ASSESSMENT OF THE CONSERVATION VALUE

OF ROADSIDE VEGETATION

IN THE SHIRE OF SERPENTINE–JARRAHDALE, W.A.

Falls Road,Serpentine.

Roadside Conservation Committee

CONTENTS

ASSESSMENT OF THE CONSERVATION VALUE OF ROADSIDE VEGETATION IN THE SHIRE OF SERPENTINE-JARRAHDALE, WESTERN AUSTRALIA

1. INTRODUCTION

Alteration of original native vegetation into productive farmland in Western Australia has been a continual process since the time of original settlement.

The Shire of Serpentine-Jarrahdale is fortunate in that extensive areas of remnant native rural holdings vegetation are still present. This includes State Forest and National Park. Many contain remnant patches as well as some areas of high conservation value along roadsides.

These areas form a mosaic in which conservation of wildlife is integrated with farming to form a productive and uniquely Australian landscape. Roadside reserves are an essential element of this network, as they function as corridors enabling movement of animals - especially small birds - across the landscape. They are also an important seed source for regeneration projects - especially of shrubs, since grazing beneath farm trees often removes this layer. A well conserved roadside helps with erosion and salinity control and is less of a fire threat than one dominated by annual weeds. Roadside vegetation contributes greatly to the attractiveness of the countryside, as it forms the windowframe through which visitors and residents alike view the landscape.

2. ASSESSMENT PROCESS

2.1 Method

The method followed is that developed by the Roadside Conservation Committee and designed to be carried out by volunteers. Its aim is to produce a conservation score which will rate each road as having high, medium or low conservation value. This information can then be used by the road manager to choose appropriate management techniques for the roadsides.

Appendix 1 shows the field data sheet. Each road was divided into as many sections as the assessor decided were reasonably uniform. A data sheet was completed for each section.

2.2 Field Work

The Shire of Serpentine-Jarrahdale, recognising the value of surveying the conservation values of road reserves opted to contract the roadside survey rather than the usual practice of using volunteers. Ms J MacKinnon undertook the fieldwork and 458.7km were surveyed. This equates to 917.4km of road verge as each side of the roads within the Shire of Serpentine-Jarrahdale were inspected between 1/12/90 and 12/7/91.

The survey covered a total of 163 roads, broken down into 592 sections. No roads under MRD control or in town sites within the shire were surveyed.

2.3 Scoring

Scoring is shown on the field sheet, (Appendix 1).

Attributes scored:

- native vegetation on roadside
- extent of native vegetation along length of roadside
- number of different native species
- weeds
- value as a biological corridor
- predominant adjoining land use

Each of the above attributes can score to a maximum of 2, giving total scores in a range from 0-12. These are ranked into the following categories:

12 - 9 high conservation value
8 - 5 medium conservation value
4 - 0 low conservation value

The following attributes were noted but not scored:

- width of road reserve
- width of vegetated roadside
- presence of utilities/disturbances
- conservation value (visual assessment)
- landscape value
- avenue of trees

3. RESULTS

3.1 Field Survey

The results obtained from the field survey indicate that more than 1/3 of the road sides have sections of high conservation value. Medium conservation values were present in more than 1/2 of the roads surveyed. Table 1 below summarises the values found to be present on the surveyed roads. Table 2, pp 3-9 provides an overview of the assessed high conservation sections of roads.

3.2 Field Data Sheets

The field data sheets are retained at the office of the Roadside Conservation Committee, PO Box 104, Como. Duplicate copies will be supplied to the Shire of Serpentine-Jarrahdale on request.

3.2 Field Data Sheets

TABLE 1

CONSERVATION VALUE	NUMBER OF SECTIONS WITH AT LEAST ONE SIDE OF ROAD WITH THIS VALUE	TOTAL LENGTH OF SECTIONS WITH AT LEAST ONE SIDE OF ROAD WITH THIS VALUE	% OF SURVEY (458.7KM) BY LENGTH	NO. ROADS WITH AT LEAST ONE SECTION HAVING THIS VALUE
High	194	163.5km	35.6%	72
Medium	275	253.1km	55.2%	106
Low	329	196.1km	42.8%	118

