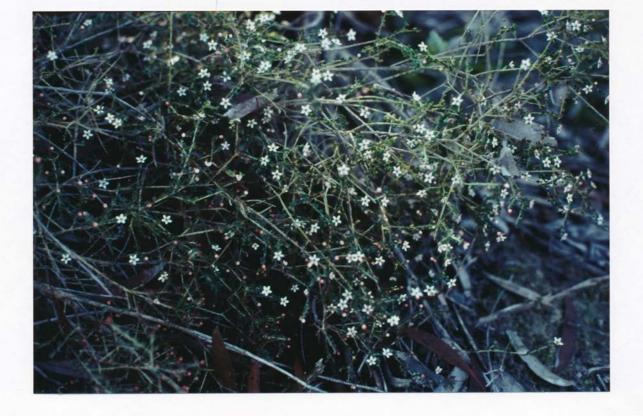
THREATENED PLANT SPECIES ON ROADSIDES: KANGAROO ISLAND, SOUTH AUSTRALIA



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RESOURCE MANAGEMENT BRANCH DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

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Cover: *Olearia microdisca*, Kangaroo Island's most endangered plant. This Kangaroo Island endemic is totally confined to roadside vegetation, with the exception of three populations on private land, and one at Kingscote aerodrome.

Title page: Phebalium equestre in roadside vegetation along Three Chain Road.

This page: Bridal creeper threatening a plant of *Acacia* sp. nov. aff. *halliana*, a wattle which is endangered and only known from roadside vegetation on Kangaroo Island.

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Roadside vegetation along Moores Road, bulldozed in mid 1993. A population of the nationally endangered dwarf shrub, *Phebalium equestre*, declined from 193 plants in 1989, to 20 plants in 1996 following this bulldozing. (Photo: M. Jusaitis)

SUMMARY

A total of 85 kms of roadsides was surveyed on foot, covering 14 roads. Twenty plant species of significance were documented along these roadsides including five nationally threatened species and eight species threatened on Kangaroo Island. Of particular importance was the discovery of 300 plants of the nationally endangered *Pultenaea insularis* on Hundred Line Road, Moores Road, Hall Road and Wheatons Road, this representing half the world's population of the species.

Significant, new populations of the nationally vulnerable *Spyridium eriocephalum* var *glabrisepalum* were also located, along with significant new populations of *Acacia acinacea* and *Eutaxia microphylla* var. *diffusa*, both of which are endangered on Kangaroo Island and largely confined to roadside vegetation on the Island.

Data from previous studies, the DENR Threatened Plant Population Database, and Adelaide Herbarium collections were accessed to determine the locations of threatened plant species for the area of Kangaroo Island not surveyed during the current study.

One hundred and forty-three roadside "Sites of Significance" were defined based on the presence of threatened species. These were mapped and described. It is recommended that these "sites" be marked with road markers, in accordance with recommendations made by the "Mount Lofty Ranges Road Marker Working Group".

A number of previously documented roadside populations of threatened species were observed to have decline. Notably, a population of nationally endangered *Phebalium equestre* alongside Moores Road declined from 193 plants in 1989, to 20 plants in 1996 following extensive bulldozing in 1993.

The most serious and widespread weeds on Kangaroo Island roadsides were found to be bridal creeper (*Myrsiphyllum asparagoides*), bridal veil (*Myrsiphyllum declinatum*), and perennial veldt grass (*Ehrharta calycina*), with Soursob (*Oxalis pes-caprae*) and phalaris (*Phalaris aquatica*) being equally serious but presently more localised. Thirty of the forty-seven roadside sites of significance surveyed during the current project had bridal creeper, four had bridal veil, twenty-six perennial veldt grass, ten soursob and fourteen had phalaris. These weeds are the highest priority for control on roadsides.

Invasion by these weeds has been greatly enhanced by the bulldozing or burning of roadside vegetation. All appear to have been spread along roadsides by the movement of contaminated soil during grading or bulldozing, and the dumping of contaminated soil into relatively undisturbed roadside native vegetation.

Due to the risk of spreading weeds, no dumping of soil in or adjacent to roadside vegetation should be undertaken. Road building material should only be stored in areas containing **no** native vegetation. Areas regenerating from past disturbance should not be used. Before grading occurs alongside high priority roadside "Sites of Significance", all mud should be washed off the grader, to ensure that no new weeds (eg Soursob) are introduced to these sites.

Where branches and foliage need to be removed from roadside "Sites of Significance" to maintain minimum adequate safety clearance, it is recommended that either a radial-arm docking saw, a hydro-axe or chainsaws be used as described below. Bulldozers should not be used at any of these sites due to the risk of introducing new weeds. Only chainsaws should be used at sites containing *Olearia microdisca*.

Priority roadside "Sites of Significance" for weed control have been determined based on the numbers of threatened species, the sizes of populations, and the degree of threat. Highest priority roads are Willsons Road, Barretts Road, Hundred Line Road, Three Chain Road and Hog Bay Road.

Within these priority "Sites", locations containing the greatest numbers of the most threatened species should be weeded first. At these locations, the five priority weeds described above should be removed first, and priority should be given to carefully removing weeds from around threatened species. Once this has been done, weeds should be removed from surrounding roadside vegetation, beginning at where the weed invasion is lightest. Only once the serious weeds have been removed from these areas, should one move to more heavily weed invaded areas.

Where possible, control of weeds should be by manual digging or hand pulling. These methods should be used where infestations are very localised and where weeds are growing in very close proximity to a significant species. Where infestations are too extensive or numerous, spot spraying should be undertaken taking care to cover adjacent native plants with plastic sheeting. Recommended rates of application are given in Robertson (1994)(see reference list).

Burning to facilitate the regeneration of successional threatened plant species should always involve an experienced field botanist and have the permission of the Resource Management Branch of the Department of Environment & Natural Resources, and the CFS. Such burning should be undertaken only over very localised areas (eg five metres x five metres), should be followed up by the intensive removal of weeds for the first few years, and be undertaken at no greater frequency than every twelve years.

The most extensive and least degraded roadside examples of the threatened plant community *Eucalyptus cneorifolia-Eucalyptus "anceps"* open-scrub were found on Min Oil Road and Willsons Road (east of Hundred Line Road), with more degraded by still significant examples on Wallers Road, Red Bank Road (west of Min Oil Road), and Gum Creek Road.

Significant examples of the endangered plant community *Eucalyptus cneorifolia-Eucalyptus rugosa* open-scrub over *Rhagodia candolleana* were observed on Emu Bay Road, Springs Road, the start of North Cape Road, and the eastern end of North Coast Road.

These roads are high priority for weed control.



The nationally vulnerable dwarf shrub, Beyeria subtecta, uprooted during roadworks on Willsons Road.

INTRODUCTION

Kangaroo Island is a goldmine for botanists and other nature lovers. At least thirty-seven species or subspecies of plants are endemic to Kangaroo Island, that is they occur nowhere else in the world (Lang & Kraehenbuehl 1987). This puts Kangaroo Island in very strong position when it comes to luring the increasing numbers of tourists interested in unique eco-tourism experiences.

Fortunately many of these plants are well conserved in Flinders Chase National Park and other parks on the western end of the island. However, a number are poorly conserved in parks and are threatened.

Of all the plant species occurring on Kangaroo Island, 81 are threatened on the Island (ie vulnerable or endangered). While many of these are more common on mainland South Australia or interstate, 33 of these species are threatened at the state level, and 14 are threatened nationally. Of the 81 species that are threatened at least on Kangaroo Island, over half are not conserved in any National Park and Wildlife Service park or Heritage Agreement area (Lang & Kraehenbuehl, 1996). The conservation of these species on roadsides is particularly critical.

Roadside vegetation on Kangaroo Island is of great importance for both biodiversity and economic reasons. This particularly applies to north eastern Kangaroo Island where vegetation clearance on private land has been most extensive, and where many significant plant species are largely confined to roadsides.

Particularly important for threatened plant species is the area between American River, Cygnet River and D'Estrees Bay. Due to the complex nature of the soils, several of the plant species occurring in this area are very localised in distribution. For example, both the Scrambling bush pea (*Pultenaea insularis*) and Kangaroo Island phebalium (*Phebalium equestre*) have total ranges on the island of only eight kilometres. Both plants are endemic to the island and are listed as nationally endangered (Briggs & Leigh, 1996).

The relatively unmodified nature of Kangaroo Island's roadside vegetation is a major drawcard for tourists. However, the relatively intact nature of this vegetation compared to, say, that on roadsides in the Adelaide Hills, is not due to its more resilient nature, but to the more recent development of the Island: the vast majority of Kangaroo Island was uncleared prior to World War II. Since the early 1980s when the author began documenting threatened plants on roadsides on the Island (see Davies 1986), roadside vegetation has become noticeably more weed invaded and fragmented.

The Hog Bay Road between the Hundred Line Road and Three Chain Road is a good example of this decline. This 17 kilometre section of roadside vegetation contains the greatest known concentration of significant flora of any road in South Australia: two nationally endangered species (*Olearia microdisca* and *Phebalium equestre*), two nationally vulnerable taxa (*Beyeria subtecta* and *Spyridium eriocephalum* var. glabrisepalum), two nationally rare species (*Grevillea muricata* and *Prostanthera chlorantha*), a threatened plant community (*Eucalyptus cneorifolia-Eucalyptus* "anceps" open-scrub), and a number of species threatened at the state or regional level (eg Loxocarya fasciculata and *Cyphanthera myosotidea*).

Past management of this roadside vegetation (especially over the past 12 years) has had a major impact on its viability, despite it being much wider than normal. Tracks have been bulldozed in this vegetation parallel to the road, slash pushed deep into the vegetation, drainage lines extensively bulldozed, and large areas of vegetation totally removed to create sites for the temporary stockpiling of road building material. One such stockpiling area was bulldozed into an adjacent area of privately owned native vegetation containing threatened plant species, an area that is now under Heritage Agreement.

Soil contaminated with weed seeds and other propagules brought from other areas has also been dumped into roadside vegetation at several locations along this road. A recent example of this dumping (apparently during 1996) indicates that this practice is continuing.

This clearance, along with the dumping of contaminated soil, has greatly facilitated the invasion by perennial veldt grass, phalaris, and soursob, and has resulted in serious erosion in one location. Bulldozing has resulted both in the import of weed propagules and the creating of disturbed sites favoured by such weeds. Also of great concern is the spread of bridal creeper along Hog Bay Road. These weeds threaten to replace the native vegetation, including populations of the above mentioned threatened species.

Without minimisation of disturbance and pro-active management of roadside vegetation by local government and community groups, the prognosis for much of the Island's most important roadside vegetation is grim. However, the population of Kangaroo island is small and resources for the care of roadside vegetation are thus very limited.

Therefore, resources need to be targeted towards roadside vegetation of the greatest significance. This need gave rise to the present study.

AIM

The aim of this study was to map and describe sites of significance for threatened plant species, on Kangaroo Island roadsides. The study also aimed to provide management advice for these significant roadsides, in particular concerning vegetation removal for road maintenance and safety reasons, and weed control. It further aimed to set priorities for the active management of these significant roadsides.

METHODS

Due to time limitations, this project targeted the part of Kangaroo Island containing both the plant species under greatest threat, and the greatest concentration of threatened species: the area between American River, Cygnet River and D'Estrees Bay.

Most road verges in this area were walked between 16 June and 18 August 1996, searches being made for all plant species listed by Lang and Kraehenbuehl (1996) as "endangered", "vulnerable", "threatened", or "poorly known but likely to be threatened or rare" at the national, state and regional levels. Searches were also made for species listed as rare at the national and state levels.

For all such species, numbers of plants were counted at one hundred metre intervals, and distances of plants from the road verge recorded. Observed past and present impacts were also recorded for each population, including the presence of serious environmental weeds in the near vicinity.

Collections were made of significant species for each road, these being housed in the Adelaide Herbarium.

For the remainder of Kangaroo Island's roadsides, insufficient time was available to undertake searches during the current project. Instead, data from previous studies (Davies, 1986, 1992), the DENR Threatened Plant Population Database (see Davies & Reynolds 1995), and Adelaide Herbarium collections were accessed to determine sites of significance for threatened plant species. Also, Kangaroo Island botanist Bev Overton was subcontracted to provide information based on her extensive surveys over the last decade.

Roadside "Sites of Significance" were defined based on the presence of threatened species. These were mapped and described. Priorities for weed control on roadside "Sites of Significance" were determined based on the numbers of threatened species, the sizes of populations, and the degree of threat.

RESULTS

A total of 85 kms of roadsides were surveyed on foot, covering 14 roads. Since all roads had two verges, this totalled 170 kms of road verge. Twenty plant species of significance were documented along these roadsides including five nationally threatened species and eight species threatened on Kangaroo Island.

Roadside "Sites of Significance" for threatened species are described in Appendices One and Two. Each "Site" has been allocated a unique "site number".

Appendix One describes sites KIC1 to KIC47, and is based on data collected during the current project. Raw data is presented in Appendix Three. Populations described in this appendix were in existence in winter 1996 and locations are described to an accuracy of a hundred metres. Given the greater viability of larger areas of vegetation, and the need for retaining buffer zones around populations, stretches of roadside containing disjunct populations of significant species, separated by a few hundred metres of roadside vegetation not containing any significant species, have been included in the same "Site of Significance", rather than being defined as separate "Sites".

Appendix Two describes "Sites" KIC48 to KIC142, and is based on data from previous surveys and herbarium collections. This information is up to 15 years old and thus populations described are not necessarily still in existence. Location descriptions of populations vary in accuracy. For this reason, in some cases defined "Sites of Significance" are possibly significantly longer than the population they contain, defined in this manner to ensure they include the

population. Similarly, where no information is available on which side of the road a population occurs, both sides of the road have been described as significant for the same reason.

"Sites of Significance" have been digitised on to computer at the Geographic Analysis & Research Section of the Department of Housing & Urban Development. The resulting map is enclosed in this report. Larger versions are available from this department.

The most important find of the study was previously unrecorded populations of the nationally endangered scrambling bush pea (*Pultenaea insularis*). This Kangaroo Island endemic was first discovered in 1991 by Kangaroo Island botanist Bev Overton (together with botanists Rosemary Taplin and Denzel Murfet) in Beyeria Conservation Park. Previous to 1996, only one population of this species was known in the world, consisting of 300 plants growing in a small area at the edge of this park.

The current survey has extended *Pultenaea insularis*' range to Hundred Line Road, Moores Road, Hall Road and Wheatons Road, a range of eight kilometres. These roads contain 300 plants, ie half the world's population of the species. This species is still considered endangered, all these roadside populations being threatened by bridal creeper, perennial veldt grass and bulldozing.

Significant, new populations of the nationally vulnerable *Spyridium eriocephalum* var *glabrisepalum* were also located, along with significant new populations of *Acacia acinacea* and *Eutaxia microphylla* var. *diffusa*, both of which are endangered on Kangaroo Island and largely confined to roadside vegetation on the Island.

Important examples of the threatened plant communities *Eucalyptus cneorifolia- Eucalyptus "anceps"* open-scrub and *Eucalyptus cneorifolia-Eucalyptus rugosa* open-scrub were observed on several roads surveyed (see MANAGEMENT RECOMMENDATIONS).

Of alarm was the decline of a number of previously documented roadside populations of threatened species. For example, 193 plants of the nationally endangered dwarf shrub *Phebalium equestre* were counted alongside Moores Road in 1989 (M. Jusaitis, pers. comm.). Following extensive bulldozing in mid 1993, only twenty plants remained when surveyed in 1996.

TABLE 1:	KANGAROO ISLAND ROADSIDE SITES OF SIGNIFICANCE CONTAINING
	THREATENED PLANT SPECIES: PRIORITIES FOR MANAGEMENT
	(NB. See Appendix 1 for more detailed location descriptions)

				Number of significant species ¹					
				Nationally significant			Regionally significant		
Priority	Site no.	Location	Side of road	E	V	R	E	V	K
1A	KIC14	Willsons Rd	North		2	1+2	1 ²		1+2+2
1A	KIC15	Willsons Rd	South		1+1	1+2	12		2+2+1
1A	KIC27	Barretts Rd	North	1		1	l^2	1	1
1A	KIC28	Barretts Rd	South	1		1	l^2		1
1A	KIC35	Hd Line Rd	East	1					2
1A	KIC36	Hd Line Rd	West	1					1
1A	KIC43	3 Chain Rd	North	1				1	1
1A	KIC44	3 Chain Rd	South	1	1			1	1
1A	KIC76	Hog Bay Rd	North&south	1		1	$1^{2}+1$		1
1A	KIC81	Hog Bay Rd	North&south	1	1+1	1?			1
1A	KIC82	Hog Bay Rd	North&south	1	1+1	1?	1		1?

