.68	CHANNYBEARUP RD	20	1	1	0	0	0	0	0	0	0	0	S	S	2	2
2130080	1	1.067	BAMESS RD	20	2	2	1	0	1	1	2	2	2	2	S	S	9	8
2130081	1	0.6	FROOMES RD		2	2	2	1	2	1	2	2	2	2	U	C	10	10
2130081	2	2.859	FROOMES RD	20	2	2	1	1	2	2	1	1	2	2	S	S	9	9
2130082	1	2	THORNHILL RD	20	2	2	1	1	1	1	1	1	2	2	S	S	8	8
2130083	1	2.449	PIMELEA RD	20	2	2	1	1	1	1	1	1	2	2	S	S	8	8
2130085	1	2.558	GREEN RD		2	1	2	0	2	0	2	1	1	0	U	C	9	4
2130085	2	0.9	GREEN RD		2	2	2	2	2	2	2	2	0	1	U	U	8	9
2130087	1	1.1	PUMP HILL RD	20	2	2	0	0	1	1	2	2	1	1	S	C	7	8
2130087	2	0.8	PUMP HILL RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130090	1	0.7	GOLF LINK RD		2	2	2	1	2	2	2	2	2	2	U	C	10	11
2130090	2	3.35	GOLF LINK RD	20	2	2	1	1	1	1	2	2	2	2	S	S	9	9
2130090	3	0.55	GOLF LINK RD		2	2	1	2	1	2	1	1	1	2	S	U	7	9
2130091	1	0.649	KEMP RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130092	1	1.525	MULLINEAUX RD	20	2	2	1	1	1	1	1	1	2	2	S	S	8	8
2130093	1	0.6	MOLTONIS RD	20	2	2	1	1	2	2	2	2	2	2	S	C	10	11
2130093	2	0.509	MOLTONIS RD	20	0	0	0	0	0	0	1	1	0	0	C	C	3	3
2130094	1	1.3	PEMBERTON N RD	20	2	2	1	2	2	2	2	2	1	1	S	S	9	10
2130094	2	1.1	PEMBERTON N RD	20	2	2	1	1	1	1	2	2	0	0	S	S	7	7
2130094	3	1.2	PEMBERTON N RD	20	2	1	1	0	1	0	2	2	1	1	S	S	8	5
2130094	4	0.6	PEMBERTON N RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130094	5	1.3	PEMBERTON N RD	20	2	2	2	2	2	2	2	2	2	2	S	S	11	11
2130094	6	1.592	PEMBERTON N RD		2	2	2	2	2	2	2	2	1	1	S	S	10	10
2130096	1	1.78	ROCHE RD	20	2	2	1	1	2	2	1	1	2	2	S	S	9	9
2130097	1	2.41	OCKWELL RD	20	2	2	0	0	1	1	1	1	1	1	S	S	6	6
2130098	1	3.369	DECAMPO RD	20	2	2	1	1	1	1	1	1	2	2	C	S	9	8
2130099	1	3.7	SMITHS RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130099	2	0.807	SMITHS RD	20	1	1	0	0	0	0	1	1	1	1	S	S	4	4

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130100	1	4.1	DIAMOND TREE RD	20	2	2	1	1	2	2	2	2	2	2	S	S	10	10
2130100	2	0.8	DIAMOND TREE RD	20	0	0	0	0	0	0	0	0	1	1	S	S	2	2
2130100	3	2	DIAMOND TREE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130100	4	0.9	DIAMOND TREE RD		2	2	2	2	2	2	2	2	1	1	S	U	10	9
2130101	1	4.05	EASTBORNE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130101	2	0.7	EASTBORNE RD	20	1	1	2	2	1	1	2	2	1	1	S	S	8	8
2130101	3	2.27	EASTBORNE RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130102	1	2.566	LITTLEFAIR RD	20	2	2	1	1	2	2	2	2	2	2	S	S	10	10
2130105	1	0.7	EAST BROOK RD	20	2	2	1	2	1	2	2	2	1	2	S	U	8	10
2130105	2	1.8	EAST BROOK RD	20	2	2	0	0	1	1	1	1	1	1	S	S	6	6
2130105	3	1.8	EAST BROOK RD		2	2	2	1	2	1	2	2	2	2	U	S	10	9
2130105	4	2.385	EAST BROOK RD	20	2	2	0	0	1	1	1	1	2	2	S	S	7	7
2130106	1	0.6	FOX RD		2	2	2	1	2	1	2	2	2	1	U	S	10	8
2130106	2	2.489	FOX RD	20	2	2	1	1	1	1	1	1	2	2	S	S	8	8
2130108	1	0.8	OLD VASSE RD		2	1	2	0	1	2	2	2	1	1	U	U	8	6
2130108	2	1.86	OLD VASSE RD		2	2	1	2	1	2	2	2	2	2	S	U	9	10
2130108	3	1	OLD VASSE RD		2	2	2	2	2	2	2	2	1	1	S	S	10	10
2130108	4	3.7	OLD VASSE RD		2	2	2	2	2	2	2	2	2	1	U	U	10	9
2130108	5	0.6	OLD VASSE RD		2	2	2	2	2	2	2	2	1	1	S	U	10	9
2130108	6	0.6	OLD VASSE RD		2	2	1	1	2	2	2	2	1	0	C	S	10	8
2130108	7	0.9	OLD VASSE RD		1	2	0	1			2	1	0	0	S	S	4	5
2130113	1	0.6	TATTENHAM RD	20	2	2	2	2	2	2	2	2	2	2	U	C	10	12
2130113	2	1.7	TATTENHAM RD		2	2	1	1	1	1	2	2	2	2	S	S	9	9
2130113	3	1	TATTENHAM RD		2	2	1	1	1	1	2	2	2	2	S	P	9	9
2130113	4	1	TATTENHAM RD		2	2	0	0	1	1	1	1	2	2	P	C	7	8
2130113	5	1.3	TATTENHAM RD		2	2	0	1	1	1	2	2	1	2	S	S	7	9
2130113	6	1	TATTENHAM RD		2	2	0	1	1	1	2	2	2	2	C	U	9	8
2130113	7	0.7	TATTENHAM RD		2	2	1	1	1	1	2	2	2	2	U	U	8	8
2130117	1	2.482	BASHFORD RD	20	2	2	1	1	1	1	1	1	0	0	S	S	6	6
2130119	1	0.5	DACHET RD	20	2	2	1	1	2	2	2	2	1	1	S	S	9	9
2130119	2	1.3	DACHET RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130119	3	1.2	DACHET RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130119	4	0.6	DACHET RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130119	5	3.7	DACHET RD	20	2	2	0	0	1	1	2	2	2	2	S	S	8	8
2130119	6	0.499	DACHET RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130120	1	0.615	VANDELAAR RD	20	2	2	2	2	1	1	2	2	1	1	U	S	8	9
2130122	1	0.7	KARRI HILL RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130122	2	0.7	KARRI HILL RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130122	3	1.67	KARRI HILL RD		2	2	2	2	2	2	2	2	2	2	S	S	11	11
2130123	1	2.228	MUSCHAMP RD	20	2	2	1	1	1	1	2	2	0	0	U	S	6	7
2130126	1	1.049	HILLBROOK RD	20	2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130126	2	0.6	HILLBROOK RD		2	2	0	0	1	1	2	2	0	0	S	S	6	6
2130126	3	0.8	HILLBROOK RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130126	4	0.75	HILLBROOK RD		2	2	2	2	2	2	2	2	2	1	U	S	10	10
2130126	5	1.3	HILLBROOK RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130126	6	2.15	HILLBROOK RD	20	2	2	0	0	1	1	1	1	1	1	U	S	5	6
2130126	7	0.6	HILLBROOK RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130126	8	0.6	HILLBROOK RD	20	2	2	2	2	2	2	2	2	0	1	U	U	8	9
2130126	9	1.95	HILLBROOK RD		2	2	2	2	2	2	2	2	2	1	U	S	10	10
2130126	10	0.616	HILLBROOK RD	20	1	1	0	0	0	0	1	1	0	0	S	S	3	3
2130126	11	0.625	HILLBROOK RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130126	12	0.75	HILLBROOK RD		2	2	2	2	2	2	2	2	2	0	U	U	10	8
2130126	13	0.625	HILLBROOK RD		2	2	2	2	2	2	2	2	2	2	P	U	11	10
2130126	14	0.625	HILLBROOK RD		2	2	2	2	2	2	2	2	2	1	U	U	10	9
2130128	1	0.52	TOMLINSON RD	20	2	2	2	2	1	1	2	2	1	1	S	S	9	9
2130128	2	0.53	TOMLINSON RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130128	3	0.536	TOMLINSON RD	20	2	2	2	2	2	2	2	2	2	2	S	S	11	11
2130133	1	0.8	TOMLINSON RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130133	2	0.4	TOMLINSON RD		2	2	1	2	1	2	2	2	1	1	C	U	9	9
2130134	1	0.9	RIVERWAY RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130134	2	1	RIVERWAY RD		2	2	2	2	2	2	2	2	1	1	P	S	10	10
2130134	3	0.6	RIVERWAY RD		2	2	1	2	1	2	2	2	0	2	S	U	7	10
2130134	4	0.5	RIVERWAY RD		2	2	1	1	1	1	2	2	1	2	P	S	8	9
2130134	5	0.7	RIVERWAY RD		1	1	2	2	2	2	2	2	1	1	S	S	9	9
2130134	6	0.6	RIVERWAY RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130134	7	0.902	RIVERWAY RD	20	2	2	1	2	1	2	2	2	1	1	C	U	9	9
2130136	1	0.8	BEEBE RD	20	2	2	2	1	2	2	2	2	1	0	U	S	9	8
2130137	1	1	MOORE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130137	2	0.7	MOORE RD		2	2	2	2	2	2	2	2	2	2	U	P	10	11
2130137	3	2.227	MOORE RD		2	2	2	1	2	1	2	1	2	1	U	S	10	7

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130138	1	0.525	RUDD RD	20	2	2	1	1	1	1	2	2	2	1	U	U	8	7
2130138	2	0.5	RUDD RD	20	2	2	0	0	1	1	2	2	1	2	U	S	6	8
2130138	3	1.2	RUDD RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130138	4	1.8	RUDD RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130140	1	0.716	EGGLING SPUR		2	2	2	2	2	2	2	2	2	2	S	S	11	11
2130141	1	0.8	DOUBLE BRIDGE RD	20	2	2	0	0	1	1	2	2	1	1	U	U	6	6
2130141	2	2	DOUBLE BRIDGE RD	20	1	1	0	0	0	0	2	2	1	2	U	U	4	5
2130141	3	0.5	DOUBLE BRIDGE RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130141	4	1.2	DOUBLE BRIDGE RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130141	5	1	DOUBLE BRIDGE RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130141	6	0.5	DOUBLE BRIDGE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130141	7	1.1	DOUBLE BRIDGE RD		2	1	2	0	2	0	2	2	2	1	U	S	10	5
2130143	1	1	GABBEDY RD	20	2	2	2	2	2	2	2	2	2	2	S	S	11	11
2130143	2	0.5	GABBEDY RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130143	3	0.6	GABBEDY RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130144	1	1.75	GURNSEY GULLY RD	20	2	2	1	1	1	1	2	2	1	2	S	S	8	9
2130144	2	0.65	GURNSEY GULLY RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130144	3	2.2	GURNSEY GULLY RD	20	2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130146	1	0.4	ANDREWS RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130146	2	0.6	ANDREWS RD	20	2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130146	3	0.6	ANDREWS RD	20	2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130146	4	0.7	ANDREWS RD	20	2	2	1	1	0	1	1	1	1	1	S	S	6	7
2130146	5	0.7	ANDREWS RD	20	2	2	1	1	1	1	1	1	1	1	S	S	7	7
2130146	6	0.5	ANDREWS RD	20	2	2	2	2	2	2	2	2	2	2	P	P	11	11
2130146	7	0.444	ANDREWS RD	20	2	2	2	2	2	2	2	2	1	1	S	S	10	10
2130149	1	0.8	SHERMAN RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130149	2	0.93	SHERMAN RD		2	2	1	2	1	2	1	1	0	0	S	U	6	7
2130150	1	0.839	FINSBURY RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130151	1	0.8	KAMANN RD		2	2	2	2	2	1	2	2	1	1	U	C	9	10
2130151	2	0.942	KAMANN RD		2	2	2	2	2	2	2	2	2	2			10	10
2130154	1	0.55	ROCKBRIDGE RD		2	1	2	0	2	0	2	0	2	1	U	S	10	3
2130154	2	1.654	ROCKBRIDGE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130156	1	2.6	WHEATLEY COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130156	2	0.7	WHEATLEY COAST RD		2	2	2	2	2	2	2	2	2	2	S	S	11	11
2130156	3	0.5	WHEATLEY COAST RD	20	2	2	2	2	2	2	2	2	2	2	S	S	11	11

