Banksia Woodland Restoration Project Completion Criteria Data for the Anketell Road and Forrestdale Lake Restoration Sites

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Department of Environment and Conservation
Our environment, our future

Vanda Longman
Department of Environment and Conservation, Swan Region

Report for the Department of Environment and Conservation

Government of Western Australia
Department of Environment and Conservation

Department of Environment and Conservation
168 St Georges Terrace
Perth WA 6000
Telephone: +61-8-6467 5000
Facsimile: +61-8-6467 5562
www.dec.wa.gov.au

This report was prepared by Vanda Longman.

Questions regarding the use of this material should be directed to:
Karen Clarke, Swan Region
Parks and Wildlife Service
Department of Biodiversity, Conservation and Attractions[1]
Locked Bag 104
Bentley Delivery Centre WA 6983
Phone: 0427 081 398
Email: karen.clarke@dbca.wa.gov.au

Project Team: Mark Brundrett, Geoff Barrett, Barbara Wilson, Anna Wisolith, Vanda Longman, Karen Taylor, Karen Clarke, Karen Bettink, Tracy Sonneman, Julia Cullity, Brett Glossop.

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[1] previously Department of Environment and Conservation.

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1 Anketell Road restoration site

1.1 Upland areas with topsoil (suggested FCT 21c)

Data used to generate targets are listed below.

Data Sources		Use
Jandakot Airport DEC quadrats (suggested FCT 23a)	Banksia Woodland Restoration Project (BWR) Precinct 5 pre-clearing survey	stems/ha targets (Table 1)
ANKB01 (suggested FCT 21c)	BWR local reference sites	species enrichment
ANKB06 (suggested FCT 21c)		
FLB01 (suggested FCT 21c)		
FLB04 (suggested FCT 21c)		
DEJONG02 (FCT 21c)	SCP & System 6 & Part 1 Update	
MODO-2 (FCT 21c)		

Jandakot Airport DEC quadrats are used to determine stems/ha targets (sections 1.1.1-1.1.8). The remaining data, from local reference site quadrats and quadrats from the Swan Coastal Plain and System 6 and Part 1 Update survey (Keighery *et al.* 2012), indicate further species (section 1.1.9) that will naturally appear at the restoration site, spreading from adjacent bushland, and that may be planted or used in direct seeding mixes.

1.1.1 Species richness overall

80 native species were recorded at Jandakot Airport Precinct 5 during the DEC baseline survey (twelve 10 m x 10 m quadrats).

Criteria	Targets
Species richness overall	Return 60-80% of native species richness (48-64 species) from Table 1

Table 1 lists species, importance value rank and stems/ha targets for the Anketell Road restoration site upland areas with topsoil.

Table 1 key (from Webb *et al.* 2009)

FIELD	Description
GROWTH FORM	See Key to Growth Forms at the end of this key for definitions
	Woody Plants
	T Tree M Mallee SH/T Shrub/tree SH Shrub SH-H Shrub which is often called a herb
	Non-woody Plants: non-grass-like
	H Herb H-SH Herb which is often called a shrub
	Non-woody Plants: grass-like
	G Grass

FIELD	Description
	S-C Sedge-Cyperaceae and others S-R Sedge-Restionaceae S-J Sedge-Juncaceae and others
	Some plants are also climbers or prostrate
	CL Climber PR Prostrate
LIFE FORM	A Annual A2 Biennial P Perennial PAA Perennial annually renewed from above ground part PAB Perennial annually renewed from below ground part A-PAR Annual – parasite or semi-parasite P-PAR Perennial – parasite or semi-parasite
TOPSOIL	Observed to come up in transferred topsoil, either from transferred seed or vegetative material, either in this project or other projects
SEED	Has seed that can be collected and propagated in a nursery for tube stock or put in a direct seeding mix
VEG	Has been propagated, either in this project or other projects, by vegetative cuttings or divisions
RECALCITRANT	Quite difficult to propagate; reasons for this can include low seed set or low seed viability or low germination rates
DISTURBANCE	Known to be more common in disturbed natural areas, especially after fire or soil transfer
CBC FEEDING	Carnaby's Black Cockatoo food plant according to Groom et al. reference (DEC website tool)
CBC NESTING	Carnaby's Black Cockatoo nesting plant according to Groom et al. reference (DEC website tool)
CBC ROOSTING	Carnaby's Black Cockatoo roosting plant according to Groom et al. reference (DEC website tool)
CBC PRIORITY	Importance value to Carnaby's Black Cockatoos (high, medium, low) ccording to Groom et al. reference (DEC website tool)
AVERAGE STEMS/HA	Average stems/ha over all Jandakot Airport DEC baseline survey quadrats
SD STEMS/HA	Standard deviation of the average stems/ha over all Jandakot Airport DEC baseline survey quadrats
IMPORTANCE VALUE RANK	A measure of the importance of the species in the community by combining relative density, relative dominance and relative frequency (Mueller-Dombois & Ellenberg)
CONSV CODE	
SUPRA CODE	FER Fern GYM Gymnosperm DIC Dicot MON Monocot
ENDEMIC	

Further definitions below are adapted from BJ Keighery (1994), McDonald *et al.* (1990) and Executive Steering Committee for Australian Vegetation Information (2003).

WOODY PLANTS

Plants with special thick-walled cells in their trunks and stems that form wood to support the plant. Trees are able to build up layer upon layer of this woody support tissue to form trunks and branches. All woody plants are perennial.

Tree	Plants with a single trunk and a canopy. The canopy is less than or equal to two thirds of the height of the trunk. No lignotuber is evident.
Shrub/Tree	Shrub or tree
Mallee	Plants with many trunks (usually 2-5) arising from a lignotuber. The canopy is usually well above the base of the plant. Most are from the genus Eucalyptus.
Shrub	Plants with one or more woody stems and foliage all or part of the total height of the plant. Includes palms, grass trees (*Xanthorrhoea* and *Kingia* species) and cycads (*Zamia* species).
Shrub-Herb	Shrub that appears herb-like. Plants with a woody stem/s that is lax enough to give the shrub a non-woody herb-like appearance, often called sub-shrubs.

NON-WOODY PLANTS
Plants with no (or insufficient) special thick-walled support cells in their stems to form wood for support. May be either annuals or perennials. Sub-divided according to growth form, pollination method and plant family.

NON-WOODY PLANTS – NON GRASS-LIKE Generally not pollinated by wind, monocots and dicots

Herb	Plants with non-woody stems that are not grasses or sedges. Generally under half a metre tall. Most monocots are herbs except for the larger ones which are classed as shrubs such as palms, grass trees (*Xanthorrhoea* and *Kingia* species) and cycads (*Zamia* species).
Herb-Shrub	Herb that appears shrub-like. Plants with non-woody stems that are stiff enough to give the herb a woody shrub-like appearance, often called sub-shrubs.

NON-WOODY PLANTS – GRASS-LIKE Generally pollinated by wind and from the families Poaceae, Cyperaceae, Centrolepidaceae, Hydatellaceae, Juncaginaceae, Restionaceae, Juncaceae, Typhaceae or Xyridaceae.

Grasses	**Leaf sheath always split, ligule present, leaf usually flat, stem cross-section circular, evenly spaced internodes.**
Grass	Tufted or spreading plants from the family Poaceae. Some species form hummocks but none of these occur in south-west Western Australia.
Sedges	**Leaf sheath never split (except in some Restionaceae), usually no ligule, leaf not always flat, extended internode below inflorescence.**
Sedge – Cyperaceae and others	Tufted or spreading plants from the families Cyperaceae, Centrolepidaceae, Hydatellaceae or Juncaginaceae.
Sedge – Restionaceae	Tufted or spreading plants from the family Restionaceae. Commonly called rushes.
Sedge – Juncaceae and others	Tufted or spreading plants from the families Juncaceae, Typhaceae or Xyridaceae. Some of these are also called rushes.

Climber	Plants in need of other plants or objects for support.
Prostrate	Spreading plants, often supported by the ground.

Table 1 Species recorded at the Jandakot Airport DEC baseline survey. Only quadrat (not transect) data is included in this table. Ecological categories, stem targets/ha, importance values and conservation codes are included (see Table 1 key). Species are ordered in decreasing importance value rank.

FAMILY NAME	SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=12)	IMPORTANCE VALUE RANK	NAME_ID	CONSV CODE	SUPRA CODE	ENDEMIC
Myrtaceae	*Eremaea pauciflora*	SH	P		y		y						975	1092	1	5541		DIC	WA
Dilleniaceae	*Hibbertia hypericoides*	SH	P	y			y						1225	1840	2	5135		DIC	WA
Iridaceae	*Patersonia occidentalis*	H	P	y	y	y	y						1275	1290	3	1550		MON	AUST
Anarthriaceae	*Lyginia barbata*	S-R	P	?y		y	y						875	548	4	1097		MON	WA
Proteaceae	*Banksia attenuata*	T	P	?y	y				y			h	258	378	5	1800		DIC	WA
Proteaceae	*Banksia menziesii*	T	P		y				y			h	275	319	6	1834		DIC	WA
Poaceae	*Amphipogon turbinatus*	G	P	y	y								792	653	7	200		MON	WA
Myrtaceae	*Scholtzia involucrata*	SH	P		y	y		y					450	505	8	6033		DIC	WA
Haemodoraceae	*Phlebocarya ciliata*	H	P			y	y						692	1092	9	1478		MON	WA
Dasypogonaceae	*Dasypogon bromeliifolius*	H	P	y	y	y	y						350	371	10	1218		MON	WA
Restionaceae	*Desmocladus flexuosus*	S-R	P	y		y	y						233	290	11	16595		MON	WA
Goodeniaceae	*Dampiera linearis*	H-SH	P			y	y						417	486	12	7454		DIC	WA
Fabaceae	*Bossiaea eriocarpa*	SH	P	y									467	543	13	3710		DIC	WA
Proteaceae	*Banksia ilicifolia*	T	P		y		?y		y			h	92	231	14	1822		DIC	WA
Proteaceae	*Stirlingia latifolia*	SH	P		y		y	y					425	374	15	2316		DIC	WA
Restionaceae	*Hypolaena exsulca*	S-R	P										517	871	16	1070		MON	WA
Myrtaceae	*Calytrix flavescens*	SH	P		y		y						483	570	17	5458		DIC	WA
Ericaceae	*Leucopogon conostephioides*	SH	P				y						283	272	18	6374		DIC	WA
Haemodoraceae	*Conostylis aculeata*	H	P		y		y						350	485	19	1418		MON	WA
Myrtaceae	*Eucalyptus marginata*	T	P		y				y		y	m	42	79	20	5708		DIC	WA
Casuarinaceae	*Allocasuarin*	SH	P		y			y					275	431	21	1732		DIC	WA

FAMILY NAME	SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=12)	IMPORTANCE VALUE RANK	NAME_ID	CONSV CODE	SUPRA CODE	ENDEMIC
	a humilis																		
Proteaceae	*Petrophile linearis*	SH	P		y		y						158	116	22	2299		DIC	WA
Dilleniaceae	*Hibbertia subvaginata*	SH	P	y		y	y	y					158	271	23	5173		DIC	WA
Stylidiaceae	*Stylidium repens*	H	P				y						125	136	24	7785		DIC	WA
Ericaceae	*Conostephium preissii*	SH	P				y						233	347	25	6349		DIC	WA
Poaceae	*Austrostipa compressa*	G	A	y	y			y					100	74	26	17234		MON	WA
Asparagaceae	*Lomandra hermaphrodita*	H	P	y		y	y						108	131	27	1228		MON	WA
Myrtaceae	*Hypocalymma robustum*	SH	P		y		?y						125	166	28	5825		DIC	WA
Colchicaceae	*Burchardia congesta*	H	PAB	y	y								75	45	29	12770		MON	WA
Myrtaceae	*Melaleuca thymoides*	SH	P		y			y					92	162	30	5980		DIC	WA
Myrtaceae	*Melaleuca seriata*	SH	P		y								150	430	31	5964		DIC	WA
Proteaceae	*Adenanthos cygnorum*	SH	P	y				y					17	58	32	1775		DIC	WA
Cyperaceae	*Schoenus curvifolius*	S-C	P			y	y						92	138	33	984		MON	WA
Fabaceae	*Daviesia triflora*	SH	P	y	y			y					83	140	34	3845		DIC	WA
Fabaceae	*Jacksonia furcellata*	SH/T	P	y	y			y	y			m	83	170	35	4012		DIC	WA
Cyperaceae	*Lepidosperma squamatum*	S-C	P			y	y						150	399	36	945		MON	WA
Xanthorrhoeaceae	*Xanthorrhoea preissii*	H-SH	P		y				y			m	100	346	37	1256		MON	WA
Fabaceae	*Gompholobium tomentosum*	SH	P	y	y			y					75	97	38	3957		DIC	WA
Ericaceae	*Conostephium pendulum*	SH	P				y						117	316	39	6348		DIC	WA
Fabaceae	*Acacia pulchella*	SH	P	y				y					50	52	40	3502		DIC	WA
Loranthaceae	*Nuytsia*	T	P-		y								33	49	41	2401		DIC	WA

FAMILY NAME	SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=12)	IMPORTANCE VALUE RANK	NAME_ID	CONSV CODE	SUPRA CODE	ENDEMIC
	floribunda		PAR																
Hemerocallidaceae	*Hensmania turbinata*	H	P				y						50	52	42	1293		MON	WA
Myrtaceae	*Eucalyptus todtiana*	T/M	P		y				y			m	17	58	43	5790		DIC	WA
Dilleniaceae	*Hibbertia huegelii*	SH	P			y	y						50	67	44	5134		DIC	WA
Asparagaceae	*Lomandra caespitosa*	H	P	y		y	y						50	67	44	1223		MON	WA
Haemodoraceae	*Conostylis setigera*	H	P		y		y						42	51	45	1454		MON	WA
Haemodoraceae	*Phlebocarya filifolia*	H	P			y	y						83	204	46	1479		MON	WA
Restionaceae	*Desmocladus fasciculatus*	S-R	P				y						25	45	47	17691		MON	WA
Asparagaceae	*Thysanotus triandrus*	H	P			y	y						33	89	48	1358		MON	WA
Cyperaceae	*Schoenus efoliatus*[1]	S-C	P			y	y						92	318	49	986		MON	WA
Myrtaceae	*Beaufortia elegans*	SH	P		y								67	231	50	5382		DIC	WA
Proteaceae	*Persoonia saccata*	SH	P	y	y		y						17	39	51	2273		DIC	WA
Asteraceae	*Podolepis gracilis*	H	A		y		?y						25	45	52	8175		DIC	AUST
Araliaceae	*Trachymene pilosa*	H	A	y			?y	y					25	45	52	6280		DIC	AUST
Myrtaceae	*Eremaea asterocarpa*	SH	P		y								58	202	53	13949		DIC	WA
Ericaceae	*Croninia kingiana*	SH	P		y		y						33	115	54	13527		DIC	WA
Stylidiaceae	*Stylidium piliferum*	H	P				y						17	39	55	7774		DIC	WA
Apiaceae	*Xanthosia candida*	H-SH	P				?y						17	39	56	6284		DIC	WA
Zamiaceae	*Macrozamia riedlei*	H-SH	P		y			y					4	14	57	85		GYM	WA
Fabaceae	*Acacia saligna*	SH/T	P	y	y			y	y			l	8	29	58	3527		DIC	WA

[1] After 2013 it was found that the plant originally called and treated here as *Schoenus efoliatus* was actually *Hypolaena exsulca*. Although it is still listed here as *Schoenus efoliatus*, the BWR team adjusted subsequent worksheets to reflect this update to the identification.