¹ Numbers underlined & bold (eg "2") indicate the number of species with population sizes of more than 100 plants Numbers in bold (eg "2") indicate the number of species with population sizes of 31 to 100 plants Numbers in normal print (eg "2") indicate the number of species with population sizes of 11 to 30 plants Numbers in italics (eg "2") indicate the number of species with population sizes of 1 to 10 plants

² Species which are nationally rare **and** endangered on Kangaroo Island have been entered under both categories in this table

TABLE 1 (continued): KANGAROO ISLAND ROADSIDE SITES OF SIGNIFICANCE CONTAINING THREATENED PLANT SPECIES: PRIORITIES FOR MANAGEMENT. (NB. See Appendix 1 for more detailed location descriptions)

					Num	ber of sig	nificant	nificant species ¹			
					Natior signifi	ally	F	legi	onally ficant		
Priority	Site no.	Location	Side of road	Е	V	R	E	V	K		
1B	KIC1	Min Oil Rd	North		1		2	\square	1		
1B	KIC2	Min Oil Rd	South		1		2	\square	1+1		
1B	KIC3	Wallers Rd	East		1+/	1	1	\square	1+2+1+1		
1B	KIC4	Wallers Rd	West		1+1	1		\square	1+2		
1B	KIC5	Red Banks Rd	South		1+1	1	1+1		1+1		
1B	KIC6	Red Banks Rd	North		1		1+1	\square	1+2		
1B	KIC18	Halls Rd	East	1	1	2	1	1	4		
1B	KIC19	Halls Rd	West	1	1	1	1	1	4		
1B	KIC22	Moores Rd	North	1		1		\square			
1B	KIC23	Moores Rd	South	1		1			1		
1B	KIC29	Hd Line Rd	East	1	1	1+2		1	1+1		
1B	KIC30	Hd Line Rd	West	1	1	1+1+1	1 ²	1	1+3		
1B	KIC31	Hd Line Rd	East			2	$1^{2}+1$		1		
1B	KIC32	Hd Line Rd	West		2	1+1	1 ² +1		2		
1B	KIC33	Hd Line Rd	East	1	1	1+1	1+1	\square	2		
1B	KIC34	Hd Line Rd	West	1	1	1+2	4^{2}	1	1		
1B	KIC39	Sth Coast Rd	East			1	1 ²		1+1		
1B	KIC40	Sth Coast Rd	West			1	$1^{2}+1$	\square	1		
1B	KIC84	Hog Bay Rd	North		1+1			\square			
2	KIC10	Boundary Rd	East		1			1	1+1		
2	KIC11	Boundary Rd	West	1	1		1		1+1		
2	KIC20	Moores Rd	North	1	1	1	1	+	1		
2	KIC21	Moores Rd	South	1	1			1	1+1		
2	KIC45	3 Chain Rd	North			1+1	1 ²		1		
2	KIC46	3 Chain Rd	North			1+1	l^2	\vdash	1		
3	KIC7	Red Banks Rd	North				2	\square	1		
3	KIC8	Red Banks Rd	South				1+1		1		
3	KIC9	Pt Morrison Rd	North				1				
3	KIC12	Rd reserve off	South		1	1					
3	KIC13	Boundary Rd	North			1					
3	KIC16	Willsons Rd	North		1				2		
3	KIC17	Willsons Rd	South		1	1		\square			
3	KIC24	Milkys Rd	East					1			
3	KIC25	Milkys Rd	East			1		1	1		
3	KIC26	Milkys Rd	West					1	1		
3	KIC37	Sth Coast Rd	East			1					
3	KIC38	Sth Coast Rd	West			1+1					
3	KIC41	Starr Rd	North			1		1	1		
3	KIC42	Starr Rd	South			1		1	1		
3	KIC47	Wheatons Rd	South	1				-			

¹ Numbers underlined & bold (eg "2") indicate the number of species with population sizes of more than 100 plants Numbers in bold (eg "2") indicate the number of species with population sizes of 31 to 100 plants Numbers in normal print (eg "2") indicate the number of species with population sizes of 11 to 30 plants Numbers in italics (eg "2") indicate the number of species with population sizes of 1 to 10 plants

² Species which are nationally rare and endangered on Kangaroo Island have been entered under both categories in this table

MANAGEMENT RECOMMENDATIONS

1. WEED CONTROL

PRIORITY AREAS

The most serious weeds threatening each roadside "Sites of Significance" are listed in Appendices One and Three.

Priorities for weed control on roadsides, based on the numbers of threatened species, the sizes of populations, and extent of weed invasion, are given in **Table 1**. These are only given for roadsides surveyed during the current project. Inadequate data exists for most sites in **Appendix Two** to rank their relative importance. The more detailed surveying of these roadsides is of high priority.

Table 1 categorises roadsides "Sites of Significance" into four categories:

- Priority 1A "Sites" contain a significant percentage of the total world population of a nationally threatened species. The maintenance of these populations is essential to prevent these species becoming totally extinct in the wild.
- Priority 1B "Sites" mostly contain large populations of species that are endangered on Kangaroo Island and largely confined to roadsides on the Island, but which are more common on the mainland. The maintenance of these sites is essential for the survival of these species on Kangaroo island. Sites containing smaller but still viable populations of nationally endangered species are also included in this category.
- Priority 2 "Sites" contain small populations of species that are nationally threatened, or endangered at the regional level. Priority 1A and 1B should be targeted before these sites because they contain much larger populations of the same species.
- Priority 3 "Sites" generally contain only nationally rare species that are adequately conserved elsewhere on the island, or very small populations of regionally threatened species. Sites that contain a solitary nationally threatened species in a heavy sward of weeds are included in this category. These sites are much lower priorities than those in the above categories.

PRIORITY WEEDS

The most serious and widespread weeds on Kangaroo Island roadsides are bridal creeper (*Myrsiphyllum* asparagoides), bridal veil (*Myrsiphyllum declinatum*), and perennial veldt grass (*Ehrharta calycina*). Soursob (*Oxalis pes-caprae*) and phalaris (*Phalaris aquatica*) are equally serious but presently more localised. All of these species are capable of totally replacing native ground flora, and have already done so on many roadsides on the island. Thirty of the forty-seven roadside sites of significance surveyed during the current project had bridal creeper, four had bridal veil, twenty-six perennial veldt grass, ten soursob and fourteen had phalaris.

Both bridal creeper and bridal veil seeds are transported by birds and these species are thus able to invade previously undisturbed native vegetation. Very few roads on the eastern end of the island are totally free of bridal creeper, and some roads now have very heavy infestations (Ball 1993). Ball hypothesises that the drift of fertilisers from adjacent paddocks has increased the suitability of roadsides for bridal creeper.

In comparison, bridal veil is presently confined to an area of only seven kilometres' radius centred on Wheatons Road on Kangaroo Island (Ball 1996). However, the ability of this species to smother native ground species is illustrated by its spread along Wheatons Road where it forms extensive dense mats. Disjunct outbreaks along Moores Road indicate that the species is still spreading.

Perennial veldt grass is a serious weed of native vegetation on sandy soils on the Island. Invasion by this weed is greatly enhanced by the bulldozing (eg Moores Road) or burning (eg Hog Bay Road) of roadside vegetation. Phalaris is chiefly a weed of areas subject to seasonal waterlogging and also readily invades disturbed sites. Both these grasses appear to have been spread along roadsides by the movement of contaminated soil during grading or bulldozing. The dumping of contaminated soil into relatively undisturbed roadside native vegetation has also greatly facilitated the spread of these weeds (eg along Hog Bay Road).

Soursob is now a serious weed in roadside vegetation along the Playford Highway near Kingscote. This species does not produce viable seeds on Kangaroo Island and reproduces vegetatively by producing bulbs. This weed has recently been spread along Willsons Road by graders, and along Hog Bay Road by the dumping of contaminated soil.

At the present rate of spread, invasion of their remaining habitat by these five weed species alone could result in the total extinction of *Olearia microdisca*, *Pultenaea insularis* and *Phebalium equestre* in the next few decades, in the absence of targeted weed control programs.

CONTROL METHODS

Locations containing the greatest numbers of the most threatened species (see Appendix 3) should be weeded first. At these locations, the five priority weeds described above should be removed first, and priority should be given to carefully removing weeds from around threatened species. Once this has been done, weeds should be removed from surrounding roadside vegetation, beginning at where the weed invasion is lightest. Only once the serious weeds have been removed from these areas should one move to more heavily weed invaded areas.

Where possible, control of weeds should be by manual digging or hand pulling. These methods should be used where infestations are very localised and where weeds are growing in very close proximity to a significant species.

Where infestations are too extensive or numerous, spot spraying should be undertaken taking care to cover adjacent native plants with plastic sheeting. Recommended rates of application are given in Robertson (1994)(see reference list).

Debate exists as to the most desirable method of controlling bridal creeper in bushland. Ball (1993) recommends Brushoff (Metsulfuron-Methyl) at 5-10gms/100 litres of water with a wetting agent (pulse or BS1000) and an application rate of 25-50gms/Ha. Ball claims that a 90-95% kill rate can be achieved on Kangaroo Island with this method and "collateral damage to native species is not a major problem where sufficient care is exercised".

However, concern has been expressed by other bushland weeding experts (eg Enid Robertson) about the effect of Brushoff on non target native species, this herbicide being residual and remaining active in the soil for a period of time after application.

Robertson (1994) recommends instead the use of Glyphosate 360g/L (1:100 in water) this herbicide becoming deactivated on contact with soil. Ball (1993), on the other hand, claims that this method results in "only 65% mortality" on Kangaroo Island. In comparison, bushland regenerators at Millbrook Reservoir in the Adelaide Hills claim to have had near-to-complete mortality with Glyphosate 360g/L (1:50 in water), with little effect on adjacent native vegetation (P. & P. Clark, pers. comm.).

Clearly, quantitative research is required on Kangaroo Island, comparing efficacy for bridal creeper, and effect on native understorey species (including geophytes), of both herbicides at various rates. This should be undertaken at locations where no threatened species occur.

2. CLEARANCE OF ROADSIDE VEGETATION FOR SAFETY REASONS

Where branches and foliage need to be removed from roadside "Sites of Significance" to maintain minimum adequate safety clearance, it is recommended that either a radial-arm docking saw, a hydro-axe or chainsaws be used as described below. Bulldozers should not be used at any of these sites due to the risk of introducing new weeds.

Where sites contain *Olearia microdisca* (sites KIC11, KIC29, KIC30, KIC72-74, KIC76, KIC81, KIC83, KIC97-98, KIC100, KIC141), only chainsaws should be used. Care should be taken to avoid damaging any of the *Olearia microdisca* bushes, since this species is unable to reshoot from the base if cut down.

At all other sites **either a radial-arm docking saw, a hydro-axe or chainsaws** can be used, since the threatened species in question are able to regenerate from the base. Where possible, this disturbance should be at no greater frequency than every twelve years, to allow significant species to regenerate adequately to produce seeds.

It is recommended that the starts and finishes of all "Sites of Significance" be marked with road markers, in accordance with recommendations made by the "Mount Lofty Ranges Road Marker Working Group". This will assist roadworkers in recognising these "sites" when undertaking road works.

3. REGENERATION OF SUCCESSIONAL SPECIES

Several of the threatened plant species occurring on Kangaroo Island roadsides require periodic disturbance for the longer term survival of populations.

This particularly applies to the small-flowered daisy bush (*Olearia microdisca*), probably the most endangered of Kangaroo Island's endemic plants. Other than scattered plants on roadsides, this bush survives in only four locations, the largest population at Kingscote Aerodrome, and the others on privately owned land (including one in a Heritage Agreement area). Three of the largest populations of this species have experienced 90% decreases in the numbers of plants in the last ten years.

Without fires or disturbance, populations of *Olearia microdisca* begin to senesce after ten to fifteen years. However, the plant only regenerates from seed, so too frequent disturbance will destroy a population by not allowing plants to mature sufficiently to produce adequate seed. Insensitive disturbance can also threaten the species by encouraging heavy weed invasion. Burning or bulldozing vegetation can also threaten the species by resulting in a rising saline watertable, where it occurs in creek line vegetation. Thus the survival of this species, including on roadsides, requires active but careful management.

Due to these risks, disturbance for regeneration purposes should only be undertaken in very localised areas (eg five metres x five metres) by the manual cutting of trees and shrubs to build bonfires, and the construction of surrounding firebreaks using rakehoes. Following the burning of these bonfires, intensive removal of weeds such as veldt grass will need to be undertaken for the first few years, since the increased nutrients in the soil and the absence of competition will otherwise favour weed invasion from adjacent paddocks. Such burns will need to be undertaken in consultation with, and with the permission of, the Resource Management Branch of the Department of Environment & Natural Resources, and the CFS. Burns should be no more frequent than every twelve years. Such activities will require the active involvement of an experienced field botanist, who can provide advice on which species are weeds and which are natives.

4. ROAD MAINTENANCE ACTIVITIES

Due to the risk of spreading weeds, no dumping of soil in or adjacent to roadside vegetation should be undertaken. Road building material should only be stored in areas containing **no** native vegetation. Areas regenerating from past disturbance should not be used.

Before grading occurs alongside Priority 1A, 1B and 2 (see Table 1) roadside "Sites of Significance", all mud should be washed off the grader, to ensure that no new weeds (eg Soursob) are introduced to these sites.

5. THREATENED PLANT COMMUNITIES

Davies (1982) refers to Eucalyptus cneorifolia-Eucalyptus rugosa and/or Eucalyptus dumosa ssp. conglobata open-scrub as being not conserved, and very rare and endangered in South Australia.

In the update of this report, Neagle (1995), this community was renamed as *Eucalyptus cneorifolia*, *Eucalyptus rugosa* and/or *Eucalyptus "anceps"* or *Eucalyptus conglobata* open-scrub due to taxonomic changes. Neagle reclassified this community as moderately conserved.

Further study of this plant community "complex" indicates that it consists of three very distinct plant communities:

1. Eucalyptus cneorifolia- Eucalyptus "anceps" open-scrub occurs on gilgai or "crab hole" soils, in areas characterised by numerous depressions and cracks resulting from the pronounced expansion and contraction of these very fine clays. The community largely occurs in the lower Cygnet River catchment and on the Macgillivray Plateau. Where best developed, the understorey is dominated by Melaleuca gibbosa, Callistemon rugulosus and Chorizandra enodis, although Dodonaea baueri is a more frequent character species. This community provides an important habitat for a significant number of plant species threatened at the national or regional level: Olearia microdisca, Spyridium eriocephalum var. glabrisepalum, Acacia sp. nov. aff. halliana, Acacia acinacea, Prostanthera chlorantha, and Eutaxia microphylla var. diffusa. This community is only localised, being largely confined to the north eastern corner and central western edge of the park and the southern extremity of the Heritage Agreement area. Both areas do not conserve most of the above mentioned significant species that occur elsewhere in this community. This community is otherwise now largely confined to roadsides, where it has been significantly depleted by bulldozing and weed invasion. It is therefore considered to be poorly conserved and threatened.

- Eucalyptus cneorifolia-Eucalyptus rugosa open-scrub over Rhagodia candolleana is locally common on roadside between Kingscote and Emu Bay. It chiefly occurs on soils derived from Carboniferous-Permian deposits (Belperio and Flint, 1992). This community is the main habitat for *Eremophila glabra*, which is endangered on Kangaroo Island. The community is not conserved in any parks or Heritage Agreement areas, and is now largely confined to roadsides where it has been significantly depleted by bulldozing and weed invasion. It is therefore considered to be endangered.
- 3. Eucalyptus cneorifolia-Eucalyptus rugosa open-scrub over sheet limestone is moderately conserved in Dudley Conservation Park and several Heritage Agreement areas (Neagle 1995). This community is an ecotone between Eucalyptus cneorifolia open-scrub and Eucalyptus rugosa open-scrub and has an understorey that is very similar to the latter community, which is reasonably conserved (Neagle 1995).

The most extensive and least degraded roadside examples of *Eucalyptus cneorifolia- Eucalyptus "anceps"* open-scrub were found on Min Oil Road and Willsons Road (east of Hundred Line Road), with more degraded by still significant examples on Wallers Road, Red Bank Road (west of Min Oil Road), and Gum Creek Road.

Significant examples of *Eucalyptus cneorifolia-Eucalyptus rugosa* open-scrub over *Rhagodia candolleana* occur on Emu Bay Road, Springs Road, the start of North Cape Road, and the eastern end of North Coast Road.

Weed control is a high priority on these roads.

CONCLUSIONS

Kangaroo Island contains some of the most significant roadside vegetation for threatened plant species in South Australia. However, these roadsides are being rapidly degraded by weed invasion and fragmentation. Minimum impact road maintenance practices are essential, since "prevention is always better than cure" with regards to weed invasion. Contractors, council workers and the general public must be reminded of the risks of spreading weeds in soil or on muddy equipment. The need to minimise soil disturbance when working in roadside vegetation also needs to be stressed.

Given the threat that weeds pose to roadside population of threatened species and threatened plant communities, a greater emphasis must be given by community groups to the weeding of existing high priority areas of vegetation. Government departments and granting bodies need to further encourage and support such activities.