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130156	4	0.5	WHEATLEY COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130156	5	1.1	WHEATLEY COAST RD		2	1	2	0	2	0	2	0	2	1	U	S	10	3
2130156	6	6.1	WHEATLEY COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130156	7	0.6	WHEATLEY COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130156	8	2.1	WHEATLEY COAST RD		2	2	2	1	2	1	2	2	2	1	U	S	10	8
2130156	9	2.6	WHEATLEY COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130156	10	1	WHEATLEY COAST RD		2	2	2	1	2	1	2	2	2	2	U	S	10	9
2130156	11	6.6	WHEATLEY COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130156	12	2.4	WHEATLEY COAST RD	20	2	2	1	1	2	2	2	2	2	2	S	S	10	10
2130156	13	2.9	WHEATLEY COAST RD	20	2	2	2	2	1	1	2	2	2	2	U	U	9	9
2130156	14	1.3	WHEATLEY COAST RD	20	2	2	2	1	2	0	2	2	2	1	U	S	10	7
2130156	15	0.7	WHEATLEY COAST RD	20	2	0	2	0	2	0	2	2	2	0	S	C	11	4
2130156	16	0.9	WHEATLEY COAST RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130156	17	1.7	WHEATLEY COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130156	18	2.6	WHEATLEY COAST RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130156	19	0.7	WHEATLEY COAST RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130156	20	0.8	WHEATLEY COAST RD		2	2	1	2	1	2	2	2	1	1	S	U	8	9
2130156	21	0.7	WHEATLEY COAST RD	20	2	2	2	1	1	1	1	2	2	2	S	S	9	9
2130156	22	0.5	WHEATLEY COAST RD	20	2	2	2	1	2	1	2	2	2	2	U	S	10	9
2130156	23	1.9	WHEATLEY COAST RD	20	2	2	2	2	2	2	2	2	2	2	U	S	10	11
2130156	24	2	WHEATLEY COAST RD	20	2	2	2	2	2	2	2	2	2	2	U	C	10	12
2130156	25	1	WHEATLEY COAST RD		2	2	2	2	2	2	2	2	1	1	U	S	9	10
2130156	26	5.03	WHEATLEY COAST RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130158	1	2.2	CUTTING RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130158	2	0.65	CUTTING RD	20	2	2	2	2	1	1	2	2	2	2	S	S	10	10
2130158	3	1.05	CUTTING RD	20	2	2	1	1	1	1	1	1	2	2	S	S	8	8
2130158	4	0.579	CUTTING RD		2	2	1	1	1	1	1	1	1	1	S	S	7	7
2130159	1	1.562	YOUNGS RD		2	2	1	0	2	2	2	2	0	0	U	U	7	6
2130162	1	0.673	GLENPENNAT RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130163	1	1.1	NYAMUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130164	1	2.62	NEDS RD		2	2	2	2	2	2	2	1	2	2	U	S	10	10
2130164	2	6.115	NEDS RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130164	3	1.61	NEDS RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130164	4	1.81	NEDS RD		2	2	2	1	2	2	2	1	2	2	U	S	10	9
2130164	5	1	NEDS RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130164	6	0.4	NEDS RD		2	2	2	2	2	2	1	2	2	2	C	U	11	10
2130164	7	1.41	NEDS RD		2	2	1	1	2	2	1	1	2	2	C	S	10	9
2130165	1	0.8	HOLLEYS RD		2	0	2	0	2	1	2	0	2	1	U	S	10	3
2130165	2	1.8	HOLLEYS RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130171	1	1.3	MORDALUP RD		2	2	1	2	2	2	1	2	2	2	S	U	9	10
2130171	2	0.6	MORDALUP RD	20	2	2	1	0	1	0	0	0	2	0	S	S	7	3
2130171	3	7.5	MORDALUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130171	4	3.4	MORDALUP RD		2	2	2	2	2	2	0	2	2	2	S	U	9	10
2130171	5	0.9	MORDALUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130171	6	2.9	MORDALUP RD		2	2	1	2	2	2	0	2	1	2	S	U	7	10
2130171	7	3.8	MORDALUP RD		2	2	2	2	2	2	2	2	2	2	S	S	11	11
2130171	8	0.7	MORDALUP RD		2	2	2	2	2	2	2	2	2	2	U	S	10	11
2130171	9	0.8	MORDALUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130176	1	1.153	RADBURN RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130179	1	0.85	BURANGANUP RD		2	1	2	0	2	0	2	0	2	0	U	S	10	2
2130179	2	3	BURANGANUP RD		2	2	2	2	2	2	2	2	2	2	U	S	10	11
2130179	3	0.75	BURANGANUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130179	4	1.45	BURANGANUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130179	5	0.95	BURANGANUP RD		2	2	2	2	2	2	2	2	2	2	U	S	10	11
2130179	6	1.45	BURANGANUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130179	7	3.4	BURANGANUP RD		2	2	2	1	2	2	2	2	2	2	C	S	12	10
2130180	1	6.9	MYAGELUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130181	1	0.7	NABAGUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130181	2	1.8	NABAGUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130183	1	1	PINDICUP RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130183	2	1.1	PINDICUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130183	3	0.5	PINDICUP RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130183	4	0.88	PINDICUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130184	1	0.9	RALPHS RD	20	2	2	1	1	1	1	0	0	2	2	S	S	7	7
2130184	2	0.5	RALPHS RD	20	2	2	2	2	2	2	2	2	2	2	S	C	11	12
2130184	3	0.6	RALPHS RD	20	2	2	1	1	2	1	1	1	1	1	S	S	8	7
2130184	4	0.8	RALPHS RD	20	2	2	1	1	1	1	1	1	2	2	S	S	8	8
2130184	5	0.5	RALPHS RD	20	1	2	0	2	0	2	0	2	0	2	S	U	2	10
2130184	6	0.67	RALPHS RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130188	1	6.589	CORBALLUP RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130189	1	1.252	SIMCOCK RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130191	1	2.1	MUIRS RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130191	2	0.5	MUIRS RD		2	2	1	1	2	2	0	0	2	2	U	S	7	8
2130191	3	0.6	MUIRS RD	20	2	2	2	2	2	2	2	2	2	2	P	U	11	10
2130196	1	0.54	JUNCTION RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130196	2	2.81	JUNCTION RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130196	3	0.65	JUNCTION RD	20	2	2	2	1	2	1	2	2	1	1	S	S	10	8
2130196	4	3.05	JUNCTION RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130196	5	0.54	JUNCTION RD		2	2	0	2	1	2	2	2	2	2	S	U	8	10
2130196	6	1.5	JUNCTION RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130196	7	0.77	JUNCTION RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130196	8	0.65	JUNCTION RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130196	9	1.19	JUNCTION RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130196	10	0.88	JUNCTION RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130196	11	0.79	JUNCTION RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130203	1	0.7	REST POINT RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130203	2	1.5	REST POINT RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130206	1	2.3	TINGLEWOOD RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130206	2	1	TINGLEWOOD RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130210	1	0.7	ALLEN RD	20	2	2	1	2	1	2	2	2	1	2	S	U	8	10
2130210	2	2.6	ALLEN RD	20	2	2	0	0	1	1	2	2	1	1	C	S	8	7
2130210	3	1.734	ALLEN RD		2	2	2	2	2	2	2	2	2	1	U	S	10	10
2130211	1	1	N WALPOLE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130211	2	1.9	N WALPOLE RD	20	2	2	2	2	1	1	2	2	1	1	S	S	9	9
2130211	3	2.6	N WALPOLE RD	20	1	2	0	2	0	2	2	2	0	2	C	U	5	10
2130211	4	2	N WALPOLE RD	20	2	2	1	1	1	1	2	2	1	0	S	S	8	7
2130211	5	3	N WALPOLE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130211	6	2	N WALPOLE RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130211	7	1.1	N WALPOLE RD		2	2	1	2	1	2	2	2	2	2	S	U	9	10
2130211	8	2.6	N WALPOLE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130211	9	1.9	N WALPOLE RD	20	2	2	1	1	2	2	2	2	2	2	P	S	10	10
2130211	10	1.3	N WALPOLE RD		2	2	2	1	2	1	2	2	2	1	U	S	10	8
2130211	11	2.4	N WALPOLE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130212	1	1.34	SWANN RD	20	2	0	1	0	1	0	2	2	1	0	C	C	9	4
2130213	1	1.8	CLARKE RD		2	2	2	2	2	2	2	2	1	1	S	S	10	10

