

FINAL REPORT TO THE RFA ON THE PROJECTS:

A - DISTRIBUTION OF SPECIES OF SPECIAL INTEREST

Relevant Project Objectives

- * To verify geographical locations of all species of declared rare flora and ESP listed flora in the RFA area currently listed in CALM's Threatened Flora Database.
- * To acquire relevant biological information for each of these species present in the RFA area.
- * To produce maps of the known occurrence of DRF and ESP listed flora present in the RFA area.

Methods

The Department of Conservation and Land Management has a standard field report form for the monitoring of populations of rare flora. This report form provides for the recording of information on the location, land status, habitat including edaphic information, plant population details, potential threats and management. This report form is consistent with the fields of the Threatened Flora Database maintained by CALM, and is the primary source of data for that database. A copy of the standard rare flora report form is appended.

For the purposes of the RFA study, the standard report form was modified by the addition of a second page for recording more detailed information on the soil profile, vegetation structure and composition, and regeneration of the rare species observed at the site.

Populations of declared rare flora within the RFA area were inspected to confirm their location, record current population details, and record the additional information for the RFA project in two phases. Opportunist surveys were also conducted on priority flora known to occur in areas containing declared rare flora, and specifically on priority flora under active consideration for recommendation to become declared rare flora.

During October and November 1996, an initial period of survey was undertaken to specifically target annual appearing species, such as orchids, which would be difficult to survey at other times of the year. The second period of survey for other species was conducted during August and September 1997.

All locations were confirmed using geographical positioning units.

Data from the field report forms was entered into the Threatened Flora Database as update records. The additional information will be incorporated into the data modeling system being developed for predicting rare flora locations.

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Final report to the RFA on projects : A,
distribution of species of special interest,
B, assessment of the conservation status
of insufficiently known flora and

Results

One hundred and ninety one declared rare flora populations from within the RFA area were monitored during the two survey periods. A further 19 priority flora populations were also monitored.

The data, as entered in the Threatened Flora Database, is available for data modeling purposes, and for access for forest management and impact assessment purposes. The data was also made available to the RFA process to produce maps of rare flora distribution as part of the RFA assessment process.

Summary information on the declared rare flora is presented as an appendix to this report, along with that for the priority flora databased in the RFA project "Assessment of the Conservation Status of Insufficiently Known Flora and Ecological Communities and Threatened Taxa and Ecological Communities". The data for the declared rare flora was also used in the preparation of the conservation statements under that project.

B - ASSESSMENT OF THE CONSERVATION STATUS OF INSUFFICIENTLY KNOWN FLORA AND ECOLOGICAL COMMUNITIES AND THREATENED TAXA AND ECOLOGICAL COMMUNITIES

Relevant Project Objectives

- * Prepare a summary conservation statement for flora that are found within the RFA region, that are ranked as endangered or vulnerable, and which do not have Interim Recovery Plans in preparation.
- * Include current and validated population data for priority flora located within the RFA region, on the corporate flora database to facilitate species management and the preparation of the summary report on conservation status of threatened and priority flora in the RFA region.
- * Prepare a summary report of the conservation status of the threatened and priority flora found within the RFA region.

Methods

Flora Conservation Statements

A separate report was prepared on this specific outcome, which included the actual conservation statements prepared for each species. The following is a summary of the methodology.

A project officer was appointed to collate the data and prepare the conservation statements for the endangered and vulnerable taxa within the RFA area.

The current list of declared rare flora was reviewed to determine the taxa that required the preparation of conservation statements. Nine taxa that are currently listed as critically endangered were removed as these taxa were currently having Interim Recovery Plans prepared for them by CALM. A further 11 taxa were omitted as they have been recommended for reclassification as critically endangered by the Western Australian Threatened Species Scientific Committee, and hence will have Interim Recovery Plans prepared for them. A further species, *Leptomeria dielsiana*, was also omitted as it is known only from a herbarium specimen, and hence no information is available on which to prepare a conservation statement.

39 taxa, listed as endangered or vulnerable, and which do not, or are not likely to have, Interim Recovery Plans prepared for them in the medium term, were included for the preparation of conservation statements. These taxa are:

Acacia anomala
Acacia aphylla
Anthocercis gracilis
Asplenium obtusatum
Asterolasia grandiflora

Asterolasia nivea
Banksia verticillata
Brachysema modestum ms
Caladenia caesarea subsp. maritima ms
Caladenia christineae ms

Caladenia dorrienii
Caladenia excelsa ms
Caladenia harringtoniae ms
Chamelaucium roycei ms
Corybas limpidus
Darwinia acerosa
Darwinia apiculata
Darwinia ferricola ms
Drosera fimbriata
Dryandra mimica
Dryandra nivea subsp. *uliginosa*
Grevillea flexuosa
Kennedia glabrata
Kennedia macrophylla
Lambertia orbifolia

Laxmannia jamesii
Lechenaultia loricata
Lechenaultia pulvinaris
Meziella trifida
Microtis globula
Pimelea rara
Pleurophascum occidentale
Pultenaea pauciflora
Restio chaunocoleus
Spirogardnera rubescens
Tetraria australiensis
Thelymitra stellata
Thomasia glabripetala
Verticordia fimbriolepis subsp. *australis*

The WA Herbarium is encoding information on rare flora in a data management system, in the DELTA format, that will facilitate information recovery in an electronic format for different purposes. For each of the 39 identified taxa, information on the description and habitat was either present or was added to the Herbarium data management system. Opportunistic information on threats and management requirements was also added.

Information on the soils, topography and land tenure were downloaded from the Threatened Flora Database, and encoded into the Herbarium data management system. Specific information on the separate populations for each taxon was also extracted from the Threatened Flora Database for addition to the conservation statements as a separate table.

Draft information for each taxon was then circulated to the relevant CALM regions for comment and provision of additional threat and management information as appropriate.

The conservation statements were then finalised on receipt of the regional responses, and presented under a separate report.

Priority Flora Data Entry

Lists of the priority flora occurring in the RFA area were generated for each of the CALM regions. These lists did not include taxa from the Proteaceae, Epacridaceae, Papilionaceae and Myrtaceae, as these were being databased separately as part of a dieback management program.

Taxa occurring within CALM's Swan and Central Forest regions were databased using head office records, and, for these taxa, occurrences outside the RFA were also databased to permit comparative assessments of the conservation status of these taxa.

Taxa that occurred in the Southern Forest Region, and not in other regions of the RFA, were databased locally at the CALM Manjimup office, using local records, and did not

include information from other regions, the most notable being the adjacent South Coast Region.

For each taxon, the available information from Herbarium records, rare flora field report forms, and other information such as reports, letters or field notes, were identified. Location information was defined from descriptions, and accurately geocoded. Herbarium geocodes were also validated, but herbarium records older than 20 years were not included as being reliable records for extant populations.

Collectors/authors of information that required greater levels of accuracy, or further details, were contacted where possible in an endeavour to obtain that information. Within the time frame available, it was not possible to complete all taxa as many people contacted were not able to respond within the time frame. This data, as it is received, will be included in the database.

Summary Report

Once entered into the Threatened Flora Database, an analysis was undertaken of the priority flora data entered under this project, plus other priority flora data entered by CALM. Declared rare flora data entered by CALM and as part of the Distribution of Species of Special Interest project was also included in the data analysis.

The statewide data set was downloaded from the Oracle database into ArcInfo GIS package. The geographical representation of the data was then overlain with the RFA region to determine the populations within the RFA, and this data added to the data set.

The data set was then analysed using the most recent survey data for each population to provide a summary of the conservation status of each species that occurs within the RFA to its occurrence outside the RFA. Where the most recent survey did not record the number of plants, no population size estimate is provided.