3.4 TABLE 2 HIGH CONSERVATION ROADS IN THE SHIRE OF SERPENTINE-JARRAHDALE.

ROAD NAME AND ROAD NUMBER	DIRECTION OF TRAVEL	SECTION START & FINISH POINTS	CONSERVATION VALUE SCORE(S)	LENGTH (KM)	WIDTH(S) OF ROADSIDE RESERVE	REMARKS
ADMIRAL RD 143	S	Start: North Rd/ Nth Shire Boundary Finish:	L.H.S. 10 R.H.S.	1.2	L.H.S R.H.S.	
	S	S: 1.5 km from Nth Shire Boundary F: NETTELETON RD	L. 10-11 R. 7-11	1.6	L. 5-20m R. <5m to 5-20m	
ANKETELL RD 186	W	S: THOMAS RD F:	L. 9 R.	1.7	L. <5m R. <5m	
	W	S: 2.08km from Thomas Rd F: TUART RD	L. 9 R. 9	0.65	L. <5m R. <5m	
ATKINS RD 86	E	S: CHESTNUT RD F: HARRIS RD	L. 10 R. 10	0.5	L. R. 5-20m	JARRAH FOREST
BALMORAL RD 83	SE	S: Ronan Rd F: MILLARS LOG RD (POW CAMP)	L. 10-11 R. 10	10.7	L. 5-20m R. 5-20m	JARRAH FOREST
BARGE DRV 232	S	S: Nettleton Rd F:	L. 9-10 R. 8-10	0.78	L. R.	
BARRATT CL 316	E	S: FOXTON DRV F:	L. R. 9	0.27	L. <5m R. <5m	
BISHOPS RD 12	E	S: KARGOTICH RD F:	L. 9-10 R.	3.46	L. <5m R. <5m	
	E	S: F: SOLDIERS RD	L. 9 R. 9		L. <5m R. <5m	
BOOMERANG RD 55	W	S: 1.23 km West of King Rd F:	L. 9 R.	0.5	L. 5-20m R. 5-20m	
CARDUP SIDING RD 145	W	S: SW HWAY F: SOLDIERS RD	L. R. 9	0.4	L. <5m R. <5m	
	W	S: 1km West of Soldiers Rd F:	L. 10 R. 10	0.6	L. <5m R. <5m	
CASURINA RD ?	N	S: MORTIMER RD F:	L. 10 R. 10	0.5	L. 5-20m R. 5-20m	
	N	S: LAVERLY RD F: ORTON RD	L. 10 R.	1.5	L. 5-20m R. 5-20m	
CHATFIELD RD 125	E	S: SW HWAY F: SERPENTINE NATIONAL PARK	L. 10 R. 10	0.4	L. 5-20m R. >20m	
CHESTNUT RD 47	SW	S: ATKINS RD F: PRIVATE PROPERTY	L. 1-11 R. 10	1.5	L. <5 and >20m R. <5m	JARRAH FOREST

TABLE 2 HIGH CONSERVATION ROADS IN THE SHIRE OF SERPENTINE-JARRAHDALE (CONT'D)

ROAD NAME AND ROAD NUMBER	DIRECTION OF TRAVEL	SECTION START & FINISH POINTS	CONSERVATION VALUE SCORE(S)	LENGTH (KM)	WIDTH(S) OF ROADSIDE RESERVE	REMARKS
CUMMING RD 178	S	Start: .7km South of Thomas Rd Finish:	L.H.S. **9** R.H.S.	0.41	L.H.S. 5-20m L.H.S. 5-20m	
ELLIOT RD 16	W	S: SW HWAY F: WESTCOTT RD	L. **4-9** R. **6-10**	3.4	L. <5 to >20m R. <5m	
	W	S: 1.5km West of Westcott Rd F:	L. **5-9** R. **9-10**	0.8	L. <5m R. 5-20m	
	W	S: YANGEDI RD F:	L. **9** R. **9**	0.6	L. 5-20m R. 5-20m	
FALLS RD 20	E	S: F: FALLS NATIONAL PARK	L. **8** R. **9**	0.32	L. >20m R. <5m	
FEAST RD 71	E	S: F: SW HWAY	L. **10** R.	1.45	L. 5-20m R. 5-20m	
GOBBY RD 56	W	S: SCARP RD F: SW HWAY	L. **7-10** R. **7-11**	5.1	L. <5 to >20m R. 5-20 to >20m	
GOSSAGE RD 10		S: 3.6km West of Kargotich F:	L. **7** R. **9**	0.2	L. 5-20m R. 5-20m	
GULL ST 50	W	S: .6km W Hall Rd F:	L. **9-10** R. **9**	1.2	L. <5m R. <5m	
	W	S: 1.6km West of Walker Rd F:	L. **9** R. **9**	0.5	L. <5m R. <5m	
HALL RD 19	S	S: SERPENTINE RIVER F: .8km South of Karnup Rd	L. **4-11** R. **4-10**	2	L. 5-20 and >20m R. <5 and >20m	
	S	S: 2.4km South of Karnup Rd F:	L. R. **9**	0.5	L. >20m R. <5m	
HARDEY ST 31	S	S: TONKIN RD F: .5km S of Leslie St	L. **9** R. **11**	0.7	L. <5 to 5-20m R. >20m	
	S	S: 1.8km S of Leslie St F:	L. **9** R. **9**	0.3	L. 5-20m R. >20m	
HENDERSON RD 32	W	S: F: RIVER RD	L. **9** R. **9**	0.62	L. <5m R. <5m	

TABLE 2 HIGH CONSERVATION ROADS IN THE SHIRE OF SERPENTINE-JARRAHDALE (CONT'D)