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130213	2	0.9	CLARKE RD	20	2	0	1	1	1	1	2	2	0	0	S	S	7	5
2130213	3	0.8	CLARKE RD	20	2	2	1	2	1	2	2	2	2	2	S	U	9	10
2130213	4	0.6	CLARKE RD		2	2	1	0	2	2	2	2	2	2	U	S	9	9
2130213	5	2.6	CLARKE RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130213	6	0.749	CLARKE RD	20	0	0	0	0	0	0	1	1	0	0	S	S	2	2
2130215	1	0.8	BRIDGE RD	20	2	2	0	0	1	1	2	2	1	1	S	S	7	7
2130215	2	0.7	BRIDGE RD		2	2	2	0	2	1	2	2	2	1	U	S	10	7
2130215	3	2.1	BRIDGE RD	20	2	2	0	0	1	1	2	2	1	1	S	S	7	7
2130215	4	0.8	BRIDGE RD		2	2	2	1	2	1	2	2	2	1	U	S	10	8
2130215	5	1.2	BRIDGE RD	20	0	0	0	0	0	0	1	1	0	0	S	S	2	2
2130215	6	1.1	BRIDGE RD		2	2	2	1	2	2	2	2	2	1	U	S	10	9
2130216	1	1.719	ARMSTRONG RD		2	2	2	1	2	2	2	2	2	2	U	S	10	10
2130217	1	0.9	CHATLEY RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130217	2	0.624	CHATLEY RD		2	2	2	1	2	2	2	2	2	2	U	S	10	10
2130218	1	2.25	HULL RD	20	2	2	1	1	1	1	1	1	1	1	S	S	7	7
2130218	2	1.75	HULL RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130218	3	2.25	HULL RD	20	2	2	1	1	1	1	1	1	1	1	S	S	7	7
2130221	1	1.2	HUNTER RD	20	2	2	1	1	1	1	1	1	1	1	S	P	7	7
2130221	2	2.5	HUNTER RD	20	2	2	1	1	1	1	1	1	2	2	S	S	8	8
2130221	3	1.37	HUNTER RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130222	1	0.5	PARKE RD	20	2	2	2	2	2		2	2	2	2	U	C	10	10
2130222	2	0.6	PARKE RD		2	2	1	2	1	2	2	2	2	2	S	U	9	10
2130249	1	0.916	RIVERSIDE RD		2	2	2	2	2	2	1	1	2	2	U	U	9	9
2130316	1	1.4	TOWIE RD	20	2	2	0	0	0	0	0	0	0	0	S	S	3	3
2130316	2	0.55	TOWIE RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130316	3	0.691	TOWIE RD	20	2	2	2	2	1	1	2	2	1	1	C	C	10	10
2130351	1	8.3	DEESIDE COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130351	2	1	DEESIDE COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130351	3	3.8	DEESIDE COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130351	4	6.4	DEESIDE COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130351	5	2.7	DEESIDE COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130351	6	2.55	DEESIDE COAST RD		2	2	1	2	1	2	2	2	1	1	S	U	8	9
2130351	7	0.7	DEESIDE COAST RD		2	1	2	0	2	0	2	2	2	1	C	C	12	6
2130351	8	1.3	DEESIDE COAST RD		2	2	2	2	2	2	2	2	2	2	U	S	10	11
2130351	9	4.4	DEESIDE COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130351	10	0.7	DEESIDE COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130351	11	20.76	DEESIDE COAST RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130364	1	1.2	HENWOOD RD		2	2	2	1	2	2	2	1	2	2	U	S	10	9
2130364	2	0.5	HENWOOD RD		1	2	0	2	1	2	2	2	0	2	S	U	5	10
2130364	3	0.6	HENWOOD RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130364	4	0.7	HENWOOD RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130364	5	0.68	HENWOOD RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130373	1	1.4	CHESAPEAKE RD		2	2	0	0	2	2	2	2	1	1	S	U	8	7
2130373	2	8.7	CHESAPEAKE RD		2	2	0	0	1	1	2	2	1	1	U	U	6	6
2130373	3	14.3	CHESAPEAKE RD		2	2	1	1	2	2	2	2	1	1	U	U	8	8
2130384	1	0.9	GUMNUT RD	20	2	2	1	1	1	1	1	1	2	2	C	C	9	9
2130384	2	1.65	GUMNUT RD	20	2	2	1	1	1	1	2	2	2	2	U	U	8	8
2130385	1	0.7	CAESIA RD		2	2	1	0	1	1	2	2	2	2	S	C	9	9
2130385	2	1.834	CAESIA RD		2	2	1	1	1	1	2	2	2	2	S	S	9	9
2130432	1	0.9	ANGOVE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130432	2	0.83	ANGOVE RD	20	1	1	0	0	1	1	2	2	0	0	S	S	5	5
2130446	1	1.7	GARDINER RD	20	2	2	1	1	1	1	2	2	1	1	U	S	7	8
2130446	2	1.4	GARDINER RD		2	2	1	1	2	2	2	2	2	2	S	U	10	9
2130446	3	0.905	GARDINER RD	20	2	2	2	2	2	2	2	2	2	2	S	S	11	11
2130448	1	1.8	RAIL RD		2	2	2	2	2	2	2	2	1	1	S	U	10	9
2130450	1	2.2	MOTTRAM RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130450	2	0.7	MOTTRAM RD		2	2	1	2	2	2	2	2	1	1	P	U	9	9
2130450	3	1.39	MOTTRAM RD		2	2	2	2	2	2	2	2	0	0	C	U	10	8
2130453	1	0.75	PACKER RD		2	1	2	0	2	1	2	1	2	0	U	C	10	5
2130463	1	1.3	LANE POOL RD	20	2	2	2	2	1	2	2	2	2	1	S	S	10	10
2130463	2	0.5	LANE POOL RD	20	2	2	1	2	1	2	2	2	1	1	S	S	8	10
2130463	3	0.997	LANE POOL RD		1	1	0	0	0	0	2	2	0	0	U	U	3	3
2130463	4	14.6	LANE POOL RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130464	1	0.8	ROBERTS RD		2	2	2	1	2	1	2	1	1	0	S	S	10	6
2130464	2	0.5	ROBERTS RD		1	0	1	0	1	0			0	1	S	C	4	3
2130464	3	0.75	ROBERTS RD		2	0	2		0	2	2	2	0	2	S	U	7	6
2130470	1	1.774	STANLEY RD		2	2	2	2	1	2	2	2	2	2	P	U	10	10
2130470	2	0.55	STANLEY RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130482	1	0.8	BANKS RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130486	1	5.006	LANGLEY RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130488	1	1.007	SOUTH WELL RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130489	1	0.552	KARINDA RD		2	2	2	2	2	2	2	2	1	1	U	S	9	10
2130491	1	0.891	KARINDA RD	20	2	2	1	1	1	1	0	0	1	1	S	S	6	6
2130492	1	0.474	FAVERO RD		2	2	1	2	2	2	2	1	2	2	S	U	10	9
2130494	1	0.7	POSTCODE RD	20	2	2	2	2	2	2	2	2	1	2	S	S	10	11
2130494	2	0.7	POSTCODE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130497	1	0.792	POSTCODE RD	20	2	2	1	1	0	0	0	0	0	0	S	P	4	4
2130498	1	0.7	WILDWOOD RD		2	2	1	1	2	1	2	2	1	1	U	S	8	8
2130498	2	1.4	WILDWOOD RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130500	1	2.05	WILDWOOD RD		2	2	2	2	1	1	2	2	1	1	U	U	8	8
2130500	2	0.594	WILDWOOD RD	20	2	2	2	2	1	1	2	2	2	2	C	C	11	11
2130516	1	0.6	HORNE RD		1	2	0	2	0	2	2	2	1	2	S	S	5	11
2130516	2	0.5	HORNE RD		1	2	0	2	0	2	0	2	1	2	S	U	3	10
2130516	3	0.5	HORNE RD		2	2	1	1	2	2	2	2	2	2	S	S	10	10
2130516	4	0.7	HORNE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130520	1	1.129	CHARLIE RD	20	2	2	2	2	2	2	1	1	2	2	S	S	10	10
2130526	1	0.631	UNDERHILL RD	20	2	2	1	1	1	1	2	2	2	2	S	S	9	9
2130528	1	0.8	SOUTHFIELD RD	20	2	2	0	1	1	2	0	0	0	1	U	S	3	7
2130528	2	0.5	SOUTHFIELD RD		2	2	0	2		2	0	2	1	2	S	U	4	10
2130528	3	3.729	SOUTHFIELD RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130529	1	0.7	JACKSONII RD	20	0	0	0	0	0	0	0	0	0	0	C	C	2	2
2130529	2	2.2	JACKSONII RD	20	2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130529	3	0.72	JACKSONII RD	20	0	0					0	0	0	0	C	C	2	2
2130530	1	0.909	RED TINGLE RD	20	2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130532	1	0.6	ARMSTRONG RD	20	2	2	1	1	1	2	2	2	0	1	C	U	8	8
2130532	2	1.683	ARMSTRONG RD	20	2	2	1	1	1	1	2	2	0	0	C	S	8	7
2130536	1	0.66	STIRLING TRACK		2	2	2	1	2	1	2	2	2	2	U	S	10	9
2130543	1	1.2	GRAPHITE RD	20	2	2	0	1	1	1	2	2	1	1	S	S	7	8
2130543	2	0.6	GRAPHITE RD		2	2	2	1	2	1	2	2	2	2	U	S	10	9
2130543	3	1.1	GRAPHITE RD	20	1	1	0	0	0	0	1	1	0	0	C	S	4	3
2130543	4	1	GRAPHITE RD		2	2	2	1	2	1	2	2	2	2	U	S	10	9
2130543	5	1.7	GRAPHITE RD	20	2	2	1	1	1	1	2	2	2	2	S	S	9	9
2130543	6	3.3	GRAPHITE RD		2	2	2	1	2	1	2	2	2	2	U	S	10	9
2130543	7	1.2	GRAPHITE RD	20	1	1	0	0	0	0	1	1	1	1	P	S	4	4
2130543	8	0.5	GRAPHITE RD		2	2	2	1	2	1	2	2	2	2	U	S	10	9

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130543	9	6.1	GRAPHITE RD	20	2	2	1	1	1	1	2	2	2	2	S	S	9	9
2130543	10	1.83	GRAPHITE RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130544	1	2.3	MIDDLETON RD		2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130544	2	0.5	MIDDLETON RD		2	2	2	2	2	2	2	2	1	2	U	S	9	11
2130544	3	0.7	MIDDLETON RD	20	2	2	2	2	2	2	2	2	1	2	U	U	9	10
2130544	4	0.75	MIDDLETON RD	20	2	2	2	2	2	2	2	2	1	2	S	S	10	11
2130544	5	0.75	MIDDLETON RD	20	2	2	0	0	0	0	2	2	1	1	U	U	5	5
2130544	6	0.8	MIDDLETON RD	20	2	2	0	0	0	0	2	2	1	1	U	U	5	5
2130544	7	0.5	MIDDLETON RD		2	1	2	0	2	0	2	2	2	1	U	S	10	5
2130544	8	2.3	MIDDLETON RD		2	2	2	1	2	1	2	2	1	2	U	S	9	9
2130544	9	6.1	MIDDLETON RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130544	10	1.5	MIDDLETON RD	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
2130544	11	2.9	MIDDLETON RD		2	2	1	2	1	2	2	2	1	2	S	U	8	10
2130544	12	1.6	MIDDLETON RD	20	2	2	2	2	1	1	2	2	1	1	S	S	9	9
2130544	13	0.5	MIDDLETON RD		1	1	0	0	1	2	2	2	1	2	U	U	5	7
2130544	14	0.6	MIDDLETON RD	20	2	1	2	1	2	1	2	2	2	1	S	S	11	7
2130544	15	0.8	MIDDLETON RD		2	2	2	2	2	2	2	2	1	1	U	S	9	10
2130544	16	2.847	MIDDLETON RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130545	1	1.37	WINDY HARBOUR RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130545	2	1.2	WINDY HARBOUR RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130545	3	2	WINDY HARBOUR RD	20	2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130545	4	1.9	WINDY HARBOUR RD	20	2	2	2	2	2	2	2	2	1	2	U	U	9	10
2130545	5	6.3	WINDY HARBOUR RD	20	2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130559	1	0.55	WINDY HARBOUR RD		1	1	0	0	2	2	2	2	2	1	U	U	7	6
2130559	2	0.999	WINDY HARBOUR RD		2	2	2	2	2	2	2	2	1	1	U	U	9	9
2130561	1	0.619	BRACKEN RISE	20	2	2	0	0	1	1	2	2	1	1	U	U	6	6
2130562	1	0.719	SPARSA CLOSE	20	2	2	2	2	2	2	2	2	1	1	U	S	9	10
2130569	1	1	DAVIDSON RD		2	2	1	2	1	2	2	2	2	2	S	U	9	10
2130569	2	2.1	DAVIDSON RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130569	3	1.901	DAVIDSON RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130575	1	0.4	THOMPSON RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130575	2	2.25	THOMPSON RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130575	3	0.7	THOMPSON RD		2	2	2	2	2	2	2	2	2	2	P	U	11	10
2130575	4	0.5	THOMPSON RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130575	5	0.9	THOMPSON RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
2130575	6	0.5	THOMPSON RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130575	7	0.7	THOMPSON RD		2	2	2	2	2	2	2	2	2	2	S	U	11	10
2130575	8	0.6	THOMPSON RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130575	9	1.95	THOMPSON RD		2	2	1	1	1	1	1	1	2	2	S	P	8	8
2130575	10	0.5	THOMPSON RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130575	11	0.9	THOMPSON RD		2	2	2	0	2	1	1	1	2	1	P	S	10	6
2130575	12	1.488	THOMPSON RD		2	2	2	2	2	2	1	2	2	2	P	U	10	10
2130575	13	0.902	THOMPSON RD		2	2	2	2	2	2	2	2	2	2	U	U	10	10
2130583	1	1.989	GREVILLEA RD	20	2	1	0	0	0	0	2	2	0	0	S	S	5	4
H009	1	2.23	SW HWY		2	2	1	1	2	2	2	2	2	2	P	R	10	10
H009	2	0.49	SW HWY		2	2	2	2	2	2	2	2	2	2	U	R	10	11
H009	3	0.5	SW HWY		2	2	1	2	1	2	1	2	2	2	S	R	8	11
H009	4	0.7	SW HWY		2	2	2	2	2	2	2	2	2	2	U	R	10	11
H009	5	3.32	SW HWY		2	2	1	2	1	2	1	2	2	2	S	S	8	11
H009	6	5.4	SW HWY		2	2	1	2	2	2	2	2	2	2	P	R	10	11
H009	7	2.3	SW HWY		2	2	2	2	2	2	2	2	1	1	U	U	9	9
H009	8	2	SW HWY	60	2	2	2	2	2	2	2	2	2	2	C	C	12	12
H009	9	0.8	SW HWY		2	0	2		2		2	2	1	1	P	C	10	5
H009	10	0.4	SW HWY	20	2	2	2	2	2	2	2	2	2	1	P	S	11	10
H009	11	1	SW HWY	20	2	2	2	2	2	2	2	2	2	2	S	U	11	10
H009	12	0.7	SW HWY	20	2	2	1	2	1	2	2	2	1	2	S	P	8	11
H009	13	1	SW HWY		2	2	2	2	2	2	2	2	0	1	U	P	8	10
H009	14	0.9	SW HWY	20	2	2	2	2	2	2	2	2	2	2	U	U	10	10
H009	15	1	SW HWY	20	2	2	2	1	2	1	2	2	1	1	U	S	9	8
H009	16	1.07	SW HWY	20	2	2	2	2	2	2	2	2	2	1	U	U	10	9
H009	17	1	SW HWY	20	2	2	1	1	2	1	1	1	1	1	S	U	8	6
H009	18	1.43	SW HWY	20	2	1	2	0	2	1	1	1	2	1	S	S	10	5
H009	19	2.99	SW HWY		2	2	2	2	2	2	2	2	2	2	U	P	10	11
H009	20	42.2	SW HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
H009	21	2.6	SW HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
H009	22	22.12	SW HWY		2	2	2	2	2	2	2	2	2	2	P	U	11	10
H009	23	3.1	SW HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
H009	24	2.3	SW HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
H009	25	1.5	SW HWY	20	2	2	2	2	2	2	2	2	2	2	U	S	10	11
H009	26	1.1	SW HWY	20	2	2	1	1	1	1	1	1	0	1	C	S	7	7