Data was analysed for total populations, plus subpopulations occurring on land vested in the National Parks and Nature Conservation Authority (NPNCA - primarily national parks and nature reserves), the Lands and Forest Commission (LFC - primarily State forest), local authorities (Shire - primarily road reserves), and private property (Private). These four categories were chosen as being the main land tenures containing rare flora in the RFA area. Other populations occur on other tenures of Crown land, such as main roads, water reserves and unvested Crown reserves. Data was extracted as the number of (sub)populations and plants present in each category.

Subpopulations are defined where a population is split over different land tenures, or is separated by a distance that results in separate management being undertaken, but is still essentially the same population for the species.

Note, the priority flora data entered under this project for the Southern Forest Region does not include a complete data set for the areas outside the RFA, and hence assessments of the conservation status of these species needs to take this into account.

Results

Flora Conservation Statements

Thirty nine conservation statements were produced for endangered and vulnerable flora occurring within the RFA region.

Priority Flora Data Entry

The data entry for 118 priority taxa was completed (including 40 for Southern Forest Region), and 18 taxa were partially done and awaiting further information. Twenty seven taxa were not started due to either the information not being available to the database operators (16), or a lack of time (11 Priority 4 species).

A total of 1476 priority flora data records were added to the Threatened Flora Database.

Many of these records were taken from Herbarium specimen data, and hence specific site details could not be entered. In particular, Herbarium information on the size of a population is usually lacking, or generalised to such terms as uncommon, scattered, common etc. It was therefore not possible to include an estimation of population size for these records.

Summary Report

Summary tables of information on the occurrence of declared rare and priority flora within, and where available, outside the RFA area are presented as Tables 1 to 5. Definitions of the priority flora categories are presented as Table 6.

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Department of Conservation and Land Management
5 June 1998

TABLE 1. The occurrence of declared-rare flora within and outside the Western Australian RFA reference area, and within major land vestings. Note, population numbers within the different vestings are for subpopulations and may thus sum to more than the total number of populations. Note 2, number of plants is that recorded at the last survey, and may be none where specific plant counts were not undertaken (eg. herbarium collections).

SPECIES NAME	RFA	TOTAL POPS	TOTAL PLANTS	NPNCA POPS	NPNCA SIZE	LFC POPS	LFC SIZE	SHIRE POPS	SHIRE SIZE	PRIVATE POPS	PRIVATE SIZE
<i>Acacia anomala</i>	Y	13	10965	3	167	5	10556	9	55	13	187
<i>Acacia aphylla</i>	N	7	2394	0	0	0	0	1	23	11	679
	Y	8	3023	4	822	5	99	0	0	1	102
<i>Anigozanthos humilis</i> subsp. <i>chrysanthus</i>	N	8	714	2	150	0	0	7	124	1	50
	Y	3	3443	2	3019	0	0	3	27	3	397
<i>Anthocercis gracilis</i>	N	1	1300	0	0	0	0	0	0	1	1300
	Y	7	2905	2	0	4	470	0	0	3	2026
<i>Aponogeton hexatepalus</i>	N	24	23022	1	2000	4	430	10	1697	19	6084
	Y	1	4500	0	0	1	4500	0	0	0	0
<i>Asterolasia grandiflora</i>	N	2	1659	5	1508	0	0	1	20	1	131
	Y	6	6633	3	5582	0	0	4	1001	6	50
<i>Asterolasia nivea</i>	Y	7	1286	4	488	1	692	0	0	1	7
<i>Banksia goodii</i>	N	20	2256	12	900	0	0	9	191	6	1165
	Y	7	184	0	0	4	117	5	66	1	1
<i>Banksia verticillata</i>	N	27	3778	24	1322	0	0	0	0	0	0
	Y	3	11801	3	11200	0	0	0	0	0	0
<i>Brachysema modestum</i>	Y	2	1100	0	0	2	1100	0	0	0	0
<i>Caladenia bryceana</i> subsp. <i>bryceana</i>	N	4	151	7	109	0	0	0	0	4	42
	Y	1		1	0	0	0		0	0	0
<i>Caladenia busselliana</i>	Y	2	63	0	0	0	0	2	0	0	0
<i>Caladenia christineae</i>	N	1	0	0	0	0	0	0	0	1	0
	Y	10	184	0	0	4	4	0	0	1	0
<i>Caladenia dorrienii</i>	N	3	0	1	0	0	0	0	0	2	0
	Y	6	142	0	0	6	102	1	0	1	40
<i>Caladenia excelsa</i>	Y	14	96	6	16	0	0	1	1	4	38
<i>Caladenia harringtoniae</i>	N	2	30	0	0	1	30	1	0	0	0
	Y	28	359	4	26	20	285	4	0	1	43
<i>Caladenia huegelii</i>	N	28	381	2	8	0	0	9	47	17	263
	Y	11	56	7	46	0	0	2	10	1	0
<i>Caladenia viridescens</i>	N	3	24	0	0	0	0	4	24	0	0
	Y	1	30	0	0	0	0	0	0	0	0
<i>Caladenia winfieldii</i>	Y	1	0	0	0	1	0	0	0	0	0
<i>Centrolepis caespitosa</i>	N	3	7	1	7	0	0	1	0	1	0
	Y	1	200	0	0	0	0	0	0	0	0
<i>Chamelaucium roycei</i>	N	11	2274	1	111	0	0	4	1351	2	3
	Y	4	116	0	0	0	0	2	22	1	20
<i>Corybas limpidus</i>	N	3	5100	1	0	0	0	1	0	0	0
	Y	1	35	1	35	0	0	0	0	0	0
<i>Darwinia acerosa</i>	N	4	1588	0	0	0	0	2	57	2	1530
	Y	4	15300	0	0	0	0	0	0	7	15300
<i>Darwinia apiculata</i>	Y	2	2350	2	210	0	0	0	0	0	0
<i>Darwinia ferricola</i>	Y	3	12675	1	1100	0	0	3	100	7	11475
<i>Diuris drummondii</i>	N	1	75	0	0	0	0	0	0	0	0
	Y	10	335	6	230	2	5	2	21	1	20
<i>Diuris micrantha</i>	N	4	540	1	20	0	0	1	20	1	0
	Y	2	100	0	0	0	0	1	50	0	0
<i>Drakaea confluens</i>	N	2	3	2	3	0	0	0	0	0	0
	Y	4	30	1	3	0	0	0	0	2	27
<i>Drakaea elastica</i>	N	23	1143	8	584	0	0	6	40	18	483
	Y	2	0	0	0	0	0	0	0	1	0
<i>Drakaea micrantha</i>	N	6	8	1	0	0	0	0	0	2	3
	Y	10	170	0	0	11	130	0	0	1	40

TABLE 1 Contd.