ROAD NAME AND ROAD NUMBER	DIRECTION OF TRAVEL	SECTION START & FINISH POINTS	CONSERVATION VALUE SCORE(S)	LENGTH (KM)	WIDTH(S) OF ROADSIDE RESERVE	REMARKS
HOPELANDS RD 17	S	Start: ROWE RD Finish:	L.H.S. 9 R.H.S. 10	1.4	L.H.S. <5m R.H.S. <5 to 5-20m	
	S	S: .5km South of Karnup Rd F:	L. R. 9 6 and 9	2.5	L. <5m R. <5m	
	S	S: 2.8km South of Karnup Rd F:	L. R. 9		L. <5m R. <5m	
	S	S: 6.2km South of Karnup Rd F:	L. R. s=9	0.6	L. 5-20m R. <5m	
HOPKINSON RD 13	N	S: GOSSAGE RD F:	L. 11 R.	1	L. <5m R. <5m	
	N	S: 1.8 km North of Cardup Siding Rd F:	L. 9-10 R.	4.5	L. <5 to 5-20m R. <5 to 5-20m	
JACKSON RD 279	E	S: 1.4km West of Bird Rd F:	L. 9 R. 10	0.8	L. <5m R. 5-20m	
JARRAH ST 67	W	S: PUNRACK RD F:	L. 9-10 R. 8-10	1.1	L. 5-20m R. 5-20m	
JARRAHDALE RD 2	SE	S: JUBB RD F: NETTLETON RD	L. 1-10 R. 8-10	3.1	L. 5-20m R. <5 to 5-20m	
KARNUP RD 7	W	S: 2.2km West Richardson Rd F:	L. 10 R.	0.2	L. 5-20m R. <5m	
	W	S: RAPIDS RD F: PUNRAK RD	L. 9-11 R.	1.2	L. >20m R. <5m	
KING RD 26	N	S: F: THOMAS RD	L. 9 R.	1.5	L. <5m R. <5m	
KINGSBURY DRV ?	W	S: SCARP RD F:	L. 10 R. 10	3.5	L. R.	
LEIPOLD RD 23	E	S: F: KARGOTICH RD	L. 10 R.	1	L. <5m R. 5-20m	
LEWIS RD 60	E	S: F: MCKAY DVE	L. R. 11	0.5	L. 5-20m R. 5-20m	
LIGHTBODY RD 38	S	S: 1.52km South Mundijong Rd F:	L. 9 R. 9	3.03	L. <5 to 5-20m R. 5-20m	
LOWLANDS RD 72	W	S: .6km West Wright Rd F:	L. 6-9 R. 9	2	L. <5 to 5-20m R. <5 to 5-20m	

TABLE 2 HIGH CONSERVATION ROADS IN THE SHIRE OF SERPENTINE-JARRAHDALE (CONT'D)

ROAD NAME AND ROAD NUMBER	DIRECTION OF TRAVEL	SECTION START & FINISH POINTS	CONSERVATION VALUE SCORE(S)	LENGTH (KM)	WIDTH(S) OF ROADSIDE RESERVE	REMARKS
LYSTER RD 48	E	S: NETTLETON RD F:	L. **10** R. **9-10**	2.28	L. ? R. <5 to >20m	
MANJEDAL DRIVE 169	SW	Start: NETTLETON RD Finish: MANJEDAL	L.H.S. **11** R.H.S. **10**	1.73	L.H.S. 5-20 and>20m R.H.S. ?	
MANNING ST 65	N	S: KARNUP RD F:	L. **9-10** R. **9-10**	1.7	L. 5-20m R. 5-20m	
MEAD ST 160	E	S: WARRLINGTON RD F:	L. **8-9** R. **10-11**	0.69	L. <5m R. 5-20m	
MILLARS LOG RD 205	E	S: BALMORAL RD POW CAMP F:	L. **10** R. **10**	8.6	L. 5-20m R. 5-20m	
MUNDIJONG 4	W	S: KARGOTICH RD F: KING RD	L. **9-11** R. **6-9**	4.3	L. 5-20 and >20m R. <5 to >20m	
	W	S: MILLARD DRAIN RHS F: DUCKPOND RD	L. **9** R. **9**	0.5	L. 5-20m R. >20m	
NETTLETON RD 6	E	S: .7km East S/W HWay F:	L. **9** R.	0.6	L. <5m R. <5m	
	E	S: .5km East of Road to Brickworks F: MANJEDAL DR	L. **7-11** R. **4-11**	7.4	L. <5 to >20m R. <5m + 1 occurance of 5-20m	JARRAH FOREST, TREES REMOVED LHS (SEC),
	S	S: 2.1km South Manjedal Drv F: JARRAHDALE RD	L. **2-10** R. **7-10**	6.6	L. <5m R. <5m	Watsonia Present SOME PLANTING OF NON-INDIGENOUS NATIVES JARRAH FOREST,FEW BLACKBOYS
NORMAN RD 46	W	S: SW HWAY F: SOLDIERS RD	L. **10** R. **9-11**	1.79	L. <5m R. <5m	
NORTON RD 137	E	S: F: CASURINA RD	L. R. **9**	0	L. <5m R. <5m	
	E	S: .35km East of Cumming Rd F:	L. **9** R. **9**	0.6	L. R. <5m	
	E	S: KARGOTICH RD F: HOPKINSON RD	L. **9** R.	1.9	L. 5-20m R. <5m	WATSONIA RHS
	E	S: F: DOYLE RD	L. R. **10**	0.2	L. <5m R. <5m	
PAGE RD 34	W	S: SW HWAY F: ATKINS RD	L. **9** R. **9**	0.8	L. 5-20m R. 5-20m	

TABLE 2 HIGH CONSERVATION ROADS IN THE SHIRE OF SERPENTINE-JARRAHDALE (CONT'D)