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
H009	27	1.74	SW HWY	20	2	2	2	2	2	2	2	2	2	2	S	U	11	10
H009	28	2.2	SW HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
H009	29	1.54	SW HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
H009	30	2.4	SW HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
H009	31	1.2	SW HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
H009	32	1.59	SW HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
H009	33	3.6	SW HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
H009	34	2.4	SW HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
H009	35	0.7	SW HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
M008	1	3.1	VASSE HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
M008	2	1.3	VASSE HWY	20	2	2	1	1	1	1	2	2	2	2	S	S	9	9
M008	3	2.9	VASSE HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
M008	4	0.5	VASSE HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
M008	5	0.9	VASSE HWY		2	2	1	2	1	2	2	2	2	2	S	U	9	10
M008	6	1.9	VASSE HWY	20	1	1	0	0	0	0	1	1	1	1	S	S	4	4
M008	7	0.8	VASSE HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
M008	8	0.9	VASSE HWY	20	2	2	1	0	2	1	2	2	1	1	S	S	9	7
M008	9	2.1	VASSE HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
M008	10	1.1	VASSE HWY	20	2	2	1	1	1	1	2	2	1	1	S	S	8	8
M008	11	3.9	VASSE HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
M008	12	4.4	VASSE HWY	20	2	2	1	1	1	1	1	1	1	1	S	S	7	7
M008	13	2.1	VASSE HWY		2	2	2	1	1	2	2	2	2	2	S	U	10	9
M008	14	0.9	VASSE HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
M008	15	0.8	VASSE HWY		2	2	1	2	1	2	2	2	2	2	S	U	9	10
M008	16	1.3	VASSE HWY		2	2	2	2	2	2	2	2	2	2	U	U	10	10
M008	17	0.8	VASSE HWY	20	2	2	1	1	1	1	2	2	2	2	S	S	9	9
M008	18	0.6	VASSE HWY		2	2	2	1	2	1	2	2	2	2	U	S	10	9
M008	19	1	VASSE HWY	20	2	2	1	1	1	1	1	1	2	2	S	S	8	8
M008	20	2.5	VASSE HWY		2	2	1	2	2	2	2	2	2	2	S	U	10	10
M008	21	1.1	VASSE HWY		0	0	0	0	0	0	1	1	0	0	C	C	3	3
M008	22	3.95	VASSE HWY		2	2	2	2	2	2	2	2	2	2	S	U	11	10
M036	1	0.5	PEMBERTON-NORTHCLIFFE RD	20	2	2	2	2	2	2	2	2	1	1	C	C	11	11
M036	2	1.1	PEMBERTON-NORTHCLIFFE RD	20	2	2	0	1	0	2	2	2	1	1	C	C	7	10
M036	3	1.2	PEMBERTON-NORTHCLIFFE RD	20	2	2	2	1	2	1	2	2	1	1	U	C	9	9
M036	4	0.5	PEMBERTON-NORTHCLIFFE RD	20	2	2	2	2	2	2	2	2	2	2	U	U	10	10

SHIRE# AND ROAD#	SECT. #	SECT. LENGTH	ROAD NAME	RESERVE WIDTH	NATIVE VEGETATION		EXTENT OF VEGETATION		NUMBER OF SPECIES		WEEDS		VALUE AS A CORRIDOR		ADJOINING LANDUSE		CONSERVATION VALUE SCORE	
					Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right
M036	5	0.6	PEMBERTON-NORTHCLIFFE RD	20	2	2	1	0	1	0	0	2	0	0	C	C	6	6
M036	6	0.4	PEMBERTON-NORTHCLIFFE RD	20	2	2	1	1	1	1	2	2	1	1	C	C	9	9
M036	7	0.6	PEMBERTON-NORTHCLIFFE RD	20	2	2	1	1	1	1	0	0	0	0	C	C	6	6
M036	8	0.5	PEMBERTON-NORTHCLIFFE RD	20	2	2	2	1	2	1	2	2	1	1	U	C	9	9
M036	9	15	PEMBERTON-NORTHCLIFFE RD	20	2	2	2	2	2	2	2	2	2	2	U	U	10	10
M036	10	1.2	PEMBERTON-NORTHCLIFFE RD	20	2	2	2	2	2	2	2	2	1	1	U	C	9	11
M036	11	0.6	PEMBERTON-NORTHCLIFFE RD		2	2	1	0	2	1	1	0	1	1	C	C	9	6
M036	12	2.2	PEMBERTON-NORTHCLIFFE RD	20	2	2	1	1	2	2	1	1	1	1	C	C	9	9
M036	13	1.4	PEMBERTON-NORTHCLIFFE RD	20	2	2	2	2	2	2	2	2	1	1	P	S	10	10

Appendix

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APPENDIX 4

Native Plant species in the Shire of Manjimup
(Source- WA Herbarium)

Note- not a comprehensive list.
*= Exotic/weed species
P= Priority flora species
R= Rare flora species

Acacia aff. pentadenia
Acacia alata
Acacia alata var. alata
Acacia applanata
Acacia biflora
Acacia browniana
Acacia browniana var. browniana
Acacia browniana var. obscura
Acacia cochlearis
Acacia consanguinea ms
Acacia crassiuscula
Acacia crispula
Acacia cyclops
Acacia divergens
Acacia ? divergens
Acacia extensa
Acacia gilbertii
Acacia hastulata
Acacia huegelii
Acacia incurva
Acacia insolita
Acacia insolita subsp. insolita
Acacia laricina var. laricina
Acacia lateriticola
Acacia littorea
Acacia melanoxylon
Acacia mooreana P2
Acacia myrtifolia
Acacia nervosa
Acacia obovata
Acacia pentadenia
Acacia podalyriifolia
Acacia pulchella
Acacia pulchella var. glaberrima
Acacia pulchella var. goadbyi
Acacia pulchella var. pulchella
Acacia pycnocephala
Acacia saligna
Acacia scalpelliformis
Acacia stenoptera
Acacia sulcata
Acacia sulcata var. sulcata
Acacia tayloriana
Acacia tayloriana P4
Acacia tetragonocarpa
Acacia trigonophylla
Acacia triptycha
Acacia uliginosa
Acacia urophylla
Acacia varia var. parviflora
Acacia varia var. varia
**Acaena echinata* (sheep's burr)
**Acaena echinata var. retrorsumpilosa* (sheep's burr)
**Acaena novae-zelandiae* (biddy biddy, pirri-pirri burr)
Acanthocarpus preissii
**Acetosella vulgaris* (sorrel, sheep's sorrell)
**Achillea millefolium* (yarrow)
Acidonia microcarpa
Acrotriche cordata
Actinodium cunninghamii
Actinostrobus pyramidalis
Actinotus glomeratus
Actinotus laxus ms
Actinotus omnifertilis
Actinotus sp.Walpole (J.R.Wheeler 3786) P3
Actites megalocarpa
Adenanthos barbiger subsp. intermedius ms
Adenanthos cuneatus
Adenanthos meisneri
Adenanthos obovatus
Adiantum aethiopicum
Agonis flexuosa
Agonis flexuosa var. flexuosa
Agonis flexuosa var. latifolia
Agonis floribunda
Agonis hypericifolia
Agonis juniperina
Agonis linearifolia
Agonis marginata
Agonis parviceps
Agonis sp.Coarse Agonis (J.R.Wheeler 2939)
Agonis sp.coarse tea-tree (J.R.Wheeler 2939)
Agonis sp.Lake Jasper (B.Hammersley 567)
Agrostis avenacea
Agrostis avenacea var. avenacea
Agrostis plebeia
Agrostis stolonifera
Agrostocrinum scabrum
**Aira caryophyllea* (silvery hairgrass)
**Aira cupaniana*
**Aira praecox* (early hairgrass)
Alexgeorgea ganopoda P2
**Allium triquetrum* (three-cornered garlic)
Allocasuarina decussata
Allocasuarina fraseriana
Allocasuarina humilis
Allocasuarina lehmanniana subsp. lehmanniana
Allocasuarina thuyoides
Allocasuarina trichodon
**Alternanthera nodiflora* (joyweed)

Amaranthus powellii
**Amaryllis belladonna* (Easter lily)
**Ammophila arenaria* (marram grass)
Amperea ericoides
Amperea protensa P2
Amperea simulans
Amperea volubilis
Amphibromus nervosus
Amphipogon amphipogonoides
Amphipogon debilis
Amphipogon debilis var. debilis
Amphipogon laguroides
Amphipogon turbinatus
**Anagallis arvensis* (pimpernel)
**Anagallis arvensis var. "unsorted"*
Anarthria gracilis
Anarthria laevis
Anarthria prolifera
Anarthria scabra
Andersonia aff. caerulea
Andersonia aff. involucrata
Andersonia amabile ms P3
Andersonia annelsii ms P2
Andersonia auriculata P2
Andersonia barbata
Andersonia caerulea
Andersonia geniculata ms
Andersonia latiflora
Andersonia macronema P2
Andersonia micrantha
Andersonia redolens ms P1
Andersonia sp.Collis Rd (G.Wardell-Johnson GWJ5A) P1
Andersonia sprengelioides
Angianthus preissianus
Anigozanthos bicolor
Anigozanthos bicolor subsp. decrescens
Anigozanthos flavidus
Anigozanthos humilis subsp. humilis
Anigozanthos manglesii
Anigozanthos preissii
Anigozanthos viridis subsp. viridis
**Anoda cristata* (anoda weed)
Anogramma leptophylla
Anthocercis littorea
Anthocercis sylvicola P2
Anthocercis viscosa subsp. caudata
Anthotium humile
Anthotium sp.Peaceful Bay (J.R.Wheeler 3772 & S.
**Anthoxanthum odoratum (sweet vernal grass)*
Aotus carinata P4
Aotus gracillima
Aotus intermedia
Aotus passerinoides
Aotus sp.Scott River (K.F.Kenneally 2371)
**Aphanes arvensis* (parsley-piert)
Aphelia brizula
Aphelia cyperoides
Aphelia drummondii
Apium prostratum
Apium prostratum var. filiforme
Apium prostratum var. prostratum
Apodasmia ceramophila ms P2
**Arctotheca calendula* (capeweed)
**Arctotheca populifolia* (dune arctotheca)
Arrhenatherum bulbosum
Asparagus officinalis (asparagus)
Asplenium aethiopicum P4
Asplenium flabellifolium
Asplenium obtusatum R
Astartea aff. fascicularis
Astartea fascicularis
Astartea sp.big bracteoles (A.R.Annels 995)
Astartea sp.Gingalup (N.Gibson & M.Lyons 119)
Astartea sp.Mt Johnston (A.R.Annels 5645) P2
Astartea sp.Scott River (D.Backshall 88233) P4
Astartea sp.wing tips (M.E.Trudgen 12044)
**Aster subulatus* (bushy starwort)
Asteridea pulverulenta
Asterolasia squamuligera
Astroloma baxteri
Astroloma ciliatum
Astroloma drummondii
Astroloma pallidum
Astroloma prostratum
Astroloma sp.Manjimup (R.D.Royce 3978) P4
Atriplex hypoleuca
Austrodanthonia acerosa
Austrodanthonia caespitosa
Austrodanthonia occidentalis
Austrodanthonia pilosa
Austrodanthonia setacea
Austrofestuca pubinervis P1
Austrostipa campylachne
Austrostipa compressa
Austrostipa flavescens
Austrostipa macalpinei
Austrostipa mollis
**Avellinia michelii*
**Avena barbata* (bearded oat)
**Axonopus affinis* (narrow-leaved carpet grass)
Baeckea arbuscula P4
Baeckea camphorosmae
Baeckea crispiflora
Baeckea preissiana
Baeckea pygmaea
Banksia attenuata
Banksia grandis
Banksia ilicifolia
Banksia lemanniana
Banksia littoralis
Banksia occidentalis
Banksia occidentalis subsp. occidentalis
Banksia quercifolia
Banksia seminuda
Banksia verticillata R
**Bartsia trixago* (white bartsia)
Baumea acuta
Baumea articulata
Baumea juncea
Baumea preissii
Baumea preissii subsp. laxa ms
Baumea preissii subsp. preissii ms