SPECIES NAME	RFA	TOTAL POPS	TOTAL PLANTS	NPNC POPS	NPNC SIZE	LFC POPS	LFC SIZE	SHIRE POPS	SHIRE SIZE	PRIVATE POPS	PRIVATE SIZE
Dryandra mimica	N	2	26	0	0	0	0	0	0	4	26
	Y	1	100	0	0	1	100	0	0	0	0
Dryandra nivea subsp. uliginosa	N	6	599	1	0	1	100	4	159	0	0
	Y	7	325	1	0	1	100	2	110	1	100
Eucalyptus goniantha subsp. goniantha	N	24	7272	6	136	0	0	9	145	12	3591
	Y	1	50	1	50	0	0	0	0	0	0
Eucalyptus graniticola	Y	1	1	0	0	1	1	0	0	0	0
Grevillea flexuosa	Y	4	2619	12	754	0	0	4	193	19	1642
Hydrocotyle lemnoides	N	1	11015	0	0	0	0	0	0	2	1000
	Y	6	44100	4	39100	1	5000	0	0	1	0
Kennedia glabrata	N	3	25	4	25	0	0	0	0	0	0
	Y	5	281	4	279	3	2	0	0	0	0
Kennedia macrophylla	Y	4	103	1	15	0	0	3	75	2	13
Lambertia orbifolia	Y	7	7797	2	233	0	0	2	77	10	7487
Laxmannia jamesii	N	11	235	5	3	0	0	2	122	1	0
	Y	7	233	2	50	4	150	0	0	0	0
Lechenaultia loricata	N	3	58	0	0	0	0	2	9	2	40
	Y	5	1458	6	1359	1	3	1	96	0	0
Lechenaultia pulvinaris	N	19	483	11	37	0	0	2	5	8	366
	Y	5	2855	3	1713	17	1142	0	0	0	0
Meziella trifida	Y	1		0	0	1	0	1	0	0	0
Microtis globula	N	3	1100	4	950	0	0	0	0	1	150
	Y	3		3		0	0	0	0	0	0
Pimelea rara	Y	12	123	0	0	20	123	0	0	0	0
Pultenaea pauciflora	N	3	100	0	0	1	19	1	52	0	0
	Y	16	10927	8	4318	18	6609	0	0	0	0
Restio chaenocoleus	N	2	11000	2	8700	0	0	2	2300	2	0
	Y	1	500	0	0	0	0	1	250	1	250
Rulingia sp. Trigwell Bridge	Y	1	4	0	0	0	0	0	0	1	4
Schoenus natans	N	7	19403	2	600	1	10000	2	7100	0	0
	Y	2		0	0	2		0	0	0	0
Sphenotoma drummondii	N	11	595	10	594	0	0	0	0	0	0
	Y	1		1		0	0	0	0	0	0
Spirogardnera rubescens	N	5	201	2	7	0	0	6	194	0	0
	Y	3	71	0	0	0	0	2	8	2	43
Tetraria australiensis	N	5	2400	3	1200	0	0	0	0	3	1200
	Y	2	300	0	0	0	0	1	100	0	0
Thelymitra dedmaniarum	Y	23	1204	20	607	11	488	5	18	3	91
Thelymitra stellata	N	14	47	8	27	0	0	2	5	1	0
	Y	12	33	1	7	0	0	10	26	0	0
Verticordia fimbrialepis. subsp australis	N	2	0	0	0	0	0	1	0	1	0
	Y	1	1000	0	0	1	1000	0	0	0	0
Verticordia fimbrialepis. subsp fimbrialepis	N	8	92	0	0	0	0	9	92	0	0
	Y	1		0	0	0	0	0	0	0	0
Verticordia plumosa var. ananeotes	Y	2	260	0	0	0	0	2	260	0	0

TABLE 2: The occurrence of Priority 1 flora within and outside the Western Australian RFA reference area, and within major land vestings. Note, population numbers within the different vestings are for subpopulations and may thus sum to more than the total number of populations. Note 2, number of plants is that recorded at the last survey, and may be none where specific plant counts were not undertaken (eg. herbarium collections).

SPECIES NAME	RFA	TOTAL POPS	TOTAL PLANTS	NPNCA POPS	NPNCA SIZE	LFC POPS	LFC SIZE	SHIRE POPS	SHIRE SIZE	PRIVATE POPS	PRIVATE SIZE
Acacia brachypoda	N	4	733	0	0	0	0	0	0	4	1400
	Y	1	215	1	215	0	0	0	0	0	0
Acacia chapmanii subsp. australis	Y	1	100	1	100	0	0	0	0	0	0
Acacia lasiocarpa var. bracteolata	Y	1	1000	0	0	0	0	0	0	0	0
Acacia lateriticola glabrous variant (B.R.Maslin 6765)	N	1		0	0	0	0	1		0	0
	Y	1		1		0	0	0	0	0	0
Adenanthos cygnorum subsp. chamaephyton	Y	11	780	2	900	1	100	6	370	1	0
Andersonia macronema	Y	3	1000	0	0	3	1000	0	0	0	0
Andersonia sp.Collis Rd (G.Wardell-Johnson GWJ5A)	Y	1	300	0	0	1	300	0	0	0	0
Andersonia sp.Ironstone (B.J.Keighery & N.Gibson 227)	N	1		0	0	0	0	1	0	0	0
	Y	3	1000	0	0	2	1000	1	0	1	0
Andersonia sp.Mitchell River (B.G.Hammersley 925)	Y	7	1530	0	0	7	1230	1	300	0	0
Asteridea gracilis	N	3		0	0	0	0	1	0	0	0
	Y	2		0	0	1	0	1	0	0	0
Baeckea sp.Chittering (R.J.Cranfield 1983)	Y	2	400	0	0	0	0	0	0	2	400
Baeckea sp.Darling Range (R.J.Cranfield 1673)	Y	3	8	0	0	0	0	1	8	0	0
Boronia exilis	Y	1	100	0	0	0	0	1	100	0	0
Boronia humifusa	Y	2		0	0	0	0	2		0	0
Caladenia caesarea subsp. transiens	Y	2	65	0	0	0	0	0	0	0	0
Caladenia evanescens	Y	1		0	0	0	0	1		0	0
Caladenia longicauda subsp. clivicola	N	5	81	1	0	0	0	3	80	0	0
	Y	2		0	0	1	0	1	0	0	0
Caladenia uliginosa subsp. patulens	Y	2	2	0	0	0	0	2	2	0	0
Calothamnus sp.Whicher (B.J.Keighery & N.Gibson 230)	N	6	200	0	0	1	100	5	100	0	0
	Y	2	150	0	0	1	50	1	100	1	0
Calytrix simplex subsp. simplex	Y	1		0	0	1		0	0	0	0
Carex tereticaulis	N	1		0	0	0	0	1		0	0
	Y	2		0	0	0	0	1	0	0	0
Chordifex jacksonii	N	1		1		0	0	0	0	0	0
	Y	10	150	1	0	5	150	2	0	0	0
Conospermum caeruleum subsp. contortum	Y	1		0	0	0	0	0	0	0	0
Cryptandra arbutiflora var. pygmaea	Y	1	220	0	0	2	220	0	0	0	0
Daviesia elongata subsp. elongata	Y	5	914	0	0	4	912	0	0	0	0
Dryandra squarrosa subsp. argillacea	N	5	393	0	0	2	0	3	300	4	23
	Y	5	1450	0	0	3	1300	0	0	2	100
Eriochilus scaber subsp. orbifolia	Y	2		3		0	0	0	0	0	0
Eryngium sp.Lake Muir (E.Wittwer 2293)	Y	1		0	0	0	0	0	0	0	0

TABLE 2 Contd.