ROAD NAME AND ROAD NUMBER	DIRECTION OF TRAVEL	SECTION START & FINISH POINTS	CONSERVATION VALUE SCORE(S)	LENGTH (KM)	WIDTH(S) OF ROADSIDE RESERVE	REMARKS
PATERSON 126	N	S: LIVESEY ST F: KEIRNAN ST	L. R. 11	1	L. R. 5-20m >20m	
PHILLIPS RD 162	E	S: NETTLETON RD F:	L. 11 R. 10-11	1.5	L. <5m R. <5 and >20m	
PINEBROOK RD 163	W	Start: SW HWAY Finish:	L.H.S. 11 R.H.S. 11	0.3	L.H.S. 5-20m R.H.S 5-20m	
PUNRAK RD 25	S	S: KARNUP RD F:	L. 9-11 R. 2-9	0.4	L. >20m R. <5m	
	SW	S: 3.1km SW of Hopelands Rd F: YANGEDI RD	L. 9 R.	2.1	L. 5-20m R. <5m	
RAPIDS RD 14	S	S: 1.7km South Karnup Rd F:	L. 10 R. 10	0.5	L. <5m R. <5m	
RICHARDSON ST 117	N	S: TONKIN ST F: WELLARD ST	L. 10 R.	0.2	L. >20m R. <5m	WATSONIA
RIVER RD 39	S	S: F: HENDERSON RD	L. R. 9	0.4	L. <5m R. <5m	
ROBERTSON RD 76	S	S: F: NORMAN RD	L. 5-9 R. 9-11	1.3	L. <5 and >20m R. <5 and >20m	
ROWE RD 49	W	S: Rapids Rd F:	L. R. 9	1.28	L. 5-20m R. 5-20m	
	W	S: F: HOPELANDS RD	L. 8-9 R. 9	1.4	L. 5-20m R. 5-20m	
SCARP RD 37	NE	S: KINGSBURY DRIVE F:	L. 10 R. 3 -10	5.8	L. R.	
	S	S: F: GOBBY RD	L. 10 R. 10	1.3	L. R.	
SCRIVINER RD 29	E	S: SERP NAT PARK F: SCARP RD	L. 10-11 R. 10-11	5.21	L. R.	ACACIA HORRIDULA PRESENT
SELKIRK RD 58	E	S: SW HWAY F:	L. 11 R. 11	0.31	L. <5m R. <5m	
	E	S: F: PRIVATE PROPERTY	L. 9 R. 9	0.61	L. 5-20m R. <5m	

TABLE 2 HIGH CONSERVATION ROADS IN THE SHIRE OF SERPENTINE-JARRAHDALE (CONT'D)

ROAD NAME AND ROAD NUMBER	DIRECTION OF TRAVEL	SECTION START & FINISH POINTS	CONSERVATION VALUE SCORE(S)	LENGTH (KM)	WIDTH(S) OF ROADSIDE RESERVE	REMARKS
SOLDIERS RD 132	S	S: MEAD ST F: 1.7km South KARBRO DR	L. **8-11** R. **1-10**	5.45	L. >20m R. 5-20m	
	S	S: F: KEIRNAN RD	L. **10-11** R. **9-11**	0.8	L. >20m R. <5 and >20m	
SUMMERFIELD RD 18	W	S: F: LIVINGSTON RD	L. R. **9**	0.41	L. <5m R. <5m	
TAYLOR RD 62	S	S: F: KEIRNAN ST	L. R. **9**	0.92	L. <5m R. 5-20m	
THOMAS RD 200	W	Start: PEVERETT RD Finish: NICHOLSON RD	L.H.S. R.H.S. **9**	1.2	L.H.S. <5m R.H.S. <5m	
	W	S: F: KING RD	L. R. **10**	1.1	L. <5 to 5-20m R. >20m	
TRANSIT RD 53	E	S: SW HWAY F:	L. **9** R. **11**	0.92	L. 5-20m R. 5-20m	
TUART RD 188	N	S: THOMAS RD F:	L. **9** R.	0.41	L. 5-20m R. 5-20m	
	N	S: F: ANKETELL RD	L. **9** R.	0.6	L. 5-20m R. 5-20m	
TULLOCH WAY 247	E	S: 0.2km East of Masters Rd F:	L. R. **9**	0.2	L. 5-20m R. 5-20m	
TURNER RD 325	E	S: WARRLINGTON RD F: SOLDIERS RD	L. **10** R.	1.11	L. 5-20m R. <5m	
UTLEY RD 30	W	S: HALL RD F:	L. **9** R. **9**	2.8	L. <5m R. <5m	
	W	S: 4.6km West Hall Rd F:	L. **9** R. **9**	0.5	L. <5m R. <5m	
	W	S: 6.2km West Hall Rd F:	L. **10** R. **9**	0.3	L. <5m R. <5m	
WARRINGTON RD 165	N	S: F: MEAD ST	L. R. **10**	0.4	L. <5m	
WATKINS RD 3	W	S: F: ROMAN RD	L. R. **9**	0.3	L. 5-20m R. 5-20m	
WATTLE RD 52	W	S: 0.5km West Hall Rd F:	L. **9-11** R.	1.6	L. 5-20m R. <5 to 5-20m	

TABLE 2 HIGH CONSERVATION ROADS IN THE SHIRE OF SERPENTINE-JARRAHDALE.