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Site no.	Road	Side of road	Description	Threatened plant species	No. of plants	Conservation status	Impact
KIC 1	Min Oil Rd	North	0 to 2.8 kms from Red	Spyridium eriocephalum var. glabrisepalum	22	Nationally vulnerable	Bu,(P)
			Banks Rd;	Acacia acinacea	24	Endangered on KI	1
			0 to 9 metres from verge	Eutaxia microphylla var. diffusa	14	Endangered on KI	1
				Dodonaea baueri	162	Poorly known but likely to be threatened or rare on KI	
KIC 2	Min Oil Rd	South	0 to 2.4 kms from Red	Spyridium eriocephalum var. glabrisepalum	6	Nationally vulnerable	Bu,(Bc) (P)
			Banks Rd;	Acacia acinacea	37	Endangered on KI	
			0 to 12 metres from	Eutaxia microphylla var. diffusa	55	Endangered on KI	1
			verge	Dodonaea baueri	156	Poorly known but likely to	1
				Logania linifolia	14	be threatened or rare on KI	
KIC	Wallers	East	0 to 2.4 kms	Beyeria subtecta	164	Nationally vulnerable	V,Bc
3	Rd		from Hog Bay Rd;	Spyridium eriocephalum var. glabrisepalum	8	Nationally vulnerable	Bu
			0 to 8 metres	Grevillea muricata	29	Nationally rare	1
		from verge	from verge	Eutaxia microphylla var. diffusa	4	Endangered on KI]
				Dodonaea baueri	120	Poorly known but	1
				Dodonaea hexandra	1	likely to be threatened	
				Eremophila behriana	54	or rare on KI	
				Lomandra micrantha ssp. micrantha	37		
				Logania linifolia	22		
KIC	Wallers	West	0 to 2.9 kms	Beyeria subtecta	251	Nationally vulnerable	V,Bc
4	Rd		from Hog Bay Rd;	Spyridium eriocephalum var. glabrisepalum	2	Nationally vulnerable	Bu
			0 to 7 metres	Grevillea muricata	6	Nationally rare	
			from verge	Dodonaea baueri	104	Poorly known but likely to	
			1	Lomandra micrantha ssp. micrantha	3	be threatened or rare on KI	
				Logania linifolia	2		
KIC	Red	South	0 to 6.9 kms	Beyeria subtecta	100	Nationally vulnerable	V,Bc
5	Banks Rd		from Hog Bay Rd;	Spyridium eriocephalum var. glabrisepalum	2	Nationally vulnerable	Bu
			0 to 9 metres	Grevillea muricata	5	Nationally rare	
			from verge	Acacia acinacea	56	Endangered on KI	
				Eutaxia microphylla var. diffusa	2	Endangered on KI	
				Dodonaea baueri	65	Poorly known but likely to	
				Lomandra micrantha ssp. micrantha	2	be threatened or rare on KI	

Site no.	Road	Side of road	Description	Threatened plant species	No. of plants	Conservation status	Impact	
KIC	Red	North	0 to 7.1 kms	Beyeria subtecta	72	Nationally vulnerable	V,Bc	
6	Banks		from	Acacia acinacea	57	Endangered on KI	Bu,(P),	
	Rd		Hog Bay Rd;	Eutaxia microphylla var.	13	Endangered on KI	(G),(Sa)	
			0 to 9 metres	diffusa			(0),(00)	
			from verge	Dodonaea baueri	23	Poorly known but likely to	1	
			2157	Lomandra micrantha ssp. micrantha	8	be threatened or rare on KI		
				Logania linifolia	4	-		
KIC	Red	North	0 to 3.8	Acacia acinacea	1	Endangered on KI	Bc,Bu,P	
7	Banks Rd		from Point Morrison Rd;	Eutaxia microphylla var. diffusa	2	Endangered on KI		
			1 to 9 metres from verge	Dodonaea baueri	5	Poorly known but likely to be threatened or rare on KI	1	
KIC	Red	South	0 to 3.7 kms	Acacia acinacea	16	Endangered on KI	Bc,Bu	
8	Banks Rd		from Point Morrison Rd;	Eutaxia microphylla var. diffusa	7	Endangered on KI		
			0 to 9 metres from verge	Dodonaea baueri	1	Poorly known but likely to be threatened or rare on KI		
9 9	Point Morrison Rd	North	1.3 to 1.4 kms from Red Banks Rd	Eutaxia microphylla var. diffusa	1	Endangered on KI	Bu	
KIC	Boundary	East	0 to 6.5 kms	Beyeria subtecta	39	Nationally vulnerable	Bc,Bu	
10	Rd		from	Cyphanthera myosotidea	3	Vulnerable on KI	(P)	
			Hog Bay Rd	Dodonaea baueri	27	Poorly known but likely to		
			0 to 6metres from verge	Logania linifolia	4	be threatened or rare on KI		
KIC	Boundary	West	0 to 6.5 kms	Olearia microdisca	1	Nationally endangered	Bc,Bu	
11	Rd		from	Beyeria subtecta	39	Nationally vulnerable	(P),(S)	
			Hog Bay Rd	Acacia acinacea	2	Endangered on KI	(4),(6)	
			0 to 5metres	Dodonaea baueri	40	Poorly known but likely		
			from verge	Lomandra micrantha ssp. micrantha	7	to be threatened or rare on KI		
KIC	Road	South	Commencing	Beyeria subtecta	28	Nationally vulnerable	Bu	
12	reserve off Boundary Rd		3km north of Hog Bay Rd, continuing east for 400m	Grevillea muricata	12	Nationally rare		
KIC 13	Road reserve off Boundary Rd	North	Commencing 3km north of Hog Bay Rd, continuing east for 200m	Grevillea muricata	1	Nationally rare	Bu	

Key: Bu=Bulldozing; Bc=Bridal creeper; V=Perennial veldt grass; P=Phalaris; S=Soursop; Sa=Salinity;

Gu=Guildford grass; G=Grazing; E=Erosion; R=Rubbish; O=Olives; Sp=Sparaxis, ()=Minor occurrence

APPENDIX 1 (Continued): KANGAROO ISLAND ROADSIDE SITES OF SIGNIFICANCE CONTAINING
THREATENED PLANT SPECIES: DETERMINED FROM DATA COLLECTED DURING CURRENT SURVEY

Site		Side of	tern the cold	Threatened	No. of		1
no.	Road	road	Description	plant species	plants	Conservation status	Impact
KIC	Willsons	North	0 to 6.2 kms	Beyeria subtecta	1750	Nationally vulnerable	V,Bc
14	Rd		from	Spyridium eriocephalum	800	Nationally vulnerable	Bu,(R)
			Hog Bay Rd	var. glabrisepalum			(S)
			0 to 15metres	Acacia sp. nov. aff.	14	Nationally rare;	
	8		from verge	halliana		endangered on KI	_
				Grevillea muricata	1299	Nationally rare	_
				Pultenaea teretifolia var.		Nationally rare	
				brachyphylla	1004		_
				Dodonaea baueri Dodonaea hexandra	1004	Poorly known but	
				and the second se	22	likely to be threatened	
				Eremophila behriana	14	or rare on KI	
				Lomandra micrantha ssp. micrantha	59		
				Logania linifolia	85		
KIC	Willsons	South	0 to 6.2 kms				
15	Rd	South	from	Beyeria subtecta	550	Nationally vulnerable	V,Bc
15	Ku		Hog Bay Rd	Spyridium eriocephalum	12	Nationally vulnerable	Bu,(P)
			0 to 8 metres	var. glabrisepalum	10	NT	(R),(S)
			from verge	Acacia sp. nov. aff. halliana	12	Nationally rare;	
			nom verge	COLUMN AND DESCRIPTION OF THE OWNER OWNE	071	endangered on KI	-
				Grevillea muricata	271	Nationally rare	
				Pultenaea teretifolia var.		Nationally rare	
				brachyphylla	170		-
				Dodonaea baueri	172	Poorly known but	
				Dodonaea hexandra	3	likely to be threatened	
				Eremophila behriana	28	or rare on KI	
				Lomandra micrantha ssp. micrantha	359		
				Logania linifolia	16		
KIC	Willsons	North	0 to 0.5 kms	Beyeria subtecta	1000 March 1000	Nationally and such la	D D
16	Rd	ivorui	west from	Dodonaea baueri	1 3	Nationally vulnerable	Bu,Bc
10	Ru		Hd Line Rd;	Lomandra micrantha ssp.		Poorly known but	
			2 to 4 metres	micrantha	1	likely to be threatened or rare on KI	
			from verge	micranina		rare on KI	
KIC	Willsons	South		Beyeria subtecta	17	Nationally underschie	D
17	Rd	South	west from	Grevillea muricata	4	Nationally vulnerable	Bc
17	Ru		Hd Line Rd;	Grevillea muricala	4	Nationally rare	
			1 to 4 metres				
			from verge				
KIC	Halls Rd	East	0 to 2.7 kms	Pultenaea insularis	1	Nationally endangered	V,Bc
18			from	Beyeria subtecta	128	Nationally vulnerable	Bu,(S)
			Hog Bay Rd;	Grevillea muricata	2	Nationally rare	(Sa),(P)
			0 to 8 metres	Pultenaea teretifolia var.	1	Nationally rare	
			from verge	brachyphylla	÷	runonally fare	
			0	Eutaxia microphylla var.	42	Endangered on KI	-
				diffusa		Bered on htt	
				Daviesia arenaria	1	Vulnerable on KI	1
				Dodonaea baueri	4	Poorly known but	-
				Dodonaea hexandra	1	likely to be threatened	
				Eremophila behriana	3	or rare on KI	
				Lomandra micrantha ssp.	1	or rare on the	
				micrantha	<u>^</u>		1

Site no.	Road	Side of road	Description	Threatened plant species	No. of plants	Conservation status	Imnes
KIC	Halls Rd	West	0.2 to 2.8	Pultenaea insularis	10	Nationally endangered	Impac V,Bc
19	Trans rea	west	kms from	Beyeria subtecta	197	Nationally vulnerable	
12			Hog Bay Rd;	Grevillea muricata	5	Nationally rare	Bu,(S)
			0 to 9 metres				(P),(G)
	1		from verge	Eutaxia microphylla var. diffusa	16	Endangered on KI	
				Daviesia arenaria	2	Vulnerable on KI	
				Dodonaea baueri	2	Poorly known but	
				Dodonaea hexandra	1	likely to be threatened	
				Eremophila behriana	8	or rare on KI	
				Logania linifolia	1		
KIC	Moores	North	0 to 4.1 kms	Phebalium equestre	1	Nationally endangered	V,Bu
20	Rd		from	Beyeria subtecta	71	Nationally vulnerable	(Bv)
			Hog Bay Rd;	Grevillea muricata	4	Nationally rare	
			0 to 5 metres from verge	Eutaxia microphylla var. diffusa	1	Endangered on KI	
			nom verge	Dodonaea baueri	1	Poorly known but likely to be threatened or rare on KI	1
KIC	Moores	South	0 to 3.5 kms	Phebalium equestre	20	Nationally endangered	V,Bu
21	Rd		from	Beyeria subtecta	70	Nationally vulnerable	(Bv)
			Hog Bay Rd	Cyphanthera myosotidea	1	Vulnerable on KI	
			0 to 5 metres	Dodonaea baueri	4	Poorly known but	1
			from verge	Dodonaea hexandra	25	likely to be threatened or rare on KI	
KIC	Moores	North	0.7 to 3.3	Pultenaea insularis	30	Nationally endangered	V,Bu
22	Rd		kms from	Grevillea muricata	2	Nationally rare	Bc,Bv
104000			Hd Line Rd;		ACCIN.		(G)
			0 to 5 metres				
			from verge			P	
KIC	Moores	South	0 to 3.6 kms	Pultenaea insularis	34	Nationally endangered	V,Bu
23	Rd		from	Grevillea muricata	11	Nationally rare	Bc,Bv
			Hd Line Rd;	Dodonaea hexandra	3	Poorly known but	1
			0 to 5 metres			likely to be threatened	
			from verge			or rare on KI	
KIC	Milkys	East	4.3 to 4.5	Cyphanthera myosotidea	12	Vulnerable on KI	Bu
24	Rd		kms from				1
			Halls Rd				
			0 to 5 metres				
WIG.	N CII		from verge				
KIC	Milkys	East	6.1 to 6.7	Grevillea muricata	4	Nationally rare	4
25	Rd		kms from	Cyphanthera myosotidea	7	Vulnerable on KI	4
			Halls Rd	Logania linifolia	2	Poorly known but	1
			0 to 2 metres			likely to be threatened	
VIC	Millan	Wast	from verge	Comband		or rare on KI	
KIC	Milkys	West	6.1 to 6.9	Cyphanthera myosotidea	1	Vulnerable on KI	4
26	Rd		kms from	Logania linifolia	18	Poorly known but	
			Halls Rd 0 to 3 metres			likely to be threatened	
			0 to 5 metres			or rare on KI	

Site no.	Road	Side of road	Description	Threatened plant species	No. of plants	Conservation status	Impact
KIC	Barretts	North	0 to 2.3 kms	Phebalium equestre	27	Nationally endangered	Bu,(V)
27	Rd		from Three Chain	Prostanthera chlorantha	1	Nationally rare; endangered on KI	(Bv)
			Rd	Cyphanthera myosotidea	9	Vulnerable on KI	1
			0 to 5 metres from verge	Logania linifolia	22	Poorly known but likely to be threatened or rare on KI]
KIC	Barretts	South	0 to 2.1 kms	Phebalium equestre	69	Nationally endangered	Bu,(V)
28	Rd		from Three Chain	Prostanthera chlorantha	10	Nationally rare; endangered on KI	
			Rd 0 to 4 metres from verge	Logania linifolia	9	Poorly known but likely to be threatened or rare on KI	
KIC	Hundred	East	0 to 4.7 kms	Olearia microdisca	2	Nationally endangered	Bc,Bu,P
29	Line Rd		south from Hog Bay	Spyridium eriocephalum var. glabrisepalum	1	Nationally vulnerable	Gu,(Sp) (T)
			Rd;	Grevillea muricata	30	Nationally rare	
				Pultenaea teretifolia var. brachyphylla		Nationally rare	1
				Spyridium spathulatum	1	Nationally rare	1
				Hibbertia acicularis		Rare in SA	1
			0 to 35	Stipa nitida/nodosa	100+	Threatened on KI	1
			metres	Dodonaea baueri	2	Poorly known but	1
			from verge	Lomandra micrantha ssp. micrantha	100+	likely to be threatened or rare on KI	
KIC	Hundred	West	0 to 4.7 kms	Olearia microdisca	3	Nationally endangered	Bc,Bu
30	Line Rd		south from Hog Bay Rd;	Spyridium eriocephalum var. glabrisepalum	5	Nationally vulnerable	P,(Gu) (E),(V)
			0 to 36	Grevillea muricata	92	Nationally rare	(0)
			metres from verge	Pultenaea teretifolia var. brachyphylla		Nationally rare	
				Prostanthera chlorantha	26	Nationally rare; endangered on KI	
				Stipa nitida/nodosa	100+	Threatened on KI	
				Dodonaea baueri	2	Poorly known but	
				Dodonaea hexandra	6	likely to be threatened	
				Lomandra micrantha ssp. micrantha	100+	or rare on KI	
VIC	TT 1 1	P	0	Logania linifolia			
KIC	Hundred	East	0 to 1.8 kms	Grevillea muricata	20	Nationally rare	Bc,Bu,P
31	Line Rd		north from Willsons Rd;	<i>Acacia</i> sp. nov. aff. <i>halliana</i>	20	Nationally rare; endangered on KI	V,(S)
			1 to 5 metres from verge	Eutaxia microphylla var. diffusa	3	Endangered on KI	
			ç	Dodonaea baueri	5	Poorly known but likely to be threatened or rare on KI	,