SPECIES NAME	RFA	TOTAL POPS	TOTAL PLANTS	NP/CA POPS	NP/CA SIZE	LFC POPS	LFC SIZE	SHIRE POPS	SHIRE SIZE	PRIVATE POPS	PRIVATE SIZE
<i>Eucalyptus lane-poolei</i> var. <i>Whichei</i> (S.D.Hopper 6316)	Y	1		0	0	1		0	0	0	0
<i>Eucalyptus loxophleba</i> x <i>wandoo</i>	N	10	8	2	1	0	0	6	4	1	2
	Y	1	3	0	0	0	0	1	2	0	0
Genus sp. Shannon (P.G.Wilson 1237B)	Y	1		1		0	0	0	0	0	0
<i>Goodenia arthrotricha</i>	N	2	100	1	100	0	0	0	0	1	0
	Y	2		0	0	0	0	1	0	1	0
<i>Grevillea althoferorum</i>	N	1	100	0	0	0	0	1	100	0	0
	Y	1	30	1	30	0	0	0	0	0	0
<i>Grevillea corrugata</i>	Y	1		0	0	0	0	1		0	0
<i>Grevillea manglesii</i> subsp. <i>dissectifolia</i>	Y	1		0	0	0	0	0	0	0	0
<i>Grevillea rara</i>	Y	5	1271	0	0	2	1001	2	120	0	0
<i>Grevillea</i> sp. Scott River (G.J.Keighery 4070)	Y	5	1150	0	0	0	0	4	150	0	0
<i>Hakea</i> sp. Williamson (B.J.Keighery & N.Gibson 226)	N	4	217	0	0	2	130	3	87	0	0
	Y	3	1100	0	0	2	1000	1	100	0	0
<i>Jacksonia</i> sp. Collie (C.J.Koch 177)	Y	1		0	0	1		0	0	0	0
<i>Johnsonia inconspicua</i>	Y	5		0	0	3	0	1	0	0	0
<i>Leucopogon florulentus</i>	N	6		1	0	0	0	3	0	0	0
	Y	1		0	0	0	0	0	0	0	0
<i>Microcorys longifolia</i>	N	3	21	0	0	0	0	1	0	0	0
	Y	1		0	0	0	0	1		0	0
<i>Nemcia alternifolia</i>	Y	1	3	0	0	0	0	1	3	0	0
<i>Nemcia cyanophylla</i>	Y	1		0	0	0	0	1		0	0
<i>Nemcia sparsa</i>	Y	1		0	0	0	0	0		0	1
<i>Philydrella pygmaea</i> subsp. <i>minima</i>	Y	1		1		0	0	0	0	0	0
<i>Pterostylis turfosa</i>	N	4	200	4	200	0	0	0	0	0	0
	Y	13	320	9	220	4	100	0	0	0	0
<i>Spyridium riparium</i>	Y	5	1603	0	0	2	203	3	1400	0	0
<i>Stenanthemum intropubens</i>	Y	1		0	0	0	0	0		0	1
<i>Stenanthemum nanum</i>	Y	2		0	0	2		0	0	0	0
<i>Stylidium marradongense</i>	Y	1		0	0	2		0	0	0	0
<i>Synaphea decumbens</i>	Y	1		0	0	1		0	0	0	0
<i>Synaphea incurva</i>	N	1		0	0	0	0	0	0	0	0
	Y	2		0	0	2		0	0	0	0
<i>Synaphea intricata</i>	Y	9		0	0	9		0	0	0	0
<i>Synaphea macrophylla</i>	Y	1		0	0	0	0	0		0	1
<i>Synaphea nexosa</i>	Y	1		0	0	0	0	1		0	0
<i>Synaphea odocoileops</i>	N	2	20	0	0	0	0	1	0	0	0
	Y	1		0	0	1		0	0	0	0
<i>Synaphea otlostigma</i>	Y	2		0	0	1	0	0	0	0	0
<i>Synaphea panhesya</i>	N	1		0	0	0	0	1		0	0
	Y	1		0	0	0	0	0	0	0	0
<i>Thomasia laxiflora</i>	Y	4		0	0	4		0	0	0	0
<i>Tripterococcus</i> sp. Cannington (A.S.George 16201)	N	9	610	0	0	0	0	2	10	5	598
	Y	1	5	0	0	1	5	0	0	0	0
<i>Verticordia endlicheriana</i> var. <i>angustifolia</i>	Y	5	13000	0	0	4	12000	1	1000	0	0
<i>Verticordia plumosa</i> var. <i>pleiobotrya</i>	N	4	501	0	0	0	0	4	501	0	0
	Y	1		1		0	0	0	0	0	0
<i>Verticordia plumosa</i> var. <i>vassensis</i>	N	6	2156	1	1016	0	0	9	763	0	0
	Y	4	2476	0	0	0	0	7	1476	0	0

TABLE 3: The occurrence of Priority 2 flora within and outside the Western Australian RFA reference area, and within major land vestings. Note, population numbers within the different vestings are for subpopulations and may thus sum to more than the total number of populations. Note 2, number of plants is that recorded at the last survey, and may be none where specific plant counts were not undertaken (eg. herbarium collections).

SPECIES NAME	RFA	TOTAL POPS	TOTAL PLANTS	NPNCA POPS	NPNCA SIZE	LFC POPS	LFC SIZE	SHIRE POPS	SHIRE SIZE	PRIVATE POPS	PRIVATE SIZE
<i>Acacia browniana</i> var. <i>glaucescens</i>	Y	6		0	0	1	0	0	0	0	0
<i>Acacia campylophylla</i>	N	8	85	0	0	3	75	1	10	1	0
	Y	2		0	0	1	0	0	0	0	0
<i>Acacia cuneifolia</i>	N	2	20	1	20	0	0	0	0	1	0
	Y	11	2108	11	1069	4	988	0	0	2	51
<i>Acacia gemina</i>	N	4		3	0	1	0	0	0	0	0
	Y	5		0	0	5		0	0	0	0
<i>Acacia mooreana</i>	N	1		0	0	0	0	0	0	1	
	Y	28	29	1	0	19	29	0	0	3	0
<i>Acacia oncinophylla</i> subsp. <i>patulifolia</i>	N	1	5	1	5	0	0	0	0	0	0
	Y	5	38	0	0	0	0	3	16	0	0
<i>Acacia subracemosa</i>	Y	9	1	4	0	1	1	1	0	0	0
<i>Actinotus</i> sp. Walpole (J.R.Wheeler 3786)	Y	8		4	0	4	0	0	0	0	0
<i>Actinotus whicherae</i>	Y	3	300	0	0	3	300	0	0	0	0
<i>Alexgeorgea ganopoda</i>	Y	9	33100	4	20500	5	12500	0	0	0	0
<i>Amperea micrantha</i>	N	1		1		0	0	0	0	0	0
	Y	1		1		0	0	0	0	0	0
<i>Amperea protensa</i>	N	5	4	3	2	0	0	1	2	0	0
	Y	12	20	9	10	2	10	0	0	1	0
<i>Andersonia annelsii</i>	Y	1	1000	0	0	1	1000	0	0	0	0
<i>Andersonia auriculata</i>	N	3		2	0	0	0	1	0	0	0
	Y	8	723	3	100	0	0	4	111	1	12
<i>Anthocercis sylvicola</i>	Y	4	2400	4	2400	0	0	0	0	0	0
<i>Astartea</i> sp. Mt Johnston (A.R.Anneis 5645)	Y	2		0	0	2		0	0	0	0
<i>Astroloma foliosum</i>	N	1		0	0	0	0	1		0	0
	Y	8	10	0	0	0	0	4	5	1	0
<i>Billardiera</i> sp. Walpole (A.R.Anneis 277)	N	2	100	1	0	0	0	2	100	0	0
	Y	6	550	2	0	3	550	0	0	0	0
<i>Boronia capitata</i> subsp. <i>gracilis</i>	N	4		1	0	2	0	0	0	0	0
	Y	2		0	0	2		0	0	0	0
<i>Borya longiscapa</i>	N	1	2000	0	0	1	2000	0	0	0	0
	Y	11	10800	0	0	11	10600	0	1	200	0
<i>Bossiaea modesta</i>	Y	2		0	0	2		0	0	0	0
<i>Caladenia abbreviata</i>	N	1		0	0	0	0	0	0	0	0
	Y	3	50	3	50	0	0	0	0	0	0
<i>Caladenia rubrichila</i>	Y	1	50	0	0	0	0	0	0	1	50
<i>Caladenia subdita</i>	Y	1		0	0	0	0	0	0	0	0
<i>Calothamnus</i> sp. Mt Lindesay (B.G.Hammersley 439)	Y	2	2500	0	0	2	2500	0	0	0	0
<i>Calothamnus</i> sp. Scott River (R.D.Royce 34)	Y	6	301	0	0	3	0	4	101	1	100
<i>Chamaexeros longicaulis</i>	Y	3	2000	4	2000	0	0	3	0	1	0
<i>Chamelaucium forrestii</i> subsp. <i>forrestii</i>	Y	5		3	0	2	0	0	0	0	0
<i>Conospermum quadripetalum</i>	N	1	10	1	10	0	0	0	0	0	0
	Y	2		0	0	1	0	1	0	0	0
<i>Cryptandra congesta</i>	Y	3	1600	0	0	3	1600	0	0	0	0
<i>Diplolaena andrewsii</i>	Y	2	135	2	15	0	0	1	0	1	120
<i>Diuris heberlei</i>	Y	1	500	1	500	0	0	0	0	0	0
<i>Drosera binata</i>	Y	2	1500	0	0	0	0	2	500	0	0

TABLE 3 Contd.