Baumea rubiginosa
Baumea vaginalis
Baxteria australis
Beaufortia decussata
Beaufortia empetrifolia
Beaufortia micrantha var. micrantha
Beaufortia sparsa
Billardiera coeruleo-punctata
Billardiera drummondiana
Billardiera floribunda
Billardiera laxiflora
Billardiera parviflora
Billardiera sp.Walpole (A.R.Annels 277)
Billardiera sp.Walpole (A.R.Annels 277) P2
Billardiera variifolia
Boronia alata
Boronia anceps P3
Boronia crenulata
Boronia crenulata subsp. pubescens
Boronia crenulata subsp. pubescens ms
Boronia crenulata var. crenulata
Boronia defoliata
Boronia fastigiata
Boronia fastigiata subsp. tenuior ms
Boronia gracilipes
Boronia heterophylla
Boronia juncea
Boronia juncea subsp. micrantha ms
Boronia juncea subsp. minima ms
Boronia megastigma
Boronia molloyae
Boronia nematophylla
Boronia ramosa
Boronia scabra
Boronia spathulata
Boronia stricta
Boronia subsessilis
Boronia virgata P3
Borya constricta
Borya scirpoidea
Borya sphaerocephala
Bossiaea aquifolium subsp. aquifolium
Bossiaea aquifolium subsp. laidlawiana
Bossiaea aquifolium subsp. laidlawiana
Bossiaea eriocarpa
Bossiaea laidlawiana
Bossiaea linophylla
Bossiaea ornata
Bossiaea praetermissa
Bossiaea rufa
Bossiaea webbii
Brachyloma preissii
Brachyscome ciliaris
Brachyscome iberidifolia
Brachysema melanopetalum
Brachysema praemorsum
Brachysema sericeum
Bracteantha bracteata
**Briza maxima* (blowfly grass, quaking grass)
**Briza minor* (shivery grass, lesser quaking grass)
**Bromus diandrus* (great brome)
**Bromus hordeaceus* (soft brome)
Bulbine semibarbata
Burchardia congesta
Burchardia monantha
Burchardia multiflora
Caesia micrantha
Caesia occidentalis
Caesia parviflora
**Cakile maritima* (sea rocket)
Caladenia abbreviata ms P2
Caladenia applanata subsp. applanata ms
Caladenia arrecta ms P4
Caladenia attingens subsp. attingens ms
Caladenia brownii ms
Caladenia caesarea subsp. transiens ms P2
Caladenia cairnsiana
Caladenia christineae ms R
Caladenia corynephora
Caladenia dilatata
Caladenia ensata
Caladenia ferruginea
Caladenia flava
Caladenia flava subsp. flava ms
Caladenia flava subsp. sylvestris ms
Caladenia gardneri ms
Caladenia georgei ms
Caladenia harringtoniae ms R
Caladenia heberleana ms
Caladenia hirta subsp. hirta ms
Caladenia huegelii R
Caladenia infundibularis
Caladenia interjacens ms P4
Caladenia latifolia
Caladenia lobata
Caladenia longicauda subsp. merrittii ms
Caladenia longiclavata
Caladenia macrostylis
Caladenia magniclavata
Caladenia marginata
Caladenia meridionalis ms
Caladenia nana
Caladenia nana subsp. nana ms
Caladenia nana subsp. unita ms
Caladenia paludosa ms
Caladenia pectinata
Caladenia pendens subsp. pendens ms
Caladenia pholcoidea ms
Caladenia pholcoidea subsp. pholcoidea ms
Caladenia plicata P4
Caladenia radiata
Caladenia reptans subsp. reptans ms
Caladenia serotina ms
Caladenia uliginosa subsp. candicans ms
Caladenia uliginosa subsp. uliginosa ms
Caladenia vulgata ms
Caladenia winfieldii ms R
Calandrinia brevipedata
Calandrinia calyptrata
Calandrinia corrigioloides
Calandrinia granulifera
Calandrinia liniflora
Callistachys lanceolata

Callistemon glaucus
**Callitriche stagnalis* (common starwort)
Calochilus robertsonii
Calothamnus lateralis
Calothamnus lehmannii
Calothamnus sanguineus
Calothamnus schaueri
Calycopeplus oligandrus
Calystegia soldanella
Calytrix acutifolia
Calytrix angulata
Calytrix asperula
Calytrix breviseta
Calytrix flavescens
Calytrix pulchella P3
Calytrix tenuiramea
Calytrix variabilis
**Cardamine hirsuta*
**Carduus pycnocephalus* (slender thistle)
**Carduus tenuiflorus* (sheep thistle)
Carex appressa
Carex fascicularis
Carex preissii
Carpobrotus edulis
Carpobrotus modestus
Carpobrotus virescens
Cartonema philydroides
Cassytha flava
Cassytha glabella
Cassytha micrantha
Cassytha pomiformis
Cassytha racemosa
Cassytha racemosa forma pilosa
Cassytha racemosa forma racemosa
**Centaurea melitensis* (Maltese cockspur)
**Centaurium erythraea* (Common centaury)
**Centaurium spicatum*
**Centaurium tenuiflorum* (slender centaury)
Centella asiatica
Centipeda cunninghamii
Centrolepis aristata
Centrolepis drummondiana
Centrolepis fascicularis
Centrolepis glabra
Centrolepis inconspicua
Centrolepis mutica
Centrolepis pilosa
Centrolepis polygyna
Centrolepis strigosa
Cephalotus follicularis
**Cerastium glomeratum* (mouse-ear chickweed)
Cerastium pumilum
Chaetanthus aristatus ms
Chaetanthus leptocarpoides
Chaetanthus tenellus
**Chamaecytisus palmensis* (tree lucerne, tagasaste)
Chamaescilla corymbosa
Chamaescilla corymbosa var. corymbosa
Chamaescilla corymbosa var. paradoxa
Chamaexeros longicaulis P2
Chamaexeros serra
Chamelaucium floriferum ms
Chamelaucium floriferum subsp. diffusum ms P2
Chamelaucium floriferum subsp. floriferum ms P3
Chamelaucium forrestii subsp. forrestii ms P2
Cheilanthes austrotenuifolia
Cheilanthes sieberi
Cheilanthes sieberi subsp. sieberi
Cheiranthera preissiana
Cheiranthera preissiana var. planifolia
**Chenopodium album* (fat hen)
**Chenopodium glaucum* (oak-leaved goosefoot)
**Chenopodium murale* (green fat hen, nettle-leaved goosefoot)
**Chenopodium pumilio* (goosefoot)
Chordifex amblycoleus ms
Chordifex jacksonii ms P1
Chordifex laxus ms
Chordifex serialis ms
Choretrum lateriflorum
Chorilaena quercifolia
Chorizandra cymbaria
Chorizandra enodis
Chorizema aciculare
Chorizema carinatum P3
Chorizema cordatum
Chorizema diversifolium
Chorizema glycinifolium
Chorizema ilicifolium
Chorizema nanum
Chorizema reticulatum P3
Chorizema retrorsum
Chorizema retrorsum ms
Chorizema rhombeum
**Cirsium arvense* (creeping thistle, California thistle)
**Cirsium vulgare (spear thistle)*
Clematis pubescens
Comesperma calymega
Comesperma ciliatum
Comesperma confertum
Comesperma flavum
Comesperma nudiusculum
Comesperma virgatum
Conospermum caeruleum subsp. spathulatum
Conospermum caeruleum var. caeruleum
Conospermum capitatum subsp. capitatum
Conospermum capitatum subsp. glabratum
Conospermum flexuosum
Conospermum flexuosum subsp. flexuosum
Conospermum flexuosum subsp. laevigatum
Conospermum stoechadis
Conospermum teretifolium
Conostylis aculeata
Conostylis aculeata subsp. aculeata
Conostylis laxiflora
Conostylis pusilla
Conostylis serrulata
Conostylis setigera
Conostylis setigera subsp. setigera
Conothamnus neglectus
**Conyza albida* (tall fleabane)
**Conyza bonariensis* (flaxleaf fleabane)

**Conyza parva*
**Coreopsis grandiflora* (American tickseed)
Corybas abditus
Corybas despectans
Corybas recurvus
Corymbia calophylla
Corymbia ficifolia
Corynotheca micrantha
Corynotheca micrantha var. panda
Cosmelia rubra
Cotula coronopifolia
Craspedia variabilis
Crassula colorata
Crassula colorata var. acuminata
Crassula colorata var. colorata
Crassula decumbens var. decumbens
Crassula exserta
Crassula sieberiana subsp. tetramera
**Crepis capillaris* (smooth hawksbeard)
**Crocosmia x crocosmiiflora 30*
Crowea angustifolia
Crowea angustifolia var. angustifolia
Crowea angustifolia var. dentata
Crowea angustifolia var. platyphylla
Cryptandra arbutiflora
Cryptandra arbutiflora var. arbutiflora
Cryptandra arbutiflora var. pygmaea P1
Cryptandra arbutiflora var. tubulosa
Cryptandra pungens
Cryptostylis ovata
**Cuscuta campestris* (golden dodder)
**Cuscuta epithymum* (lesser dodder)
Cyanicula deformis ms
Cyanicula gemmata ms
Cyanicula sericea ms
Cyathochaeta avenacea
Cyathochaeta clandestina
Cyathochaeta equitans
Cyathochaeta stipoides P3
Cyathochaeta teretifolia P3
**Cynosurus echinatus* (rough dog's tail)
**Cyperus congestus* (dense flat-sedge)
**Cyperus tenellus* (tiny flat-sedge)
Cyrtostylis huegelii
Cyrtostylis robusta
Cyrtostylis tenuissima
**Dactylis glomerata* (cocksfoot)
Dampiera alata
Dampiera hederacea
Dampiera leptoclada
Dampiera linearis
Dampiera pedunculata
Dampiera sacculata
Dampiera trigona
Danthonia caespitosa
Darwinia citriodora
Darwinia oederoides
Darwinia thymoides
Darwinia vestita
Dasypogon bromeliifolius
Dasypogon hookeri
**Datura stramonium* (common thornapple)
Daucus glochidiatus
Daviesia cordata
Daviesia flexuosa
Daviesia horrida
Daviesia incrassata subsp. incrassata
Daviesia inflata
Daviesia preissii
Daviesia rhombifolia
Degelia flabellata P2
Desmocladus fasciculatus ms
Desmocladus flexuosus ms
Deyeuxia inaequalis P1
Deyeuxia quadriseta
Deyeuxia quadriseta var. quadriseta
Dianella brevicaulis
Dianella revoluta
Diaspasis filifolia
Dichelachne crinita
Dichelachne micrantha
Dichondra repens
Dichopogon capillipes
Dillwynia sp.A Perth Flora (R.Coveny 8036)
Dillwynia uncinata var. Capel (R.D.Royce 4853)
Diplolaena drummondii
Diplolaena microcephala
Diplopogon setaceus
**Dischisma arenarium*
**Dittrichia graveolens* (stinkwort)
Diuris amplissima
Diuris drummondii R
Diuris heberlei P2
Diuris laxiflora
Diuris longifolia
Diuris pauciflora
Dodonaea ceratocarpa
Dodonaea viscosa
Dodonaea viscosa subsp. angustissima
Drakaea glyptodon
Drakaea gracilis ms
Drakaea livida
Drakaea micrantha ms R
Drakaea thynniphila
Drakonorchis barbarossa ms
Drosera binata P2
Drosera bulbosa subsp. bulbosa
Drosera callistos
Drosera enodes
Drosera erythrogyne
Drosera erythrorhiza
Drosera erythrorhiza subsp. erythrorhiza
Drosera gigantea
Drosera gigantea subsp. gigantea
Drosera glanduligera
Drosera hamiltonii
Drosera huegelii
Drosera macrantha subsp. macrantha
Drosera menziesii
Drosera menziesii subsp. menziesii
Drosera menziesii subsp. penicillaris
Drosera microphylla
Drosera modesta
Drosera myriantha