Site		Side of		Threatened	No. of		T
no.	Road	road	Description	plant species	plants	Conservation status	Impact
KIC	Hundred	West	0 to 1.8 kms	Beyeria subtecta	10	Nationally vulnerable	Bc,Bu,I
32	Line Rd		north from Willsons Rd;	Spyridium eriocephalum var. glabrisepalum	2	Nationally vulnerable	V
			0 to 5 metres	Grevillea muricata	9	Nationally rare	1
	8		from verge	Acacia sp. nov. aff. halliana	35	Nationally rare; endangered on KI	1
				Eutaxia microphylla var. diffusa	1	Endangered on KI	1
				Dodonaea baueri	23	Poorly known but	1
				Logania linifolia	11	likely to be threatened or rare on KI	
KIC	Hundred	East	0 to 3.4 kms	Pultenaea insularis	6	Nationally endangered	V,Bc
33	Line Rd		south from	Beyeria subtecta	6	Nationally vulnerable	Bu
			Willsons Rd;	Grevillea muricata	11	Nationally rare	1
			0 to 5 metres from verge	Pultenaea teretifolia var. brachyphylla		Nationally rare	1
			- 11 - 15 - 15 - 15 - 15 - 15 - 15 - 15	Acacia acinacea	1	Endangered on KI	1
				Eutaxia microphylla var. diffusa	65	Endangered on KI	1
				Lomandra micrantha ssp. tuberculata	10	Vulnerable on KI	
				Logania linifolia	2	Poorly known but likely to be threatened or rare on KI	
KIC	Hundred	West	0 to 2.6 kms	Pultenaea insularis	7	Nationally endangered	V,Bc
34	Line Rd		south from	Beyeria subtecta	4	Nationally vulnerable	Bu,(P)
			Willsons Rd;	Grevillea muricata	16	Nationally rare	(S)
			1 to 6 metres	Acacia sp. nov. aff. halliana	1	Nationally rare;	
			from verge	Prostanthera chlorantha	3	endangered on KI	
				Acacia acinacea	8	Endangered on KI	
				Eutaxia microphylla var. diffusa	3	Endangered on KI	
				Acacia farinosa	2+	Vulnerable on KI	
				Dodonaea baueri	12	Poorly known but likely to be threatened or rare on KI	
KIC	Hundred	East	0 to 1.7 kms	Pultenaea insularis	92	Nationally endangered	V,Bc
35	Line Rd		south from	Dodonaea hexandra	1	Poorly known but	Bu
			Moores Rd; 0 to 8 metres	Logania linifolia	9	likely to be threatened or rare on KI	
KIC	Hundred	West	from verge 0 to 2.3 kms	Pultenaea insularis	126	Netion II	N.B.
36	Line Rd	west	south from	Dodonaea baueri	126	Nationally endangered	V,Bc
50	Line Ku		Moores Rd; 1 to 8 metres from verge	Douonueu baueri	1	Poorly known but likely to be threatened or rare on KI	Bu
KIC	South	East	0 to 3.8 kms	Grevillea muricata	297	Nationally rare	Bu
37	Coast Rd		from Hd Line Rd	Hibbertia acicularis	271	Rare in SA	DU
KIC	South	West	0 to 4.2 kms	Grevillea muricata	232	Nationally rare	Bu (Da)
38	Coast		from	Pultenaea teretifolia var.	252	Nationally rare	Bu,(Bc)
	Rd		Hd Line Rd	brachyphylla		rationally fale	

Key: Bu=Bulldozing; Bc=Bridal creeper; V=Perennial veldt grass; P=Phalaris; S=Soursop; ()=Minor occurrence

Site no.	Road	Side of road	Description	Threatened plant species	No. of plants	Conservation status	Impact
KIC 39	South Coast	East	5.1 to 6.9 kms from	Prostanthera chlorantha	70	Nationally rare; endangered on KI	Bu,(S)
			Hd Line Rd;	Dodonaea baueri	12	Poorly known but	1
			1 to 7 metres from verge	Dodonaea hexandra	7	likely to be threatened or rare on KI	1
KIC 40	South Coast	West	5.2 to 6.4 kms from	Prostanthera chlorantha	62	Nationally rare; endangered on KI	Bu,(Bc) (S)
	Rd		Hd Line Rd; 1 to 10 metres	Eutaxia microphylla var. diffusa	1	Endangered on KI	
			from verge	Dodonaea baueri	12	Poorly known but likely to be threatened or rare on KI]
KIC	Starr	North	0 to 3.9 kms	Grevillea muricata	60	Nationally rare	Bu,Bc
41	Rd		from South Coast Rd;	Lomandra micrantha ssp. tuberculata	14	Vulnerable on KI	1
			1 to 6 metres from verge	Dodonaea baueri	4	Poorly known but likely to be threatened or rare on KI	1
KIC	Starr	South	0 to 3.9 kms	Grevillea muricata	53	Nationally rare	Bu,Bc
42	42 Rd		from South Coast Rd;	Lomandra micrantha ssp. tuberculata	87	Vulnerable on KI	(V)
			1 to 6 metres from verge	Dodonaea baueri	8	Poorly known but likely to be threatened or rare on KI	1
KIC	Three	North	0 to 4.0 kms	Phebalium equestre	119	Nationally endangered	V,Bu,
43	Chain		from	Cyphanthera myosotidea	88	Vulnerable on KI	(S)
	Rd		Hog Bay Rd; 0 to 10 metres from verge	Logania linifolia	3	Poorly known but likely to be threatened or rare on KI	
KIC	Three	South	0 to 3.8 kms	Phebalium equestre	127	Nationally endangered	V,Bu,
44	Chain		from	Beyeria subtecta	22	Nationally vulnerable	(S),(Bc)
	Rd		Hog Bay Rd;	Cyphanthera myosotidea	136	Vulnerable on KI	(=),(==)
			0 to 8 metres from verge	Logania linifolia	8	Poorly known but likely to be threatened or rare on KI	
KIC	Three	North	0 to 8.1 kms	Grevillea muricata	42	Nationally rare	V,Bu
45	Chain Rd		west from Barretts Rd;	Prostanthera chlorantha	18	Nationally rare; endangered on KI	
			0 to 4 metres from verge	Logania linifolia	4	Poorly known but likely to be threatened or rare on KI	
KIC	Three	North	0 to 8.1 kms	Grevillea muricata	149	Nationally rare	V,Bu
46	Chain Rd		west from Barretts Rd;	Prostanthera chlorantha	1	Nationally rare; endangered on KI	
			0 to 4 metres from verge	Logania linifolia	6	Poorly known but likely to be threatened or rare on KI	
KIC 47	Wheatons Rd	South	0.3-0.4 kms from Hundred Line Rd	Pultenaea insularis	1	Nationally endangered	

Site		Side of		Threatened	No. of		
no.	Road	road	Description	plant species	plants	Conservation status	Impact
KIC 48	Pauls Road	South	2.0-2.7kms from Willoughby Rd	Pomaderris halmaturina ssp. halmaturina		Nationally vulnerable; endangered on KI	Sa
KIC 49	Road to Chapman River mouth	South	0-200 metres north east of Willoughby Rd	Pomaderris halmaturina ssp. halmaturina		Nationally vulnerable; endangered on KI	
KIC 50	Road to Kallowar Homestead	North & south	0.8-1.3kms from Willoughby Rd	Pomaderris halmaturina ssp. halmaturina		Nationally vulnerable; endangered on KI	
KIC 51	Willoughby Road	East & west	0-0.2 kms north from East-West Rd	Pomaderris halmaturina ssp. halmaturina	100	Nationally vulnerable; endangered on KI	Bc,Bu
KIC 52	Blue Gum Rd	North & south	Between Rifle Range Rd & Jews Highway	Stipa multispiculis		Nationally rare; threatened on KI	
KIC 53	Hungerford Road	North	1.3-1.5 kms west of Pauls Rd	Pomaderris halmaturina ssp. halmaturina	3	Nationally vulnerable; endangered on Kangaroo Island	Bc
KIC 54	Willson River Rd	East & west	0.4-1.0 kms north from Moffat Rd	Pomaderris halmaturina ssp. halmaturina		Nationally vulnerable; endangered on Kangaroo Island	
KIC 55	Moffatt Road	North & south	0.2-1.6kms from Doug Rd	Pomaderris halmaturina ssp. halmaturina	Large popn	Nationally vulnerable; endangered on KI	Bc
KIC 56	East West Road	North & south	0.2-1.5 kms south east from Willson River Rd	Pomaderris halmaturina ssp. halmaturina		Nationally vulnerable; endangered on KI	Bc
KIC 57	Mouth Flat Road	East & west	0.3-1.5 kms from East-West Rd	Pomaderris halmaturina ssp. halmaturina Stipa multispiculis		Nationally vulnerable; endangered on KI Nationally rare; threatened on KI	Bc
KIC 58	Mouth Flat Road	East & west	3.0-3.7 kms from East-West Rd	Pomaderris halmaturina ssp. halmaturina	20+	Nationally vulnerable; endangered on Kangaroo Island	G
KIC 59	Emu Bay Rd	North & south	0-0.5 kms east of Gap Road	Stipa elegantissima		Threatened on KI	
KIC 60	Emu Bay Rd	East & west	0-1.0 kms north of Grid Iron Corner	Eremophila glabra		Endangered on KI	
KIC 61	Emu Bay Rd	North & south	0-0.5 kms east of Grid Iron Corner	Eremophila glabra		Endangered on KI	

Site no.	Road	Side of road	Description	Threatened plant species	No. of plants	Conservation status	Impact
KIC 62	North Coast Rd	North & south	0-0.7 kms west of Grid Iron Corner	Eremophila glabra		Endangered on KI	
KIC	North Cape	North	0-4.0 kms	Eremophila glabra		Endangered on KI	
63	Rd	& south	from Emu Bay Rd	Eutaxia microphylla var. diffusa		Endangered on KI	1
				Pittosporum phylliraeoides var. microcarpa	100+	Vulnerable on KI	1
KIC	Governor	South	0-2.0 kms	Eremophila glabra	· · · · · · · · · · · · · · · · · · ·	Endangered on KI	Bc
64	Wallen		east	Geijera linearifolia		Endangered on KI	1
	Scenic Drive		of The Bluff	Pittosporum phylliraeoides var. microcarpa		Vulnerable on KI	1
				Stipa nitida		Threatened on KI	1
				Stipa elegantissima		Threatened on KI	1
				Eucalyptus odorata		Poorly known but likely to be threatened or rare on KI	
KIC	Governor	East	Reeves Point	Stipa elegantissima		Threatened on KI	
65	Wallen Scenic Drive	& west	Historic Site	Stipa nodosa		Threatened on KI	
KIC	The	East	Opposite	Geijera linearifolia		Endangered on KI	Bc
66	Esplanade		Rawson St, Kingscote	Pittosporum phylliraeoides var. microcarpa		Vulnerable on KI	
				Stipa elegantissima		Threatened on KI	1
KIC	Seaview Rd	North	0-0.4 km west	Stipa nitida		Threatened on KI	
67		& south	from water tanks	Stipa elegantissima		Threatened on KI	
KIC 68	Seaview Rd	North & south	0.8-1.2 kms west of Karratta Terrace, Kingscote	Eremophila glabra		Endangered on KI	
KIC	Emu Bay Rd	North	0-1.6 kms	Eremophila glabra		Endangered on KI	Bc
69		& south	from Playford Highway	Acacia acinacea		Endangered on KI	
KIC	Tin Smith	East	0-1.1 kms	Eremophila glabra		Endangered on KI	Bc
70	Rd	& west	south east from Playford	Eutaxia microphylla var. diffusa		Endangered on KI	
			Highway	Stipa elegantissima		Threatened on KI	
KIC 71	Springs Rd	North &	2.0-3.7 kms Ten Tree	Spyridium eriocephalum var. glabrisepalum	12	Nationally vulnerable	
		south	Lagoon Rd	Carex inversa var. major		Rare in SA	
			north west of	Eremophila glabra		Endangered on KI	
				Stipa nitida/nodosa		Threatened on KI	
				Elymus scabrus		Threatened on KI	

Site no.	Road	Side of road	Description	Threatened plant species	No. of plants	Conservation status	Impact
KIC 72	Gum Creek Rd	North & south	1.4-1.8 kms west of Boxer Rd	Olearia microdisca Prostanthera chlorantha		Nationally endangered Nationally rare; endangered on KI	Bu
	1			Dodonaea baueri		Poorly known but likely to be threatened or rare on KI	
KIC	Gum Creek	South	0.6-0.8 kms	Olearia microdisca	13	Nationally endangered	
73	Rd		west of	Acacia acinacea		Endangered on KI]
			Boxer Rd	Dodonaea baueri		Poorly known but likely to be threatened or rare on KI	
KIC	Gum Creek	North	0-0.4 kms	Olearia microdisca	116	Nationally endangered	Bu
74	Rd		west of	Acacia acinacea		Endangered on KI	
			Boxer Rd	Dodonaea baueri		Poorly known but likely to be threatened or rare on KI	
KIC 75	Track from Cygnet River township to Arranmore Rd	East & west	0.2-0.4 kms south east from Cygnet River township	Eutaxia microphylla var. diffusa		Endangered on KI	
KIC	Hog Bay Rd	North	0-0.8 kms	Olearia microdisca	10+	Nationally endangered	S,Bu,R
76		& south	south east of Hundred	Prostanthera chlorantha		Nationally rare; endangered on KI	Bc
			Line Rd	Eremophila glabra		Endangered on KI	
				Dodonaea baueri		Poorly known but likely to be threatened or rare on KI	
KIC 77	Access track into Nepean Bay Conservation Park	North & south		Caladenia bicalliata		Nationally rare; endangered on KI	
KIC 78	Hog Bay Rd	East & west	Between bridge over Cygnet River & Angle Pole Rd	Stipa curticoma		Vulnerable in SA	
KIC	Kingscote		Vegetation	Olearia microdisca	1000	Nationally endangered	Bu
79	Aerodrome		in south west corner of Section 22	Dodonaea hexandra		Poorly known but likely to be threatened or rare on KI	
KIC 80	Birchmore Rd	East & west	3.0-6.5 kms south of	Prostanthera chlorantha		Nationally rare; endangered on KI	
			Playford	Atriplex australasica		Rare in SA	
			Highway	Eremophila behriana	Locally common	Poorly known but likely to be threatened or rare on KI	

Site no.	Road	Side of road	Description	Threatened plant species	No. of	Commention	
KIC	Hog Bay	North	0-3.0 kms	Olearia microdisca	plants	Conservation status	Impact
81	Rd	worth &	north west of	And the second statement of the se	100	Nationally endangered	Bu,Bc
81	Ku	south		Beyeria subtecta		Nationally vulnerable	4
		south	Willsons Rd	Spyridium eriocephalum var. glabrisepalum		Nationally vulnerable	
	1			Pultenaea teretifolia var. brachyphylla		Nationally rare	1
				Dodonaea hexandra		Poorly known but likely to be threatened or rare on KI	1
KIC	Hog Bay	North	0-3.7 kms	Phebalium equestre	1130	Nationally endangered	Bu,Bc,V
82	Rd	&	south east	Beyeria subtecta		Nationally vulnerable	S
		south	from Willsons Rd	Spyridium eriocephalum var. glabrisepalum		Nationally vulnerable	
				Pultenaea teretifolia var. brachyphylla		Nationally rare	1
				Loxocarya fasciculata		Vulnerable in SA; endangered on KI	1
				Eremophila behriana	Locally common	Poorly known but likely to be threatened or rare on KI	
KIC 83	Hog Bay Rd	South	3.7-4.1 kms north west of Three Chain Rd	Olearia microdisca		Nationally endangered	
KIC	Hog Bay	North	1.7-2.6 kms	Beyeria subtecta	1000+	Nationally vulnerable	Bu,S,V
84	Rd		north west from Three Chain Rd	Spyridium eriocephalum var. glabrisepalum		Nationally vulnerable	
KIC	American	North	0.3-0.5 kms	Beyeria subtecta		Nationally vulnerable	
85	River Road	& south	from Hog Bay Rd	Grevillea muricata		Nationally rare	
KIC 86	American River Rd	South	2.1-2.5 kms from Hog Bay Rd (and adjacent American River Rubbish Dump)	Beyeria subtecta		Nationally vulnerable	Bu,R
KIC 87	American River Rd	North	0-0.2 kms north east from Muston Lookout	Caladenia ovata		Nationally vulnerable	
KIC 88	Hog Bay Rd	North & south	1.5-2.5 kms south east of Three Chain Rd	Stipa densiflora	Locally common	Rare in SA	
KIC 89	Road to old gypsum mine	East	1.3 -1.7 kms from Hog Bay Rd	Phebalium equestre	4	Nationally endangered	Bc,V

Site		Side of	C GA251 24027 53371	Threatened	No. of		
no.	Road	road	Description	plant species	plants	Conservation status	Impact
KIC 90	Track connecting Shag Rock Rd with Halls Rd	East & west	<i>r</i>	Grevillea muricata	25	Nationally rare	
KIC 91	Shag Rock Rd	East & west	Between Three Chain Rd & coast	Grevillea muricata	20	Nationally rare	
KIC	Three Chain	South	0-1 km west	Diuris brevifolia	Common	Nationally rare	
92	Rd		of Hundred Line Road	Loxocarya fasciculata		Vulnerable in SA; endangered on KI	1
KIC 93	Hundred Line Rd	East & west	0.4-1.0 kms south of Three Chain Rd	Melaleuca cuticularis		Vulnerable in SA	
KIC 94	North Coast Rd	North & south	0-0.5 km east from Rose Cottage Rd	Eremophila glabra		Endangered on KI	
KIC	North Coast	North	1.5-4.0 kms	Eremophila glabra		Endangered on KI	
95	Rd	& south	from Gap Rd	Eutaxia microphylla var. diffusa		Endangered on KI	1
KIC 96	Cape Cassini Rd	East & west	1.5-2.0 kms from North Coast Rd	Eutaxia microphylla var. diffusa		Endangered on KI	
KIC 97	Kookaburra Rd	East	1.3-1.5 kms south east of Gum Creek Rd	Olearia microdisca	1	Nationally endangered	
KIC	Playford	North	3.2-4.5 kms	Olearia microdisca	5	Nationally endangered	Bu
98	Highway	& south	south west of Birchmore	Spyridium eriocephalum var. glabrisepalum		Nationally vulnerable	
			Rd	Prostanthera chlorantha		Nationally rare; endangered on KI	1
				Dodonaea baueri		Poorly known but likely to be threatened or rare on KI	
KIC 99	Playford Highway	South	0-1.0 kms north east of	Cheiranthera alternifolia		Endangered on KI	
			Margaries Rd	Dodonaea hexandra		Poorly known but likely to be threatened or rare on KI	
KIC 100	Playford Highway	North & south	0-1.0 kms south west of Margaries Rd	Olearia microdisca	4	Nationally endangered	