FAMILY NAME	SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=12)	IMPORTANCE VALUE RANK	NAME_ID	CONSV CODE	SUPRA CODE	ENDEMIC
Hemerocallidaceae	*Arnocrinum preissii*	H	PAB				y						8	29	58	1264		MON	WA
Orchidaceae	*Caladenia flava*	H	PAB				y						8	29	58	1592		MON	WA
Dasypogonaceae	*Calectasia narragara*	H-SH	P				y						8	29	58	19309		MON	WA
Asparagaceae	*Chamaescilla corymbosa*	H	PAB	y	y		?y						8	29	58	1280		MON	AUST
Haemodoraceae	*Conostylis juncea*	H	P		y	y	y						8	29	58	1436		MON	WA
Haemodoraceae	*Haemodorum spicatum*	H	PAB		y		y						8	29	58	1475		MON	WA
Lamiaceae	*Hemiandra pungens*	SH(PR)	P				y						8	29	58	6839		DIC	WA
Asparagaceae	*Laxmannia squarrosa*	H	P				y						8	29	58	1309		MON	WA
Goodeniaceae	*Lechenaultia floribunda*	SH	P			y	?y	y					8	29	58	7574		DIC	WA
Stylidiaceae	*Levenhookia stipitata*	H	A	y			?y						8	29	58	7677		DIC	WA
Asparagaceae	*Lomandra micrantha*	H	P				y						8	29	58	1232		MON	AUST
Asparagaceae	*Lomandra preissii*	H	P			y	y						8	29	58	1239		MON	WA
Asparagaceae	*Lomandra suaveolens*	H	P			y	y						8	29	58	1246		MON	WA
Thymelaeaceae	*Pimelea sulphurea*	SH	P				?y						8	29	58	5268		DIC	WA
Poaceae	*Rytidosperma occidentale*	G	P	y	y								8	29	58	40426		MON	WA
Goodeniaceae	*Scaevola repens*	SH	P										8	29	58	12585		DIC	WA
Asparagaceae	*Thysanotus thyrsoideus*	H	PAB				y						8	29	58	1357		MON	WA
Campanulaceae	*Wahlenbergia preissii*	H	A				y						8	29	58	7389		DIC	AUST
Fabaceae	*Hovea trisperma*	SH	P										4	14	59	3968		DIC	WA
Cyperaceae	*Schoenus caespititius*	S-C	P										4	14	59	979		MON	WA

1.1.2 Species richness per 10 m x 10 m quadrat (100 m^2)

An average of 31 native species (range: 27-39 species) per 10 m x 10 m quadrat (100 m^2 area) was recorded at Jandakot Airport Precinct 5 during DEC baseline survey. For just understorey species, an average of 29 understorey species (range: 25-36 species) was recorded at Jandakot Airport Precinct 5 during the DEC baseline survey.

Criteria	Targets
Species richness per 10 m x 10 m quadrat (100 m^2 area)	Return 60-80% of native species richness per 10 m x 10 m quadrat, i.e. 100 m^2 area, (19-25 species) from Table 1

1.1.3 Overstorey targets

Overstorey targets are taken from transect data (as opposed to quadrat data). Seven overstorey species were recorded at Jandakot Airport Precinct 5 during the DEC baseline survey (Table 2).

Targets are average stems per hectare for the four transects across Jandakot Airport Precinct 5. Targets for all overstorey species together are rounded to the nearest 100.

Criteria	Targets
Overstorey	All overstorey species: – Presence of all overstorey species that were at Jandakot Airport (*Adenanthos cygnorum, Banksia attenuata, B. ilicifolia, B. menziesii, Eucalyptus marginata, E. todtiana and Nuytsia floribunda).* – Establish 500 stems/ha Stems/ha targets for overstorey species: – All to be returned as in Table 2

Table 2 Stem targets/ha for individual overstorey species, based on transect (not quadrat) data. Species are ordered in decreasing importance value rank.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA (transect data)	IMPORTANCE VALUE RANK (quadrat data)
Banksia attenuata	T	P	?y	y				y			h	187	5
Banksia menziesii	T	P		y				y			h	155	6
Banksia ilicifolia	T	P		y		?y		y			h	47	14
Eucalyptus marginata	T	P		y				y		y	m	17	20
Adenanthos cygnorum	SH	P	y				y					36	32
Nuytsia floribunda	T	P-PAR		y								14	41
Eucalyptus todtiana	T/M	P		y				y			m	5	43

1.1.4 Shrub targets

35 shrub species were recorded at Jandakot Airport Precinct 5 during the DEC baseline survey. Targets for shrubs are average stems per hectare based on Jandakot Airport quadrat data. Targets for all shrub species together are rounded to the nearest 100.

Note that a shrub (*Gastrolobium capitatum*) has germinated in the topsoil but it was a species that was not recorded by DEC at Jandakot, but it was recorded by Murdoch University.

Criteria	Targets
Understorey	
Shrubs	All shrub species: – Return 60-80% of species richness that was at Jandakot Airport (21-28 species) from Table 3 – Presence of top 30% (10) most important species from Jandakot Airport Precinct 5 (*Allocasuarina humilis, Bossiaea eriocarpa, Calytrix flavescens, Dampiera linearis, Eremaea pauciflora, Hibbertia hypericoides, H. subvaginata, Leucopogon conostephioides, Petrophile linearis, Scholtzia involucrata, Stirlingia latifolia)* – Establish 7000 stems/ha Stems/ha targets for shrub species: – See Table 3

Table 3 Stem targets/ha for individual shrub species, based on quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=12)	IMPORTANCE VALUE RANK
Eremaea pauciflora	**SH**	**P**		**y**		**y**						**975**	**1092**	**1**
Hibbertia hypericoides	**SH**	**P**	**y**			**y**						**1225**	**1840**	**2**
Scholtzia involucrata	**SH**	**P**		**y**	**y**		**y**					**450**	**505**	**8**
Dampiera linearis	**H-SH**	**P**			**y**	**y**						**417**	**486**	**12**
Bossiaea eriocarpa	**SH**	**P**	**y**									**467**	**543**	**13**
Stirlingia latifolia	**SH**	**P**		**y**		**y**	**y**					**425**	**374**	**15**
Calytrix flavescens	**SH**	**P**		**y**		**y**						**483**	**570**	**17**
Leucopogon conostephioides	**SH**	**P**				**y**						**283**	**272**	**18**
Allocasuarina humilis	**SH**	**P**		**y**			**y**					**275**	**431**	**21**
Petrophile linearis	**SH**	**P**		**y**		**y**						**158**	**116**	**22**
Hibbertia subvaginata	SH	P	y		y	y	y					158	271	23

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=12)	IMPORTANCE VALUE RANK
Conostephium preissii	SH	P				y						233	347	25
Hypocalymma robustum	SH	P		y		?y						125	166	28
Melaleuca thymoides	SH	P		y			y					92	162	30
Melaleuca seriata	SH	P		y								150	430	31
Daviesia triflora	SH	P	y	y			y					83	140	34
Jacksonia furcellata	SH/T	P	y	y			y	y			m	83	170	35
Xanthorrhoea preissii	H-SH	P		y				y			m	100	346	37
Gompholobium tomentosum	SH	P	y	y			y					75	97	38
Conostephium pendulum	SH	P				y						117	316	39
Acacia pulchella	SH	P	y				y					50	52	40
Hibbertia huegelii	SH	P			y	y						50	67	44
Beaufortia elegans	SH	P		y								67	231	50
Persoonia saccata	SH	P	y	y		y						17	39	51
Eremaea asterocarpa	SH	P		y								58	202	53
Croninia kingiana	SH	P		y		y						33	115	54
Xanthosia candida	H-SH	P				?y						17	39	56
Macrozamia riedlei	H-SH	P		y			y					4	14	57
Acacia saligna	SH/T	P	y	y			y	y			l	8	29	58
Calectasia narragara	H-SH	P				y						8	29	58
Hemiandra pungens	SH (PR)	P				y						8	29	58
Lechenaultia floribunda	SH	P			y	?y	y					8	29	58
Pimelea sulphurea	SH	P				?y						8	29	58
Scaevola repens	SH	P										8	29	58
Hovea trisperma	SH	P										4	14	59

1.1.5 Perennial herb targets

23 perennial herb species were recorded at Jandakot Airport Precinct 5 during the DEC baseline survey. Targets for perennial herbs are average stems per hectare based on Jandakot Airport quadrat data. Targets for all perennial herb species together are rounded to the nearest 100.

Criteria	Targets
Understorey	
Perennial herbs	All perennial herb species: – Return 60-80% of species richness that was at Jandakot Airport (14-18 species) from Table 4 – Presence of top 30% (7) most important species from Jandakot Airport Precinct 5 (*Burchardia congesta, Conostylis aculeata, Dasypogon bromeliifolius, Lomandra hermaphrodita, Patersonia occidentalis, Phlebocarya ciliata, Stylidium repens*) – Establish 3000 stems/ha Stems/ha targets for perennial herb species: – See Table 4

Table 4 Stem targets/ha for individual perennial herb species, based on quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n-12)	IMPORTANCE VALUE RANK
Patersonia occidentalis	**H**	**P**	**y**	**y**	**y**	**y**						**1275**	**1290**	**3**
Phlebocarya ciliata	**H**	**P**			**y**	**y**						**692**	**1092**	**9**
Dasypogon bromeliifolius	**H**	**P**	**y**	**y**	**y**	**y**						**350**	**371**	**10**
Conostylis aculeata	**H**	**P**		**y**		**y**						**350**	**485**	**19**
Stylidium repens	**H**	**P**				**y**						**125**	**136**	**24**
Lomandra hermaphrodita	**H**	**P**	**y**		**y**	**y**						**108**	**131**	**27**
Burchardia congesta	**H**	**PAB**	**y**	**y**								**75**	**45**	**29**
Hensmania turbinata	H	P				y						50	52	42
Lomandra caespitosa	H	P	y		y	y						50	67	44
Conostylis setigera	H	P		y		y						42	51	45
Phlebocarya filifolia	H	P			y	y						83	204	46
Thysanotus triandrus	H	P			y	y						33	89	48
Stylidium piliferum	H	P				y						17	39	55
Arnocrinum preissii	H	PAB				y						8	29	58
Caladenia flava	H	PAB				y						8	29	58
Chamaescilla corymbosa	H	PAB	y	y		?y						8	29	58
Conostylis juncea	H	P		y	y	y						8	29	58

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n-12)	IMPORTANCE VALUE RANK
Haemodorum spicatum	H	PAB		y		y						8	29	58
Laxmannia squarrosa	H	P				y						8	29	58
Lomandra micrantha	H	P				y						8	29	58
Lomandra preissii	H	P			y	y						8	29	58
Lomandra suaveolens	H	P			y	y						8	29	58
Thysanotus thyrsoideus	H	PAB				y						8	29	58

1.1.6 Annual herb targets

4 annual herb species were recorded at Jandakot Airport Precinct 5 during the DEC baseline survey. Targets for annual herbs are average stems per hectare based on Jandakot Airport quadrat data (4 annual herb species) AND local upland reference sites quadrat data (7 annual herb species).

Criteria	Targets
Understorey	
Annual herbs	Species diversity target: – Presence of Jandakot Airport and locally common species (Table 5a and b)

Table 5a Stem targets/ha for individual annual herb species, based on Jandakot Airport quadrat data. Species are ordered in decreasing importance value rank.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=12)	IMPORTANCE VALUE RANK
Trachymene pilosa	H	A	y			?y	y					25	45	52
Podolepis gracilis	H	A		y		?y						25	45	52
Wahlenbergia preissii	H	A				y						8	29	58
Levenhookia stipitata	H	A	y			?y						8	29	58

Table 5b Stem targets/ha for individual annual herb species, based on local reference site quadrat data (ANKB01, ANKB06, FLB01, FLB04). Species are ordered in decreasing importance value rank.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Trachymene pilosa	H	A	y			?y	y					117725	77261.48	1
Poranthera microphylla	H	A										2425	4850	28

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Rhodanthe citrina	H	A	y									1750	3500	33
Thysanotus arbuscula	H	A/P										75	95.74271	40
Quinetia urvillei	H	A	y									375	750	47
Homalosciadium homalocarpum	H	A	y									250	500	55
Podotheca gnaphalioides	H	A	y	y			y					100	200	63
Crassula colorata	H	A										75	150	64

1.1.7 Grasses targets

3 grass species were recorded at Jandakot Airport Precinct 5 during the DEC baseline survey. Targets for grasses are average stems per hectare based on Jandakot Airport quadrat data. Targets for all annual herb species together are rounded to the nearest 100.

Criteria	Targets
Understorey	
Grasses	Species diversity target: – presence of *Austrostipa compressa* and *Amphipogon turbinatus* All grass species: – Establish 900 stems/ha Targets are for early in restoration process as they will naturally decline

Table 6 Stem targets/ha for individual grass species, based on Jandakot Airport quadrat data. Species are ordered in decreasing importance value rank.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=12)	IMPORTANCE VALUE RANK
Amphipogon turbinatus	G	P	y	y								792	653	7
Austrostipa compressa	G	A	y	y			y					100	74	26
Rytidosperma occidentale	G	P	y	y								8	29	58

1.1.8 Sedge targets

8 sedge species were recorded at Jandakot Airport Precinct 5 during the DEC baseline survey. Targets for sedges are average stems per hectare based on Jandakot Airport quadrat data. Targets for all sedge species together are rounded to the nearest 100.