SPECIES NAME	RFA	TOTAL POPS	TOTAL PLANTS	NPNCA POPS	NPNCA SIZE	LFC POPS	LFC SIZE	SHIRE POPS	SHIRE SIZE	PRIVATE POPS	PRIVATE SIZE
<i>Dryandra aurantia</i>	Y	4	1735	4	1735	0	0	0	0	0	0
<i>Dryandra sessilis</i> var. <i>cordata</i>	N	1		1		0	0	0	0	0	0
	Y	1		1		0	0	0	0	0	0
<i>Eremaea blackwelliana</i>	N	1		1		0	0	0	0	0	0
	Y	3	2150	3	1350	0	0	0	0	4	800
<i>Eryngium pinnatifidum</i> subsp. <i>palustre</i>	N	9		1	0	0	0	1	0	3	0
	Y	1		1		0	0	0	0	0	0
<i>Eucalyptus virginiae</i>	Y	3	2010	0	0	2	1998	0	2	12	0
<i>Euphrasia scabra</i>	Y	1		0	0	0	0	0	0	0	0
<i>Goodenia katabudjar</i>	Y	2	100	0	0	2	100	0	0	0	0
<i>Grevillea brachystylis</i> subsp. <i>australis</i>	Y	2	230	1	100	0	0	1	130	0	0
<i>Grevillea brachystylis</i> subsp. <i>brachystylis</i>	N	2		0	0	0	0	0	0	0	0
	Y	3	100	0	0	0	0	1	0	0	0
<i>Grevillea candolleana</i>	Y	7	261	2	0	0	0	3	105	1	50
<i>Grevillea fuscolutea</i>	Y	3	2380	0	0	3	2300	0	1	80	0
<i>Grevillea manglesii</i> subsp. <i>ornithopoda</i>	N	1	5	0	0	0	0	1	5	0	0
	Y	1		1		0	0	0	0	0	0
<i>Grevillea prominens</i>	Y	1		0	0	1		0	0	0	0
<i>Grevillea scabra</i>	N	1	203	3	203	0	0	0	0	0	0
	Y	5	715	2	15	2	700	1	0	0	0
<i>Hakea</i> sp. <i>Walyunga</i> (L. Penn s.n.)	Y	1		1		0	0	0	0	0	0
<i>Hakea tuberculata</i>	N	1		0	0	0	0	1	0	1	0
	Y	5		1	0	0	0	4	0	0	0
<i>Hemiandra australis</i>	Y	3	1020	3	1020	0	0	0	0	0	0
<i>Hydatella dioica</i>	N	1		0	0	0	0	0	0	0	0
	Y	1	1000	1	1000	0	0	0	0	0	0
<i>Hydrocotyle hamelinensis</i>	N	1		1		0	0	0	0	0	0
	Y	1		1		0	0	0	0	0	0
<i>Lasiopetalum cardiophyllum</i>	N	1		1		0	0	0	0	0	0
	Y	13	6585	0	0	9	6585	1	0	2	0
<i>Lasiopetalum cordifolium</i> subsp. <i>acuminatum</i>	Y	3		1	0	2	0	0	0	0	0
<i>Laxmannia</i> sp. <i>Little</i> <i>Lindesay</i> (B.G. Hammersley 1615)	Y	2	220	0	0	2	220	0	0	0	0
<i>Leptinella drummondii</i>	Y	5	50	1	0	3	50	0	0	0	0
<i>Leptocarpus ceramophilus</i>	Y	6		3	0	0	0	0	0	0	0
<i>Leptomeria furtiva</i>	Y	2		1	0	0	0	0	0	0	0
<i>Leucopogon glaucifolius</i>	N	8	100	3	100	0	0	3	0	0	0
	Y	1		1	0	0	0	0	0	0	0
<i>Leucopogon polystachyus</i>	N	4		0	0	0	0	2	0	0	0
	Y	22	1176	9	0	12	1136	0	0	1	20
<i>Leucopogon tamariscinus</i>	N	13	231	8	207	0	0	3	24	1	0
	Y	2		1	0	0	0	1	0	0	0
<i>Lysinema elegans</i>	N	16	8453	10	6286	1	0	9	536	27	794
	Y	1	46	0	0	0	0	0	0	0	0
<i>Lysinema lasianthum</i>	N	10	507	5	127	0	0	3	80	0	0
	Y	3	8	0	0	0	0	0	0	0	0
<i>Melaleuca incana</i> subsp. <i>Gingilup</i> (Gibson & M. Lyons 593)	Y	1		1		0	0	0	0	0	0
<i>Melaleuca micromera</i>	N	2	3	0	0	0	0	1	1	0	0
	Y	1	10	0	0	0	0	0	0	0	0
<i>Millotia tenuifolia</i> var. <i>laevis</i>	Y	1		0	0	0	0	1		0	0
<i>Mitreola minima</i>	N	2		1	0	0	0	0	0	1	0
	Y	5		1	0	1	0	0	0	0	0

TABLE 3 Contd.

SPECIES NAME	RFA	TOTAL POPS	TOTAL PLANTS	NPNC POPS	NPNC SIZE	LFC POPS	LFC SIZE	SHIRE POPS	SHIRE SIZE	PRIVATE POPS	PRIVATE SIZE
Nemcia axillaris	N	17	246	7	59	0	0	5	152	1	5
	Y	1		0	0	0	0	0	0	0	0
Nemcia epacridoides	Y	10	10853	3	10000	2	200	7	350	7	303
Parsonsia diaphanophleba	N	2	6	0	0	0	0	1	6	0	0
	Y	1	4000	1	4000	0	0	0	0	0	0
Phyllota gracilis	N	4	320	1	300	0	0	1	0	1	0
	Y	3		0	0	3		0	0	0	0
Pithocarpa corymbulosa	N	1		0	0	0	0	1		0	0
	Y	4		2	0	0	0	2	0	0	0
Restio cracens	Y	10	476	0	0	12	476	0	0	0	0
Restio isomorphus	Y	3	2000	0	0	0	0	2	0	1	2000
Rorippa dictyosperma	N	1		1		0	0	0	0	0	0
	Y	2		2		0	0	0	0	0	0
Schizaea rupestris	N	1	10	1	10	0	0	0	0	0	0
	Y	3		1	0	1	0	0	0	0	0
Schoenus capillifolius	N	2	200	0	0	0	0	0	0	3	200
	Y	2	100	1	100	0	0	0	0	0	0
Schoenus loliaceus	N	1		0	0	1		0	0	0	0
	Y	1		1		0	0	0	0	0	0
Sollya drummondii	N	8	175	0	0	1	0	3	119	0	0
	Y	10	48	0	0	4	4	1	6	2	23
Stylidium rigidifolium	N	1		1		0	0	0	0	0	0
	Y	2		0	0	1	0	0	0	0	0
Stylidium semaphorum	Y	1		1		0	0	0	0	0	0
Stylidium sp. Boulder Rock (A.H.Burbidge 2536)	Y	2		0	0	1	0	0	0	0	0
Tetratheca similis	N	1		1		0	0	0	0	0	0
	Y	5	25	0	0	0	0	2	25	0	0
Tetratheca sp. Granite (S.Patrick SP1224)	Y	1	500	0	0	0	0	0	0	0	0
Trichocline sp. Treeton (B.J.Keighery & N.Gibson 564)	N	1		1		0	0	0	0	0	0
	Y	2		1	0	1	0	0	0	0	0
Trymalium urceolare	N	1	50	0	0	0	0	1	50	0	0
	Y	6	12	1	10	1	0	0	0	0	0
Verticordia apecta	Y	1	30	0	0	0	0	0	0	0	0
Verticordia bifimbriata	N	5	101	2	1	2	50	1	50	0	0
	Y	2	0	1	0	0	0	1	0	0	0
Verticordia citrella	Y	1		1		0	0	0	0	0	0
Verticordia densiflora var. pedunculata	N	4	321	1	200	0	0	3	103	0	0
	Y	2	10	0	0	0	0	1	10	0	0
Verticordia serrata var. Udumung (D.Hunter & B.Yarran 941006)	Y	1		1		0	0	0	0	0	0
Wurmbea sp. Cranbrook (A.R.Anells 3819)	Y	1		0	0	0	0	0	0	0	0

TABLE 4: The occurrence of Priority 3 flora within and outside the Western Australian RFA reference area, and within major land vestings. Note, population numbers within the different vestings are for subpopulations and may thus sum to more than the total number of populations. Note 2, number of plants is that recorded at the last survey, and may be none where specific plant counts were not undertaken (eg. herbarium collections).