ROAD NAME AND ROAD NUMBER	DIRECTION OF TRAVEL	SECTION START & FINISH POINTS	CONSERVATION VALUE SCORE(S)	LENGTH (KM)	WIDTH(S) OF ROADSIDE RESERVE	REMARKS
WEBB RD 78	S	S: MUNDIGONG RD F:	L. **9** R. **9**	0.48	L. 5-20m R. 5-20m	
WRIGHT RD 5	S	S: WATKINS RD F:	L. R. **10**	2.92	L. 5-20m R. >20m	
YANGEDI RD NORTH 42	S	S: 2.48km South Karnup Rd F:	L. R. **9**	0.2	L. 5-20m R. 5-20m	
	S	S: F: 2.98km South Karnup Rd	L. **8-9** R. **8-9**	1.5	L. <5m R. <5m	
YANGEDI SOUTH RD 209	S	S: 3.3km South Punrack Rd F:	L. **9** R.	1.4	L. 5-20m R. <5m	

4. MAPPING

A 1:50,000 MRD computer drawn G.I.S. map for the Shire of Serpentine-Jarrahdale shows the roads assessed in this survey. the map consists of a base and four overlays containing the following information.

4.1 Base Map

This shows the shire roads and cadastral information on block boundaries. The width of the road reserve is indicated by the thickness of the road line.

Road Reserve	Line
20m	thin (standard)
40m	medium
60m	thick

4.2 Overlays (See accompanying GIS maps)

The three overlays contain aspects of the data gathered on an individual section. (See Appendix 1). The information is indicated by colour coded lines offset from the central road line. Overlays for any aspect of the survey can be produced on request.

Overlay 1: Conservation Value

The three conservation categories (high, medium and low) are coded as follows:

SCORE	CATEGORY	COLOUR CODE
12-9	High	Green
8-5	Medium	Blue
4-0	Low	Red

Overlay 2: Adjoining Land Use and Value as a Biological Corridor

Adjoining landuse is indicated by an offset colour coded line adjacent to road line. The categories are high (totally cleared land increasing the importance of the roadside reserve), low (good native bush taking the emphasis off the roadside reserve in conservation value) and medium (most other uses).

TYPE	CATEGORY	COLOUR CODE
Totally Cleared	High	Green
	Medium	Blue
Virgin Bush	Low	Red

In addition, if the section has been assessed as having a high corridor value between remnants then this is indicated by a green line offset again from the adjoining land use information.

Overlay 3: Weeds

Scoring for weed infestation:

TYPE	CATEGORY	COLOUR CODE
Few or No Weeds	High	Green
Medium Weed Infestation	Medium	Blue
High Weed Infestation	Low	Red

5. MANAGEMENT GUIDELINES FOR CONSERVATION PURPOSES

Appendix 2 contains a detailed discussion of the Shire roads, and guidelines for suggested management techniques which retain and enhance the roadside conservation value.

These guidelines are taken from documents drawn up by the Roadside Conservation Committee.

- Roadside Manual
- Guidelines for the clearing and maintenance of roadside vegetation.

Copies of these have been supplied to the Shire, but further copies may be obtained from the RCC on request.

5.1 Conservation in The Shire of Serpentine-Jarrahdale

A number of conservation reserves exist within the Shire of Serpentine-Jarrahdale. See Table 3. There are also many tracts of remnant vegetation in State Forests, Water Catchment areas, Nature Reserves, National Parks and private property. The vegetation on the road reserves acts as a corridor linking these areas together. Without the vegetation on road reserves the areas would remain as 'islands', much to the detriment of the biota present.

Do not turn road machinery at locations where roadside flora is well conserved.

TABLE 3 CONSERVATION RESERVES IN THE SHIRE OF SERPENTINE-JARRAHDALE

NO.	NAME	AREA	CLASS	PURPOSE	VESTING
19740	Bartram Nature Reserve	58.0749	C	Cons Flora & Fauna	NPNCA
39825	Serpentine National Park	3727.5	A	National Park	NPNCA
28862	Serpentine National Park	635.0976	A	National Park	NPNCA
8445	unnamed CALM other reserve	.9962	C	Education purposes	NPNCA
2457	unnamed nature reserve Cardup Siding	70.6991	A	Cons Flora & Fauna	NPNCA
21569	unnamed CALM nature reserve	27.4	C	Recreation	NPNCA
28167	unnamed nature reserve	32.9616	A	Flora/Fauna	NPNCA
36063	Strange Rd Nature Reserve	553.2381	A	Cons Flora & Fauna	NPNCA
36742	Brookton Highway Nature Reserve	403.00	A	Cons Flora & Fauna	NPNCA
39826	Monadonacks Conservation Reserve	15417.8750	A	Conservation	NPNCA
23012	Off Wright Rd	27.4177	C	Conservation of Flora	
25886	Modong Nature Reserve	155.9037	A	Cons Flora & Fauna	NPNCA
32202	unnamed	302.00	C	Con Flora & Fauna	
32352	Lamkin Reserve	1.7553	C	Preservation of Flora	Shire of Serp-Jar
36433	unnamed Wattle Road	0.9667	C	Conservation of Flora	Shire of Serp-Jar
2220	unnamed	-	C	Protection of indigenous flora	Shire of Serp-Jar
1866	unnamed	-	C	Protection of indigenous flora	Shire of Serp-Jar
6168	unnamed	-	C	Recreation & Parkland	Shire of Serp-Jar

6. SPECIAL ENVIRONMENTAL AREAS

A "Special Environmental Area" is a section of roadside which is of such great significance that it should be treated with special care when road and utility service construction or maintenance is undertaken.