Criteria	Targets
Understorey	
Sedges	All sedge species: – Return 60-80% of species richness that was at Jandakot Airport (5-6 species) from Table 7 – Presence of top 30% (2) most important species from Jandakot Airport Precinct 5 (*Lyginia barbata, Desmocladus flexuosus*) – Establish 2000 stems/ha Stems/ha targets for sedge species: – See Table 7

Table 7 Stem targets/ha for individual sedge species, based on Jandakot Airport quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOP SOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=12)	IMPORTANCE VALUE RANK
Lyginia barbata	**S-R**	**P**	**?y**		**y**	**y**						**875**	**548**	**4**
Desmocladus flexuosus	**S-R**	**P**	**y**		**y**	**y**						**233**	**290**	**11**
Hypolaena exsulca	S-R	P										517	871	16
Schoenus curvifolius	S-C	P			y	y						92	138	33
Lepidosperma squamatum	S-C	P			y	y						150	399	36
Desmocladus fasciculatus	S-R	P				y						25	45	47
Schoenus efoliatus	S-C	P			y	y						92	318	49
Schoenus caespititius	S-C	P										4	14	59

1.1.9 Species enrichment

Local reference site quadrats and quadrats from the Swan Coastal Plain and System 6 and Part 1 Update indicate further species that will naturally appear at the restoration site, spreading from adjacent bushland, and that may be planted or used in direct seeding mixes (Table 8).

Table 8 Species that may appear naturally, or that may be planted or used in direct seeding mixes. Quadrat sources are indicated. Species that were also found in Jandakot Airport surveys (as per 1.1.1-1.1.9) are indicated in the last column.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOP SOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	ANKB01	ANKB06	DEJONG02	FLB01	FLB04	MODO-2	IN JANDAKOT QUADRATS LIST
Acacia huegelii	SH	P										1		1		1		
Adenanthos cygnorum	SH	P	y				y							1		1		y
Amphipogon turbinatus	G	P	y	y										1				y
Anigozanthos manglesii	H	PAB		y										1				
Aotus procumbens	SH (PR)	P												1				
Arnocrinum preissii	H	PAB				y								1				y
Asteridea pulverulenta	H	A												1				
Austrostipa compressa	G	A	y	y			y					1	1				1	y
Austrostipa flavescens	G	P												1				
Banksia attenuata	T	P	?y	y				y			h	1	1	1	1	1	1	y
Banksia ilicifolia	T	P		y		?y		y			h		1		1		1	y
Banksia menziesii	T	P		y				y			h	1		1	1	1		y
Bossiaea eriocarpa	SH	P	y									1	1	1		1	1	y
Brachyloma preissii	SH	P				?y										1		
Burchardia congesta	H	PAB	y	y								1	1		1	1		y
Caesia micrantha	H	PAB											1					
Caladenia flava	H	PAB				y						1			1	1	1	y
Calytrix angulata	SH	P												1				
Calytrix flavescens	SH	P		y		y								1				y
Calytrix fraseri	SH	P		y												1		
Chamaescilla corymbosa	H	PAB	y	y		?y							1		1			y
Conostephium pendulum	SH	P				y						1				1		y
Conostylis aculeata	H	P		y		y								1	1	1		y
Conostylis juncea	H	P		y	y	y						1	1				1	y
Corynotheca micrantha	H	PAB														1		
Crassula colorata	H	A											1	1				
Dampiera linearis	H-SH	P			y	y						1		1				y
Dasypogon bromeliifolius	H	P	y	y	y	y						1	1	1	1	1		y
Desmocladus flexuosus	S-R	P	y		y	y						1			1	1		y
Dianella revoluta	H	P				?y									1	1		

SPECIES NAME	GROWTH FORM	LIFE FORM	TOP SOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	ANKB01	ANKB06	DEJONG02	FLB01	FLB04	MODO-2	INJANDAKOTQUADRATSLIST
Drosera erythrorhiza	H	PAB										1			1	1		
Drosera macrantha subsp. *macrantha*	H	PAB															1	
Drosera paleacea subsp. *paleacea*	H	PAA															1	
Drosera sp. climbing	H											1				1		
Eriochilus dilatatus	H	PAB														1		
Eucalyptus todtiana	T/M	P		y				y			m		1					y
Euchilopsis linearis	SH	P				?y											1	
Euchiton sphaericus	H	P											1					
Gompholobium tomentosum	SH	P	y	y			y					1	1	1		1	1	y
Gonocarpus pithyoides	H	P										1						
Hibbertia racemosa	SH	P												1				
Hibbertia subvaginata	SH	P	y		y	y	y					1			1	1	1	y
Homalosciadium homalocarpum	H	A	y										1				1	
Hovea trisperma	SH	P										1						y
Hypocalymma angustifolium	SH	P		y		?y											1	
Hypolaena exsulca	S-R	P										1					1	y
Jacksonia furcellata	SH/T	P	y	y			y	y			m			1		1	1	y
Jacksonia gracillima	SH/T	P											1				1	
Kennedia prostrata	H (PR)	P		y													1	
Kunzea glabrescens	SH	P		y			y					1	1			1	1	
Laxmannia sessiliflora subsp. *australis*	H	P												1				
Lechenaultia floribunda	SH	P			y	?y	y							1		1		y
Lepidosperma sp. Baldivis	S-C	P											1					
Leucopogon conostephioides	SH	P				y						1		1		1	1	y
Lomandra caespitosa	H	P	y		y	y						1	1	1	1	1		y
Lomandra hermaphrodita	H	P	y		y	y						1	1		1	1		y

SPECIES NAME	GROWTH FORM	LIFE FORM	TOP SOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	ANKB01	ANKB06	DEJONG02	FLB01	FLB04	MODO-2	INJANDAKOTQUADRATSLIST
Lomandra nigricans	H	P										1						
Lomandra sericea	H	P										1	1					
Lyginia barbata	S-R	P	?y		y	y								1			1	y
Lyginia barbata/imberbis	S-R	P	?y		y	y						1			1			y
Lyginia imberbis	S-R	P			y	y										1		
Macarthuria apetala (Southern form) (BJ Keighery and N Gibson 769)	H-SH	P												1				
Macarthuria australis	H-SH	P				?y										1		
Macrozamia riedlei	H-SH	P		y			y									1		y
Melaleuca preissiana	T	P		y									1				1	
Melaleuca thymoides	SH	P		y			y						1	1				y
Microlaena stipoides	G	P										1	1		1			
Nuytsia floribunda	T	P-PAR		y									1			1		y
Patersonia occidentalis	H	P	y	y	y	y						1		1	1	1		y
Petrophile linearis	SH	P		y		y						1		1		1		y
Philotheca spicata	SH	P										1		1		1		
Phlebocarya ciliata	H	P			y	y						1	1				1	y
Podotheca gnaphalioides	H	A	y	y			y						1					
Poranthera microphylla	H	A															1	
Pterostylis nana	H	PAB											1					
Pterostylis sanguinea	H	PAB													1	1		
Pterostylis sp. Slender Snail Orchid (G.J. Keighery 14516) PN	H	PAB															1	
Pterostylis vittata	H	PAB															1	
Pyrorchis nigricans	H	PAB															1	
Quinetia urvillei	H	A	y									1						
Rhodanthe citrina	H	A	y										1					
Rytidosperma caespitosum	G	P												1				
Rytidosperm	G	P	y	y													1	y

SPECIES NAME	GROWTH FORM	LIFE FORM	TOP SOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	ANKB01	ANKB06	DEJONG02	FLB01	FLB04	MODO-2	INJANDAKOTQUADRATSLIST
a occidentale																		
Schoenus curvifolius	S-C	P			y	y						1				1		y
Schoenus efoliatus	S-C	P			y	y						1						y
Scholtzia involucrata	SH	P		y	y		y							1				y
Sowerbaea laxiflora	H	PAB													1			
Stirlingia latifolia	SH	P		y		y	y							1				y
Stylidium brunonianum	H	P										1		1				
Stylidium calcaratum	H	A												1				
Stylidium piliferum	H	P				y						1					1	y
Stylidium repens	H	P				y								1			1	y
Thysanotus arbuscula	H	A/P										1				1		
Thysanotus manglesianus/patersonii complex	H (CL)	PAB													1	1		
Trachymene pilosa	H	A	y			?y	y					1	1	1	1	1		y
Tricoryne elatior	H	P										1						
Wahlenbergia preissii	H	A				y								1				y
Xanthorrhoea preissii	H-SH	P		y				y			m	1	1				1	y

1.1.10 Weed targets

Criteria	Targets
Weed control	• Less than 5% total weed cover • Eradicate pigface (*Carpobrotus edulis*) • Eradicate veldt grass (*Ehrharta calycina*) • For each species – either eradicate or control

1.2 Upland areas without topsoil (suggested FCT 21c)

Data used to generate targets is listed below.

Data Sources		Use
ANKB01 (suggested FCT 21c) ANKB06 (suggested FCT 21c) FLB01 (suggested FCT 21c) FLB04 (suggested FCT 21c)	BWR local reference sites	stems/ha targets (Table 9)
DEJONG02 (FCT 21c) MODO-2 (FCT 21c)	SCP & System 6 & Part 1 Update	species enrichment
Jandakot Airport DEC quadrats (suggested FCT 23a)	BWR Precinct 5 pre-clearing survey	only used for calculating targets if no other data is available (e.g. for species that appear/are planted and are not in the local reference sites but do appear in SCP & System 6 & Part 1 Update quadrats)

Local reference site quadrats are used to determine stems/ha targets (sections 1.2.1-1.2.8). Data from quadrats from the Swan Coastal Plain and System 6 and Part 1 Update survey (Keighery *et al.* 2012) indicate further species (section 1.2.9) that may naturally appear at the restoration site, spreading from adjacent bushland, and that may be planted or used in direct seeding mixes; since these species were not recorded in local reference sites, Jandakot Airport DEC targets may, if available, be used for deriving targets for these species.

1.2.1 Species richness overall

71 native species were recorded in upland local reference sites by the BWR project (four 10 m x 10 m quadrats).

Criteria	Targets
Species richness overall	Return 60-80% of native species richness (43-57 species) from Table 9

Table 9 lists species, importance value rank and stems/ha targets for the Anketell Road restoration site upland areas without topsoil.

Table 9 Species recorded in upland local reference sites. Ecological categories, stem targets/ha, importance values and conservation codes are included (see Table 1 key). Species are ordered in decreasing importance value rank.

FAMILY NAME	SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA (n=4)	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK	NAME_ID	CONSV CODE	SUPRA CODE	ENDEMIC
Araliaceae	*Trachymene pilosa*	H	A	y			?y	y					117725	77261	1	6280		DIC	AUST
Proteaceae	*Banksia attenuata*	T	P	?y	y				y			h	675	126	2	1800		DIC	WA
Restionaceae	*Desmocladus flexuosus*	S-R	P	y		y	y						2325	1846	3	16595		MON	WA
Droseraceae	*Drosera erythrorhiza*	H	PAB										15600	15216	4	3095		DIC	WA
Proteaceae	*Adenanthos cygnorum*	SH	P	y				y					200	400	5	1775		DIC	WA
Proteaceae	*Banksia menziesii*	T	P		y				y			h	300	408	6	1834		DIC	WA
Dasypogonaceae	*Dasypogon bromeliifolius*	H	P	y	y	y	y						2000	1838	7	1218		MON	WA
Myrtaceae	*Kunzea glabrescens*	SH	P		y			y					1050	1370	8	15498		DIC	WA
Haemodoraceae	*Phlebocarya ciliata*	H	P			y	y						4350	7131	9	1478		MON	WA
Colchicaceae	*Burchardia congesta*	H	PAB	y	y								6275	5523	10	12770		MON	WA
Xanthorrhoeaceae	*Xanthorrhoea preissii*	H-SH	P		y				y			m	875	1495	11	1256		MON	WA
Loranthaceae	*Nuytsia floribunda*	T	P-PAR		y								50	58	12	2401		DIC	WA
Ericaceae	*Leucopogon conostephioides*	SH	P				y						1125	1652	13	6374		DIC	WA
Orchidaceae	*Caladenia flava*	H	PAB				y						3025	3058	14	1592		MON	WA
Myrtaceae	*Eucalyptus todtiana*	T/M	P		y				y			m	50	100	15	5790		DIC	WA
Asparagaceae	*Lomandra caespitosa*	H	P	y		y	y						1325	1953	16	1223		MON	WA
Asparagaceae	*Lomandra hermaphrodita*	H	P	y		y	y						650	580	17	1228		MON	WA
Anarthriaceae	*Lyginia barbata/imberbis*	S-R	P			y	y						650	624	18	-21509		MON	WA
Dilleniaceae	*Hibbertia subvaginata*	SH	P	y		y	y	y					475	377	19	5173		DIC	WA
Iridaceae	*Patersonia occidentalis*	H	P	y	y	y	y						400	483	20	1550		MON	AUST
Myrtaceae	*Calytrix fraseri*	SH	P		y								375	750	21	5460		DIC	WA
Fabaceae	*Bossiaea eriocarpa*	SH	P	y									225	171	22	3710		DIC	WA
Haemodoraceae	*Conostylis aculeata*	H	P		y		y						450	526	23	1418		MON	WA
Fabaceae	*Jacksonia furcellata*	SH/T	P	y	y			y	y			m	250	500	24	4012		DIC	WA
Asparagaceae	*Chamaescilla corymbosa*	H	PAB	y	y		?y						1600	1960	25	1280		MON	AUST
Poaceae	*Microlaena stipoides*	G	P										300	216	26	485		MON	>AUST
Fabaceae	*Gompholobium tomentosum*	SH	P	y	y			y					200	216	27	3957		DIC	WA
Phyllanthacea	*Poranthera microphylla*	H	A										2425	4850	28	-21493		DIC	WA