Site no.	Road	Side of road	Description	Threatened plant species	No. of plants	Conservation status	Impact
KIC 101	Playford Highway	North	Between Branch Creek & Bark Hut Creek	Calochilus robertsonii	50+	Vulnerable on KI	Impact
KIC 102	Playford Highway	North & south	0-0.7 km west of Bark Hut Rd	Prostanthera chlorantha		Nationally rare; endangered on KI	
KIC 103	Birchmore Rd	East & west	1.9-2.4 kms south west of	Spyridium eriocephalum var. glabrisepalum	25	Nationally vulnerable	
			Rowland Highway	Prostanthera chlorantha		Nationally rare; endangered on KI	
KIC 104	North Coast Rd	North	On Constitutional Hill overlooking Snelling Beach	Pultenaea villifera var. glabrescens	8	Nationally vulnerable	Bu
KIC 105	Range Rd	West	3.0-4.0 kms south of north	Pultenaea villifera var. glabrescens	25	Nationally vulnerable	Bu
			coast	Thelymitra grandiflora	20	Endangered on KI	
KIC 106	Stokes Bay Rd	East	0.1-0.3 kms north of Bark Hut Rd	Cheiranthera volubilis		Nationally vulnerable	
KIC 107	Bark Hut Rd	North	0.1-0.4 kms east of Stokes Bay Rd	Cheiranthera volubilis	50	Nationally vulnerable	
KIC 108	Playford Highway	South	Rubble pit 7 kms west of Parndana	Diuris brevifolia	50	Nationally rare	
KIC 109	Playford Highway	North & south	4.5-5.5 kms east of Harriet Rd	Ptilotus beckerianus	25	Nationally vulnerable	Bu
KIC 110	McHughes Rd	North & south	0-1.0 km north west of	Epilobium billardierianum ssp. cinereum		Endangered on KI	
			Eleanor River Crossing	Deyeuxia quadriseta		Poorly known but likely to be threatened or rare on KI	
KIC	Playford	North	4.0-4.3 kms	Schoenus discifer		Nationally rare	1
111	Highway	&	west of	Restio camplanatus		Vulnerable in SA	1
		south	Harriet Rd; Tin Hut Creek	Schoenus brachyphyllus		Rare in SA; endangered on KI	1
			crossing	Sphaerolobium minus		Rare in SA; threatened on KI]
				Deyeuxia quadriseta	2	Poorly known but likely to be threatened or rare on KI	

Site		Side of		Threatened	No. of		
no.	Road	road	Description	plant species	plants	Conservation status	Impact
KIC	Playford	North	1.0-1.3 kms	Schoenus discifer		Nationally rare	
112	Highway	&	north west of	Myriophyllum amphibium		Threatened on KI	
	8	south	Mt Taylor Rd, environs Squashy Creek	Deyeuxia quadriseta		Poorly known but likely to be threatened or rare on KI	
KIC 113	South Coast Rd	North & south	0-2.0 kms north east of East West Highway 2	Ptilotus beckerianus	700	Nationally vulnerable	Bu
KIC 114	East West Highway 2	East	0.5-1.1 kms north west from South Coast Rd (& adjacent stone reserve)	Ptilotus beckerianus	10,000	Nationally vulnerable	
KIC 115	South Coast Rd	South	0.4-0.6 kms north east from Gregors Rd	Ptilotus beckerianus		Nationally vulnerable	
KIC	East West	North	2.9-3.2 kms	Stipa densiflora	6	Rare in SA	
116	Highway 2	& south	west of Gregors Rd, environs Eleanor River	Deyeuxia quadriseta		Poorly known but likely to be threatened or rare on KI	
KIC 117	South Coast Rd	South	0-0.4 kms south west of Hickmans Rd	Ptilotus beckerianus		Nationally vulnerable	
KIC 118	Hickmans Rd	East & west	13.0-13.2 kms from Playford Highway (via Wedgewood Rd)	Ptilotus beckerianus		Nationally vulnerable	
KIC 119	Road to Vivonne Bay (east side of Harriet River)	West	1.5-2.5 kms from South Coast Rd	Centrolepis cephaloformis ssp. murrayi		Nationally vulnerable (D. Cooke, pers. comm.)	
KIC 120	Vivonne Bay Rd (west side of Harriet River)	East & west	0.7-1.3 kms from South Coast Rd	Ptilotus beckerianus	`	Nationally vulnerable	Bu

Site		Side of		Threatened	No. of		
no.	Road	road	Description	plant species	plants	Conservation status	Impact
KIC	South Coast	North	0-0.7 km west	Daviesia arenaria		Vulnerable on KI	
121	Rd	& south	of bridge over Harriet River	Myriocephalus rhizocephalus		Threatened on KI	
KIC 122	South Coast Rd		2.7-3.1 kms east of Sumner Rd	Ptilotus beckerianus		Nationally vulnerable	
KIC 123	South Coast Rd	North & south	0-0.5 kms west of Sumner Rd	Ptilotus beckerianus		Nationally vulnerable	
KIC 124	Sumner Rd	East & west	2.7-3.1 kms from South Coast Rd	Ptilotus beckerianus		Nationally vulnerable	
KIC 125	South Coast Rd	North &	Banks and flood plain	Gratiola pubescens		Vulnerable in SA; endangered on KI	
		south	of Stunsail Boom River	Asperula euryphylla var. tetraphylla		Vulnerable in SA	
KIC 126	Berryman Rd	North & south	3.0-3.4 kms east of Colmans Rd	Hakea aenigma		Nationally rare	
KIC 127	Playford Highway	North &	0.4-0.7km east of Gosse-	Pultenaea dentata		Rare in SA; threatened on KI	
		south	Ritchie Rd; environs Starvation Creek	Myriophyllum amphibium		Threatened on KI	
KIC	Playford	North	7.0-8.9 kms	Asterolasia phebalioides		Nationally vulnerable	Bu
128	Highway	& South	west of West End Highway	Pseudanthus micranthus		Nationally rare	
KIC 129	West End Highway	West	0-0.3 kms south of Church Rd	Cheiranthera volubilis		Nationally vulnerable	
KIC 130	Church Rd	North & south	Hanging swamp, 2.5 kms from West End Highway	Diuris brevifolia	100+	Nationally rare	
KIC 131	Church Rd	North & south	3.5-3.7 kms north west of Baxter Rd	Gastrodia sesamoides		Rare in SA	
KIC 132	South Coast Rd	North & south	Opposite Karratta Outdoor Education Centre	Cheiranthera volubilis	50	Nationally vulnerable	

Site		Side of		Threatened	No. of		
no.	Road	road	Description	plant species	plants	Conservation status	Impact
KIC 133	South Coast Rd	South	3.8-4.2 kms east of South West River Rd	Ptilotus beckerianus		Nationally vulnerable	
KIC 134	South Coast Rd	North & south	0.5-1.5 kms east of West End Highway	Hydrocotyle comocarpa		Nationally rare	
KIC 135	West End Highway	East & west	1.9-2.1 kms from South Coast Rd	Ptilotus beckerianus	1200	Nationally vulnerable	Bu
KIC 136	West End Highway	West	3.1-3.3 kms from South coast Rd	Ptilotus beckerianus	8+	Nationally vulnerable	Bu
KIC	Playford	North	Between Scott	Cheiranthera volubilis	·	Nationally vulnerable	
137	Highway		Cove Rd & Harvey Return campsite	Pultenaea villifera var. glabrescens		Nationally vulnerable	1
KIC 138	Playford Highway	North & south	2.4-2.9 kms west of Shackle Rd	Hakea aenigma		Nationally rare	
KIC 139	Western River Rd	East & west	Between Hazell Hill and Leopard Hill	Pultenaea villifera var. glabrescens	20	Nationally vulnerable	
KIC 140	Road to Pott Park Homestead	North & south	1.0-1.7kms from Willoughby Rd	Pomaderris halmaturina ssp. halmaturina		Nationally vulnerable; endangered on KI	
KIC 141	Bomb Alley Rd	East & west	1.6-1.8 kms from Playford Highway	Olearia microdisca	1	Nationally endangered	
KIC 142	Birchmore Rd	West	Between Willsons Rd & Rowland Highway	Pultenaea teretifolia var. brachyphylla		Nationally rare	
KIC 143	South Coast Rd	North	Between Hickmans Rd & Seal Bay Rd	Pultenaea teretifolia var. brachyphylla		Nationally rare	

Date:11/7/1996

Side of		(kms) west Banks Rd		Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
North	0	0.1	Dodonaea baueri	2	0-3	Bu
North	0.3	1.4	Dodonaea baueri	63	1-5	Bu
North	0.7	0.9	Eutaxia microphylla var. diffusa	4	0-3	Bu
North	0.7	0.9	Spyridium eriocephalum var. glabrisepalum	9	2-4	Bu
North	0.7	1.1	Acacia acinacea	17	1-4	Bu
North	1.2	1.3	Spyridium eriocephalum var. glabrisepalum	3	3	Bu
North	1.3	1.4	Eutaxia microphylla var. diffusa	2	0-3	Bu
North	1.5	1.6	Eutaxia microphylla var. diffusa	1	2	Bu
North	1.7	2.2	Dodonaea baueri	96	1-9	Bu
North	1.8	1.9	Acacia acinacea	5	2-5	Bu
North	1.8	2.0	Spyridium eriocephalum var. glabrisepalum	2	4-5	Bu
North	1.9	2.0	Eutaxia microphylla var. diffusa	5	0-3	Bu
North	2.0	2.1	Acacia acinacea	2	2-3	Bu
North	2.4	2.6	Eutaxia microphylla var. diffusa	2	4-6	P,Bu
North	2.4	2.6	Spyridium eriocephalum var. glabrisepalum	8	4-7	Bu
North	2.7	2.8	Dodonaea baueri	1	5	Bu

Road: Min Oil Rd

Key: Bu=Bulldozing; Bc=Bridal creeper; P=Phalaris

Side of		(kms) west Banks Rd	_	Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
South	0	0.1	Dodonaea baueri	2	2-3	Bu
South	0	0.1	Eutaxia microphylla var. diffusa	3	1	Bu
South	0.1	0.2	Logania linifolia	1	1	Bu
South	0.4	1.1	Dodonaea baueri	86	0-8	Bu
South	0.5	0.6	Eutaxia microphylla var. diffusa	1	2-4	Bu
South	0.5	0.6	Acacia acinacea	1	2-4	Bu
South	0.5	0.7	Logania linifolia	13	1-4	Bu
South	0.6	0.8	Eutaxia microphylla var. diffusa	39	1-12	Bu
South	0.7	0.8	Spyridium eriocephalum var. glabrisepalum	1	3	Bu
South	0.7	1.0	Acacia acinacea	4	0-8	Bu
South	0.8	1.1	Eutaxia microphylla var. diffusa	7	1-7	Bu
South	1.0	1.0	Spyridium eriocephalum var. glabrisepalum	1	7	
South	1.0	1.1	Acacia acinacea	6	0-7	Bu
South	1.1	1.2	Eutaxia microphylla var. diffusa	1	6	
South	1.1	2.1	Dodonaea baueri	68	0-8	Bu,Bc
South	1.3	1.4	Acacia acinacea	1	3-4	
South	1.4	1.4	Spyridium eriocephalum var. glabrisepalum	3	4	
South	1.7	1.7	Spyridium eriocephalum var. glabrisepalum	1	4	
South	1.7	2.2	Acacia acinacea	25	1-7	Bu
South	1.9	1.9	Eutaxia microphylla var. diffusa	1	4	Bu
South	2.1	2.1	Eutaxia microphylla var. diffusa	3	0-3	Bu
South	2.1	2.2	Acacia rupicola	1	3-4	Bu
South	2.4	2.4	Acacia rupicola	1	6	Bu,P

Key: Bu=Bulldozing; Bc=Bridal creeper; P=Phalaris

Side of	from Ho	ce (kms) g Bay Rd		Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
East	0	0.1	Beyeria subtecta	14	0-3	V,Bc,Bu
East	0.1	0.2	Dodonaea hexandra	1	0	Bc,Bu
East	0.1	0.3	Beyeria subtecta	81	0-4	V,Bc,Bu
East	0.3	0.3	Lomandra micrantha ssp. micrantha	3	0-2	Bc,Bu
East	0.3	0.4	Grevillea muricata	5	0-3	Bc,Bu
East	0.6	0.7	Beyeria subtecta	16	0-1	V,Bc,Bu
East	0.6	0.7	Lomandra micrantha ssp. micrantha	1	1	V,Bc,Bu
East	0.9	1.0	Lomandra micrantha ssp. micrantha	33	2-7	Bc,Bu
East	0.9	1.1	Beyeria subtecta	48	2-8	Bc,Bu
East	1.0	1.1	Eremophila behriana	54	0-4	Bc,Bu
East	1.0	1.2	Dodonaea baueri	22	0-6	Bc,Bu
East	1.0	1.2	Logania linifolia	7	1-3	Bc,Bu
East	1.2	1.2	Spyridium eriocephalum var. glabrisepalum	1	1	Bc,Bu
East	1.5	1.8	Dodonaea baueri	28	1-7	Bc,Bu
East	1.7	1.9	Spyridium eriocephalum var. glabrisepalum	7	3-5	Bc,Bu
East	1.8	2.2	Dodonaea baueri	69	1-7	Bc,Bu
East	2.0	2.2	Eutaxia microphylla var. diffusa	4	0-3	Bc,Bu
East	2.1	2.2	Logania linifolia	15	0-2	Bc,Bu
East	2.3	2.4	Dodonaea baueri	1	1	Bc,Bu
East	2.3	2.6	Beyeria subtecta	5	0-2	Bc,Bu
East	2.4	2.9	Grevillea muricata	24	0-7	Bc,Bu

Key: Bu=Bulldozing; Bc=Bridal creeper; V=Perennial veldt grass

Side of road	s: Rick Davies, Lara Ki Distance (kms) from Hog Bay Rd			Number	Distance (m)	
	Start	Finish	Species	of plants	from verge	Impact
West	0	0.1	Beyeria subtecta	18	0-4	Bc,Bu
West	0.1	0.3	Lomandra micrantha ssp. micrantha	3	0-1	V,Bc,Bu
West	0.1	0.3	Beyeria subtecta	121	0-4	V,Bc,Bu
West	0.3	0.3	Grevillea muricata	2	2	Bc,Bu
West	0.3	0.4	Beyeria subtecta	2	2	Bc,Bu
West	0.5	1.0	Beyeria subtecta	108	0-5	V,Bc,Bu
West	0.8	0.9	Logania linifolia	2	0	V,Bc,Bu
West	1.1	1.2	Dodonaea baueri	2	5	V,Bc
West	1.4	1.8	Dodonaea baueri	16	1-4	Bc,Bu
West	1.8	2.4	Dodonaea baueri	83	0-7	Bc,Bu
West	2.1	2.2	Spyridium eriocephalum var. glabrisepalum	1	3	Bc,Bu
West	2.3	2.4	Spyridium eriocephalum var. glabrisepalum	1	5	
West	2.3	2.4	Dodonaea baueri	2	4-5	Bc,Bu
West	2.4	2.6	Beyeria subtecta	2	2	Bc,Bu
West	2.5	2.8	Grevillea muricata	4	4	Bc,Bu
West	2.8	2.9	Dodonaea baueri	1	4	Bu