Some reasons for designating a Special Environmental Area would include:

- populations of rare or endangered plants
- vegetation of special scientific, conservation or aesthetic significance
- Aboriginal or European cultural sites

6.1 Rare and Priority Flora Species

A number of declared rare and priority flora have been recorded within the Shire of Serpentine and Jarrahdale, i.e. *Acacia horridula, Acacia oncinophylla* subsp. *oncinophylla, Anthotium junciform, Eryngium pinnatifida* subsp. *'palustris', Grevillea glabrata* subsp. *ornithopoda, Lasiopetalum glabratum, Verticordia plumosa* var. *anaeotes* and *Verticordia plumosa* var. *pleiobotrya*

Where these species are known to occur, e.g. *Acacia horridula*, on road reserves they are marked to advise road maintenance personnel of their presence.

7. LANDSCAPE VALUE

7.1 Tree Roads

An avenue of mature trees contributes substantially to the attractriveness of a landscape, framing the view and forming a tunnel effect over the road. In addition, the trees are attractive in themselves.

Trees take many years to reach full stature, so that if an avenue is destroyed, the effect can scarcely be reproduced within a lifetime.

Many trees also contain hollows which are important nest sites for certain birds. It has been calculated that it takes up to 100 years for Marri and Wandoo to develop hollows, so the importance of mature trees to maintaining the bird population is very clear.

Figure 5 below is a list of "Tree Roads" as determined by the assessors. Usually, avenues only occur on short sections along these roads.

7.2 TABLE 5 EXAMPLES OF TREE ROADS IN THE SHIRE OF SERPENTINE-JARRAHDALE

Road No.	Road Name
133	Abernathy Road
248	Delta Court
191	Holmes Road
206	Peters Way
207	Craig Hill Way
130	Kiln Road
87	Walker Street
28	Westcott Road

8. ACKNOWLEDGEMENTS

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Compiled by Gerard Conlon and David Lamont.

February 1992

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
shrub layer	☐	1
ground layer	☐	1

Max = 2

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
Flowering shrubs for nectar-feeding animals	☐	1
Large trees with hollows for birds nests	☐	1
Hollow logs	☐	1

Max = 2

FAUNA OBSERVED

_____

_____

PREDOMINANT ADJOINING LAND USE

Agricultural crop or pasture:-

• completely cleared	☐	2
• scattered trees/shrubs	☐	1
Uncleared land	☐	0
Plantation of non-native trees	☐	1
Urban or Industrial	☐	2
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

MANAGEMENT GUIDELINES

The primary aim of road management is the creation and maintenance of a safe, efficient road system. The following conservation guidelines should be considered in association with the abovementioned aims.

1. HIGH CONSERVATION VALUE ROADSIDES (CCV SCORE = 9-12)

Seventy two roads have at least one section with one or both sides of high conservation value. 195 sections have a total length of 163.5km or 35.6% of the roads surveyed (see Table 1).

The greatest number of these roads are in the eastern/Darling Scarp section at the shire and pass through State forest or reserves. Fewer and smaller sections of high conservation roads are dotted through the more populated sand plains to the west of the South West Highway. These sections have a higher intrinsic conservation value due to their isolation and role as a remnant vegetation.

Examples of such roads include:

Lightbody Road, Soldiers Road, Manning Road, Rowe Road, Anketell Road, Bishop Road, Norman Road.

Roads with sections of high conservation value are shown in Table 2 pp 3-9.

Management Goal

To maintain the indigenous plant communities.

Guidelines for Achieving this Goal

1. Minimise disturbance to existing vegetation

(In narrow strips, disturbance leads to weed invasion which:

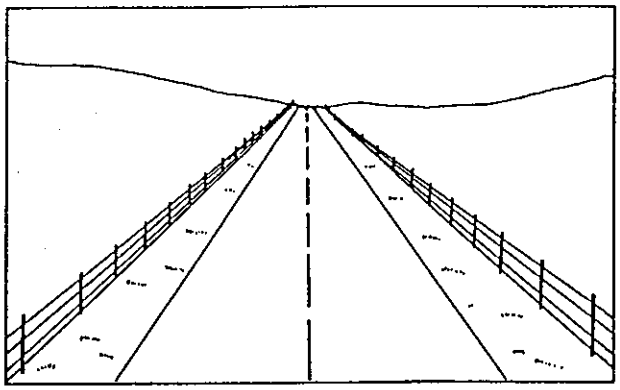
- downgrades the conservation value
- increases the fire threat)

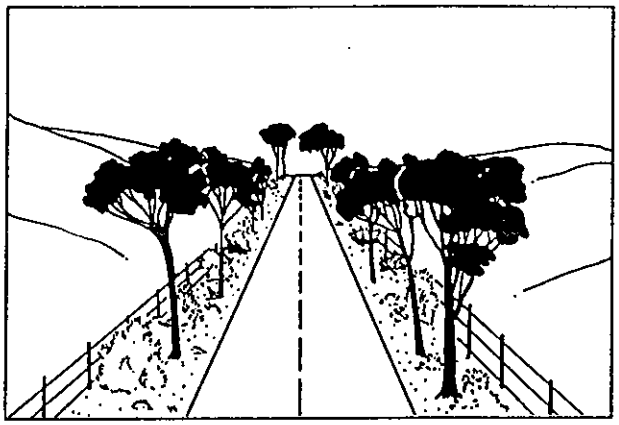
This can be done by:

- adopting a road design that occupies the minimum space.
- diverting the line of a table drain to avoid disturbing valuable flora.
- prune overhanging branches, rather than removing the whole tree or shrub.
- do not turn or park machinery over well conserved flora.
- avoid windrowing soil beyond the backslope.
- do not dump soil on well conserved flora.
- observe dieback control measures if appropriate.
- use methods other than preventative burning to reduce fire threat.
- if roadside burning must be undertaken, it should not be repeated within 7 years.
- encourage adjacent landholders to set back fences to allow vegetation to spread and thicken.
- encourage adjacent landholders to plant windbreaks or farm tree lots adjacent to roadside vegetation to create a thicker belt.