FAMILY NAME	SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK	NAME_ID	CONSV CODE	SUPRA CODE	ENDEMIC
e																			
Proteaceae	*Banksia ilicifolia*	T	P		y		?y		y			h	100	141	29	1822		DIC	WA
Fabaceae	*Acacia huegelii*	SH	P										250	379	30	3374		DIC	WA
Asparagaceae	*Lomandra sericea*	H	P										550	802	31	1243		MON	WA
Ericaceae	*Conostephium pendulum*	SH	P				y						225	287	32	6348		DIC	WA
Asteraceae	*Rhodanthe citrina*	H	A	y									1750	3500	33	13300		DIC	AUST
Cyperaceae	*Schoenus curvifolius*	S-C	P			y	y						100	141	34	984		MON	WA
Rutaceae	*Philotheca spicata*	SH	P										175	287	35	18529		DIC	AUST
Hemerocallidaceae	*Dianella revoluta*	H	P				?y						125	150	36	1259		MON	AUST
Droseraceae	*Drosera sp. climbing*	H											275	320	37	-21073		DIC	WA
Proteaceae	*Petrophile linearis*	SH	P		y		y						175	236	38	2299		DIC	WA
Asparagaceae	*Thysanotus manglesianus/patersonii complex*	H (CL)	PAB										250	379	39	-20184		MON	WA
Asparagaceae	*Thysanotus arbuscula*	H	A/P										75	96	40	1318		MON	WA
Poaceae	*Austrostipa compressa*	G	A	y	y			y					150	238	41	17234		MON	WA
Haemodoraceae	*Conostylis juncea*	H	P		y	y	y						125	189	42	1436		MON	WA
Orchidaceae	*Pterostylis sanguinea*	H	PAB										75	96	43	12217		MON	AUST
Myrtaceae	*Melaleuca preissiana*	T	P		y								125	250	44	5952		DIC	WA
Molluginaceae	*Macarthuria australis*	H-SH	P				?y						100	200	45	2839		DIC	WA
Asteraceae	*Quinetia urvillei*	H	A	y									375	750	46	8195		DIC	AUST
Orchidaceae	*Pterostylis nana*	H	PAB										350	700	47	1690		MON	WA
Haloragaceae	*Gonocarpus pithyoides*	H	P										225	450	48	6161		DIC	WA
Fabaceae	*Jacksonia gracillima*	SH/T	P										50	100	49	20462	3	DIC	WA
Apiaceae	*Homalosciadium homalocarpum*	H	A	y									250	500	50	6222		DIC	WA
Stylidiaceae	*Stylidium brunonianum*	H	P										250	500	50	7693		DIC	WA
Hemerocallidaceae	*Corynotheca micrantha*	H	PAB										125	250	51	1285		MON	AUST
Cyperaceae	*Lepidosperma sp. Baldivis*	S-C	P										200	400	52	-21516		MON	WA
Asparagaceae	*Sowerbaea laxiflora*	H	PAB										100	200	53	1312		MON	WA
Asteraceae	*Euchiton sphaericus*	H	P										175	350	54	15137		DIC	>AUST
Ericaceae	*Brachyloma preissii*	SH	P				?y						50	100	55	6341		DIC	WA

Banksia Woodland Restoration Project Completion Criteria Data for the Anketell Road and Forrestdale Lake Restoration Sites

FAMILY NAME	SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK	NAME_ID	CONSV CODE	SUPRA CODE	ENDEMIC
Lamiaceae	*Hemiandra ?pungens*	SH	P				y						25	50	56	-21495			
Myrtaceae	*Melaleuca thymoides*	SH	P		y			y					25	50	56	5980		DIC	WA
Restionaceae	*Hypolaena exsulca*	S-R	P										100	200	57	1070		MON	WA
Asteraceae	*Podotheca gnaphalioides*	H	A	y	y			y					100	200	57	8184		DIC	WA
Crassulaceae	*Crassula colorata*	H	A										75	150	58	3137		DIC	>AUST
Fabaceae	*Hovea trisperma*	SH	P										75	150	58	3968		DIC	WA
Hemerocallidaceae	*Caesia micrantha*	H	PAB										50	100	59	1276		MON	WA
Goodeniaceae	*Dampiera linearis*	H-SH	P			y	y						50	100	59	7454		DIC	WA
Goodeniaceae	*Lechenaultia floribunda*	SH	P			y	?y	y					50	100	59	7574		DIC	WA
Orchidaceae	*Eriochilus dilatatus*	H	PAB										25	50	60	1646		MON	WA
Asparagaceae	*Lomandra nigricans*	H	P										25	50	60	1234		MON	WA
Zamiaceae	*Macrozamia riedlei*	H-SH	P		y			y					25	50	60	85		GYM	WA
Cyperaceae	*Schoenus efoliatus*	S-C	P			y	y						25	50	60	986		MON	WA
Stylidiaceae	*Stylidium piliferum*	H	P				y						25	50	60	7774		DIC	WA
Hemerocallidaceae	*Tricoryne elatior*	H	P										25	50	60	1361		MON	AUST

1.2.2 Species richness per 10 m x 10 m quadrat (100 m^2)

An average of 30 native species per 10 m x 10 m quadrat (100 m^2 area) were recorded in upland local reference sites by the BWR project.

Criteria	Targets
Species richness per 10 m x 10 m quadrat (100 m^2 area)	Return 60-80% of native species richness per 10 m x 10 m quadrat, i.e. 100 m^2 area, (18-24 species) from Table 9

1.2.3 Overstorey targets

Overstorey targets are taken from quadrat data since tree transect data is not available.

Six overstorey species were recorded in upland local reference sites (Table 10); *Adenanthos cygnorum* is not included as an overstorey species here, unlike in topsoil areas, since its growth habit was more like a shrub.

Overall targets are average stems per hectare for the four quadrats. Targets for all overstorey species together are rounded to the nearest 100.

Criteria	Targets
Overstorey	All overstorey species: – Presence of all overstorey species that were in the local reference sites (*Banksia attenuata, B. ilicifolia, B. menziesii, Eucalyptus todtiana Melaleuca preissiana and Nuytsia floribunda).* – Establish 1300 stems/ha[2] Stems/ha targets for overstorey species: – All to be returned as in Table 10

Table 10 Stem targets/ha for individual overstorey species based on upland local reference sites quadrat data. Species are ordered in decreasing importance value rank.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA (n=4)	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Banksia attenuata	T	P	?y	y				y			h	675	1[2]6	2
Banksia menziesii	T	P		y				y			h	300	408	6
Nuytsia floribunda	T	P-PAR		y								50	58	12
Eucalyptus todtiana	T/M	P		y				y			m	50	100	15
Banksia ilicifolia	T	P		y		?y		y			h	100	141	29
Melaleuca	T	P		y								125	250	44

[2] These targets are high because here the data used to calculate overstorey density is from 10 m x 10 m quadrat data rather than transect data. The latter represents overstorey density more accurately.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA (n=4)	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
preissiana														

1.2.4 Shrub targets

22 shrub species were recorded in upland local reference sites. Targets for shrubs are average stems per hectare based on upland local reference sites quadrat data. Targets for all shrub species together are rounded to the nearest 100.

Criteria	Targets
Understorey	
Shrubs	All shrub species: – Return 60-80% of species richness that was at local reference sites (13-18 species) from Table 11 – Presence of top 30% (7) most important species from local reference sites (*Adenanthos cygnorum, Bossiaea eriocarpa, Calytrix fraseri, Hibbertia subvaginata, Kunzea glabrescens, Leucopogon conostephioides, Xanthorrhoea preissii)* – Establish 6000 stems/ha Stems/ha targets for shrub species: – See Table 11

Table 11 Stem targets/ha for individual shrub species, based on upland local reference sites quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Adenanthos cygnorum	**SH**	**P**	**y**				**y**					**200**	**400**	**5**
Kunzea glabrescens	**SH**	**P**		**y**			**y**					**1050**	**1370**	**8**
Xanthorrhoea preissii	**H-SH**	**P**		**y**				**y**			**m**	**875**	**1495**	**11**
Leucopogon conostephioides	**SH**	**P**				**y**						**1125**	**1652**	**13**
Hibbertia subvaginata	**SH**	**P**	**y**		**y**	**y**	**y**					**475**	**377**	**19**
Calytrix fraseri	**SH**	**P**		**y**								**375**	**750**	**21**
Bossiaea eriocarpa	**SH**	**P**	**y**									**225**	**171**	**22**
Jacksonia furcellata	SH/T	P	y	y			y	y			m	250	500	24
Gompholobium tomentosum	SH	P	y	y			y					200	216	27
Acacia huegelii	SH	P										250	379	30
Conostephium pendulum	SH	P				y						225	287	32
Philotheca spicata	SH	P										175	287	35
Petrophile linearis	SH	P		y		y						175	236	38
Macarthuria australis	H-SH	P				?y						100	200	45

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Jacksonia gracillima	SH/T	P										50	100	49
Brachyloma preissii	SH	P				?y						50	100	55
Hemiandra ?pungens	SH	P				y						25	50	56
Melaleuca thymoides	SH	P		y			y					25	50	56
Hovea trisperma	SH	P										75	150	58
Dampiera linearis	H-SH	P			y	y						50	100	59
Lechenaultia floribunda	SH	P			y	?y	y					50	100	59
Macrozamia riedlei	H-SH	P		y			y					25	50	60

1.2.5 Perennial herb targets

27 perennial herb species were recorded in upland local reference sites. Targets for perennial herbs are average stems per hectare based on upland local reference sites quadrat data. Targets for all perennial herb species together are rounded to the nearest 100.

Criteria	Targets
Understorey	
Perennial herbs	All perennial herb species: – Return 60-80% of species richness that was at local reference sites (16-22 species) from Table 12 – Presence of top 30% (8) most important species from local reference sites (*Burchardia congesta, Caladenia flava, Dasypogon bromeliifolius, Drosera erythrorhiza, Lomandra caespitosa, Lomandra hermaphrodita, Patersonia occidentalis, Phlebocarya ciliata*) – Establish 38,400 stems/ha Stems/ha targets for perennial herb species: – See Table 12

Table 12 Stem targets/ha for individual perennial herb species, based on upland local reference sites quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Drosera erythrorhiza	**H**	**PAB**										**15600**	**15216**	**4**
Dasypogon bromeliifolius	**H**	**P**	**y**	**y**	**y**	**y**						**2000**	**1838**	**7**
Phlebocarya ciliata	**H**	**P**			**y**	**y**						**4350**	**7131**	**9**
Burchardia congesta	**H**	**PAB**	**y**	**y**								**6275**	**5523**	**10**
Caladenia flava	**H**	**PAB**				**y**						**3025**	**3058**	**14**
Lomandra caespitosa	**H**	**P**	**y**		**y**	**y**						**1325**	**1953**	**16**
Lomandra hermaphrodita	**H**	**P**	**y**		**y**	**y**						**650**	**580**	**17**

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Patersonia occidentalis	**H**	**P**	**y**	**y**	**y**	**y**						**400**	**483**	**20**
Conostylis aculeata	H	P		y		y						450	526	23
Chamaescilla corymbosa	H	PAB	y	y		?y						1600	1960	25
Lomandra sericea	H	P										550	802	31
Dianella revoluta	H	P				?y						125	150	36
Drosera sp. climbing	H	PAB										275	320	37
Thysanotus manglesianus/patersonii complex	H (CL)	PAB										250	379	39
Conostylis juncea	H	P		y	y	y						125	189	42
Pterostylis sanguinea	H	PAB										75	96	43
Pterostylis nana	H	PAB										350	700	47
Gonocarpus pithyoides	H	P										225	450	48
Stylidium brunonianum	H	P										250	500	50
Corynotheca micrantha	H	PAB										125	250	51
Sowerbaea laxiflora	H	PAB										100	200	53
Euchiton sphaericus	H	P										175	350	54
Caesia micrantha	H	PAB										50	100	59
Eriochilus dilatatus	H	PAB										25	50	60
Lomandra nigricans	H	P										25	50	60
Stylidium piliferum	H	P				y						25	50	60
Tricoryne elatior	H	P										25	50	60

1.2.6 Annual herb targets

8 annual herb species were recorded in upland local reference sites. Targets for annual herbs are average stems per hectare based on upland local reference sites quadrat data. Targets for all perennial herb species together are rounded to the nearest 100.

Criteria	Targets
Understorey	
Perennial herbs	All annual herb species: – Return 60-80% of species richness that was at local reference sites (5-6 species) from Table 13 – Presence of top 30% (2) most important species from local reference sites (*Trachymene pilosa, Poranthera microphylla*) – Establish 122,775 stems/ha Stems/ha targets for annual herb species: – See Table 13

Table 13 Stem targets/ha for individual annual herb species, based on upland local reference sites quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Trachymene pilosa	**H**	**A**	**y**			**?y**	**y**					**1177225**	**77261**	**1**
Poranthera microphylla	**H**	**A**										**2425**	**4850**	**28**
Rhodanthe citrina	H	A	y									1750	3500	33
Quinetia urvillei	H	A	y									375	750	46
Homalosciadium homalocarpum	H	A	y									250	500	50
Podotheca gnaphalioides	H	A	y	y			y					100	200	57
Crassula colorata	H	A										75	150	58
Thysanotus arbuscula	H	A/P										75	96	40

1.2.7 Grasses targets

2 grass species were recorded in upland local reference sites. Targets for grasses are average stems per hectare based on recorded upland local reference sites quadrat data. Targets for all annual herb species together are rounded to the nearest 100.

Criteria	Targets
Understorey	
Grasses	Species diversity target: – presence of *Austrostipa compressa* and *Microlaena stipoides* All grass species: – Establish 400 stems/ha Targets are for early in restoration process as they will naturally decline following disturbance

Table 14 Stem targets/ha for individual grass species, based on upland local reference sites quadrat data. Species are ordered in decreasing importance value rank.

SPECIES NAME	GROWTH FORM	GROWTH FORM 2	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA (n=12)	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Microlaena stipoides	G		P										300	216	26
Austrostipa compressa	G		A	y	y			y					150	238	41

1.2.8 Sedge targets

6 sedge species were recorded in upland local reference sites. Targets for sedges are average stems per hectare based on upland local reference sites quadrat data. Targets for all sedge species together are rounded to the nearest 100.

Criteria	Targets
Understorey	
Sedges	All sedge species: – Return 60-80% of species richness that was at local reference sites (4-5 species)from Table 15 – Presence of top 30% (2) most important species from local reference sites (*Desmocladus flexuosus, Lyginia imberbis/barbata*). – Establish 3400 stems/ha Stems/ha targets for sedge species: – See Table 15

Table 15 Stem targets/ha for individual sedge species, based on upland local reference sites quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Desmocladus flexuosus	**S-R**	**P**	**y**		**y**	**y**						**2325**	**1846**	**3**
Lyginia barbata/imberbis	**S-R**	**P**			**y**	**y**						**650**	**624**	**18**
Schoenus curvifolius	S-C	P			y	y						100	141	34
Lepidosperma sp. Baldivis	S-C	P										200	400	52
Hypolaena exsulca	S-R	P										100	200	57
Schoenus efoliatus	S-C	P			y	y						25	50	60

1.2.9 Species enrichment

Quadrats from the Swan Coastal Plain and System 6 and Part 1 Update indicate further species that will naturally appear at the restoration site, spreading from adjacent bushland, and that may be planted or used in direct seeding mixes (Table 16).

Table 16 Species that may appear naturally, or that may be planted or used in direct seeding mixes. Quadrat sources are indicated. Species that were also found in upland local reference sites (as per 1.2.1-1.2.8) are indicated in the last column.