Road: Wallers Rd (continued) Date: 1-2/7/1996

Key: Bu=Bulldozing; Bc=Bridal creeper; V=Perennial veldt grass

Recorder Side of road	Distance (kms) from Hog Bay Rd			Number	Distance (m)	
	Start	Finish	Species	of plants	from verge	Impact
South	0	0.3	Beyeria subtecta	99	0-5	Bc,Bu
South	0.2	0.2	Lomandra micrantha ssp. micrantha	1	3	Bc,Bu
South	1.1	1.2	Grevillea muricata	5	3-6	Bc,Bu
South	1.1	1.2	Lomandra micrantha ssp. micrantha	1	1	V,Bc,Bu
South	1.7	1.7	Beyeria subtecta	1	2	V,Bc,Bu
South	2.6	2.8	Acacia acinacea	12	1-8	Bc,Bu
South	2.7	3.0	Dodonaea baueri	21	2-7	Bc,Bu
South	2.8	2.9	Spyridium eriocephalum var. glabrisepalum	1	3	Bu
South	2.9	2.9	Acacia acinacea	1	7	
South	3.5	3.7	Dodonaea baueri	2	0-1	V,Bc,Bu
South	3.6	3.6	Acacia acinacea	9	0-4	Bu
South	3.7	3.8	Eutaxia microphylla var. diffusa	1	0	Bu
South	3.8	3.8	Dodonaea baueri	5	1-5	Bu
South	3.8	3.9	Dodonaea baueri	2	4-5	Bc,Bu
South	3.8	4.0	Acacia acinacea	10	1-5	Bc,Bu
South	4.0	4.0	Acacia acinacea	1	3	Bu
South	4.3	4.3	Acacia acinacea	7	0-4	Bu
South	5.0	5.1	Dodonaea baueri	9	1-7	Bu
South	5.0	5.2	Acacia acinacea	16	0-9	Bu,Bc
South	5.1	5.2	Dodonaea baueri	2	1-3	Bu,Bc
South	5.3	5.4	<i>Eutaxia microphylla</i> var. d <i>iffusa</i>	1	2	Bu,V
South	5.7	5.8	Spyridium eriocephalum var. glabrisepalum	1	2	Bu
South	6.0	6.4	Dodonaea baueri	10	2-4	Bu
South	6.6	6.9	Dodonaea baueri	14	2-4	Bu,Bc

Key: Bu=Bulldozing; Bc=Bridal creeper; V=Perennial veldt grass

Date: 3/7/1996

Side of		(kms) from Bay Rd		Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
North	0	0.1	Beyeria subtecta	8	0-6	V,Bc,Bu,
North	0.1	0.2	Lomandra micrantha ssp. micrantha	5	1-1.5	V,Bc,Bu
North	0.2	0.2	Beyeria subtecta	52	0-5	V,Bc,Bu
North	0.3	0.4	Beyeria subtecta	7	0-5	V,Bc,Bu
North	1.1	1.2	Lomandra micrantha ssp. micrantha	3	0-3	V,Bc,Bu
North	1.5	1.6	Beyeria subtecta	5	2-3	V,Bc,Bu
North	1.5	1.6	Logania linifolia	2	1	V,Bc,Bu
North	2.1	2.1	Boronia coerulescens	1	1	Bc
North	2.4	2.5	Logania linifolia	2	0-1	Bu
North	2.6	2.8	Acacia acinacea	21	0-5	Bc,Bu
North	2.6	2.8	Dodonaea baueri	7	0-5	Bc,Bu
North	3.6	3.6	Acacia acinacea	2	0	Bc,Bu
North	3.8	3.9	Acacia acinacea	6	1-4	Bu
North	3.8	3.9	Dodonaea baueri	2	.5-3	Bc,Bu
North	3.8	3.9	Eutaxia microphylla var. diffusa	3	0-3	Bc,Bu
North	3.9	4.0	Eutaxia microphylla var. diffusa	3	0-2	Bu,S
North	4.5	4.6	Acacia acinacea	1	5	V,Bu,Sa
North	4.9	5.0	Eutaxia microphylla var. diffusa	2	4-5	V,Bu
North	4.9	5.0	Dodonaea baueri	1	4	V,Bu
North	4.9	5.3	Acacia acinacea	27	0-8	V,Bu,P
North	5.2	5.2	Dodonaea baueri	1	2-3	V,Bu
North	5.2	5.3	Eutaxia microphylla var. diffusa	1	4	Bu
North	5.6	5.7	Eutaxia microphylla var. diffusa	4	2-3	Bu
North	5.6	5.7	Dodonaea baueri	4	3-5	P,Bu
North	6.7	6.7	Dodonaea baueri	2	3	Bu,Gu
North	6.9	7.0	Dodonaea baueri	5	2-5	Bu,P,Bc,G
North	7.1	7.1	Dodonaea baueri	1	1	Bu,Gu

Road: Red Banks Rd (continued) Recorders: Rick Davies, Tyrone Brett, Lara King

Key: Bu=Bulldozing; Bc=Bridal creeper; V=Perennial veldt grass; P=Phalaris; S=Soursop; Sa=Salinity; Gu=Guildford grass

Side of	Distance (kms) from Hog Bay Rd			Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
North	0.1	0.4	Beyeria subtecta	3	0	V,Bu
North	0.4	0.5	Beyeria subtecta	55	0	V,Bu
North	1.2	1.3	Grevillea muricata	2	1	V,Bu
North	1.3	1.4	Grevillea muricata	1	1	V,Bu
North	2.0	2.1	Phebalium equestre	1	1	V,Bu
North	2.4	2.4	Beyeria subtecta	4	0	V,Bu
North	2.7	2.7	Beyeria subtecta	1	0	V,Bu
North	3.0	3.1	Beyeria subtecta	7	0	V,Bu
North	3.7	3.7	Eutaxia microphylla var. diffusa	1	6	Bu
North	3.8	4.0	Dodonaea baueri	4	3-5	V,Bu
North	4.0	4.1	Grevillea muricata	1	4	
South	0.3	0.4	Dodonaea hexandra	25	1-4	V,Bu
South	0.3	0.4	Beyeria subtecta	20	0	V,Bu
South	0.6	0.6	Beyeria subtecta	3	0	V,Bu
South	1.3	1.4	Beyeria subtecta	1	0	V,Bu
South	1.3	1.4	Cyphanthera myosotidea	1	1	V,Bu
South	1.9	1.9	Phebalium equestre	2	1	Bu
South	2.5	3.4	Beyeria subtecta	46	0-4	V,Bu
South	3.5	3.5	Dodonaea baueri	4	4-5	V,Bu
South	4.7	4.7	-			By

Key: Bu=Bulldozing; Bv=Bridal veil; V=Perennial veldt grass

Side of	Distance (kms) from Pt Morrison Rd			Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
North	0.1	0.2	Eutaxia microphylla var. diffusa	1	1-2	P,Bu
North	2.5	2.6	Dodonaea baueri	3	2-9	Bc,Bu
North	2.7	2.7	Acacia acinacea	1	2	Bu
North	2.9	3.0	Dodonaea baueri	1	2	Bu
North	3.4	3.5	Eutaxia microphylla var. diffusa	1	4	Bu
North	3.7	3.8	Dodonaea baueri	1	4	Bu,P
South	2.3	2.7	Acacia acinacea	9	1-9	Bu,Bc
South	2.9	3.0	Eutaxia microphylla var. diffusa	1	7	Bu
South	2.9	3.0	Acacia acinacea	4	0-6	Bu
South	3.1	3.2	Acacia acinacea	3	0-6	Bu
South	3.7	3.7	Dodonaea baueri	1	0-2	Bu

Key: Bu=Bulldozing; Bc=Bridal creeper; P=Phalaris

Road: Point Morrison Recorders: Rick Davies, Tyrone Brett, Pam Harvey

Road: Red Banks Rd

Date:12/7/1996

Date:12/7/1996

Side of road	Distance (kms) from Red Banks Rd			Number	Distance (m)	
	Start	Finish	Species	of plants	from verge	Impact
North	1.3	1.4	Eutaxia microphylla var. diffusa	1	2.5	Bu

Key: Bu=Bulldozing

Side of	Distance (kms) from Hog Bay Rd			Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
East	0.1	0.2	Cyphanthera myosotidea	3	2-3	Bu
East	0.6	1.1	Dodonaea baueri	20	0-6	Bu,P,Bc
East	1.5	1.8	Beyeria subtecta	9	0-5	Bu,Bc
East	2.4	3.2	Beyeria subtecta	29	1-6	Bu,Bc
East	3.1	3.1	Logania linifolia	1	3	Bu
East	3.4	3.5	Dodonaea baueri	1	2	Bu
East	3.4	3.5	Beyeria subtecta	1	2	Bu
East	3.4	3.5	Logania linifolia	3	2-4	Bu
East	4.6	4.7	Dodonaea baueri	3	2-3	Bu
East	5.0	5.1	Dodonaea baueri	1	1	Bu
East	6.4	6.5	Dodonaea baueri	2	2-3	Bu
West	0.5	0.6	Lomandra micrantha ssp. micrantha	7	0-2	Bu,P,Bc
West	0.8	0.9	Dodonaea baueri	1	1-2	Bu,Bc
West	1.1	1.2	Dodonaea baueri	12	0-5	Bu,Bc
West	1.4	2.0	Beyeria subtecta	32	0-5	Bu,Bc
West	2.8	2.9	Beyeria subtecta	1	4	Bu,Bc
West	3.4	3.5	Dodonaea baueri	2	2-5	Bu
West	4.2	4.6	Beyeria subtecta	6	1-5	Bu
West	4.5	4.6	Dodonaea baueri	4	0-4	Bu
West	4.9	5.0	Olearia microdisca	1	1	Bu,Bc
West	5.0	5.1	Dodonaea baueri	1	3-5	Bu,Bc
West	5.4	5.5	Dodonaea baueri	1	3	Bu
West	5.9	6.0	Dodonaea baueri	2	2	Bu,S
West	6.1	6.2	Acacia acinacea	1	6	Bu
West	6.2	6.3	Acacia acinacea	1	4-5	Bu
West	6.3	6.5	Dodonaea baueri	17	2-5	Bu,Bc,S

Key: Bu=Bulldozing; Bc=Bridal creeper; V=Perennial veldt grass; P=Phalaris; S=Soursop

Road: Formed road reserve starting at Boundar	ry Rd, 3 kms north of Hog Bay Road
Recorders: Rick Davies,	Date:10/7/1996

Side of	Distance Boundar	e (kms) from ry Rd	1 Number		Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact Bu
North	0	0.1	Grevillea muricata	1	2	Bu
South	0	0.4	Beyeria subtecta	28	1-3	Bu
South	0	0.3	Grevillea muricata	12	1-5	Bu

Key: Bu=Bulldozing

Side of	 A state of the sta	(kms) from Bay Rd		Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
North	0.0	0.1	Lomandra micrantha	3	1	Bu,Bc
North	0	0.4	Beyeria subtecta	176	0-7	Bu,Bc
North	0.1	0.2	Dodonaea baueri	17	3-9	Bc,Bu
North	0.1	0.2	Eremophila behriana	1	4	Bu
North	0.1	0.2	Lomandra micrantha ssp. micrantha	8	2-4	Bu
North	0.1	0.3	Logania linifolia	24	3-9	Bu
North	0.1	0.4	Grevillea muricata	97	3-8	Bu,Bc
North	0.2	0.3	Dodonaea hexandra	11	3-6	Bu
North	0.3	0.4	Spyridium eriocephalum var. glabrisepalum	19	4-6	Bc,Bu
North	0.4	0.5	Beyeria subtecta	68	1-4	Bu
North	0.4	0.5	Dodonaea hexandra	2	4	Bu,Bc
North	0.4	0.5	Grevillea muricata	4	4-8	Bu,Bc
North	0.6	0.7	Dodonaea baueri	37	3-6	Bu,Bc
North	0.6	0.7	Grevillea muricata	11	3-6	Bu,Bc
North	0.6	0.7	Lomandra micrantha ssp. micrantha	1	4	Bu
North	0.6	0.7	Spyridium eriocephalum var. glabrisepalum	21	3-6	Bu,Bc
North	0.6	1.4	Beyeria subtecta	282	1-10	Bu
North	0.7	0.9	Spyridium eriocephalum var. glabrisepalum	89	3-6	Bu
North	0.7	1.0	Logania linifolia	7	5-11	Bu
North	0.7	1.4	Dodonaea baueri	145	3-9	Bu
North	1.0	1.4	Spyridium eriocephalum var. glabrisepalum	147	3-15	Bu
North	1.1	1.2	Logania linifolia	1	4	Bu
North	1.2	1.4	Lomandra micrantha ssp. micrantha	13	0-6	Bu
North	1.4	1.5	Grevillea muricata	20	3-6	Bu,S
North	1.4	1.9	Beyeria subtecta	169	2-7	Bu,S
North	1.4	1.9	Dodonaea baueri	113	2-6	Bu,S
North	1.4	1.9	Spyridium eriocephalum var. glabrisepalum	257	3-15	Bu,S
North	1.5	1.9	Grevillea muricata	18	2-6	Bu,S
North	1.9	2.0	Logania linifolia	10	0.5	Bu
North	1.9	2.0	Lomandra micrantha ssp. micrantha	2	2	Bu
North	1.9	2.0	Spyridium eriocephalum var. glabrisepalum	150+	3-6	Bu

Side of	Distance Hog Bay			Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
North	1.9	2.2	Beyeria subtecta	232	0-6	Bu
North	1.9	2.2	Grevillea muricata	63	0-6	Bu
North	1.9	3.1	Dodonaea baueri	683	0-8	Bu
North	2.0	2.1	Spyridium eriocephalum var. glabrisepalum	8	4-10	Bu
North	2.2	2.3	Logania linifolia	5	10	
North	2.2	2.6	Beyeria subtecta	15	1-8	Bu
North	2.3	2.4	Eremophila behriana	3	4	Bu
North	2.3	2.5	Spyridium eriocephalum var. glabrisepalum	19	1-10	Bu
North	2.3	2.6	Logania linifolia	7	5-8	Bu
North	2.5	2.7	Lomandra micrantha ssp. micrantha	4	0-4	Bu
North	2.6	2.7	Logania linifolia	22	1-10	Bu
North	2.6	2.7	Spyridium eriocephalum var. glabrisepalum	1	8	Bu
North	2.6	2.8	Eremophila behriana	10	0-8	Bu
North	2.6	3.1	Beyeria subtecta	159	0-7	Bu
North	2.7	2.8	Spyridium eriocephalum var. glabrisepalum	45	8-15	Bu,R
North	2.8	2.9	Logania linifolia	2	0-10	Bu
North	2.8	2.9	Spyridium eriocephalum var. glabrisepalum	28	8-15	
North	2.8	3.5	Grevillea muricata	292	0-7	Bu
North	2.9	3.1	Spyridium eriocephalum var. glabrisepalum	4	4-8	Bu
North	3.0	3.1	Dodonaea hexandra	1	0.5	Bu
North	3.1	3.5	Beyeria subtecta	13	0-6	Bu
North	3.5	3.6	Grevillea muricata	85	0-6	Bc,Bu
North	3.6	3.7	Dodonaea hexandra	1	10	
North	3.6	3.7	Grevillea muricata	39	2-6	Bu
North	3.6	3.7	Lomandra micrantha ssp. micrantha	1	10	
North	3.6	3.8	Spyridium eriocephalum var. glabrisepalum	9	6-10	
North	3.7	3.8	Grevillea muricata	180	1-6	S
North	3.8	3.9	Beyeria subtecta	21	2-6	Bu

Road: Willsons Rd (continued) Date:22-24/7/1996

Side of		(kms) from Bay Rd		No. of	Distance (m) from	
road	Start	Finish	Species	plants	verge	Impact
North	3.8	3.9	Dodonaea hexandra	7	10	Bc
North	3.8	3.9	Grevillea muricata	169	2-6	V
North	3.8	3.9	Spyridium eriocephalum var. glabrisepalum	2	0.5-4	Bc
North	3.9	4.0	Dodonaea baueri	1	2	Bu
North	3.9	4.0	Grevillea muricata	21	1-4	Bu
North	3.9	4.3	Beyeria subtecta	172	1-4	V,Bc,Bu
North	4.1	4.2	Grevillea muricata	7	0.5-4	V,Bc,Bu
North	4.2	4.3	Grevillea muricata	4	1-3	Bc
North	4.2	4.3	Logania linifolia	3	5	V,Bc,Bu
North	4.2	4.4	Lomandra micrantha ssp. micrantha	2	6-8	V,Bu
North	4.3	4.4	Beyeria subtecta	115	0-3	Bu,V
North	4.3	4.4	Logania linifolia	6	3	V,Bu
North	4.3	4.7	Grevillea muricata	202	0-4	V,Bu
North	4.4	4.5	Beyeria subtecta	133	0-4	V,Bc,Bu
North	4.4	4.5	Lomandra micrantha ssp. micrantha	7	0.5-6	Bc
North	4.5	4.6	Logania linifolia	1	3	Bu
North	4.5	4.7	Beyeria subtecta	171	0-4	V,Bu
North	4.5	4.7	Lomandra micrantha ssp. micrantha	9	0-6	V,Bu
North	4.7	4.8	Beyeria subtecta	6	0-4	V,Bc,Bu
North	4.7	4.8	Grevillea muricata	65	0-4	V,Bc,Bu
North	4.7	4.8	Lomandra micrantha ssp. micrantha	5	1-2	V,Bc,Bu
North	4.9	5.4	Beyeria subtecta	18	0-4	Bu,Bc
North	5.1	5.2	Lomandra micrantha ssp. micrantha	1	4	V,Bc,Bu
North	5.3	5.4	Acacia sp. nov. aff. halliana	1	2	Bu,V,Bc
North	5.4	5.5	Acacia sp. nov. aff. halliana	10	2-4	V,P,Bc,Bu
North	5.4	5.5	Dodonaea baueri	7	4	V,P,Bc,Bu
North	5.4	5.5	Lomandra micrantha ssp. micrantha	1	6	Bu
North	5.5	5.6	Spyridium eriocephalum var. glabrisepalum	1	4	Bc,Bu
North	5.5	5.8	Grevillea muricata	7	0-4	V,Bc,Bu
North	5.7	5.8	Grevillea muricata	3	2	V,Bc,Bu
North	5.7	5.8	Lomandra micrantha ssp. micrantha	1	0	V,Bc,Bu
North	5.8	5.9	Acacia sp. nov. aff. halliana	3	0.5-4	V,Bc,Bu
North	5.8	5.9	Dodonaea baueri	1	2	V,Bc,Bu
North	5.9	6.0	Grevillea muricata	4	1	V,Bc,Bu
North	6.0	6.2	Grevillea muricata	8	0-2	V,Bu
North	6.1	6.2	Lomandra micrantha ssp. micrantha	1	1	V,Bu