Drosera neesii
Drosera neesii subsp. neesii
Drosera pallida
Drosera platypoda
Drosera platystigma
Drosera pulchella
Drosera roseana
Drosera scorpioides
Drosera stolonifera subsp. compacta
Dryandra armata var. armata
Dryandra bipinnatifida
Dryandra bipinnatifida subsp. bipinnatifida
Dryandra formosa
Dryandra lindleyana subsp. sylvestris
Dryandra nana
Dryandra nivea
Dryandra porrecta P4
Dryandra serra P4
Dryandra sessilis
Dryandra sessilis var. cordata P2
Dryandra sessilis var. sessilis
Dryandra squarrosa subsp. squarrosa
**Echinochloa crusgalli* (barnyard grass)
Echinopogon ovatus var. ovatus
**Echium plantagineum* (Paterson's curse, salvation jane)
**Ehrharta calycina* (perennial veldt grass)
**Ehrharta longiflora* (annual veldt grass)
**Ehrharta pusilla*
Elymus scaber
Elythranthera brunonis
Elythranthera emarginata
Empodisma gracillimum
Epiblema grandiflorum var. cyaneum ms R
Epiblema grandiflorum var. grandiflorum
Epiblema grandiflorum var. grandiflorum ms
Epilobium billardierianum subsp. billardierianum
Epilobium billardierianum subsp. cinereum
Epilobium billardierianum subsp. intermedium
Epilobium hirtigerum
Eragrostis brownii
Eragrostis curvula
Eragrostis elongata
Eremaea pauciflora
Eremophila malacoides ms
Eremosyne pectinata
**Erigeron karvinskianus* (wall daisy)
Eriochilus dilatatus
Eriochilus dilatatus subsp. dilatatus ms
Eriochilus dilatatus subsp. magnus ms
Eriochilus dilatatus subsp. multiflorus ms
Eriochilus dilatatus subsp. undulatus ms
Eriochilus helonomos ms
Eriochilus pulchellus ms
Eriochilus scaber subsp. orbifolia ms P1
Eriochilus scaber subsp. scaber ms
Eriochilus tenuis
Eriochilus valens ms
Eriostemon nodiflorus
Eriostemon nodiflorus subsp. lasiocalyx
Eriostemon spicatus
Eryngium pinnatifidum
Eryngium sp.Lake Muir (E.Wittwer 2293) P1
Eucalyptus aspera
Eucalyptus brevistylis P3
Eucalyptus calophylla
Eucalyptus cornuta
Eucalyptus decipiens
Eucalyptus decipiens subsp. chalara
Eucalyptus decipiens subsp. decipiens
Eucalyptus diversicolor
Eucalyptus diversifolia
Eucalyptus guilfoylei
Eucalyptus jacksonii
Eucalyptus marginata
Eucalyptus marginata subsp. marginata
Eucalyptus megacarpa
Eucalyptus obtusa ms
Eucalyptus patens
Eucalyptus phaenophylla subsp. phaenophylla
Eucalyptus rudis
Eucalyptus staeri
Eucalyptus uncinata
Eucalyptus wandoo
Euchilopsis linearis
Euchiton gymnocephalus P3
Euchiton sphaericus
**Euphorbia paralias* (sea spurge)
**Euphorbia peplus* (petty spurge)
Euphrasia collina
Eutaxia cuneata
Eutaxia densifolia
Eutaxia epacridoides
Eutaxia obovata
Eutaxia parvifolia
Eutaxia virgata
Evandra aristata
Exocarpos odoratus
Exocarpos sparteus
**Festuca arundinacea* (tall fescue)
Festuca pubinervis
**Festuca rubra* (red or creeping fescue)
**Foeniculum vulgare* (fennel)
Franklandia fucifolia
Gahnia aristata
Gahnia decomposita
Gahnia lanigera
Gahnia sclerioides P3
Gahnia trifida
Gamochaeta falcata
Gastrodia lacista
Gastrolobium bilobum
Gastrolobium brownii
Gastrolobium forrestii
Gastrolobium glabratum ms P4
Gastrolobium spinosum
Gazania linearis
Genista monspessulana
Genus sp.Shannon (P.G.Wilson 1237B) P1
Geranium retrorsum
Geranium solanderi
**Gladiolus angustus* (long-tubed painted lady)
**Gladiolus carneus*
Glischrocaryon aureum

Glischrocaryon aureum var. angustifolium
Glischrocaryon aureum var. aureum
Glyceria fluitans
Gnaphalium indutum
Gnaphalium purpureum
Gnephosis tenuissima
Gompholobium amplexicaule
Gompholobium burtonioides
Gompholobium capitatum
Gompholobium confertum
Gompholobium marginatum
Gompholobium ovatum
Gompholobium polymorphum
Gompholobium preissii
Gompholobium scabrum
Gompholobium tomentosum
Gompholobium venustum
Gonocarpus benthamii
Gonocarpus benthamii subsp. benthamii ms
Gonocarpus diffusus
Gonocarpus hexandrus
Gonocarpus hexandrus subsp. hexandrus
Gonocarpus hexandrus subsp. integrifolius
Gonocarpus hexandrus subsp. serratus
Gonocarpus paniculatus
Gonocarpus pusillus P3
Gonocarpus simplex P3
Goodenia caerulea
Goodenia claytoniacea
Goodenia eatoniana
Goodenia leptoclada
Goodenia micrantha
Goodenia micrantha
Goodenia pulchella
Goodenia pusilla
Goodia medicaginea
**Grammatotheca bergiana*
Gratiola peruviana
Gratiola pubescens
Grevillea bipinnatifida
Grevillea centristigma
Grevillea cirsiifolia P4
Grevillea diversifolia
Grevillea diversifolia subsp. diversifolia
Grevillea diversifolia subsp. subtersericata
Grevillea leptobotrys
Grevillea manglesioides
Grevillea muelleri
Grevillea occidentalis
Grevillea pulchella
Grevillea pulchella subsp. ascendens
Grevillea pulchella subsp. ascendens ms
Grevillea pulchella subsp. pulchella
Grevillea pulchella subsp. pulchella ms
Grevillea quercifolia
Grevillea ripicola P4
Grevillea trifida
Gymnoschoenus anceps
Gyrostemon sheathii
Haemodorum discolor
Haemodorum laxum
Haemodorum simplex
Haemodorum sparsiflorum
Haemodorum spicatum
Hakea amplexicaulis
Hakea ceratophylla
Hakea cyclocarpa
Hakea falcata
Hakea florida
Hakea lasiantha
Hakea lasianthoides
Hakea linearis
Hakea lissocarpha
Hakea oleifolia
Hakea prostrata
Hakea ruscifolia
Hakea spathulata P3
Hakea sulcata
Hakea trifurcata
Hakea undulata
Hakea varia
Halgania cyanea var. latisepala ms
Haloragis brownii
Haloragodendron racemosum
Hardenbergia comptoniana
Helichrysum macranthum
Heliophila pusilla
Hemarthria uncinata
Hemarthria uncinata var. uncinata
Hemiandra australis ms P2
Hemiandra pungens
Hemigenia incana
Hemigenia microphylla P3
Hemigenia podalyrina
Hemigenia rigida
Hemigenia sericea
Hemigenia sp.Albany (G.J.Keighery 8712)
Hibbertia acerosa
Hibbertia aff. pulchra
Hibbertia amplexicaulis
Hibbertia commutata
Hibbertia cuneiformis
Hibbertia cunninghamii
Hibbertia enervia
Hibbertia ferruginea
Hibbertia furfuracea
Hibbertia glomerata
Hibbertia gracilipes
Hibbertia grossulariifolia
Hibbertia huegelii
Hibbertia hypericoides
Hibbertia inclusa
Hibbertia inconspicua
Hibbertia nymphaea
Hibbertia perfoliata
Hibbertia pilosa
Hibbertia pulchra
Hibbertia quadricolor
Hibbertia racemosa
Hibbertia rhadinopoda
Hibbertia serrata
Hibbertia silvestris P4
Hibbertia sp.hairy sepals (J.R.Wheeler 2464)
Hibbertia sp.rigid bracts (J.R.Wheeler 3220)

Hibbertia stellaris
Hibbertia subvaginata
Hibbertia vaginata
**Holcus lanatus* (Yorkshire fog)
Homalosciadium homalocarpum
Homalospermum firmum
Hovea chorizemifolia
Hovea elliptica
Hovea trisperma
Hyalosperma cotula
Hyalosperma pusillum
Hyalosperma simplex subsp. graniticola
Hyalosperma simplex subsp. simplex
Hybanthus debilissimus
Hybanthus floribundus
Hybanthus floribundus subsp. floribundus
Hybanthus volubilis P2
Hydatella sessilis ms P2
Hydrocotyle alata
Hydrocotyle blepharocarpa
Hydrocotyle callicarpa
Hydrocotyle diantha
Hydrocotyle hirta
Hydrocotyle plebeya
Hydrocotyle puberula ms
Hydrocotyle scutellifera
Hydrocotyle tetragonocarpa
Hypericum japonicum *
**Hypericum perforatum var. "unsorted"* (St John's wort)
Hypocalymma angustifolium
Hypocalymma cordifolium
Hypocalymma ericifolium
Hypocalymma robustum
Hypocalymma scariosum
Hypocalymma sp.Scott River (A.S.George 11773) P4
Hypocalymma strictum
Hypochaeris glabra
Hypolaena exsulca
Hypolaena fastigiata
Hypolaena macrotepala ms
Hypolaena pubescens
Hypolaena ramosissima
Hypolaena viridis ms
Hypolepis dicksonioides
**Hypolepis rugosula*
Hypoxis glabella
Hypoxis occidentalis var. quadriloba
Isoetes australis
Isoetes drummondii
Isolepis cernua
Isolepis cyperoides
Isolepis fluitans
Isolepis inundata
**Isolepis marginata*
Isolepis nodosa
Isolepis oldfieldiana
Isolepis producta
Isolepis prolifera
Isolepis setiformis
Isopogon attenuatus
Isopogon axillaris
Isopogon longifolius
Isopogon sphaerocephalus
Isopogon teretifolius subsp. teretifolius ms
Isotoma hypocrateriformis
Isotoma scapigera
Isotropis cuneifolia
**Ixia maculata* (yellow ixia)
**Ixia polystachya* (variable ixia)
Ixiolaena viscosa
Jacksonia condensata
Jacksonia furcellata
Jacksonia horrida
Jansonia formosa P3
Johnsonia acaulis
Johnsonia lupulina
Juncus amabilis
**Juncus articulatus*
**Juncus bufonius* (road rush)
Juncus caespiticius
**Juncus capitatus*
Juncus gregiflorus
**Juncus holoschoenus*
Juncus kraussii
Juncus kraussii subsp. australiensis
Juncus meianthus ms P2
**Juncus microcephalus*
**Juncus oxycarpus*
Juncus pallidus
Juncus pauciflorus
Juncus planifolius
Juncus subsecundus
Kennedia carinata
Kennedia coccinea
Kennedia glabrata R
Kennedia macrophylla R
Kennedia prostrata
Kingia australis
Kunzea ericifolia subsp. ericifolia
Kunzea glabrescens
Kunzea micrantha
Kunzea micrantha subsp. hirtiflora
Kunzea micrantha subsp. oligandra
Kunzea recurva
Kunzea rostrata
Kunzea spathulata
Kunzea sulphurea
Labichea punctata
Lagenifera huegelii
Lagurus ovatus
Lambertia rariflora subsp. lutea P3
Lasiopetalum cordifolium subsp. cordifolium
Lasiopetalum floribundum
**Lathyrus latifolius*
**Lathyrus tingitanus* (Tangier pea)
Latrobea diosmifolia
Latrobea genistoides
Latrobea tenella var. tenella
**Lavandula stoechas* (topped lavender, Spanish lavender)
Laxmannia minor
Laxmannia sessiliflora subsp. australis