SPECIES NAME	RFA	TOTAL POPS	TOTAL PLANTS	NPNCA POPS	NPNCA SIZE	LFC POPS	LFC SIZE	SHIRE POPS	SHIRE SIZE	PRIVATE POPS	PRIVATE SIZE
Acacia anarthros	N	9	262	0	0	0	0	5	42	0	0
	Y	6	1782	2	741	0	0	1	3	0	0
Acacia drummondii	N	4		0	0	0	0	0	0	0	0
subsp. affinis	Y	9		1	0	2	0	0	0	0	0
Acacia horridula	N	3	1236	7	186	0	0	3	1050	0	0
	Y	5	60	2	10	1	0	0	0	2	50
Acacia inops	Y	6		0	0	4	0	2	0	0	0
Acacia oncinophylla	N	1		0	0	0	0	0	0	0	0
subsp. oncinophylla	Y	5	25	1	0	0	0	0	0	1	0
Acacia semitrullata	N	10	982	2	580	2	0	2	400	5	0
	Y	14		0	0	9	0	2	0	3	0
Allocasuarina	N	4	100	2	100	0	0	2	0	0	0
ramosissima	Y	1		0	0	0	0	1		0	0
Andersonia amabile	N	1		0	0	0	0	1		0	0
	Y	8		4	0	4	0	0	0	0	0
Aotus cordifolia	N	1		0	0	0	0	1		0	0
	Y	4	20	0	0	1	0	1	0	1	20
Banksia micrantha	N	9	100	4	0	0	0	2	0	0	0
	Y	1		0	0	0	0	0	0	1	
Blennospora sp. Ruabon (B.J. Keighery & N. Gibson 20)	N	7		4	0	0	0	1	0	1	0
	Y	1		0	0	0	0	0	0	0	0
Boronia virgata	N	4	360	2	260	0	0	1	100	0	0
	Y	12	1440	8	290	7	650	2	500	0	0
Bossiaea disticha	Y	9		6	0	0	0	2	0	0	0
Calothamnus pallidifolius	Y	16	1226	0	0	15	1226	0	0	0	0
Calytrix pulchella	N	2		0	0	0	0	0	0	0	0
	Y	1		0	0	1		0	0	0	0
Chamelaucium floriferum	Y	6	1000	6	1000	0	0	0	0	0	0
subsp. floriferum											
Chordifex gracilior	N	2		0	0	0	0	0	0	1	0
	Y	8	745	3	230	3	515	2	0	0	0
Chorizema carinatum	N	5		2	0	0	0	3	0	0	0
	Y	1		0	0	1		0	0	0	0
Chorizema reticulatum	N	8		1	0	0	0	6	0	0	0
	Y	8	183	1	30	1	0	3	30	0	0
Conospermum	N	1		0	0	0	0	1		0	0
paniculatum	Y	6		0	0	4	0	0	0	0	0
Cyathochaeta stipoides	Y	10		7	0	3	0	0	0	0	0
Darwinia pinelioides	Y	8	375	6	325	0	0	1	0	2	50
Dryandra echinata	N	13	503	3	100	0	0	6	361	5	42
	Y	1		0	0	0	0	0	0	0	0
Dryandra praemorsa var. praemorsa	N	1		0	0	0	0	0	0	0	0
	Y	2		0	0	1	0	0	0	0	0
Dryandra praemorsa var. splendens	Y	1		0	0	0	0	1		0	0
Dryandra subpinnatifida var. imberbis	Y	1		0	0	1		0	0		0
Eleocharis sp. Kenwick (G.J. Keighery 5179)	N	5	1000	1	0	0	0	2	1000	1	0
	Y	3	150	1	0	0	0	0	0	0	0
Eucalyptus brevistylis	Y	7		8	0	2	0	0	0	0	0
Gahnia sclerioides	Y	2		2		0	0	0	0	0	0

TABLE 4 Contd.

SPECIES NAME	RFA	TOTAL POPS	TOTAL PLANTS	NPNC POPS	NPNC SIZE	LFC POPS	LFC SIZE	SHIRE POPS	SHIRE SIZE	PRIVATE POPS	PRIVATE SIZE
Galium migrans	N	8		5	0	0	0	0	0	0	0
	Y	1		1		0	0	0	0	0	0
Gastrolobium brownii	N	4	20	2	0	0	0	1	20	1	0
	Y	8	1074	3	24	5	1050	0	0	0	0
Gonocarpus simplex	Y	14	28750	9	15550	7	13200	0	0	0	0
Gonocarpus trichostachyus	Y	1	200	0	0	1	200	0	0	0	0
Grevillea papillosa	Y	14	1615	9	1190	1	0	4	425	0	0
Grevillea uncinulata subsp. florida	N	2		0	0	0	0	0	0	1	0
	Y	5	526	0	0	0	0	4	118	0	0
Hakea myrtoides	N	2	20	0	0	0	0	0	0	1	0
	Y	17	4493	4	205	0	0	3	15	11	650
Halgania corymbosa	Y	5	30	0	0	1	0	2	0	2	30
Helipterum pyrethrum	N	11	2300	1	0	0	0	3	0	6	1300
	Y	1	300	1	300	0	0	0	0	0	0
Isopogon drummondii	N	29	5126	1	30	0	0	22	1597	20	2816
	Y	2	1484	0	0	0	0	2	1307	0	0
Isopogon formosus subsp. dasylepis	N	3		0	0	0	0	0	0	0	0
	Y	7		0	0	0	0	3	0	0	0
Jacksonia sparsa	N	4		1	0	0	0	2	0	0	0
	Y	4		0	0	4	0	0	0	0	0
Jansonia formosa	Y	13	214	7	200	3	0	4	14	1	0
Lambertia multiflora var. darlingensis	N	3		0	0	0	0	0	0	1	0
	Y	4		0	0	0	0	1	0	1	0
Lambertia rariflora subsp. lutea	Y	7	254	2	0	5	254	0	0	0	0
Lasiopetalum glabratum	Y	14	40	1	0	8	0	2	40	0	0
Lepyrodia heleocharoides	Y	7		0	0	3	0	3	0	0	0
Leucopogon gilbertii	N	1		0	0	0	0	0	0	0	0
	Y	29	2031	2	20	22	1511	2	0	0	0
Lomandra ordii	Y	8	3220	9	2220	3	1000	0	0	1	0
Loxocarya magna	N	1		0	0	0	0	0	0	0	0
	Y	8	40	3	30	1	0	0	0	3	0
Meeboldina crassipes	N	1		0	0	0	0	0	0	0	0
	Y	5		5	0	1	0	0	0	0	0
Meeboldina thysanantha	Y	6		1	0	3	0	0	0	1	0
Melaleuca diosmifolia	N	12	7	5	2	0	0	2	0	1	0
	Y	1	100	1	100	0	0	0	0	0	0
Monotoca leucantha	N	8	2000	4	900	0	0	1	0	2	1100
	Y	1		0	0	0	0	0	0	1	
Myriocephalus appendiculatus	N	5		2	0	0	0	1	0	1	0
	Y	1	50	1	50	0	0	0	0	0	0
Myriophyllum echinatum	N	8	300	4	0	0	0	2		0	0
	Y	1		0	0	0	0	0	0	0	0
Nemcia acuta	N	2	1000	1	1000	0	0	0	0	1	0
	Y	8	152	4	152	0	0	2	0	2	0
Petrophile plumosa	N	4	5250	3	4050	0	0	0	0	0	0
	Y	1	50	1	50	0	0	0	0	0	0
Platysace ramosissima	N	3		1	0	0	0	0	0	0	0
	Y	1		1		0	0	0	0	0	0
Pultenaea pinifolia	Y	5	1200	0	0	4	1200	1	0	0	0
Pultenaea radiata	Y	16	22700	0	0	13	22700	1	0	1	0
Schoenus benthamii	N	2		0	0	0	0	0	0	0	0
	Y	1		0	0	0	0	0	0	0	0
Sphenotoma parviflorum	N	1		1		0	0	0	0	0	0
	Y	10	1720	3	1500	7	220	0	0	0	0
Sporadanthus rivularis	Y	14		4	0	9	0	2	0	0	0