It is especially important not to disturb vegetation on sandy soil, as weeds such as wild oats and veldt and love grass soon take over loose sandy soils.

Watsonia spp. are of specific concern within the Shire of Serpentine-Jarrahdale and control must be ongoing if it is to be contained





2. MEDIUM CONSERVATION VALUE ROADSIDES
CCV SCORE 5-8

One hundred and six roads had at least one side of one section falling into this category. There were 275 sections of road covering 253km or 55.2% of the roads surveyed making it the largest category - slightly ahead of low conservation value (4-0) (see Table 1).

Management Goal

To maintain indigenous vegetation wherever possible and to encourage its regeneration

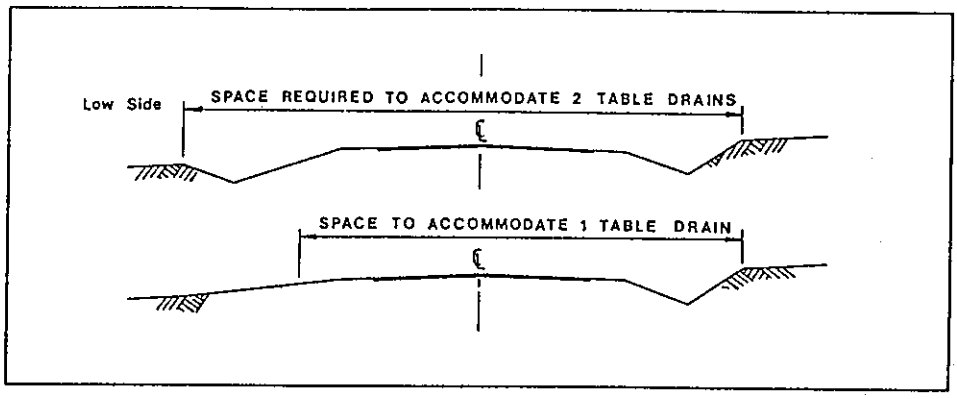
Guidelines for Achieving this Goal

As for high value roadsides, disturbance of areas with good native plant cover should be minimised.

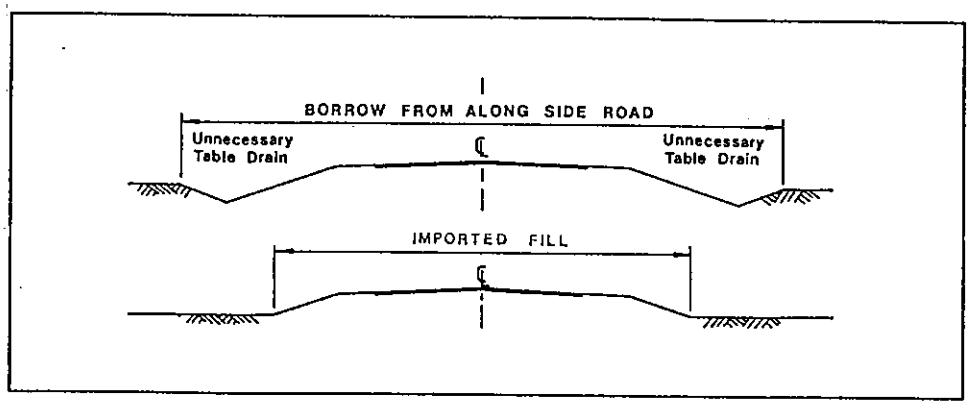
Conservation should be given to weed eradication programmes, combined with reseeding/replanting local species.

Many of these roadsides have the potential to increase in value greatly with sympathetic management

Construction of a table drain on the lower side of the road should be avoided.



Import fill for embankment to avoid side borrow from alongside the road.



3. Low Conservation Value Roadsides CCV Score 0-4

Many of these road sections occur where the surrounding land has been long cleared, leaving only a few remnant trees and shrubs on the roadside.

In some cases, the landholder has totally cleared the roadside when erecting a new fence, leaving only weeds or an occasional tree to regenerate.

Management Goals

1. Retain remnant trees and shrubs and encourage their regeneration.
2. Encourage revegetation projects using indigenous plants.

Management Guidelines

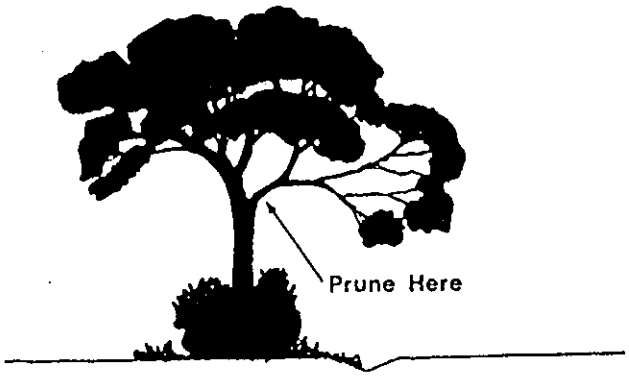
- Minimise soil disturbance to reduce weed invasion.
- Encourage revegetation projects by adjacent landholders.