Laxmannia squarrosa
Lechenaultia biloba
Lechenaultia expansa
**Lepidium bonariense* (peppercress)
Lepidium rotundum
Lepidosperma aff. gracile
Lepidosperma angustatum
Lepidosperma effusum
Lepidosperma gladiatum
Lepidosperma gracile
Lepidosperma leptostachyum
Lepidosperma longitudinale
Lepidosperma persecans
Lepidosperma pubisquameum
Lepidosperma scabrum
Lepidosperma squamatum
Lepidosperma squamatum
Lepidosperma striatum
Lepidosperma tenue
Lepidosperma tetraquetrum
Lepidosperma tuberculatum
Lepidosperma viscidum
Lepilaena preissii
Leporella fimbriata
Leptinella drummondii P2
Leptocarpus aff. tenax
Leptocarpus crassipes
Leptocarpus diffusus ms
Leptocarpus elegans ms
Leptocarpus kraussii ms
Leptocarpus ramosissimus ms
Leptocarpus roycei ms
Leptocarpus scariosus
Leptocarpus tenax
Leptocarpus tephrinus ms
Leptoceras menziesii
Leptomeria cunninghamii
Leptomeria ellytes ms
Leptomeria scrobiculata
Leptomeria squarrulosa
Leptorhynchos scaber
Leptospermum erubescens
Lepyrodia drummondiana
Lepyrodia hermaphrodita
Lepyrodia monoica
Lepyrodia muirii
Leucophyta brownii
Leucopogon aff. australis
Leucopogon aff. propinquus
Leucopogon alternifolius
Leucopogon australis
Leucopogon capitellatus
Leucopogon cordatus
Leucopogon corifolius
Leucopogon cymbiformis
Leucopogon distans
Leucopogon distans subsp. contractus ms
Leucopogon distans subsp. distans
Leucopogon distans subsp. distans ms
Leucopogon distans var. distans
Leucopogon elatior
Leucopogon gibbosus
Leucopogon gilbertii
Leucopogon glabellus
Leucopogon gracillimus
Leucopogon hirsutus
Leucopogon nutans
Leucopogon obovatus
Leucopogon oxycedrus
Leucopogon parviflorus
Leucopogon pendulus
Leucopogon polystachyus P2
Leucopogon propinquus
Leucopogon pulchellus
Leucopogon racemulosus
Leucopogon reflexus
Leucopogon revolutus
Leucopogon sp.Denmark (J.M.Powell 1167)
Leucopogon squarrosus
Leucopogon tamariscinus P2
Leucopogon tenuicaulis ms
Leucopogon unilateralis
Leucopogon verticillatus
Levenhookia dubia
Levenhookia preissii
Levenhookia pusilla
Lilaeopsis polyantha P2
**Limonium companyonis* (blue mist)
Limosella australis
Lindsaea linearis
**Linum marginale*
**Linum trigynum* (French flax)
Lobelia alata
Lobelia gibbosa
Lobelia heterophylla
Lobelia rhombifolia
Lobelia tenuior
Logania aff. serpyllifolia
Logania campanulata
Logania serpyllifolia
Logania serpyllifolia subsp. angustifolia
Logania serpyllifolia subsp. serpyllifolia
Logania tortuosa
Logania vaginalis
**Lolium perenne* (perennial ryegrass)
**Lolium rigidum (annual ryegrass)*
**Lolium temulentum forma arvense* (darnel)
Lomandra brittanii
Lomandra caespitosa
Lomandra drummondii
Lomandra hastilis
Lomandra hermaphrodita
Lomandra integra
Lomandra micrantha
Lomandra nigricans
Lomandra nutans
Lomandra odora
Lomandra ordii P3
Lomandra pauciflora
Lomandra preissii
Lomandra purpurea
Lomandra sericea
Lomandra sonderi
Lomandra suaveolens

**Lotus angustissimus* (slender birdsfoot trefoil)
**Lotus suaveolens* (hairy birdsfoot trefoil)
**Lotus uliginosus* (greatrbirdsfoot trefoil)
Loxocarya cinerea
Loxocarya flexuosa
Lupinus angustifolius
**Lupinus luteus*
Luzula densiflora
Luzula meridionalis
Lycopodiella serpentina
Lyginia barbata
Lyperanthus serratus
Lysinema ciliatum
Lysinema ciliatum forma Mt Barren (E.& S.Pignatti 1409)
Lysinema ciliatum forma Perth-Bunbury sands (J.W.Green 351)
Lysinema ciliatum forma S.W.Coastal (N.G.Marchant 71/719)
Lysinema conspicuum
Lysinema lasianthum P2
**Lythrum hyssopifolia* (lesser loosestrife)
Macarthuria apetala
Macrozamia riedlei
Marianthus coeruleo-punctatus
Marianthus erubescens
**Medicago arabica* (spotted medic)
**Medicago polymorpha* (burr medic)
Meeboldina coangustata ms
Meeboldina crassipes ms P3
Meeboldina decipiens subsp. depilata ms
Meeboldina denmarkica
Meeboldina kraussii ms
Meeboldina roycei ms
Meeboldina scariosa ms
Meeboldina sp.white (C.A.Gardner s.n.)
Meeboldina tephrina ms
Meeboldina thysanantha ms P3
Melaleuca acerosa
Melaleuca basicephala P4
Melaleuca bracteosa
Melaleuca croxfordiae ms
Melaleuca cuticularis
Melaleuca densa
Melaleuca diosmifolia P3
Melaleuca globifera
Melaleuca incana subsp. incana
Melaleuca incana subsp. incana ms
Melaleuca lateritia
Melaleuca micromera P3
Melaleuca microphylla
Melaleuca pauciflora
Melaleuca preissiana
Melaleuca rhaphiophylla
Melaleuca ringens P2
Melaleuca spathulata
Melaleuca striata
Melaleuca thymoides
Melaleuca viminea
Melaleuca viminea subsp. "unsorted"
Melaleuca viminea subsp. demissa ms
Melaleuca viminea subsp. viminea
Melaleuca violacea
Melanostachya ustulata ms
Melilotus indicus
**Mentha pulegium* (pennyroyal)
**Mentha spicata* (spearmint)
Mentha suaveolens
**Mentha x piperita* (eau de Cologne)
Mesomelaena graciliceps
Mesomelaena preissii
Mesomelaena stygia
Mesomelaena tetragona
Meziella trifida R
Microcorys obovata
Microlaena stipoides
Microlaena stipoides var. stipoides
Microtis alba
Microtis atrata
Microtis brownii
Microtis globula R
Microtis media
Microtis media subsp. densiflora
Microtis media subsp. media
Microtis media subsp. quadrata P4
Microtis orbicularis
Microtis pulchella P4
Microtis unifolia
Millotia myosotidifolia
Millotia tenuifolia
Millotia tenuifolia var. tenuifolia
Mirbelia dilatata
**Modiola caroliniana* (red-flowered mallow)
**Moenchia erecta* (erect chickweed)
**Monadenia bracteata* (South African orchid)
**Monopsis debilis*
Monotaxis occidentalis
Monotoca tamariscina
**Muehlenbeckia adpressa* (maidenhair creeper, wire vine)
Myoporum oppositifolium
Myoporum tetrandrum
Myosotis australis
Myriocephalus helichrysoides
Myriophyllum crispatum
Myriophyllum drummondii
Myriophyllum salsugineum
Najas marina
Needhamiella pumilio
Nemcia coriacea
Neurachne alopecuroidea
Notodanthonia caespitosa
Nuytsia floribunda
**Oenothera glazioviana* (tall evening primrose)
**Oenothera stricta subsp. stricta* (evening primrose)
Olax benthamiana
Olax phyllanthi
Olearia aff. paucidentata
Olearia axillaris
Olearia cassiniae
Olearia dampieri subsp. eremicola ms
Olearia elaeophila
Olearia heliophila

Olearia paucidentata
Olearia ramosissima
Opercularia apiciflora
Opercularia apiciflora
Opercularia hispidula
Opercularia vaginata
Opercularia volubilis
Ophioglossum lusitanicum
Ornithopus compressus
Ornithopus pinnatus
**Orobanche minor* (lesser broomerape)
Orthrosanthus laxus
Orthrosanthus polystachyus
**Ottelia ovalifolia* (swamp lily)
**Oxalis corniculata* (yellow wood sorrel, creeping olaxis)
Oxylobium lineare
Ozothamnus cordatus
Ozothamnus ramosus
**Panicum miliaceum* (common millet)
Paracaleana linearifolia ms
Paracaleana nigrita
Paracaleana triens ms
Paraserianthes lophantha
Paraserianthes lophantha subsp. lophantha
**Parentucellia latifolia* (red bartsia, common bartsia)
**Parentucellia viscosa* (sticky bartsia)
Parietaria debilis
**Paspalum dilatatum* (paspalum)
**Paspalum urvillei* (Vasey grass)
**Paspalum vaginatum* (saltwater couch)
Patersonia babianoides
Patersonia juncea
Patersonia occidentalis
Patersonia pygmaea
Patersonia sp.Swamp Form (N.Gibson & M.Lyons 544)
Patersonia umbrosa
Patersonia umbrosa var. "unsorted"
Patersonia umbrosa var. umbrosa
Patersonia umbrosa var. xanthina
Pelargonium australe
Pelargonium australe subsp. drummondii ms
**Pelargonium capitatum* (rose pelargonium)
Pelargonium littorale
Pelargonium littorale subsp. littorale
Pentapeltis silvatica
Pericalymma crassipes
Pericalymma ellipticum var. ellipticum ms
Pericalymma ellipticum var. floridum ms
Pericalymma spongiocaule ms
Persicaria decipiens
Persicaria hydropiper
Persicaria prostrata
Persoonia elliptica
Persoonia graminea
Persoonia hakeiformis P2
Persoonia longifolia
Persoonia saccata
Petrophile acicularis
Petrophile diversifolia
Petrophile linearis
Petrophile longifolia
Petrophile media
Petrophile rigida
Petrophile serruriae
Petrophile squamata subsp. squamata
Petrorhagia velutina
**Phalaris aquatica* (phalaris)
**Phalaris canariensis* (canary grass)
Phebalium anceps
Philydrella drummondii
Philydrella pygmaea
Phlebocarya ciliata
Phleum pratense
Phyllangium divergens
Phyllangium paradoxum
Phyllangium paradoxum ms
Phyllanthus calycinus
Phylloglossum drummondii
Phyllota barbata
Picris angustifolia
Picris angustifolia subsp. angustifolia
Pilularia novae-hollandiae
Pimelea angustifolia
Pimelea argentea
Pimelea ciliata subsp. ciliata
Pimelea clavata
Pimelea cracens subsp. cracens
Pimelea cracens subsp. glabra
Pimelea ferruginea
Pimelea hispida
Pimelea imbricata
Pimelea imbricata var. imbricata
Pimelea imbricata var. piligera
Pimelea lanata
Pimelea longiflora
Pimelea longiflora subsp. longiflora
Pimelea preissii
Pimelea rosea
Pimelea rosea subsp. rosea
Pimelea spectabilis
Pimelea suaveolens subsp. suaveolens
Pimelea sulphurea
Pimelea sylvestris
Pithocarpa pulchella var. melanostigma ms
**Plantago lanceolata* (ribwort)
**Plantago major* (great plantain)
Platychorda applanata ms
Platysace compressa
Platysace filiformis
Platysace pendula
Platysace tenuissima
Platytheca galioides
**Poa annua* (winter grass)
Poa drummondiana
Poa homomalla
Poa poiformis
Poa porphyroclados
Poa pratensis
Poa serpentum
**Podalyria sericea*
Podocarpus drouynianus

Podolepis gracilis
Podolepis lessonii
Podolepis rugata
Podotheca angustifolia
Podotheca chrysantha
**Polygala myrtifolia* (myrtle-leafed milkweed)
**Polygonum arenastrum* (sand wireweed)
**Polypogon monspeliensis* (annual barbgrass)
Polypogon tenellus
Poranthera huegelii
Poranthera microphylla
Potamogeton drummondii
Potamogeton ochreatus
Potamogeton pectinatus
Praecoxanthus aphyllus ms
Prasophyllum brownii
Prasophyllum cucullatum
Prasophyllum cyphochilum
Prasophyllum drummondii
Prasophyllum elatum
Prasophyllum fimbria
Prasophyllum gibbosum
Prasophyllum gracile
Prasophyllum hians
Prasophyllum macrostachyum
Prasophyllum odoratissimum
Prasophyllum parvifolium
Prasophyllum plumiforme
Prasophyllum regium
Prasophyllum triangulare
**Prunella vulgaris* (self heal)
**Pseudognaphalium luteoalbum* (Jersey Cudweed)
**Psoralea pinnata* (taylorina)
**Pteridium esculentum* (bracken)
Pterochaeta paniculata
Pterostylis aff. nana
Pterostylis aspera
Pterostylis barbata
Pterostylis dilatata
Pterostylis recurva
Pterostylis rogersii
Pterostylis rogersii var.
Pterostylis turfosa P1
Pterostylis vittata
Ptilotus manglesii
Ptilotus sericostachyus subsp. sericostachyus
Pultenaea aspalathoides
Pultenaea ochreata
Pultenaea pinifolia P3
Pultenaea reticulata
Pultenaea tenuifolia
Pultenaea verruculosa
Pyrorchis forrestii
Pyrorchis nigricans
Quinetia urvillei
Ranunculus amphitrichus
Ranunculus colonorum
**Ranunculus muricatus* (sharp buttercup)
Ranunculus sessiliflorus
**Raphanus raphanistrum* (wild radish)
Reedia spathacea P4
Regelia ciliata
**Reseda luteola* (wild mignonette)
Restio applanatus
Restio cracens ms
Restio ustulatus
Rhagodia baccata
Rhagodia baccata subsp. baccata
Rhodanthe citrina
Ricinocarpos glaucus
Romulea rosea
Rorippa dictyosperma P2
**Rorippa nasturtium-aquaticum* (watercress)
**Rosa canina* (dog rose)
**Rosa rubiginosa* (sweet briar)
Rubus aff. selmeri
**Rubus discolor*
**Rubus ulmifolius*
Rulingia corylifolia
Rulingia cygnorum
Rulingia grandiflora
**Rumex brownii* (swamp dock)
**Rumex conglomeratus* (clustered dock)
**Rumex crispus* (curled dock)
**Rumex obtusifolius subsp. obtusifolius* (broadleaf dock)
**Rumex pulcher subsp. divaricatus* (fiddle dock)
Ruppia polycarpa
**Sagina apetala* (common pearlwort)
**Sagina procumbens* (spreading peralwort)
Samolus junceus
Samolus repens
Sarcocornia blackiana
Scaevola auriculata
Scaevola calliptera
Scaevola crassifolia
Scaevola glandulifera
Scaevola globulifera
Scaevola lanceolata
Scaevola microphylla
Scaevola nitida
Scaevola striata
Scaevola striata var. "unsorted"
Scaevola striata var. striata
Schizaea fistulosa
Schizaea rupestris P2
Schoenolaena juncea
Schoenolaena juncea
Schoenoplectus pungens
Schoenus acuminatus
Schoenus asperocarpus
Schoenus bifidus
Schoenus brevisetis
Schoenus caespititius
Schoenus cruentus
Schoenus curvifolius
Schoenus discifer
Schoenus efoliatus
Schoenus fluitans P2
Schoenus grandiflorus
Schoenus laevigatus
Schoenus maschalinus
Schoenus multiglumis