SPECIES NAME	GROWTH FORM	GROWTH FORM 2	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	DEJONG02	MOD O-2	IN UPLAND LOCAL REFERENCE SITES
Acacia huegelii	SH		P										1		y
Adenanthos cygnorum	SH		P	y				y					1		y
Amphipogon turbinatus	G		P	y	y								1		
Anigozanthos manglesii	H		PAB		y								1		
Aotus procumbens	SH	PR	P										1		
Arnocrinum preissii	H		PAB				y						1		
Asteridea pulverulenta	H		A										1		
Austrostipa compressa	G		A	y	y			y						1	y
Austrostipa flavescens	G		P										1		
Banksia attenuata	T		P	?y	y				y			h	1	1	y
Banksia ilicifolia	T		P		y		?y		y			h		1	y
Banksia menziesii	T		P		y				y			h	1		y
Bossiaea eriocarpa	SH		P	y									1	1	y
Caladenia flava	H		PAB				y							1	y
Calytrix angulata	SH		P										1		
Calytrix flavescens	SH		P		y		y						1		
Conostylis aculeata	H		P		y		y						1		y
Conostylis juncea	H		P		y	y	y							1	y
Crassula colorata	H		A										1		y
Dampiera linearis	H-SH		P			y	y						1		y
Dasypogon bromeliifolius	H		P	y	y	y	y						1		y
Drosera macrantha subsp. *macrantha*	H		PAB											1	
Drosera paleacea subsp. *paleacea*	H		PAA											1	
Euchilopsis linearis	SH		P				?y							1	
Gompholobium	SH		P	y	y			y					1	1	y

SPECIES NAME	GROWTH FORM	GROWTH FORM 2	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	DEJONG02	MOD O-2	IN UPLAND LOCAL REFERENCE SITES
tomentosum															
Hibbertia racemosa	SH		P										1		
Hibbertia subvaginata	SH		P	y		y	y	y						1	y
Homaloscidium homalocarpum	H		A	y										1	y
Hypocalymma angustifolium	SH		P		y		?y							1	
Hypolaena exsulca	S-R		P											1	y
Jacksonia furcellata	SH/T		P	y	y			y	y			m	1	1	y
Jacksonia gracillima	SH/T		P											1	y
Kennedia prostrata	H	PR	P		y									1	
Kunzea glabrescens	SH		P		y			y						1	y
Laxmannia sessiliflora subsp. *australis*	H		P										1		
Lechenaultia floribunda	SH		P			y	?y	y					1		y
Leucopogon conostephioides	SH		P				y						1	1	y
Lomandra caespitosa	H		P	y		y	y						1		y
Lyginia barbata	S-R		P	?y		y	y						1	1	y
Macarthuria apetala (Southern form) (BJ Keighery and N Gibson 769)	H-SH		P										1		
Melaleuca preissiana	T		P		y									1	y
Melaleuca thymoides	SH		P		y			y					1		y
Patersonia occidentalis	H		P	y	y	y	y						1		y
Petrophile linearis	SH		P		y		y						1		y
Philotheca spicata	SH		P										1		y
Phlebocarya ciliata	H		P			y	y							1	y
Poranthera microphylla	H		A											1	y
Pterostylis sp. Slender Snail	H		PAB											1	

SPECIES NAME	GROWTH FORM	GROWTH FORM 2	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	DEJONG02	MODO-2	IN UPLAND LOCAL REFERENCE SITES
Orchid (G.J. Keighery 14516) PN															
Pterostylis vittata	H		PAB											1	
Pyrorchis nigricans	H		PAB											1	
Rytidosperma caespitosum	G		P										1		
Rytidosperma occidentale	G		P	y	y									1	
Scholtzia involucrata	SH		P		y	y		y					1		
Stirlingia latifolia	SH		P		y		y	y					1		
Stylidium brunonianum	H		P										1		y
Stylidium calcaratum	H		A										1		
Stylidium piliferum	H		P				y							1	y
Stylidium repens	H		P				y						1	1	
Trachymene pilosa	H		A	y			?y	y					1		y
Wahlenbergia preissii	H		A				y						1		
Xanthorrhoea preissii	H-SH		P		y				y			m		1	y

1.2.10 Weed targets

These have not yet been considered.

1.3 Transitional areas without topsoil (suggested FCT 4)

Data used to generate targets is listed below.

Data Sources		Use
ANKB02 (suggested FCT 4) ANKB04 (suggested FCT 4) ANKB05 (suggested FCT 4)	BWR local reference sites	stems/ha targets (Table 17)
MODO-1 (FCT 4) MODO-6 (FCT 4) cas04 (FCT 4) FL9 (FCT 4)	SCP & System 6 & Part 1 Update	species enrichment
Jandakot Airport DEC quadrats (suggested FCT 23a)	BWR Precinct 5 pre-clearing survey	only used for calculating targets if no other data is available (e.g. for species that appear/are planted and are not in the local reference sites but do appear in SCP & System 6 & Part 1 Update quadrats)

Local reference site quadrats are used to determine stems/ha targets (sections 1.3.1-1.3.8). Data from quadrats from the Swan Coastal Plain and System 6 and Part 1 Update survey (Keighery *et al.* 2012), indicate further species (section 1.3.9) that may naturally appear at the restoration site, spreading from adjacent bushland, and that may be planted or used in direct seeding mixes; since these species were not recorded in local reference sites, Jandakot Airport DEC targets may, if available, be used for deriving targets for these species.

1.3.1 Species richness overall

67 native species were recorded in transitional local reference sites by the BWR project (three 10 m x 10 m quadrats).

Criteria	Targets
Species richness overall	Return 60-80% of native species richness (40-54 species) from Table 17

Table 17 lists species, importance value rank and stems/ha targets for the Anketell Road restoration site transitional areas without topsoil.

Table 17 Species recorded in transitional local reference sites. Ecological categories, stem targets/ha, importance values and conservation codes are included (see Table 1 key). Species are ordered in decreasing importance value rank. Note that 2 species (*Allocasuarina fraseriana* and *Corymbia calophylla*) appear in this list but were not recorded in quadrats (see section 1.3.3).

FAMILY NAME	SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=3)	IMPORTANCE VALUE RANK	NAME_ID	CONSV CODE	SUPRA CODE	ENDEMIC
Dasypogonaceae	*Dasypogon bromeliifolius*	H	P	y	y	y	y						4733	709	1	1218		MON	WA
Araliaceae	*Trachymene pilosa*	H	A	y			?y	y					26100	36432	2	6280		DIC	AUST
Myrtaceae	*Kunzea glabrescens*	SH	P		y			y					2433	321	3	15498		DIC	WA
Xanthorrhoeaceae	*Xanthorrhoea preissii*	H-SH	P		y				y			m	3067	2673	4	1256		MON	WA
Phyllanthaceae	*Poranthera microphylla*	H	A										23233	15201	5	4691		DIC	WA
Myrtaceae	*Hypocalymma angustifolium*	SH	P		y		?y						3800	4190	6	5817		DIC	WA
Droseraceae	*Drosera erythrorhiza*	H	PAB										14900	25808	7	3095		DIC	WA
Myrtaceae	*Melaleuca preissiana*	T	P		y								233	321	8	5952		DIC	WA
Centrolepidaceae	*Centrolepis drummondiana*	S-C	A	y									11100	17266	9	1125		MON	AUST
Haemodoraceae	*Phlebocarya ciliata*	H	P			y	y						4433	4053	10	1478		MON	WA
Myrtaceae	*Pericalymma ellipticum*	SH	P										1800	2778	11	6006		DIC	WA
Crassulaceae	*Crassula colorata* var. *colorata*	H	A										10667	18475	12	11563		DIC	>AUST
Anarthriaceae	*Lyginia imberbis*	S-R	P			y	y						2433	1966	13	18049		MON	WA
Asteraceae	*Rhodanthe citrina*	H	A										5967	9989	14	13300		DIC	WA
Crassulaceae	*Crassula colorata*	H	A										7367	6701	15	3137		DIC	>AUST
Proteaceae	*Banksia attenuata*	T	P	?y	y				y			h	200	346	16	1800		DIC	WA
Asteraceae	*Hyalosperma cotula*	H	A										7600	13164	17	12741		DIC	WA
Poaceae	*Austrostipa compressa*	G	A	y	y			y					5267	6974	18	17234		MON	WA
Proteaceae	*Adenanthos obovatus*	SH	P										533	493	19	1791		DIC	WA
Apiaceae	*Homalosciadium homalocarpum*	H	A	y									2900	693	20	6222		DIC	WA
Orchidaceae	*Caladenia flava*	H	PAB				y						1867	2401	21	1592		MON	WA
Myrtaceae	*Melaleuca seriata*	SH	P		y								1133	1963	22	5964		DIC	WA
Colchicaceae	*Burchardia congesta*	H	PAB	y	y								1133	1620	23	12770		MON	WA
Stylidiaceae	*Stylidium brunonianum*	H	P										1067	1026	24	7693		DIC	WA
Asparagaceae	*Lomandra caespitosa*	H	P	y		y	y						867	351	25	1223		MON	WA
Restionaceae	*Hypolaena exsulca*	S-R	P										1033	1620	26	1070		MON	WA
Fabaceae	*Jacksonia gracillima*	SH/T	P										367	321	27	20462	3	DIC	WA
Myrtaceae	*Melaleuca thymoides*	SH	P		y			y					400	693	28	5980		DIC	WA
Asparagaceae	*Chamaescilla corymbosa*	H	PAB	y	y		?y						1533	2570	29	1280		MON	AUST

FAMILY NAME	SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=3)	IMPORTANCE VALUE RANK	NAME_ID	CONSV CODE	SUPRA CODE	ENDEMIC
Asteraceae	*Podotheca gnaphalioides*	H	A	y	y			y					233	153	30	8184		DIC	WA
Loganiaceae	*Phyllangium paradoxum*	H	A										1367	1185	31	16177		DIC	WA
Myrtaceae	*Astartea scoparia*	SH	P		y		?y						333	289	32	20283		DIC	WA
Asteraceae	*Siloxerus humifusus*	H	A										767	929	33	8225		DIC	WA
Fabaceae	*Acacia pulchella*	SH	P	y				y					500	557	35	3502		DIC	WA
Asparagaceae	*Lomandra hermaphrodita*	H	P	y		y	y						633	929	36	1228		MON	WA
Centrolepidaceae	*Centrolepis aristata*	S-C	A										500	500	37	1121		MON	AUST
Stylidiaceae	*Stylidium repens*	H	P				y						333	416	39	7785		DIC	WA
Goodeniaceae	*Dampiera linearis*	H-SH	P			y	y						233	208	40	7454		DIC	WA
Rutaceae	*Philotheca spicata*	SH	P										200	200	41	18529		DIC	AUST
Fabaceae	*Gompholobium tomentosum*	SH	P	y	y			y					133	153	42	3957		DIC	WA
Stylidiaceae	*Levenhookia stipitata*	H	A	y			?y						967	1674	43	7677		DIC	WA
Asparagaceae	*Lomandra suaveolens*	H	P			y	y						767	1328	44	1246		MON	WA
Lauraceae	*Cassytha glabella*	H (CL)	P-PAR										667	1155	45	2952		DIC	WA
Rubiaceae	*Opercularia vaginata*	SH-H	P										667	1155	45	18255		DIC	WA
Restionaceae	*Desmocladus fasciculatus*	S-R	P				y						600	1039	46	17691		MON	WA
Asparagaceae	*Lomandra sericea*	H	P										433	751	47	1243		MON	WA
Fabaceae	*Bossiaea eriocarpa*	SH	P	y									200	346	48	3710		DIC	WA
Cyperaceae	*Schoenus efoliatus*	S-C	P			y	y						333	577	49	986		MON	WA
Myrtaceae	*Calytrix flavescens*	SH	P		y		y						300	520	50	5458		DIC	WA
Iridaceae	*Patersonia occidentalis*	H	P	y	y	y	y						167	289	51	1550		MON	AUST
Cyperaceae	*Lepidosperma pubisquameum "flat form"*	S-C	P										133	231	52	-21514		MON	WA
Cyperaceae	*Lepidosperma squamatum*	S-C	P			y	y						133	231	52	945		MON	WA
Dilleniaceae	*Hibbertia vaginata*	SH	P				?y						67	115	53	5176		DIC	WA
Stylidiaceae	*Stylidium piliferum*	H	P				y						67	115	53	7774		DIC	WA
Hemerocallidaceae	*Tricoryne elatior*	H	P										67	115	53	1361		MON	AUST
Fabaceae	*Acacia stenoptera*	SH	P										33	58	54	3557		DIC	WA
Haemodoraceae	*Conostylis juncea*	H	P		y	y	y						33	58	54	1436		MON	WA
Restionaceae	*Desmocladus flexuosus*	S-R	P	y		y	y						33	58	54	16595		MON	WA

Banksia Woodland Restoration Project Completion Criteria Data for the Anketell Road and Forrestdale Lake Restoration Sites

FAMILY NAME	SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=3)	IMPORTANCE VALUE RANK	NAME_ID	CONSV CODE	SUPRA CODE	ENDEMIC
Droseraceae	*Drosera* sp. climbing	H	PAB										33	58	54	-21073		DIC	WA
Araliaceae	*Hydrocotyle callicarpa*	H	A										33	58	54	6226		DIC	AUST
Goodeniaceae	*Lechenaultia floribunda*	SH	P			y	?y	y					33	58	54	7574		DIC	WA
Ericaceae	*Leucopogon conostephioides*	SH	P				y						33	58	54	6374		DIC	WA
Proteaceae	*Petrophile linearis*	SH	P		y		y						33	58	54	2299		DIC	WA
Asteraceae	*Quinetia urvillei*	H	A	y									33	58	54	8195		DIC	AUST
Apiaceae	*Xanthosia candida*	H-SH	P				?y						33	58	54	6284		DIC	WA
Casuarinaceae	*Allocasuarina fraseriana*	T	P		y								0	1	55	1728		DIC	WA
Myrtaceae	*Corymbia calophylla*	T	P		y				y	y	y	h	0	1	55	17104		DIC	WA

1.3.2 Species richness per 10 m x 10 m quadrat (100 m^2)

An average of 42 native species per 10 m x 10 m quadrat (100 m^2 area) were recorded in transitional local reference sites by the BWR project.

Criteria	Targets
Species richness per 10 m x 10 m quadrat (100 m^2 area)	Return 60-80% of native species richness per 10 m x 10 m quadrat, i.e. 100 m^2 area, (25-34 species) from Table 17

1.3.3 Overstorey targets

Overstorey targets are taken from quadrat data since tree transect data is not available.

Two overstorey species were recorded in transitional local reference sites quadrats (Table 18). Two other overstorey species (*Allocasuarina fraseriana* and *Corymbia calophylla*) were recorded in Anketell South Bushland in more uncommon communities which were somewhat a mixture of upland and transitional. These two species could be planted in the restoration site but should be planted with care in the areas at the southern end of the south of the restoration site, near where these species occur in the natural bushland of Anketell South; target amounts could be taken from the suggested targets in Table 17. Similarly, natural *Melaleuca rhaphiophylla* is found in the south-east corner of the restoration site near the wetland sumps; more of this species could be planted in this area.

Overall targets are average stems per hectare for the four quadrats. Targets for all overstorey species together are rounded to the nearest 100.