Side of		(kms) from Bay Rd		No. of	Distance (m) from	
road	Start	Finish	Species	plants	verge	Impact
South	0.0	0.1	Beyeria subtecta	18	0-12	Bu,P,Bc
South	0	0.1	Lomandra micrantha ssp. micrantha	97	1-4	Bc,Bu
South	0	0.2	Dodonaea baueri	5	0-2	Bc,Bu
South	0	0.2	Eremophila behriana	3	0-2	Bc,Bu
South	0.1	0.2	Lomandra micrantha ssp. micrantha	81	1-4	Bc,Bu
South	0.2	0.3	Lomandra micrantha ssp. micrantha	8	1-3	Bc,Bu
South	0.2	0.8	Beyeria subtecta	30	0-4	Bc,Bu
South	0.4	0.5	Lomandra micrantha ssp. micrantha	1	2	Bc,Bu
South	0.6	0.7	Dodonaea baueri	2	2-3	Bc, Bu
South	0.6	0.7	Eremophila behriana	1	3	Bc,Bu
South	0.6	0.7	Logania linifolia	1	2	Bc,Bu
South	0.6	0.9	Lomandra micrantha ssp. micrantha	9	3-4	Bc,Bu
South	0.8	0.9	Eremophila behriana	5	1	Bc,Bu
South	1.0	1.2	Beyeria subtecta	7	1-3	Bu,Bc
South	1.0	1.2	Lomandra micrantha ssp. micrantha	18	1-4	Bc,Bu
South	1.1	1.2	Dodonaea baueri	2	2	Bc, Bu
South	1.2	1.3	Logania linifolia	1	2	Bu,Bc
South	1.3	1.4	Eremophila behriana	1	2	Bu,Bc
South	1.3	1.5	Lomandra micrantha ssp. micrantha	89	1-5	Bc,Bu
South	1.4	1.5	Beyeria subtecta	1	1	Bu, Bc
South	1.4	1.7	Dodonaea baueri	41	1-5	Bu Bu
South	1.5	1.6	Logania linifolia	1	1.5	Bu
South	1.5	1.8	Lomandra micrantha ssp. micrantha	9	1.5	Bu
South	1.5	1.8	Spyridium eriocephalum var.	8	1-3	Bu
			glabrisepalum	0	1-5	Du
South	1.6	1.7	Beyeria subtecta	8	1-5	Bu, Bc
South	1.7	1.8	Beyeria subtecta	1	1	Bu, Bc
South	1.7	1.8	Grevillea muricata	1	1	Bu, Bu
South	1.8	1.9	Dodonaea baueri	9	1.5	Bu
South	1.9	2.0	Beyeria subtecta	3	2	Bu,
South	1.9	2.0	Eremophila behriana	3	2	Bu, Bu
South	1.9	2.0	Spyridium eriocephalum var.	1	1	Bu
	(1997), 2012(17)		glabrisepalum	3.53	3.53	Du
South	1.9	2.1	Logania linifolia	13	1-2	Bu
South	2.0	2.1	Beyeria subtecta	30	1-2	Bu,
South	2.0	2.1	Dodonaea baueri	20	1-5	Bu, Bu
South	2.0	2.2	Grevillea muricata	28	1-6	Bu
South	2.1	2.5	Beyeria subtecta	14	1-6	Bu

Road: Willsons Rd (continued) Date:22-24/7/1996 Recorders: Rick Davies, Yvonne Steed, Anthelia Bond, Mango Banziin

Side of	Hog Bay		-	No. of	Distance (m) from	
road	Start	Finish	Species	plants	verge	Impact
South	2.2	2.3	Dodonaea baueri	3	2	Bu
South	2.4	2.5	Spyridium eriocephalum var. glabrisepalum	1	3	Bu
South	2.4	3.1	Dodonaea baueri	70	1-6	Bu
South	2.5	2.7	Eremophila behriana	11	6-8	Bu
South	2.7	2.8	Spyridium eriocephalum var. glabrisepalum	1	2	Bu
South	2.8	2.9	Eremophila behriana	4	1-3	Bu
South	2.8	2.9	Grevillea muricata	1	1-6	Bu
South	2.8	3.1	Beyeria subtecta	147	1-6	Bu
South	2.9	3.4	Grevillea muricata	73	0-6	Bu
South	3.1	3.2	Dodonaea hexandra	1	2	Bu
South	3.1	3.4	Beyeria subtecta	4	0-5	Bu
South	3.2	3.3	Dodonaea baueri	1	1	Bu
South	3.2	3.3	Spyridium eriocephalum var. glabrisepalum	1	2	Bu
South	3.3	3.4	Dodonaea hexandra	2	3-4	Bu
South	3.7	3.8	Beyeria subtecta	7	1-2	Bu
South	3.7	3.9	Grevillea muricata	10	1-5	Bu,Bc
South	3.8	4.3	Beyeria subtecta	163	0-4	V,Bc,Bi
South	4.2	4.3	Logania linifolia	1	2	V,Bc,Bi
South	4.2	4.3	Lomandra micrantha ssp. micrantha	3	2	V,Bc,Bi
South	4.3	4.4	Beyeria subtecta	13	2	Bu,V
South	4.3	4.4	Logania linifolia	2	0-2	V,Bu
South	4.4	4.5	Lomandra micrantha ssp. micrantha	1	0	Bu
South	4.4	4.7	Beyeria subtecta	22	2-3	V,Bc,Bi
South	4.5	4.6	Lomandra micrantha ssp. micrantha	3	0	V,Bc,Bi
South	4.5	4.8	Grevillea muricata	35	0-3	V,Bu,Bo
South	4.7	4.8	Beyeria subtecta	2	0.5	V,Bu
South	4.7	4.9	Lomandra micrantha ssp. micrantha	17	0-2	V,Bc,Bi
South	4.8	4.9	Dodonaea baueri	1	3	Bu
South	4.9	5.0	Beyeria subtecta	4	1-3	V,Bu
South	4.9	5.0	Grevillea muricata	1	1-3	V,Bu
South	4.9	5.0	Lomandra micrantha ssp. micrantha	3	1-3	V,Bu
South	5.0	5.1	Dodonaea baueri	1	3	Bc,Bu
South	5.0	5.1	Logania linifolia	3	2	Bu
South	5.0	5.2	Beyeria subtecta	37	1-2	Bc,Bu
South	5.2	5.3	Beyeria subtecta	15	1-2	Bu
South	5.2	5.3	Grevillea muricata	2	1	Bu

Road: Willsons Rd (continued) Date:22-24/7/1996 Recorders: Rick Davies, Yvonne Steed, Anthelia Bond, Mango Ranzijn

Side of	Distance (kms) from Hog Bay Rd			Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
South	5.2	5.3	Lomandra micrantha ssp. micrantha	1	3	Bu
South	5.3	5.3	Logania linifolia	1	3	Bu
South	5.3	5.4	Acacia sp. nov. aff. halliana	4	0-1	Bu
South	5.3	5.4	Dodonaea baueri	2	2-5	Bu
South	5.3	5.4	Grevillea muricata	2	8	Bu,Bc
South	5.3	5.5	Beyeria subtecta	13	1-2	Bc,Bu
South	5.4	5.5	Acacia sp. nov. aff. halliana	8	1-4	Bc,Bu
South	5.4	5.5	Dodonaea baueri	10	2-3	P,Bc,Bu
South	5.4	5.6	Logania linifolia	7	0-3	Bc,Bu
South	5.5	5.6	Dodonaea baueri	5	1-3	Bc,Bu
South	5.5	5.6	Lomandra micrantha ssp. micrantha	6	2	Bc,Bu
South	5.5	6.1	Grevillea muricata	92	0-4	V,Bc,Bu
South	5.7	6.1	Lomandra micrantha ssp. micrantha	11	1-2	V,Bc,Bu
South	6.1	6.2	Beyeria subtecta	3	2	V, Bu
South	6.1	6.2	Grevillea muricata	26	3	V,Bu
South	6.1	6.2	Lomandra micrantha ssp. micrantha	1	2	V,Bu

Key: Bu=Bulldozing; Bc=Bridal creeper; V=Perennial veldt grass; P=Phalaris; S=Soursop

Road: Willsons Rd

Date: 25/7/1996

Side of road	Distance (kms) west from Hd Line Rd			Number	Distance (m)	
	Start	Finish	Species	of plants	from verge	Impact
North	0	0.1	Beyeria subtecta	1	3	Bu
North	0	0.1	Lomandra micrantha ssp. micrantha	1	4	Bu
North	0.4	0.5	Dodonaea baueri	3	2	Bu,Bc
South	0	0.2	Beyeria subtecta	17	2-4	Bu
South	0	0.2	Grevillea muricata	4	1-3	Bu

Key: Bu=Bulldozing; Bc=Bridal Creeper

Side of		kms) from Bay Rd		Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
East	0	0.8	Beyeria subtecta	110	0-5	V,(P),Bc,Bu,(S)
East	0.1	0.2	Eremophila behriana	2	1-5	Bc
East	0.1	0.2	Pultenaea teretifolia var. brachyphylla	1	1	Bc
East	0.2	0.3	Eremophila behriana	1	1	V,Bc
East	0.5	0.6	Grevillea muricata	1	1	V,Bc
East	0.9	1.1	Beyeria subtecta	18	1-2	V,Bc
East	1.3	1.4	Pultenaea insularis	1	1-4	V,Bc
East	1.7	1.8	Dodonaea hexandra	1	3	
East	1.9	1.9	Grevillea muricata	1	8	Bc,Sa
East	2.3	2.4	Daviesia arenaria	1	0	V,Bu
East	2.5	2.7	Eutaxia microphylla var. diffusa	42	0-4	V,P,Bc,Bu,S
East	2.6	2.6	Dodonaea baueri	4	5	
West	0.2	0.4	Dodonaea baueri	2	6-8	V,Bc,Bu
West	0.2	0.5	Beyeria subtecta	12	1-9	V,Bc,Bu
West	0.3	0.4	Eremophila behriana	8	7	V,Bc
West	0.4	0.5	Beyeria subtecta	60	0-7	V,Bc,Bu
West	0.5	0.7	Beyeria subtecta	2	1-4	V,Bc,Bu
West	0.8	1.0	Grevillea muricata	2	1-2	V,Bc,Bu
West	0.9	1.0	Beyeria subtecta	123	0-7	V,(P),Bc,Bu,(G)
West	1.2	1.3	Pultenaea insularis	4	0-3	V,Bc,Bu
West	1.2	1.3	Logania linifolia	1	2	V
West	1.6	1.8	Grevillea muricata	3	2	Bu
West	1.8	1.9	Pultenaea insularis	6	0-2	V,Bc,Bu
West	2.1	2.2	Daviesia arenaria	1	1	V,Bu
West	2.4	2.5	Daviesia arenaria	1	3	
West	2.5	2.7	Eutaxia microphylla var. diffusa	16	0-3	V,Bc,Bu,S

Key: Bu=Bulldozing; Bc=Bridal creeper; V=Perennial veldt grass; P=Phalaris; S=Soursop; Gi=Guildford grass; Sa=Salinity

Side of	Distance (kms) from Hd Line Rd			Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
North	0.7	0.7	Pultenaea insularis	4	1	V,Bv,Bu
North	0.9	1.0	Pultenaea insularis	2	2	V
North	1.1	1.1	Pultenaea insularis	5	4	V
North	2.1	2.2	Pultenaea insularis	19	0-5	V,Bc
North	3.0	3.0	Grevillea muricata	1	2	
North	3.3	3.3	Grevillea muricata	1	2	V,G
South	0	0.1	Pultenaea insularis	3	4-5	Bu
South	0.6	1.2	Pultenaea insularis	31	1-5	Bc,Bv,Bu
South	0.7	0.7	Dodonaea hexandra	2	5	Bv
South	1.1	1.2	Dodonaea hexandra	1	3	Bu
South	2.8	3.0	Grevillea muricata	7	0-1	
South	3.5	3.6	Grevillea muricata	4	1-4	V,Bu

Key: Bu=Bulldozing; Bc=Bridal creeper; Bv=Bridal veil; V=Perennial veldt grass; G=grazing

Road: Milkys Rd Date: 27/6/1996 Recorders: Rick Davies, Matilde Hoevberg, Lisa Paterson

Side of	Distance (kms) from Halls Rd			Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
East	2.4	3.5	Baumea juncea	patches	0	V,P,Bu
East	4.3	4.5	Cyphanthera myosotidea	12	1-5	Bu
East	6.1	6.2	Grevillea muricata	4	0-2	
East	6.1	6.3	Logania linifolia	1	1-2	
East	6.4	6.5	Logania linifolia	1	1	
East	6.5	6.7	Cyphanthera myosotidea	7	0-1	Bu
West	0.1	0.1	Dodonaea baueri	2	5-7	V,Bu
West	2.4	3.5	Baumea juncea	patches	0	V,P,Bu
West	6.1	6.3	Logania linifolia	18	0-3	
West	6.6	6.7	Cyphanthera myosotidea	1	1	
West	6.8	6.9	Baumea juncea	Patch	0	

Key: Bu=Bulldozing; Bc=Bridal creeper; V=Perennial veldt grass; P=Phalaris; S=Soursop;

G=grazing

Side of	Distance (kms) from 3 Chain Rd			Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
North	0.1	0.1	Prostanthera chlorantha	1	2	
North	0.2	0.2	Logania linifolia	2	1	
North	0.5	0.5	Logania linifolia	6	2	
North	0.7	0.8	Logania linifolia	14	2-5	
North	1.2	1.4	Phebalium equestre	18	1-3	
North	1.6	1.7	Phebalium equestre	2	1	
North	1.9	2.1	Phebalium equestre	7	0-5	V,Bu
North	2.0	2.3	Cyphanthera myosotidea	9	1-3	Bu
North	2.4	2.5	-	-	-	Bc,Bv
North	4.7	4.8	Cyphanthera myosotidea	2	1-2	V,Bu
North	5.1	5.3	Lomandra micrantha spp. tuberculata	3	1	V,Bu
South	0	0.2	Prostanthera chlorantha	10	1-4	Bu
South	0.7	0.8	Logania linifolia	9	0-4	Bu
South	1.1	1.2	Phebalium equestre	1	1	
South	1.2	1.4	Phebalium equestre	67	0-4	Bu
South	1.4	1.5	Baumea juncea	patch	0	
South	2.1	2.1	Phebalium equestre	1	2	V,Bu
South	5.0	5.1	Lomandra micrantha ssp. tuberculata	2	1-2	V,Bu
South	5.7	5.7	-	-	. <u></u>	By