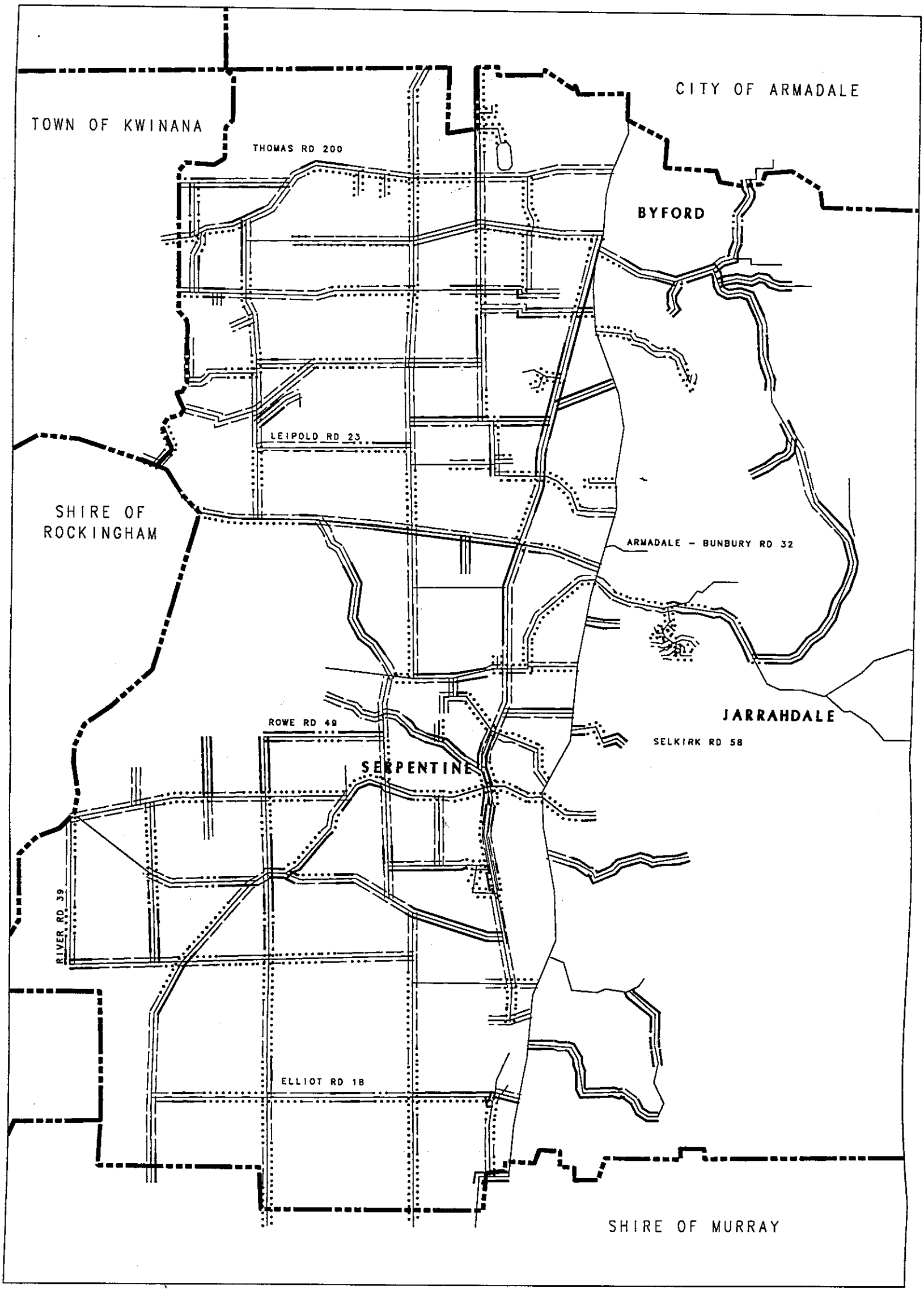
MANAGEMENT OF "TREE ROADS"

Since mature trees are so slow growing and hard to replace, care should be taken to preserve these avenues wherever possible.

- prune offending branches rather than remove the whole tree.
- divert line of table drain to avoid disturbing tree roots.
- import fill to build up formation, rather than using side-borrow from roadside.
- if using herbicide for grass control on the road shoulders, do not use a soil residual type, as some Eucalypts are especially sensitive to these.
- encourage the adjoining landholder to plant tree belts on his property that will complement the roadside trees.

Prune offending branches rather than remove the whole tree. Cut branches off close to limb or tree trunk.





FEB 1992

LEGEND

- LOW C.C.V. TOTAL < 5
- MEDIUM 4 < C.C.V. TOTAL < 9
- HIGH C.C.V. TOTAL > 8
- ROAD CENTRELINE
- L.G.A. BOUNDARY

ROADSIDE CONSERVATION VALUE

ROADSIDE CONSERVATION COMMITTEE
SHIRE OF SERPENTINE - JARRAHDALE

SURVEY AND MAPPING DIVISION
MAIN ROADS DEPARTMENT