Criteria	Targets
Overstorey	All overstorey species: – Presence of all overstorey species that were in the local reference sites (*Banksia attenuata* and *Melaleuca preissiana).* – Establish 400 stems/ha Stems/ha targets for overstorey species: – All to be returned as in Table 18

Table 18 Stem targets/ha for individual overstorey species based on transitional local reference sites quadrat data. Species are ordered in decreasing importance value rank.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=3)	IMPORTANCE VALUE RANK
Melaleuca preissiana	T	P		y								233	321	8
Banksia attenuata	T	P	?y	y				y			h	200	346	16

1.3.4 Shrub targets

21 shrub species were recorded in transitional local reference sites. Targets for shrubs are average stems per hectare based on transitional local reference sites quadrat data. Targets for all shrub species together are rounded to the nearest 100.

Criteria	Targets
Understorey	
Shrubs	All shrub species: – Return 60-80% of species richness that was at local reference sites (13-17 species) from Table 19 – Presence of top 30% (6) most important species from local reference sites (*Adenanthos obovatus, Hypocalymma angustifolium, Kunzea glabrescens, Melaleuca seriata, Pericalymma ellipticum, Xanthorrhoea preissii*) – Establish 15,700 stems/ha Stems/ha targets for shrub species: – See Table 19

Table 19 Stem targets/ha for individual shrub species, based on transitional local reference sites quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=3)	IMPORTANCE VALUE RANK
Kunzea glabrescens	**SH**	**P**		**y**			**y**					**2433**	**321**	**3**
Xanthorrhoea preissii	**H-SH**	**P**		**y**				**y**			**m**	**3067**	**2673**	**4**
Hypocalymma angustifolium	**SH**	**P**		**y**		**?y**						**3800**	**4190**	**6**
Pericalymma ellipticum	**SH**	**P**										**1800**	**2778**	**11**
Adenanthos obovatus	**SH**	**P**										**533**	**493**	**19**
Melaleuca seriata	**SH**	**P**		**y**								**1133**	**1963**	**22**
Jacksonia gracillima	SH/T	P										367	321	27
Melaleuca thymoides	SH	P		y			y					400	693	28
Astartea scoparia	SH	P		y		?y						333	289	32
Acacia pulchella	SH	P	y				y					500	557	35
Dampiera linearis	H-SH	P			y	y						233	208	40
Philotheca spicata	SH	P										200	200	41
Gompholobium tomentosum	SH	P	y	y			y					133	153	42
Bossiaea eriocarpa	SH	P	y									200	346	48
Calytrix flavescens	SH	P		y		y						300	520	50
Hibbertia vaginata	SH	P				?y						67	115	53
Acacia stenoptera	SH	P										33	58	54
Lechenaultia floribunda	SH	P			y	?y	y					33	58	54
Leucopogon conostephioides	SH	P				y						33	58	54
Petrophile linearis	SH	P		y		y						33	58	54
Xanthosia candida	H-SH	P				?y						33	58	54

1.3.5 Perennial herb targets

19 perennial herb species were recorded in transitional local reference sites. Targets for perennial herbs are average stems per hectare based on transitional local reference sites quadrat data. Targets for all perennial herb species together are rounded to the nearest 100.

Criteria	Targets
Understorey	
Perennial herbs	All perennial herb species: – Return 60-80% of species richness that was at local reference sites (11-15 species) from Table 20 – Presence of top 30% (6) most important species from local reference sites (*Burchardia congesta, Caladenia flava,Dasypogon bromeliifolius, Drosera erythrorhiza, Phlebocarya ciliata, Stylidium brunonianum*) – Establish 34,400 stems/ha Stems/ha targets for perennial herb species: – See Table 20

Table 20 Stem targets/ha for individual perennial herb species, based on transitional local reference sites quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=3)	IMPORTANCE VALUE RANK
Dasypogon bromeliifolius	**H**	**P**	**y**	**y**	**y**	**y**						**4733**	**709**	**1**
Drosera erythrorhiza	**H**	**PAB**										**14900**	**25808**	**7**
Phlebocarya ciliata	**H**	**P**			**y**	**y**						**4433**	**4053**	**10**
Caladenia flava	**H**	**PAB**				**y**						**1867**	**2401**	**21**
Burchardia congesta	**H**	**PAB**	**y**	**y**								**1133**	**1620**	**23**
Stylidium brunonianum	**H**	**P**										**1067**	**1026**	**24**
Lomandra caespitosa	H	P	y		y	y						867	351	25
Chamaescilla corymbosa	H	PAB	y	y		?y						1533	2570	29
Lomandra hermaphrodita	H	P	y		y	y						633	929	36
Stylidium repens	H	P				y						333	416	39
Lomandra suaveolens	H	P			y	y						767	1328	44
Cassytha glabella	H (CL)	P-PAR										667	1155	45
Opercularia vaginata	SH-H	P										667	1155	45
Lomandra sericea	H	P										433	751	47
Patersonia occidentalis	H	P	y	y	y	y						167	289	51
Stylidium piliferum	H	P				y						67	115	53

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=3)	IMPORTANCE VALUE RANK
Tricoryne elatior	H	P										67	115	53
Conostylis juncea	H	P		y	y	y						33	58	54
Drosera sp. climbing	H	PAB										33	58	54

1.3.6 Annual herb targets

13 annual herb species were recorded in transitional local reference sites. Targets for annual herbs are average stems per hectare based on transitional local reference sites quadrat data. Targets for all annual herb species together are rounded to the nearest 100.

Criteria	Targets
Understorey	
Perennial herbs	All annual herb species: – Return 60-80% of species richness that was at local reference sites (8-10 species) from Table 21 – Presence of top 30% (4) most important species from local reference sites (*Crassula colorata, Poranthera microphylla, Rhodanthe citrina, Trachymene pilosa*) – Establish 87,200 stems/ha Stems/ha targets for annual herb species: – See Table 21

Table 21 Stem targets/ha for individual annual herb species, based on transitional local reference sites quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=3)	IMPORTANCE VALUE RANK
Trachymene pilosa	**H**	**A**	**y**			**?y**	**y**					**26100**	**36432**	**2**
Poranthera microphylla	**H**	**A**										**23233**	**15201**	**5**
Crassula colorata* var. *colorata	**H**	**A**										**10667**	**18475**	**12**
Rhodanthe citrina	**H**	**A**										**5967**	**9989**	**14**
Crassula colorata	H	A										7367	6701	15
Hyalosperma cotula	H	A										7600	13164	17
Homalosciadium homalocarpum	H	A	y									2900	693	20
Podotheca gnaphalioides	H	A	y	y			y					233	153	30
Phyllangium paradoxum	H	A										1367	1185	31
Siloxerus humifusus	H	A										767	929	33
Levenhookia stipitata	H	A	y			?y						967	1674	43
Hydrocotyle callicarpa	H	A										33	58	54

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=3)	IMPORTANCE VALUE RANK
Quinetia urvillei	H	A	y									33	58	54

1.3.7 Grasses targets

1 grass species was recorded in transitional local reference sites. Targets for grasses are average stems per hectare based on recorded transitional local reference sites quadrat data. Targets for all annual herb species together are rounded to the nearest 100.

Criteria	Targets
Understorey	
Grasses	Species diversity target: – presence of *Austrostipa compressa* All grass species: – Establish 5300 stems/ha Targets are for early in restoration process as they will naturally decline.

Table 22 Stem targets/ha for individual grass species, based on transitional local reference sites quadrat data.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=3)	IMPORTANCE VALUE RANK
Austrostipa compressa	**G**	**A**	**y**	**y**			**y**					**5267**	**6974**	**18**

1.3.8 Sedge targets

9 sedge species were recorded in transitional local reference sites. Targets for sedges are average stems per hectare based on transitional local reference sites quadrat data. Targets for all sedge species are rounded to the nearest 100.

Criteria	Targets
Understorey	
Sedges	All sedge species: – Return 60-80% of species richness that was at local reference sites (5-7 species) from Table 23 – Presence of top 30% (3) most important species from local reference sites (*Centrolepis drummondiana, Hypolaena exsulca, Lyginia imberbis*).

Criteria	Targets
	– Establish 16,300 stems/ha Stems/ha targets for sedge species: – See Table 23

Table 23 Stem targets/ha for individual sedge species, based on transitional local reference sites quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=3)	IMPORTANCE VALUE RANK
Centrolepis drummondiana	**S-C**	**A**	**y**									**11100**	**17266**	**9**
Lyginia imberbis	**S-R**	**P**			**y**	**y**						**2433**	**1966**	**13**
Hypolaena exsulca	**S-R**	**P**										**1033**	**1620**	**26**
Centrolepis aristata	S-C	A										500	500	37
Desmocladus fasciculatus	S-R	P				y						600	1039	46
Schoenus efoliatus	S-C	P			y	y						333	577	49
Lepidosperma pubisquameum "flat form"	S-C	P										133	231	52
Lepidosperma squamatum	S-C	P			y	y						133	231	52
Desmocladus flexuosus	S-R	P	y		y	y						33	58	54

1.3.9 Species enrichment

Quadrats from the Swan Coastal Plain and System 6 and Part 1 Update indicate further species that will naturally appear at the restoration site, spreading from adjacent bushland, and that may be planted or used in direct seeding mixes (Table 24).

Table 24 Species that may appear naturally, or that may be planted or used in direct seeding mixes. Quadrat sources are indicated. Species that were also found in transitional local reference sites (as per 1.3.1-1.3.8) are indicated in the last column.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	cas04	FL-9	MODO-1	MODO-6	IN TRANSITIONAL LOCAL REFERENCE SITES
Acacia stenoptera	SH	P												1		y
Adenanthos obovatus	SH	P										1	1	1		y
Amphipogon laguroides	G	P										1				
Aphelia cyperoides	S-C	A											1	1		
Astartea scoparia	SH	P											1	1	1	
Austrostipa compressa	G	A	y	y			y					1				y
Banksia ilicifolia	T	P		y		?y		y			h	1				

SPECIES NAME	GROWTH FORM	LIFE FORM	TOP SOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	cas04	FL-9	MODO-1	MODO-6	IN TRANSITIONAL LOCAL REFERENCE SITES
Boronia spathulata	SH	P											1			
Burchardia bairdiae	H	PAB											1			
Caesia micrantha	H	PAB										1				
Calothamnus lateralis	SH	P		y											1	
Cassytha micrantha	H (CL)	P-PAR												1	1	
Centrolepis aristata	S-C	A										1	1	1		y
Chordifex sinuosus	S-R	P												1		
Comesperma calymega	SH-H	P													1	
Conostylis juncea	H	P		y	y	y						1				y
Cyathochaeta avenacea	S-C	P										1				
Dampiera linearis	H-SH	P			y	y						1	1	1	1	y
Dasypogon bromeliifolius	H	P	y	y	y	y						1	1	1		y
Drosera gigantea subsp. *gigantea*	H	PAB												1		
Drosera glanduligera	H	A										1			1	
Drosera neesii subsp. *neesii*	H	PAB											1			
Euchilopsis linearis	SH	P				?y							1		1	
Eutaxia virgata	SH	P											1			
Evandra pauciflora	S-C	P												1	1	
Homaloscadium homalocarpum	H	A	y												1	y
Hypocalymma angustifolium	SH	P		y		?y						1	1	1	1	y
Hypolaena exsulca	S-R	P										1	1	1	1	y
Hypoxis occidentalis var. *occidentalis*	H	PAB											1			
Isolepis	S-C	A													1	

SPECIES NAME	GROWTH FORM	LIFE FORM	TOP SOIL	SED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	cas04	FL-9	MODO-1	MODO-6	IN TRANSITIONAL LOCAL REFERENCE SITES
stellata																
Isotropis cuneifolia subsp. *cuneifolia*	H-SH	P											1			
Kunzea glabrescens	SH	P		y			y								1	y
Lechenaultia expansa	H-SH	P										1				
Lepidosperma squamatum	S-C	P			y	y								1		y
Leptomeria pauciflora	SH	P-PAR												1	1	
Lobelia tenuior	H	A										1				
Lomandra suaveolens	H	P			y	y								1		y
Lyginia barbata	S-R	P	?y		y	y						1		1	1	y
Melaleuca preissiana	T	P		y								1	1		1	y
Nuytsia floribunda	T	P-PAR		y								1				
Patersonia occidentalis	H	P	y	y	y	y						1	1	1		y
Pericalymma ellipticum	SH	P										1	1	1	1	y
Philotheca spicata	SH	P												1		y
Phlebocarya ciliata	H	P			y	y						1		1	1	y
Phyllangium paradoxum	H	A										1				y
Regelia ciliata	SH	P		y									1			
Schoenus efoliatus	S-C	P			y	y						1	1	1	1	y
Schoenus odontocarpus	S-C	A											1			
Schoenus subbulbosus	S-C	P										1		1		
Scholtzia involucrata	SH	P		y	y		y						1			
Siloxerus humifusus	H	A										1	1	1	1	y

SPECIES NAME	GROWTH FORM	LIFE FORM	TOP SOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	cas04	FL-9	MODO-1	MODO-6	IN TRANSITIONAL LOCAL REFERENCE SITES
Stylidium brunoniana	H	P											1	1	1	y
Stylidium mimeticum	H	A												1		
Stylidium repens	H	P				y						1	1	1	1	y
Thysanotus multiflorus	H	P										1		1	1	
Thysanotus patersonii	H (CL)	PAB										1				
Thysanotus thyrsoideus	H	PAB				y						1	1			
Trachymene pilosa	H	A	y			?y	y					1				y
Tricoryne elatior	H	P												1		y
Xanthorrhoea preissii	H-SH	P		y				y			m	1		1		y
Xanthosia huegelii subsp. *huegelii MS*	H-SH	P											1	1	1	

1.3.10 Weed targets

These have not yet been considered.

2 Forrestdale Lake restoration site

2.1 Upland areas with topsoil (suggested FCT 21c)

Data used to generate targets are listed below.

Data Sources		Use
Jandakot Airport DEC quadrats (suggested FCT 23a	Banksia Woodland Restoration Project (BWR) Precinct 5 pre-clearing survey	stems/ha targets (Table 1)
ANKB01 (suggested FCT 21c)	BWR local reference sites	species enrichment
ANKB06 (suggested FCT 21c)		
FLB01 (suggested FCT 21c)		
FLB04 (suggested FCT 21c)		
DEJONG02 (FCT 21c)	SCP & System 6 & Part 1 Update	
MODO-2 (FCT 21c)		
FL-5 (FCT 21c)		
FL-6 (FCT 21c)		
jand05 (FCT 21c)		

Jandakot Airport DEC quadrats are used to determine stems/ha targets (sections 2.1.1-2.1.8). The remaining data, from local reference site quadrats and quadrats from the Swan Coastal Plain and System 6 and Part 1 Update survey (Keighery *et al.* 2012), indicate further species (section 2.1.9) that will naturally appear at the restoration site, spreading from adjacent bushland, and that may be planted or used in direct seeding mixes.