TABLE 4 Contd.

SPECIES NAME	RFA	TOTAL POPS	TOTAL PLANTS	NPNC POPS	NPNC SIZE	LFC POPS	LFC SIZE	SHIRE POPS	SHIRE SIZE	PRIVATE POPS	PRIVATE SIZE
<i>Stenanthemum coronatum</i>	N	2	20	0	0	1	0	0	0	0	0
	Y	7	135	1	0	2	30	2	0	0	0
<i>Stenanthemum pumilum</i>	N	2		2		0	0	0	0	0	0
	Y	1		0	0	0	0	0	0	0	0
<i>Stirlingia divaricatissima</i>	Y	5	1100	4	1100	3	0	0	0	0	0
<i>Stylidium barleei</i>	Y	9	300	0	0	7	300	0	0	0	0
<i>Stylidium leeuwinense</i>	Y	8		4	0	1	0	1	0	0	0
	N	4		0	0	0	0	1	0	1	0
<i>Stylidium longitubum</i>	Y	3		2	0	0	0	0	0	0	0
<i>Stylidium mimeticum</i>	N	8		2	0	0	0	2	0	1	0
	Y	10		3	0	0	0	4	0	1	0
<i>Synaphea acutiloba</i>	N	3		0	0	0	0	2	0	0	0
	Y	14		2	0	1	0	4	0	8	0
<i>Synaphea cuneata</i>	Y	1	9	0	0	0	0	1	9	0	0
<i>Synaphea damopsis</i>	Y	2		0	0	1	0	1	0	0	0
<i>Synaphea hians</i>	N	1		0	0	0	0	0	0	0	0
	Y	2		0	0	0	0	0	0	0	0
<i>Synaphea pinnata</i>	N	2	650	1	650	0	0	0	0	0	0
	Y	14	869	3	0	0	0	9	287	20	582
<i>Synaphea preissii</i>	N	5		2	0	0	0	0	0	0	0
	Y	1		1		0	0	0	0	0	0
<i>Synaphea whicherensis</i>	Y	9		0	0	9	0	0	0	0	0
<i>Tetradlea pilifera</i>	Y	6	11	0	0	0	0	2	10	1	0
<i>Thelymitra jacksonii</i>	Y	8	38	3	30	5	8	0	0	0	0
<i>Thysanotus anceps</i>	N	3		2	0	0	0	1	0	0	0
	Y	5	306	2	300	0	0	2	6	0	0
<i>Verticordia huegelii</i> var. <i>decumbens</i>	N	1		0	0	0	0	0	0	1	
	Y	6	50	0	0	4	50	0	0	0	0
<i>Verticordia serrata</i> var. <i>linearis</i>	N	1		0	0	0	0	1		0	0
	Y	3		3		0	0	0	0	0	0

TABLE 5: The occurrence of Priority 4 flora within and outside the Western Australian RFA reference area, and within major land vestings. Note, population numbers within the different vestings are for subpopulations and may thus sum to more than the total number of populations. Note 2, number of plants is that recorded at the last survey, and may be none where specific plant counts were not undertaken (eg. herbarium collections).

SPECIES NAME	RFA	TOTAL POPS	TOTAL PLANTS	NPNCA POPS	NPNCA SIZE	LFC POPS	LFC SIZE	SHIRE POPS	SHIRE SIZE	PRIVATE POPS	PRIVATE SIZE
Acacia clydonophora	N	11	7030	7	1020	0	0	2	10	3	6000
	Y	1	79	0	0	0	0	0	0	1	79
Acacia flagelliformis	N	6	36	1	36	1	0	2	0	1	0
	Y	8	100	0	0	2	0	3	0	1	0
Acacia tayloriana	Y	22	749	0	0	21	668	1	81	0	0
Anthotium junciforme	N	15	814	3	0	0	0	3	343	3	52
	Y	1		1		0	0	0	0	0	0
Asplenium aethiopicum	N	8	20	12	0	0	0	4	20	0	0
	Y	18	264	12	200	13	64	0	0	0	0
Astroloma sp. Nannup (R.D. Royce 3978)	Y	28	415	0	0	25	232	6	168	2	15
Boronia tenuis	N	4	211	0	0	0	0	3	0	5	211
	Y	13	3372	3	0	4	146	0	0	4	113
Caladenia integra	N	9	2187	5	437	0	0	4	1000	1	750
	Y	3	352	0	0	1	300	0	0	0	0
Caladenia interjacens	N	1	3	1	3	0	0	0	0	0	0
	Y	5		8		0	0	0	0	0	0
Caladenia plicata	N	14	87	8	61	1	10	1	1	1	10
	Y	12	51	1	0	7	31	0	0	1	0
Calothamnus graniticus subsp. leptophyllus	N	5	104	0	0	0	0	1	0	2	4
	Y	9	101565	0	0	4	500	0	0	2	100000
Calothamnus rupestris	N	3	30	1	30	0	0	1	0	0	0
	Y	3	5	1	0	2	5	0	0	0	0
Calytrix sylvana	N	8	22609	1	20	0	0	1	150	1	0
	Y	10	1041	3	355	2	200	2	0	2	486
Chamelaucium erythrochlorum	N	1	79	1	27	0	0	1	26	1	26
	Y	7	7177	0	0	8	6177	1	1000	1	0
Conospermum undulatum	N	14	6829	0	0	0	0	11	1071	32	3640
	Y	1	2585	0	0	0	0	2	2035	0	0
Conostephium minus	N	21	221	5	0	4	0	1	0	9	174
	Y	1		1		0	0	0	0	0	0
Darwinia thymoides subsp. St Ronans (JJ Alford & GJ Keighery 64)	Y	1	25	1	25	0	0	0	0	0	0
Daviesia microphylla	N	7	16	3	11	0	0	4	5	0	0
	Y	33	1663	41	1263	1	400	0	0	0	0
Drosera marchantii subsp. marchantii	N	9	330	0	0	0	0	1	0	4	300
	Y	5	38	0	0	1	0	0	0	0	0
Drosera occidentalis	N	13	23320	0	0	0	0	7	2257	5	20810
	Y	14	26081	6	15759	5	322	2	10000	1	0
Dryandra polycephala	N	4		2	0	0	0	0	0	0	0
	Y	11	29218	1	3000	4	25000	1	66	2	132
Eucalyptus aspersa	N	6	332	0	0	1	15	3	38	5	279
	Y	25	1119	5	718	16	310	1	0	0	0
Eucalyptus exilis	N	16	57	14	0	0	0	2	8	7	49
	Y	2	85	1	40	1	45	0	0	0	0
Eucalyptus latens	N	17	218	6	106	7	0	3	11	1	80
	Y	6	1594	0	0	4	1400	0	0	0	0
Grevillea cirsiifolia	N	3		0	0	0	0	0	0	0	0
	Y	36	7329	6	207	32	6767	2	251	0	0
Grevillea drummondii	N	4	51	2	0	0	0	2	50	3	0
	Y	19	3276	1	50	17	2528	1	150	2	0
Grevillea pimeleoides	Y	4	80	3	50	0	0	0	0	0	0

TABLE 5 Contd.