Schoenus nanus
Schoenus nitens
Schoenus obtusifolius
Schoenus pedicellatus
Schoenus sp.Bullsbrook(J.J.Alford 915) P2
Schoenus subbarbatus
Schoenus subbulbosus
Schoenus subfascicularis
Schoenus subflavus
Schoenus sublateralis
Schoenus sublaxus
Schoenus submicrostachyus
Schoenus tenellus
Schoenus trachycarpus
Schoenus unispiculatus
Schoenus variicellae
Selaginella gracillima
**Senecio diaschides*
Senecio elegans
Senecio glomeratus
Senecio hispidulus
Senecio hispidulus var. hispidulus
**Senecio jacobaea* (ragwort)
**Senecio lautus (variable groundsel)*
**Senecio lautus subsp. dissectifolius*
**Senecio lautus subsp. maritimus*
Senecio minimus
Senecio quadridentatus
Senecio ramosissimus
Sequoia sempervirens
**Setaria verticillata* (whorled pigeon grass)
**Sherardia arvensis* (field madder)
Sida hookeriana
**Sigesbeckia orientalis* (Indian weed)
**Silene gallica var. gallica* (French catchfly)
**Silene gallica var. quinquevulnera*
Siloxerus filifolius
Siloxerus humifusus
Sisymbrium officinale
**Solanum americanum* (glossy nightshade)
**Solanum laciniatum* (kangaroo apple)
**Solanum nigrum* (black berry nightshade)
Sollya drummondii P2
Sollya heterophylla
**Sonchus asper* (prickly sowthistle)
**Sonchus asper subsp. glaucescens*
**Sonchus oleraceus* (sowthistle)
Sorghum halepense
Sowerbaea laxiflora
**Sparaxis pillansii* (harlequin flower)
**Spergula arvensis* (corn spurrey)
Sphaerolobium alatum
Sphaerolobium daviesioides
Sphaerolobium fornicatum
Sphaerolobium grandiflorum
Sphaerolobium linophyllum
Sphaerolobium macranthum
Sphaerolobium medium
Sphaerolobium nudiflorum
Sphaerolobium pubescens ms
Sphaerolobium rostratum ms
Sphaerolobium vimineum
**Sphaeropteris cooperi* (rough tree fern)
Sphagnum molliculum P2
Sphenotoma capitatum
Sphenotoma drummondii R
Sphenotoma gracile
Sphenotoma gracile
Sphenotoma parviflorum P3
Sphenotoma squarrosum
Spinifex hirsutus
Sporadanthus rivularis ms P3
Sporadanthus strictus ms
**Sporobolus indicus var. capensis* (Parramatta grass, rat's tails)
Sporobolus virginicus
Spyridium globulosum
Stackhousia monogyna
Stackhousia pubescens
Stellaria media
Stenopetalum robustum
Stenotalis ramosissima
Stipa tenuifolia
Stirlingia divaricatissima P1
Stirlingia seselifolia
Stirlingia tenuifolia
Strangea stenocarpoides
Stylidium adnatum
Stylidium adnatum var. adnatum
Stylidium affine
Stylidium amoenum
Stylidium assimile
Stylidium breviscapum
Stylidium breviscapum var. breviscapum
Stylidium brunonianum
Stylidium brunonianum subsp. brunonianum
Stylidium caespitosum
Stylidium calcaratum
Stylidium caricifolium
Stylidium caricifolium subsp. affine
Stylidium ciliatum
Stylidium crassifolium
Stylidium crassifolium subsp. crassifolium
Stylidium despectum
Stylidium diversifolium
Stylidium ecorne
Stylidium falcatum
Stylidium fasciculatum
Stylidium glaucum
Stylidium glaucum subsp. angustifolium
Stylidium glaucum subsp. glaucum
Stylidium guttatum
Stylidium imbricatum
Stylidium inundatum
Stylidium junceum
Stylidium junceum subsp. brevius
Stylidium laciniatum
Stylidium leeuwinense ms P3
Stylidium luteum
Stylidium luteum subsp. glaucifolium
Stylidium mimeticum P3
Stylidium perpusillum
Stylidium petiolare
Stylidium piliferum

Stylidium piliferum subsp. minor
Stylidium preissii
Stylidium pritzelianum
Stylidium pulchellum
Stylidium pygmaeum
Stylidium repens
Stylidium rhipidium P1
Stylidium rhynchocarpum
Stylidium roseo-alatum
Stylidium rupestre
Stylidium scandens
Stylidium schoenoides
Stylidium spathulatum
Stylidium spathulatum subsp. acuminatum
Stylidium spathulatum subsp. spathulatum
Stylidium spinulosum
Stylidium spinulosum subsp. spinulosum
Stylidium squamosotuberosum
Stylidium uniflorum
Stylidium violaceum
Stypandra glauca
Styphelia tenuiflora
Sutherlandia frutescens
Synaphea decumbens P1
Synaphea favosa
Synaphea floribunda
Synaphea gracillima
Synaphea obtusata
Synaphea otiostigma P1
Synaphea petiolaris
Synaphea petiolaris subsp. petiolaris
Synaphea petiolaris subsp. triloba
Synaphea reticulata
Synaphea whicherensis P3
Taraxis glaucescens ms
Taraxis grossa
Taraxis grossa ms
Templetonia retusa
Tetragonia decumbens
Tetragonia implexicoma
Tetraria capillaris
Tetraria octandra
Tetrarrhena laevis
Tetratheca affinis
Tetratheca filiformis
Tetratheca hirsuta
Tetratheca hispidissima
Tetratheca setigera
Tetratheca virgata
Thelymitra aff. holmesii
Thelymitra antennifera
Thelymitra benthamiana
Thelymitra canaliculata
Thelymitra cornicina
Thelymitra crinita
Thelymitra cucullata
Thelymitra flexuosa
Thelymitra fuscolutea
Thelymitra jacksonii ms P3
Thelymitra nuda
Thelymitra spiralis
Thelymitra tigrina
Thelymitra villosa
Thomasia brachystachys P1
Thomasia foliosa
Thomasia grandiflora
Thomasia heterophylla ms
Thomasia paniculata
Thomasia pauciflora
Thomasia purpurea
Thomasia quercifolia P2
Thomasia rhynchocarpa
Thomasia sp.Big Brook(M.Koch 2373)
Thomasia stelligera
Thomasia triloba P1
Thryptomene hyporhytis
Thysanotus arenarius
Thysanotus dichotomus
Thysanotus gracilis
Thysanotus manglesianus
Thysanotus multiflorus
Thysanotus patersonii
Thysanotus pseudojunceus
Thysanotus sparteus
Thysanotus spiniger
Thysanotus tenellus
Thysanotus thyrsoideus
Thysanotus triandrus
**Trachyandra divaricata 22*
Trachymene anisocarpa P2
Trachymene pilosa
Trachymene sp.Walpole(A.S.George 15063)
Tremandra diffusa
Tremandra stelligera
Tremulina cracens ms
Tremulina tremula ms
**Tribolium uniolae*
Tribonanthes australis
Tribonanthes brachypetala
Tribonanthes longipetala
Tribonanthes violacea
Trichocline spathulata
Tricoryne elatior
Tricoryne humilis
Tricostularia neesii
Tricostularia neesii var. elatior
Tricostularia neesii var. neesii
**Trifolium campestre var. campestre* (hop clover)
**Trifolium cernuum* (drooping flowered clover)
**Trifolium dubium* (suckling clover)
**Trifolium subterraneum* (sub-clover, subterranean clover)
**Trifolium suffocatum* (suffocated clover)
Triglochin centrocarpum
Triglochin huegelii
Triglochin lineare
Triglochin mucronatum
Triglochin striatum
Triglochin trichophorum
Tripterococcus brunonis
Trithuria bibracteata
Trithuria submersa
Trymalium floribundum
Trymalium floribundum subsp. floribundum

Trymalium floribundum subsp. trifidum
Trymalium ledifolium var. rosmarinifolium
Trymalium venustum
**Typha domingensis* (yanget)
Tyrbastes glaucescens ms P4
Utricularia australis
Utricularia benthamii
Utricularia inaequalis
Utricularia menziesii
Utricularia multifida
Utricularia simplex
Utricularia tenella
Utricularia violacea
Utricularia volubilis
**Vaccaria hispanica* (cowcockle)
Velleia macrophylla
Velleia trinervis
**Vellereophyton dealbatum* (white cudweed)
**Verbascum virgatum* (green mullein, twiggy mullein)
**Verbena bonariensis* (purple top)
Veronica calycina
Veronica distans
**Veronica persica* (creeping speedwell)
Veronica plebeia
Veronica plebeia
Verticordia densiflora
Verticordia densiflora var. cespitosa
Verticordia densiflora var. densiflora
Verticordia densiflora var. pedunculata R
Verticordia endlicheriana var. angustifolia P2
Verticordia fimbrilepis subsp. australis R
Verticordia habrantha
Verticordia lehmannii P4
Verticordia lindleyi subsp. purpurea P4
Verticordia pennigera
Verticordia plumosa
Verticordia plumosa var. brachyphylla
Verticordia plumosa var. plumosa
**Vicia benghalensis* (purple vetch)
**Vicia sativa* (common vetch)
Villarsia albiflora
Villarsia lasiosperma
Villarsia latifolia
Villarsia parnassifolia
Villarsia submersa P4
Villarsia violifolia
Viminaria juncea
Vinca major
**Vulpia bromoides* (squirrel's tail fescue)
**Vulpia fasciculata* (sand fescue)
**Vulpia myuros* (silver grass, rat's tail fescue)
**Vulpia myuros var. myuros*
**Wahlenbergia capensis* (cape bluebell)
Wahlenbergia communis
Wahlenbergia gracilenta
Wahlenbergia littoricola
Wahlenbergia multicaulis
Waitzia suaveolens
Waitzia suaveolens var. suaveolens
**Watsonia meriana var. bulbillifera*
Westringia dampieri
Wilsonia backhousei
Wurmbea cernua
Wurmbea dioica subsp. alba
Wurmbea monantha
Wurmbea sinora
Wurmbea tenella
**Xanthium occidentale* (noongoora burr)
Xanthorrhoea gracilis
Xanthorrhoea preissii
Xanthosia atkinsoniana
Xanthosia candida
Xanthosia huegelii
Xanthosia huegelii subsp. southern(G.J.Keighery 2165)
Xanthosia peduncularis P3
Xanthosia pusilla
Xanthosia rotundifolia
Xanthosia rotundifolia var. rotundifolia
Xanthosia sp.Dardanup(B.J.Keighery & N.Gibson 1
Xanthosia sp.Warren(A.R.Annels 1265)
Xylomelum occidentale
Xyris flexifolia
Xyris indivisa
Xyris lacera
Xyris lanata
Xyris laxiflora
Xyris roycei