2.1.1 Species richness overall (see 1.1.1)

2.1.2 Species richness per 10 m x 10 m quadrat (100 m^2) (see 1.1.2)

2.1.3 Overstorey targets (see 1.1.3)

2.1.4 Shrub targets (see 1.1.4)

2.1.5 Perennial herb targets (see 1.1.5)

2.1.6 Annual herb targets (see 1.1.6)

2.1.7 Grasses targets (see 1.1.7)

2.1.8 Sedge targets (see 1.1.8)

Targets for sections 2.1.1-2.1.8 for Forrestdale Lake upland with topsoil are the same as for Anketell Road restoration site upland with topsoil (see sections 1.1.1-1.1.8).

2.1.9 Species enrichment

Local reference site quadrats and quadrats from the Swan Coastal Plain and System 6 and Part 1 Update indicate further species that will naturally appear at the restoration site, spreading from adjacent bushland, and that may be planted or used in direct seeding mixes (Table 25).

Table 25 Species that may appear naturally, or that may be planted or used in direct seeding mixes. Quadrat sources are indicated. Species that were also found in Jandakot Airport surveys (as per 1.1.1-1.1.9) are indicated in the last column.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	ANKB 01	ANKB 06	DEJONG 02	FL-5	FL-6	FLB01	FLB04	jand05	MODO-2	IN JANDAKOT QUADRATS LIST
Acacia huegelii	SH	P										1		1	1	1		1			
Acacia pulchella	SH	P	y				y								1	1			1		y
Adenanthos cygnorum	SH	P	y				y							1	1			1	1		y
Amphipogon turbinatus	G	P	y	y										1							y
Anigozanthos manglesii	H	PAB		y										1	1	1					
Aotus procumbens	SH (PR)	P												1							
Arnocrinum preissii	H	PAB				y								1		1					y
Asteridea pulverulenta	H	A												1							
Astroloma xerophyllum	SH	P				y													1		
Austrostipa compressa	G	A	y	y			y					1	1						1	1	y
Austrostipa flavescens	G	P												1							
Banksia attenuata	T	P	?y	y				y			h	1	1	1	1	1	1	1	1	1	y
Banksia ilicifolia	T	P		y		?y		y			h		1				1		1	1	y
Banksia menziesii	T	P		y				y			h	1		1	1	1	1	1			y
Beaufortia elegans	SH	P		y															1		y
Bossiaea eriocarpa	SH	P	y									1	1	1	1			1		1	y
Brachyloma preissii	SH	P				?y									1			1			
Burchardia congesta	H	PAB	y	y								1	1		1	1	1	1			y
Caesia micrantha	H	PAB											1								
Caladenia flava	H	PAB				y						1					1	1		1	y
Calytrix angulata	SH	P												1							
Calytrix flavescens	SH	P		y		y								1							y
Calytrix fraseri	SH	P		y											1	1		1			
Cartonema philydroides	H	P													1	1					
Chamaescilla corymbosa	H	PAB	y	y		?y							1				1				y
Conostephi	SH	P				y						1						1			y

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	ANKB01	ANKB06	DEJONG02	FL-5	FL-6	FLB01	FLB04	jand05	MODO-2	IN JANDAKOT QUADRATS LIST
um pendulum																					
Conostylis aculeata	H	P		y		y								1	1	1	1	1			y
Conostylis juncea	H	P		y	y	y						1	1							1	y
Corynotheca micrantha	H	PAB															1	1			
Crassula colorata	H	A											1	1							
Dampiera linearis	H-SH	P			y	y						1		1					1		y
Dasypogon bromeliifolius	H	P	y	y	y	y						1	1	1	1		1	1			y
Desmocladus flexuosus	S-R	P	y		y	y						1			1	1	1	1			y
Dianella revoluta	H	P				?y									1		1	1			
Drosera erythrorhiza	H	PAB										1					1	1			
Drosera macrantha subsp. *macrantha*	H	PAB																		1	
Drosera menziesii subsp. *penicillaris*	H	PAB														1					
Drosera paleacea subsp. *paleacea*	H	PAA																		1	
Drosera sp. climbing	H											1						1			
Eriochilus dilatatus	H	PAB																1			
Eucalyptus todtiana	T/M	P		y				y			m		1								y
Euchilopsis linearis	SH	P				?y														1	
Euchiton sphaericus	H	P											1								
Gompholobium tomentosum	SH	P	y	y			y					1	1	1	1	1		1	1	1	y
Gonocarpus pithyoides	H	P										1									
Hemiandra ?pungens	SH	P				y												1			
Hensmania turbinata	H	P				y													1		y
Hibbertia racemosa	SH	P												1	1	1					
Hibbertia subvaginata	SH	P	y		y	y	y					1					1	1	1	1	y
Homalosciadium	H	A	y										1						1	1	

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	ANKB 01	ANKB 06	DEJONG 02	FL-5	FL-6	FLB01	FLB04	jand05	MODO-2	IN JANDAKOT QUADRATS LIST
homalocarpum																					
Hovea trisperma	SH	P										1									y
Hypocalymma angustifolium	SH	P		y		?y														1	
Hypolaena exsulca	S-R	P										1								1	y
Jacksonia furcellata	SH/T	P	y	y			y	y			m			1	1	1		1		1	y
Jacksonia gracillima	SH/T	P											1							1	
Kennedia prostrata	H (PR)	P		y																1	
Kunzea glabrescens	SH	P		y			y					1	1					1		1	
Laxmannia sessiliflora subsp. *australis*	H	P												1							
Lechenaultia expansa	H-SH	P																	1		
Lechenaultia floribunda	SH	P			y	?y	y							1				1			y
Lepidosperma sp. Baldivis	S-C	P											1								
Lepidosperma squamatum	S-C	P			y	y													1		y
Leucopogon conostephioides	SH	P				y						1		1	1	1		1	1	1	y
Leucopogon polymorphus	SH	P																	1		
Lomandra caespitosa	H	P	y		y	y						1	1	1	1	1	1	1			y
Lomandra hermaphrodita	H	P	y		y	y						1	1		1	1	1	1			y
Lomandra micrantha subsp. *micrantha*	H	P													1						
Lomandra nigricans	H	P										1									
Lomandra sericea	H	P										1	1								
Lyginia barbata	S-R	P	?y		y	y								1	1	1			1	1	y
Lyginia barbata/imberbis	S-R	P										1					1				
Lyginia imberbis	S-R	P			y	y												1			
Macarthuri	H-	P												1							

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	ANKB01	ANKB06	DEJONG02	FL-5	FL-6	FLB01	FLB04	jand05	MODO-2	IN JANDAKOT QUADRATS LIST
a apetala (Southern form) (BJ Keighery and N Gibson 769)	SH																				
Macarthuria australis	H-SH	P				?y										1		1			
Macrozamia riedlei	H-SH	P		y			y								1	1		1			y
Melaleuca preissiana	T	P		y									1							1	
Melaleuca sp. B Perth Flora (B.J. Keighery and N. Gibson 54) (seriata?)	SH	P																	2		
Melaleuca thymoides	SH	P		y			y						1	1							y
Microlaena stipoides	G	P										1	1				1				
Microtis media	H	PAB																	1		
Millotia tenuifolia var. *tenuifolia*	H	A														1					
Neurachne alopecuroidea	G	P													1	1					
Nuytsia floribunda	T	P-PAR		y									1		1			1			y
Patersonia occidentalis	H	P	y	y	y	y						1		1	1	1	1	1			y
Petrophile linearis	SH	P		y		y						1		1	1			1			y
Philotheca spicata	SH	P										1		1	1			1			
Phlebocarya ciliata	H	P			y	y						1	1						1	1	y
Pithocarpa pulchella var. *pulchella*	SH-H	P																	1		
Podotheca chrysantha	H	A														1					
Podotheca gnaphalioides	H	A	y	y			y						1								
Poranthera microphylla	H	A																		1	
Pterostylis nana	H	PAB											1								
Pterostylis sanguinea	H	PAB															1	1			
Pterostylis sp. Slender Snail	H	PAB																		1	

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	ANKB 01	ANKB 06	DEJONG 02	FL-5	FL-6	FLB01	FLB04	jand05	MODO-2	IN JANDAKOT QUADRATS LIST
Orchid (G.J. Keighery 14516) PN																					
Pterostylis vittata	H	PAB													1					1	
Pyrorchis nigricans	H	PAB																		1	
Quinetia urvillei	H	A	y									1				1					
Regelia inops	SH	P		y															1		
Rhodanthe citrina	H	A	y										1								
Rytidosperma caespitosum	G	P												1							
Rytidosperma occidentale	G	P	y	y																1	y
Schoenus curvifolius	S-C	P			y	y						1			1			1	1		y
Schoenus efoliatus	S-C	P			y	y						1									y
Schoenus grandiflorus	S-C	P														1					
Scholtzia involucrata	SH	P		y	y		y							1		1					y
Sowerbaea laxiflora	H	PAB													1		1				
Stirlingia latifolia	SH	P		y		y	y							1	1						y
Stylidium brunonianum	H	P										1		1	1				1		
Stylidium calcaratum	H	A												1							
Stylidium piliferum	H	P				y						1								1	y
Stylidium repens	H	P				y								1	1	1			1	1	y
Thysanotus arbuscula	H	A/P										1			1			1			
Thysanotus manglesianus/patersonii complex	H (CL)	PAB													1	1	1	1			
Thysanotus multiflorus	H	P																	1		
Thysanotus thyrsoideus	H	PAB				y													1		y
Trachymene pilosa	H	A	y			?y	y					1	1	1		1	1	1			y
Tricoryne elatior	H	P										1									
Wahlenbergia preissii	H	A				y								1							y
Xanthorrhoea preissii	H-SH	P		y				y			m	1	1						1	1	y

2.1.10 Weed targets

These have not yet been considered.

2.2 Upland areas without topsoil (suggested FCT 21c)

Data used to generate targets is listed below.

Data Sources		Use
ANKB01 (suggested FCT 21c) ANKB06 (suggested FCT 21c) FLB01 (suggested FCT 21c) FLB04 (suggested FCT 21c)	BWR local reference sites	stems/ha targets (Table 9)
DEJONG02 (FCT 21c) MODO-2 (FCT 21c) FL-5 (FCT 21c) FL-6 (FCT 21c) jand05 (FCT 21c)	SCP & System 6 & Part 1 Update	species enrichment
Jandakot Airport DEC quadrats (suggested FCT 23a)	BWR Precinct 5 pre-clearing survey	only used for calculating targets if no other data is available (e.g. for species that appear/are planted and are not in the local reference sites but do appear in SCP & System 6 & Part 1 Update quadrats)

Local reference site quadrats are used to determine stems/ha targets (sections 2.2.1-2.2.8). Data from quadrats from the Swan Coastal Plain and System 6 and Part 1 Update survey (Keighery *et al.* 2012) indicate further species (section 2.2.9) that may naturally appear at the restoration site, spreading from adjacent bushland, and that may be planted or used in direct seeding mixes; since these species were not recorded in local reference sites, Jandakot Airport DEC targets may, if available, be used for deriving targets for these species.

2.2.1 Species richness overall (see 1.2.1)

2.2.2 Species richness per 10 m x 10 m quadrat (100 m^2) (see 1.2.2)

2.2.3 Overstorey targets (see 1.2.3)

2.2.4 Shrub targets (see 1.2.4)

2.2.5 Perennial herb targets (see 1.2.5)

2.2.6 Annual herb targets (see 1.2.6)

2.2.7 Grasses targets (see 1.2.7)

2.2.8 Sedge targets (see 1.2.8)

Targets for sections 2.2.1-2.2.8 for Forrestdale Lake upland without topsoil are the same as for Anketell Road restoration site upland without topsoil (see sections 1.2.1-1.2.8).

2.2.9 Species enrichment

Quadrats from the Swan Coastal Plain and System 6 and Part 1 Update indicate further species that will naturally appear at the restoration site, spreading from adjacent bushland, and that may be planted or used in direct seeding mixes (Table 26).

Table 26 Species that may appear naturally, or that may be planted or used in direct seeding mixes. Quadrat sources are indicated. Species that were also found in upland local reference sites (as per 1.2.1-1.2.8) are indicated in the last column.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	DEJONG02	FL-5	FL-6	jand05	MODO-2	IN UPLAND LOCAL REFERENCE SITES
Acacia huegelii	SH	P										1	1	1			y
Acacia pulchella	SH	P	y				y						1	1	1		
Adenanthos cygnorum	SH	P	y				y					1	1		1		y
Amphipogon turbinatus	G	P	y	y								1					
Anigozanthos manglesii	H	PAB		y								1	1	1			
Aotus procumbens	SH (PR)	P										1					
Arnocrinum preissii	H	PAB				y						1		1			
Asteridea pulverulenta	H	A										1					
Astroloma xerophyllum	SH	P				y									1		
Austrostipa compressa	G	A	y	y			y								1	1	y
Austrostipa flavescens	G	P										1					
Banksia attenuata	T	P	?y	y				y			h	1	1	1	1	1	y
Banksia ilicifolia	T	P		y		?y		y			h				1	1	y
Banksia menziesii	T	P		y				y			h	1	1	1			y
Beaufortia elegans	SH	P		y											1		
Bossiaea eriocarpa	SH	P	y									1	1			1	y
Brachyloma preissii	SH	P				?y							1				y
Burchardia congesta	H	PAB	y	y									1	1			y
Caladenia flava	H	PAB				y										1	y
Calytrix angulata	SH	P										1					
Calytrix flavescens	SH	P		y		y						1					
Calytrix fraseri	SH	P		y									1	1			y
Cartonema philydroides	H	P											1	1			
Conostylis aculeata	H	P		y		y						1	1	1			y
Conostylis juncea	H	P		y	y	y										1	y
Corynotheca micrantha var. *micrantha*	H	PAB												1			
Crassula colorata var. *colorata*	H	A										1					
Dampiera linearis	H-SH	P			y	y						1			1		y
Dasypogon bromeliifolius	H	P	y	y	y	y						1	1				y
Desmocladus	S-R	P	y		y	y							1	1			y