SPECIES NAME	RFA	TOTAL POPS	TOTAL PLANTS	NPNCA POPS	NPNCA SIZE	LFC POPS	LFC SIZE	SHIRE POPS	SHIRE SIZE	PRIVATE POPS	PRIVATE SIZE
Microtis media subsp. quadrata	N	1		1		0	0	0	0	0	0
	Y	1	20	0	0	0	0	0	0	1	20
Microtis pulchella	N	2		2		0	0	0	0	0	0
	Y	2	100	1	0	0	0	1	100	0	0
Reedia spathacea	Y	15	500	7	100	6	400	1	0	0	0
Rinzia crassifolia	N	3		0	0	0	0	0	0	0	0
	Y	2		0	0	0	0	1	0	0	0
Senecio leucoglossus	Y	10	21	1	10	5	0	1	1	2	0
Stylidium scabridum	N	5	77	2	35	0	0	1	20	2	12
	Y	6	719	0	0	8	719	0	0	0	0
Templetonia drummondii	Y	7	3	2	0	0	0	2	3	2	0
Thysanotus glaucus	N	8		4	0	0	0	2	0	0	0
	Y	3		0	0	1	0	2	0	0	0
Tripterococcus brachylobus	N	1		1		0	0	0	0	0	0
	Y	2		1	0	1	0	0	0	0	0
Tyrbastes glaucescens	Y	30	1030	10	1030	13	0	1	0	4	0
Verreauxia verreauxii	N	1	10	0	0	0	0	0	0	1	10
	Y	27	12584	2	53	42	12531	0	0	0	0
Verticordia lindleyi subsp. lindleyi	N	25	13072	7	10375	0	0	7	70	11	2347
	Y	1		0	0	0	0	1		0	0
Verticordia lindleyi subsp. purpurea	N	13	4532	1	0	0	0	10	758	1	15
	Y	3	0	1	0	0	0	1	0	0	0
Verticordia multiflora subsp. multiflora	N	8	1150	2	0	0	0	4	1150	0	0
	Y	1		1		0	0	0	0	0	0
Villarsia submersa	N	13	4145	3	4000	0	0	3	6	5	85
	Y	8	8350	2	3050	2	5300	0	0	2	0

1: Priority One - Poorly known Taxa

Taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

2: Priority Two - Poorly Known Taxa

Taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.

3: Priority Three - Poorly Known Taxa

Taxa which are known from several populations, and the taxa are not believed to be under immediate threat (i.e. not currently endangered), either due to the number of known populations (generally >5), or known populations being large, and either widespread or protected. Such taxa are under consideration for declaration as 'rare flora' but are in need of further survey.

4: Priority Four - Rare Taxa

Taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5-10 years.

TABLE 6: Definition of Priority Flora categories as used by the Department of Conservation and Land Management in Western Australia

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

RARE FLORA REPORT FORM



TAXON: _____ **POPULATION No.:** _____

DRF ☐ Priority Species ☐ Partial Survey ☐ Full Survey ☐ New Population ☐

FROM: _____ **TITLE:** _____ **SURVEY DATE:** _____

REGION: _____ **DISTRICT:** _____ **SHIRE:** _____

File Ref.: _____ Map/Site Ref.: _____ Reserve No.: _____

LAND STATUS:

Nature Reserve <input type="checkbox"/>	Private <input type="checkbox"/>	Gravel Res. MRD <input type="checkbox"/>	Gravel Res. Shire <input type="checkbox"/>
National Park <input type="checkbox"/>	Pastoral Lease <input type="checkbox"/>	Rd. Verge MRD <input type="checkbox"/>	Rd. Verge Shire <input type="checkbox"/>
State Forest <input type="checkbox"/>	VCL <input type="checkbox"/>	Rail Reserve <input type="checkbox"/>	Other Shire Res. <input type="checkbox"/>
Water Reserve <input type="checkbox"/>	Other <input type="checkbox"/> Specify: _____		

LOCATION: _____

LATITUDE: _____ "S **LONGITUDE:** _____ "E **G.P.S. USED:** ☐ **ASPECT:** _____

LANDFORM:

Hilltop <input type="checkbox"/>	Cliff <input type="checkbox"/>	Slope <input type="checkbox"/>	Valley <input type="checkbox"/>	Swamp <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Breakaway <input type="checkbox"/>	Low Plain <input type="checkbox"/>	Gully <input type="checkbox"/>	Riverbank <input type="checkbox"/>
Ridge <input type="checkbox"/>	Sand Dune <input type="checkbox"/>	Flat <input type="checkbox"/>	Drainageline <input type="checkbox"/>	Lake Edge <input type="checkbox"/>
Firebreak <input type="checkbox"/>	Other <input type="checkbox"/> _____			

ROCK TYPE: Laterite ☐ Granite ☐ Dolerite ☐ Limestone ☐ Other: _____

ROCK FORM: Sheet ☐ Boulder ☐ Fluvatile Gravel ☐ Concretionary Gravel ☐

SOIL TYPE: Sand ☐ Loam ☐ Clay ☐ Peat ☐ Gravel ☐

SOIL COLOUR: Red ☐ Brown ☐ Yellow ☐ White ☐ Grey ☐

SOIL CONDITION: Inundated ☐ Moist ☐ Dry ☐ Saline ☐ Other: _____

VEGETATION CLASSIFICATION (Muir's): _____

ASSOCIATED SPECIES: _____

No. of PLANTS: Mature: _____ Seedlings: _____ Dead: _____ Actual ☐ Estimate ☐ Area Occupied: _____

REPRODUCTIVE STATE: Flower bud ☐ Flower ☐ Inmat. fruit ☐ Fruit ☐ Fruit Delisced ☐ Vegetative ☐

POLLINATORS: Native bees ☐ Honey bees ☐ Other insects ☐ Birds ☐ Mammals ☐

Other observations: _____

CONDITION OF POPULATION: Healthy ☐ Moderate ☐ Poor ☐ Disturbed ☐ Comment: _____

POTENTIAL THREATS: Firebreaks ☐ Mining ☐ Recreational activities ☐ Roadworks ☐ Grazing ☐

Weeds ☐ Disease ☐ Prescribed Burning ☐ Other ☐ Comment: _____

FIRE HISTORY: Not known ☐ Burnt in 19____ Summer ☐ Autumn ☐ Winter ☐ Spring ☐

VOUCHER SPECIMEN: District Herb. ☐ WA Herb. ☐ Other ☐ _____

ATTACHED: Map ☐ Mudmap ☐ Illustration ☐ Photo ☐ Field Notes ☐

FENCING: Not Required ☐ Fenced ☐ Required ☐ Replace/Repair ☐

ROADSIDE MARKERS: Not Required ☐ Present ☐ Required ☐ Replace ☐ Reposition ☐

OTHER COMMENTS (include action taken/required): _____

COPY SENT TO: Regional Office ☐ District Office ☐ Other ☐ Specify: _____

Signed: _____ Date: _____

NOTE: More than one box, in any section may be ticked. Map or further information may be given on the back of this form.

Please return completed form to Executive Director, CALM, PO Box 104, COMO WA 6152

RECORDS: PLEASE FORWARD TO ADMINISTRATIVE OFFICER, FLORA, WILDLIFE BRANCH