Key: Bu=Bulldozing; Bc=Bridal creeper; Bv=Bridal veil; V=Perennial veldt grass

Road: Hundred Line Rd

Date:18-19/7/1996

Side of	from Ho	kms) south g Bay Rd	_	Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
East	0	0.2	Lawrencia spicata	100+	?	Bu
East	0.4	0.4	Lomandra micrantha ssp. micrantha	10+	23	Bc,Bu
East	0.4	0.4	Spyridium spathulatum	1	23	Bc,Bu,R,S
East	0.4	0.5	Olearia microdisca	2	14-33	Bu,T,Sp
East	0.4	0.5	Dodonaea baueri	2	33	T,Sp
East	0.4	0.5	Lomandra micrantha ssp. micrantha	1	33	T,Sp
East	0.4	0.5	Spyridium eriocephalum var. glabrisepalum	1	35	T,Sp
East	0.5	0.6	Grevillea muricata	8	1-4	Bu,Bc
East	0.6	1.7	Lomandra micrantha ssp. micrantha	100+	?	Bu,Bc,P
East	0.6	1.7	Stipa nitida/nodosa	100+	?	Bu,Bc,P
East	2.1	2.5	Lomandra micrantha ssp. micrantha	?	0-4	P,Bu,Bc, Gu
East	3.3	3.5	Grevillea muricata	3	0-5	Bu,Sp,Gu
East	4.2	4.7	Grevillea muricata	19	0-4	Bu,Gu
West	0	0.2	Lawrencia spicata	100+	?	Bu
West	0.4	0.4	Lomandra micrantha ssp. micrantha	1	6	V,Bc
West	0.5	0.6	Grevillea muricata	2	3	Bu
West	0.5	0.6	Dodonaea baueri	2	36	V,Bc,Bu
West	0.5	0.6	Grevillea muricata	2	3	Bu
West	0.5	0.6	Dodonaea baueri	2	36	V,Bc,Bu
West	0.5	1.7	Lomandra micrantha ssp. micrantha	100+	?	Bu,Bc,P
West	0.6	1.7	Stipa nitida/nodosa	100+	?	Bu,Bc,P
West	1.3	1.4	Spyridium eriocephalum var. glabrisepalum	1	0	Bu
West	1.3	1.4	Olearia microdisca	1	0	Bu,Bc
West	2.5	3.0	Stipa nitida/nodosa	?	?	P,Bc,Bu,Gu
West	3.1	3.2	Olearia microdisca	2	19	Bc,E,O
West	3.1	3.2	Spyridium eriocephalum var. glabrisepalum	4	9	P,Bc,E,O
West	3.1	3.4	Dodonaea hexandra	6	5-9	P,Bu
West	3.1	3.5	Prostanthera chlorantha	26	6-19	P,Bc,E,O
West	3.2	4.7	Grevillea muricata	88	0-8	Bc,Bu

Key: Bu=Bulldozing; Bc=Bridal creeper; V=Perennial veldt grass; P=Phalaris; T=Trampling; Gu=Guildford grass; O=Olives; E=Erosion; S=Sparaxis; R=Rubbish; S=Soursop

Side of		kms) north llsons Rd		Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
East	0.1	0.3	Acacia sp. nov. aff. halliana	6	1-4	V,Bc,Bu
East	0.2	0.3	Eutaxia microphylla var. diffusa	3	1-5	Bc,Bu
East	0.3	0.4	Grevillea muricata	1	4	V,Bc,Bu
East	0.5	0.8	Acacia sp. nov. aff. halliana	14	2-3	V,Bc,Bu,P,S
East	0.6	0.8	Dodonaea baueri	5	2-3	V,Bc,Bu,P,S
East	1.1	1.2	Grevillea muricata	6	5	V,Bu,S
East	1.3	1.4	Grevillea muricata	7	1-3	V,Bc,Bu,S
East	1.7	1.8	Grevillea muricata	6	1	V,Bc,Bu,S
West	0.1	0.3	Dodonaea baueri	9	2-4	V,Bc,Bu
West	0.1	0.3	Acacia sp. nov. aff. halliana	8	2-5	V,Bc,Bu
West	0.2	0.3	Eutaxia microphylla var. diffusa	1	1-2	V,Bu
West	0.2	0.3	Logania linifolia	3	2	V,Bu
West	0.4	0.8	Dodonaea baueri	14	2-5	V,Bc,Bu,P
West	0.6	0.7	Logania linifolia	8	1-4	V,Bc,Bu,P,S
West	0.6	0.7	Spyridium eriocephalum var. glabrisepalum	2	4	V,Bc,Bu,P
West	0.6	0.8	Acacia sp. nov. aff. halliana	27	0-4	V,Bc,Bu,P,S
West	0.8	1.0	Beyeria subtecta	10	1-5	V,Bc,Bu
West	1.5	1.6	Grevillea muricata	9	1-4	Bc,Bu

Road: Hundred Line Road Recorders: Rick Davies, Ren Shenherd, Mark Warren

Date:15/7/1996

Date:16/7/1996

Road: Hundred Line Rd

Side of	from W	(kms) south illsons Rd		Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
East	0	0.1	Beyeria subtecta	6	3-5	Bu
East	0.1	0.1	Grevillea muricata	1	4	Bu
East	0.2	0.4	Eutaxia microphylla var. diffusa	65	0-5	Bu
East	1.5	1.6	Lomandra micrantha ssp. tuberculata	3	1	V,Bu
East	1.8	1.9	Lomandra micrantha ssp. tuberculata	5	0-1	V,Bu
East	1.8	1.9	Grevillea muricata	10	0-4	V,Bc,Bu
East	2.4	2.5	Acacia acinacea	1	2	V,Bc,Bu
East	2.8	2.8	Logania linifolia	2	1-2	V,Bc,Bu
East	2.8	2.9	Lomandra micrantha ssp. tuberculata	2	0-1	V,Bc,Bu
East	2.9	3.4	Pultenaea insularis	6	1-3	V,Bu
West	0	0.1	Beyeria subtecta	4	4-6	Bu,V
West	0.3	0.4	Dodonaea baueri	2	6	V,Bu,Bc
West	0.4	0.4	Acacia sp. nov. aff. halliana	1	6	V,Bu,Bc
West	0.4	0.5	Eutaxia microphylla var. diffusa	3	3-5	Bu,Bc,S
West	0.4	0.5	Prostanthera chlorantha	3	3-4	Bc,Bu
West	1.3	1.4	Dodonaea baueri	3	2-5	V,Bu,Bc,S
West	1.8	1.8	Pultenaea insularis	3	1	V,Bu
West	1.8	2.0	Grevillea muricata	16	1-4	V,Bc,Bu
West	2.2	2.3	Dodonaea baueri	4	5	V,Bu,Bc,F
West	2.2	2.3	Acacia acinacea	1	5	V,Bc,Bu
West	2.2	2.4	Dodonaea baueri	3	4-6	V,Bc,Bu
West	2.3	2.4	Acacia acinacea	6	6	V,Bc,Bu
West	2.4	2.6	Pultenaea insularis	4	3-4	V,Bc,Bu
West	2.5	2.6	Acacia acinacea	1	4	V,Bu
West	2.6	2.9	Acacia farinosa	2+	2-3	V,Bc,Bu

Side of	Distance (kms) south from Moores Rd			Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
East	0	0.1	Pultenaea insularis	10	4-7	V,Bu
East	0.1	0.2	Logania linifolia	2	1	V,Bu
East	0.2	0.3	Pultenaea insularis	2	2-7	V,Bu
East	0.3	0.3	Logania linifolia	3	0-1	V,Bu,Bc
East	0.7	1.7	Pultenaea insularis	80	1-8	V,Bu,Bc
East	1.1	1.2	Logania linifolia	1	0	V,Bu,Bc
East	1.3	1.4	Logania linifolia	2	0-4	V,Bu,Bc
East	1.3	1.4	Dodonaea hexandra	1	2	V,Bu,Bc
East	3.5	3.6	Logania linifolia	1	0-1	V,Bu
East	2.8	3.6	-	-	175	Bv
West	0.2	0.4	Pultenaea insularis	9	3-4	V,Bu,Bc
West	0.6	1.7	Pultenaea insularis	117	1-8	V,Bu,Bc
West	2.2	2.3	Dodonaea baueri	1	4	V,Bu
West	2.4	3.6	-	-	353	Bv

Key: Bu=Bulldozing; Bc=Bridal creeper; V=Perennial veldt grass; Bv=Bridal veil

Road: South Coast Rd Recorders: Rick Davies, Ben Shenherd, Mark Warren

Road: Hundred Line Rd

Date:20/7/1996

Date:17/7/1996

Side of	Distance (kms) from Hog Bay Rd			Number	Distance (m)	
road	Start	Finish	Species	of plants	from verge	Impact
East	0	2.2	Grevillea muricata	292		Bu
East	3.2	3.2	Grevillea muricata	1	1	Bu
East	3.7	3.8	Grevillea muricata	4	0-2	Bu
East	5.1	5.2	Dodonaea baueri	1	4	
East	5.5	5.7	Prostanthera chlorantha	68	0-3	S
East	5.7	5.8	Dodonaea baueri	9	0-7	Bu,S
East	5.9	6.0	Prostanthera chlorantha	2	1	Bu
East	6.2	6.3	Dodonaea baueri	2	6	Bu
East	6.2	6.4	Dodonaea hexandra	2	1-6	Bu
East	6.7	6.9	Dodonaea hexandra	5	0-5	Bu
West	0	2.2	Grevillea muricata	226		Bu
West	3.6	3.7	Grevillea muricata	6	0	Bu,Bc
West	5.2	5.3	Prostanthera chlorantha	2	2	
West	5.5	5.8	Dodonaea baueri	3	2-10	Bu,S
West	5.7	5.8	Eutaxia microphylla var. diffusa	1	11	P,Bu
West	5.7	6.0	Prostanthera chlorantha	60	1-10	Bu
West	6.0	6.0	Dodonaea hexandra	3	1	Bu
West	6.3	6.4	Dodonaea baueri	6	10	Bc,Bu

Key: Bu=Bulldozing; Bc=Bridal creeper; S=Soursop; P=Phalaris

Road: Starr Rd

Date:25/7/1996

Side of	Distance ((kms) from ine Rd	a Bond, Mango Ranzijn	No. of	Distance (m) from	
road	Start	Finish	Species	plants	verge	Impact
North	0.1	0.3	Lomandra micrantha ssp. tuberculata	2	1	Bu
North	0.3	0.4	Lomandra micrantha ssp. tuberculata	1	1	Bu,Bc
North	0.5	0.6	Dodonaea baueri	1	1	
North	0.9	1.0	Grevillea muricata	1	1	Bu
North	1.0	1.1	Lomandra micrantha ssp. tuberculata	1	1	Bu
North	1.3	1.4	Grevillea muricata	2	0-1	
North	1.7	1.8	Lomandra micrantha ssp. tuberculata	4	2	Bu
North	1.9	2.1	Grevillea muricata	23	0-2	Bu
North	2.2	2.4	Lomandra micrantha ssp. tuberculata	3	0	
North	2.2	2.8	Grevillea muricata	28	1-6	
North	2.6	2.7	Grevillea muricata	1	3	
North	2.9	3.0	Grevillea muricata	1	2	Bu
North	3.0	3.1	Dodonaea baueri	1	1	
North	3.0	3.1	Dodonaea baueri	1	1	
North	3.0	3.1	Dodonaea baueri	1	1	
North	3.1	3.4	Grevillea muricata	3	2-3	
North	3.3	3.4	Lomandra micrantha ssp. tuberculata	1	3	
North	3.5	3.6	Grevillea muricata	1	2	Bu,Bc
North	3.8	3.9	Lomandra micrantha ssp. tuberculata	2	0	Bu,Bc
South	0.2	0.4	Lomandra micrantha ssp. tuberculata	5	1	Bu
South	0.4	0.5	Lomandra micrantha ssp. tuberculata	2	1	Bu,Bc
South	0.5	0.7	Dodonaea baueri	5	1-2	Bu
South	0.9	1.2	Lomandra micrantha ssp. tuberculata	30	1-3	Bu
South	1.2	1.3	Grevillea muricata	3	0-1	Bu
South	1.3	1.4	Lomandra micrantha ssp. tuberculata	3	1-2	
South	1.4	1.5	Grevillea muricata	1	0	Bu
South	1.7	1.9	Lomandra micrantha ssp. tuberculata	13	1-3	Bu
South	1.9	2.0	Lomandra micrantha ssp. tuberculata	1	1	Bu
South	2.1	2.2	Lomandra micrantha ssp. tuberculata	2	2	
South	2.3	2.4	Lomandra micrantha ssp. tuberculata	7	1	Bu
South	2.5	2.7	Lomandra micrantha ssp. tuberculata	4	2-4	Bu
South	2.7	2.9	Grevillea muricata	8	1-2	Bu,Bc
South	3.0	3.1	Dodonaea baueri	3	0-2	Bu
South	3.1	3.6	Grevillea muricata	41	1-4	Bu
South	3.4	3.5	Lomandra micrantha ssp. tuberculata	2	1-2	
South	3.6	3.7	Lomandra micrantha ssp. tuberculata	3	4	
South	3.7	3.9	Lomandra micrantha ssp. tuberculata	15	1-3	V,Bc

Key: Bu=Bulldozing; Bc=Bridal creeper; V=Perennial veldt grass

Side of road	Distance (kms) from Hog Bay Rd		n Ponty, Adam Ingledew	Number	Distance (m)	
	Start	Finish	Species	of plants	from verge	Impact
North	0	0.1	Boronia coerulescens	2	5	V,Bu,S
North	0.1	0.6	Phebalium equestre	15	1-5	V,Bu
North	0.2	0.4	Boronia coerulescens	4	1-3	V,Bu
North	0.5	1.0	Boronia coerulescens	11	1-9	V,Bu
North	0.8	1.0	Logania linifolia	2	2-3	Bu
North	1.9	2.1	Phebalium equestre	3	3-5	Bu
North	1.9	2.2	Cyphanthera myosotidea	4	1-3	Bc
North	2.0	2.1	Boronia coerulescens	1	1	Bu
North	2.0	2.1	Logania linifolia	1	3	Bu
North	2.2	3.2	Phebalium equestre	61	1-10	V,Bu
North	2.3	2.6	Cyphanthera myosotidea	16	0-3	Bu
North	2.7	3.7	Cyphanthera myosotidea	68	0-4	V,Bu
North	3.3	4.0	Phebalium equestre	40	1-5	Bu
South	0	0.1	Logania linifolia	1	3	V,Bu
South	0	0.3	Boronia coerulescens	19	1-3	V,Bu
South	0	1.0	Phebalium equestre	48	0-8	V,Bu
South	0.1	0.2	Beyeria subtecta	2	2	V,Bu,S
South	0.5	0.6	Boronia coerulescens	3	1-6	V
South	0.7	0.8	Boronia coerulescens	2	1	V,Bu
South	0.7	0.9	Logania linifolia	2	1	V,Bu
South	0.9	1.0	Beyeria subtecta	20	2-7	V,Bu
South	0.9	1.0	Lomandra micrantha	2	3	Bu
South	0.9	1.1	Boronia coerulescens	7	2-6	V,Bu
South	1.6	1.7	Logania linifolia	1	5	Bc
South	1.6	1.8	Phebalium equestre	7	3-5	Bc,Bu
South	1.7	1.9	Cyphanthera myosotidea	7	0-5	Bc,Bu,V
South	2.0	2.2	Logania linifolia	2	2-3	Bu
South	2.0	2.2	Boronia coerulescens	2	1-3	Bu
South	2.0	3.4	Cyphanthera myosotidea	129	0-5	Bc,Bu,V
South	2.3	2.5	Phebalium equestre	16	1-4	Bu
South	2.6	2.7	Phebalium equestre	7	0-4	Bu
South	2.8	3.2	Phebalium equestre	27	1-3	Bu,V
South	3.3	3.8	Phebalium equestre	22	1-5	V,Bu

Side of road	s: Rick Davies, Dickon Distance (kms) west from Barretts Rd			Number	Distance (m)	
	Start	Finish	Species	of plants	from verge	Impact
North	0	0.2	Prostanthera chlorantha	18	1-2	Bu
North	1.1	1.5	Grevillea muricata	14	1-4	V,Bu
North	2.5	2.6	Logania linifolia	2	0	Bu
North	2.7	2.8	Grevillea muricata	1	2	
North	3.3	3.4	Grevillea muricata	2	1	Bu
North	4.2	4.8	Grevillea muricata	9	1-2	
North	4.3	4.3	Logania linifolia	1	1	Bu
North	4.9	5.0	Logania linifolia	1	1	Bu
North	4.9	5.1	Grevillea muricata	4	1-3	Bu
North	5.6	5.7	Grevillea muricata	1	1-3	Bu
North	6.0	6.1	Grevillea muricata	3	1-3	Bu
North	7.4	7.5	Grevillea muricata	3	3-4	Bu
North	7.8	8.1	Grevillea muricata	5	2-4	Bu
South	0	0.2	Prostanthera chlorantha	1	1	Bu
South	1.1	1.5	Grevillea muricata	32	1-3	V,Bu
South	2.5	2.6	Logania linifolia	4	1-2	Bu
South	2.9	3.0	Logania linifolia	2	2	Bu
South	2.9	3.4	Grevillea muricata	15	1-2	Bu
South	3.6	3.7	Grevillea muricata	2	1-2	
South	3.9	4.0	Grevillea muricata	1	2	V,Bu
South	4.2	5.8	Grevillea muricata	64	1-3	Bu
South	6.0	6.1	Grevillea muricata	6	1-3	Bu
South	6.9	7.0	Grevillea muricata	1	3	Bu
South	7.2	7.5	Grevillea muricata	5	1-2	
South	7.7	8.1	Grevillea muricata	23	1-3	1

Key: Bu=Bulldozing; V=Perennial veldt grass

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