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	DEJONG02	FL-5	FL-6	jand05	MODO-2	IN UPLAND LOCAL REFERENCE SITES
flexuosus																	
Dianella revoluta	H	P		y		?y							1				y
Drosera macrantha subsp. *macrantha*	H	PAB														1	
Drosera menziesii subsp. *penicillaris*	H	PAB												1			
Drosera paleacea subsp. *paleacea*	H	PAA														1	
Euchilopsis linearis	SH	P				?y										1	
Gompholobium tomentosum	SH	P	y	y			y					1	1	1	1	1	y
Hensmania turbinata	H	P				y									1		
Hibbertia racemosa	SH	P										1	1	1			
Hibbertia subvaginata	SH	P	y		y	y	y								1	1	y
Homalosciadium homalocarpum	H	A	y												1	1	y
Hypocalymma angustifolium	SH	P		y		?y										1	
Hypolaena exsulca	S-R	P														1	y
Jacksonia furcellata	SH/T	P	y	y			y	y			m	1	1	1		1	y
Jacksonia gracillima	SH/T	P														1	y
Kennedia prostrata	H (PR)	P		y												1	
Kunzea glabrescens	SH	P		y			y									1	y
Laxmannia sessiliflora	H	P										1					y
Lechenaultia expansa	H-SH	P													1		
Lechenaultia floribunda	SH	P			y	?y	y					1					y
Lepidosperma squamatum	S-C	P			y	y									1		
Leucopogon conostephioides	SH	P				y						1	1	1	1	1	y
Leucopogon polymorphus	SH	P													1		
Lomandra caespitosa	H	P	y		y	y						1	1	1			y
Lomandra hermaphrodita	H	P	y		y	y							1	1			y
Lomandra micrantha subsp. *micrantha*	H	P											1				
Lyginia barbata	S-R	P	?y		y	y						1	1	1	1	1	
Macarthuria	H-SH	P										1					

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	DEJONG02	FL-5	FL-6	jand05	MODO-2	IN UPLAND LOCAL REFERENCE SITES
apetala (Southern form) (BJ Keighery and N Gibson 769)																	
Macarthuria australis	H-SH	P				?y								1			y
Macrozamia riedlei	H-SH	P		y			y						1	1			y
Melaleuca preissiana	T	P		y												1	y
Melaleuca sp. B Perth Flora (B.J. Keighery and N. Gibson 54) (?seriata)	SH	P													2		
Melaleuca thymoides	SH	P		y			y					1					y
Microtis media	H	PAB													1		
Millotia tenuifolia var. *tenuifolia*	H	A												1			
Neurachne alopecuroidea	G	P											1	1			
Nuytsia floribunda	T	P-PAR		y									1				y
Patersonia occidentalis	H	P	y	y	y	y						1	1	1			y
Petrophile linearis	SH	P		y		y						1	1				y
Philotheca spicata	SH	P										1	1				y
Phlebocarya ciliata	H	P			y	y									1	1	y
Pithocarpa pulchella var. *pulchella*	SH-H	P													1		
Podotheca chrysantha	H	A												1			
Poranthera microphylla	H	A														1	
Pterostylis sp. Slender Snail Orchid (G.J. Keighery 14516) PN	H	PAB														1	
Pterostylis vittata	H	PAB											1			1	
Pyrorchis nigricans	H	PAB														1	
Quinetia urvillei	H	A	y											1			y
Regelia inops	SH	P		y											1		
Rytidosperma caespitosum	G	P										1					
Rytidosperma occidentale	G	P	y	y												1	
Schoenus curvifolius	S-C	P			y	y							1		1		y
Schoenus grandiflorus	S-C	P												1			
Scholtzia	SH	P		y	y		y					1		1			

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	DEJONG02	FL-5	FL-6	jand05	MODO-2	IN UPLAND LOCAL REFERENCE SITES
involucrata																	
Sowerbaea laxiflora	H	PAB											1				y
Stirlingia latifolia	SH	P		y		y	y					1	1				
Stylidium brunonianum	H	P										1	1		1		y
Stylidium calcaratum	H	A										1					
Stylidium piliferum	H	P				y										1	y
Stylidium repens	H	P				y						1	1	1	1	1	
Thysanotus arbuscula	H	A/P											1				y
Thysanotus manglesianus/ patersonii complex	H (CL)	PAB											1	1			y
Thysanotus multiflorus	H	P													1		
Thysanotus thyrsoideus	H	PAB				y									1		
Trachymene pilosa	H	A	y			?y	y					1		1			y
Wahlenbergia preissii	H	A				y						1					
Xanthorrhoea preissii	H-SH	P		y				y			m				1	1	y

2.3 Transitional areas without topsoil (suggested FCT 4 or FCT 12)

Transitional areas at Forrestdale are very small areas and may be quite different to those at Anketell. It is suggested the data from the releve and the local reference sites (below this this box) be used, but a suggested simplified version is to just use the opportunistically collected data listed in this box. Note there are only stems/ha values for some in the first group.

In Forrestdale Lake transitional there were observed these species:

- **Forrestdale Lake transitional near SW site**
  - Astartea scoparia 2500 stems/ha 30% cover
  - Pultenaea reticulata 1000 stems/ha 60% cover
  - Kunzea glabrescens 100 stems/ha 1% cover
  - Brachyloma preisii 100 stems/ha 0% cover
  - Hypocalymma angustifolium 500 stems/ha 3% cover
  - Aotus gracillima 100 stems/ha 0% cover
  - Lepidosperma longitudinale 200 stems/ha 2% cover
  - Latrobea tenella
  - Eucalyptus rudis
- **Forrestdale Lake transitional near NW site**
  - Melaleuca preisii
  - Eucalyptus rudis
  - Acacia saligna
  - Aotus gracillima
  - Meeboldina coangustata
  - Acacia pulchella
  - Jacksonia furcellata
  - Melaleuca teretifolia
  - Melaleuca preissiana
  - Adenanthos cygnorum
  - Kennedia prostrata
- **Forrestdale Lake transitional near E site**
  - Eucalytpus rudis
  - Kunzea glabrescens
  - Melaleuca teretifolia
  - Melaleuca rhaphiophylla
  - Brachyloma preisii
  - Meeboldina coangustata

Data used to generate targets is listed below.

Data Sources		Use
FLRS1RelA ANKB02 (suggested FCT 4) ANKB04 (suggested FCT 4) ANKB05 (suggested FCT 4)	BWR local reference site quadrats and relevé (FLRB1RelA)	stems/ha targets (Table 27)
MODO-1 (FCT 4) MODO-6 (FCT 4) FL9 (FCT 4) gosn01 (FCT 4) gosn03 (FCT 4) FL-10 (FCT 12)	SCP & System 6 & Part 1 Update	species enrichment
FLRS2SiteB		
Jandakot Airport DEC quadrats (suggested FCT 23a)	BWR Precinct 5 pre-clearing survey	only used for calculating targets if no other data is available (e.g. for species that appear/are planted and are not in the local reference sites but do appear in SCP & System 6 & Part 1 Update quadrats)

Local reference site quadrats are used to determine stems/ha targets (sections 2.3.1-2.3.8). Data from quadrats from the Swan Coastal Plain and System 6 and Part 1 Update survey (Keighery *et al.* 2012), indicate further species (section 2.3.9) that may naturally appear at the restoration site, spreading from adjacent bushland, and that may be planted or used in direct seeding mixes; since these species were not recorded in local reference sites, Jandakot Airport DEC targets may, if available, be used for deriving targets for these species.

2.3.1 Species richness overall

71 native species were recorded in transitional local reference sites by the BWR project (three 10 m x 10 m quadrats and one approximately sized 10 m x 10 m relevé).

Criteria	Targets
Species richness overall	Return 60-80% of native species richness (43-57 species) from Table 27

Table 27 lists species, importance value rank and stems/ha targets for the Forrestdale Lake restoration site transitional areas without topsoil.

Table 27 Species recorded in transitional local reference sites. Ecological categories, stem targets/ha, importance values and conservation codes are included (see Table 1 key). Species are ordered in decreasing importance value rank.

FAMILY NAME	SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	**SD STEMS/HA (n=4)**	IMPORTANCE VALUE RANK	CONSV CODE	SUPRA CODE	ENDEMIC
Dasypogonaceae	*Dasypogon bromeliifolius*	H	P	y	y	y	y						3550	2437	1		MON	WA
Araliaceae	*Trachymene pilosa*	H	A	y			?y	y					19575	32483	2		DIC	AUST
Phyllanthaceae	*Poranthera microphylla*	H	A										17425	17000	3		DIC	WA
Fabaceae	*Pultenaea reticulata*	SH	P				?y						250	500	4		DIC	WA
Myrtaceae	*Kunzea glabrescens*	SH	P		y			y					1850	1196	5		DIC	WA
Xanthorrhoeaceae	*Xanthorrhoea preissii*	H-SH	P		y				y			m	2300	2667	6		MON	WA
Myrtaceae	*Astartea scoparia*	SH	P		y		?y						875	1109	7		DIC	WA
Myrtaceae	*Hypocalymma angustifolium*	SH	P		y		?y						2975	3799	8		DIC	WA
Droseraceae	*Drosera erythrorhiza*	H	PAB										11175	22350	9		DIC	WA
Centrolepidaceae	*Centrolepis drummondiana*	S-C	A	y									8325	15151	10		MON	AUST
Myrtaceae	*Melaleuca preissiana*	T	P		y								175	287	11		DIC	WA
Haemodoraceae	*Phlebocarya ciliata*	H	P			y	y						3325	3983	12		MON	WA
Crassulaceae	*Crassula colorata* var. *colorata*	H	A										8000	16000	13		DIC	>AUST
Myrtaceae	*Pericalymma ellipticum*	SH	P										1350	2441	14		DIC	WA
Asteraceae	*Rhodanthe citrina*	H	A										4475	8684	15		DIC	WA
Crassulaceae	*Crassula colorata*	H	A										5525	6596	16		DIC	>AUST
Asteraceae	*Hyalosperma cotula*	H	A										5700	11400	17		DIC	WA
Anarthriaceae	*Lyginia imberbis*	S-R	P			y	y						1825	2014	18		MON	WA
Poaceae	*Austrostipa compressa*	G	A	y	y			y					3950	6274	19		MON	WA
Proteaceae	*Banksia attenuata*	T	P	?y	y				y			h	150	300	20		DIC	WA
Apiaceae	*Homalosciadium homalocarpum*	H	A	y									2175	1556	21		DIC	WA
Proteaceae	*Adenanthos obovatus*	SH	P										400	483	22		DIC	WA
Orchidaceae	*Caladenia flava*	H	PAB				y						1400	2171	23		MON	WA
Colchicaceae	*Burchardia congesta*	H	PAB	y	y								850	1439	24		MON	WA
Stylidiaceae	*Stylidium brunonianum*	H	P										800	993	25		DIC	WA
Myrtaceae	*Melaleuca seriata*	SH	P		y								850	1700	26		DIC	WA
Asparagaceae	*Lomandra caespitosa*	H	P	y		y	y						650	520	27		MON	WA
Restionace	*Hypolaena exsulca*	S-R	P										775	1420	28		MON	WA

FAMILY NAME	SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	**SD STEMS/HA (n=4)**	IMPORTANCE VALUE RANK	CONSV CODE	SUPRA CODE	ENDEMIC
ae																		
Asparagaceae	*Chamaescilla corymbosa*	H	PAB	y	y		?y						1150	2234	29		MON	AUST
Fabaceae	*Jacksonia gracillima*	SH/T	P										275	320	30	3	DIC	WA
Asteraceae	*Podotheca gnaphalioides*	H	A	y	y			y					175	171	31		DIC	WA
Loganiaceae	*Phyllangium paradoxum*	H	A										1025	1184	32		DIC	WA
Myrtaceae	*Melaleuca thymoides*	SH	P		y			y					300	600	33		DIC	WA
Asteraceae	*Siloxerus humifusus*	H	A										575	850	34		DIC	WA
Asparagaceae	*Lomandra hermaphrodita*	H	P	y		y	y						475	822	35		MON	WA
Fabaceae	*Acacia pulchella*	SH	P	y				y					375	519	36		DIC	WA
Centrolepidaceae	*Centrolepis aristata*	S-C	A										375	479	37		MON	AUST
Stylidiaceae	*Stylidium repens*	H	P				y						250	379	38		DIC	WA
Goodeniaceae	*Dampiera linearis*	H-SH	P			y	y						175	206	39		DIC	WA
Rutaceae	*Philotheca spicata*	SH	P										150	191	40		DIC	AUST
Fabaceae	*Gompholobium tomentosum*	SH	P	y	y			y					100	141	41		DIC	WA
Stylidiaceae	*Levenhookia stipitata*	H	A	y			?y						725	1450	42		DIC	WA
Cyperaceae	*Lepidosperma longitudinale*	S-C	P										50	100	43		MON	AUST
Asparagaceae	*Lomandra suaveolens*	H	P			y	y						575	1150	44		MON	WA
Lauraceae	*Cassytha glabella*	H (CL)	P-PAR										500	1000	45		DIC	WA
Rubiaceae	*Opercularia vaginata*	SH-H	P										500	1000	45		DIC	WA
Restionaceae	*Desmocladus fasciculatus*	S-R	P				y						450	900	46		MON	WA
Asparagaceae	*Lomandra sericea*	H	P										325	650	47		MON	WA
Cyperaceae	*Schoenus efoliatus*	S-C	P			y	y						250	500	48		MON	WA
Fabaceae	*Bossiaea eriocarpa*	SH	P	y									150	300	49		DIC	WA
Myrtaceae	*Calytrix flavescens*	SH	P		y		y						225	450	50		DIC	WA
Iridaceae	*Patersonia occidentalis*	H	P	y	y	y	y						125	250	51		MON	AUST
Cyperaceae	*Lepidosperma pubisquameum "flat form"*	S-C	P										100	200	52		MON	WA
Cyperaceae	*Lepidosperma squamatum*	S-C	P			y	y						100	200	52		MON	WA
Dilleniaceae	*Hibbertia vaginata*	SH	P				?y						50	100	53		DIC	WA

Banksia Woodland Restoration Project Completion Criteria Data for the Anketell Road and Forrestdale Lake Restoration Sites

FAMILY NAME	SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	**SD STEMS/HA (n=4)**	IMPORTANCE VALUE RANK	CONSV CODE	SUPRA CODE	ENDEMIC
Stylidiaceae	*Stylidium piliferum*	H	P				y						50	100	53		DIC	WA
Hemerocallidaceae	*Tricoryne elatior*	H	P										50	100	53		MON	AUST
Fabaceae	*Acacia stenoptera*	SH	P										25	50	54		DIC	WA
Fabaceae	*Aotus gracillima*	SH	P										25	50	54		DIC	WA
Ericaceae	*Brachyloma preissii*	SH	P				?y						25	50	54		DIC	WA
Haemodoraceae	*Conostylis juncea*	H	P		y	y	y						25	50	54		MON	WA
Restionaceae	*Desmocladus flexuosus*	S-R	P	y		y	y						25	50	54		MON	WA
Droseraceae	*Drosera sp. climbing*	H	PAB										25	50	54		DIC	WA
Araliaceae	*Hydrocotyle callicarpa*	H	A										25	50	54		DIC	AUST
Goodeniaceae	*Lechenaultia floribunda*	SH	P			y	?y	y					25	50	54		DIC	WA
Ericaceae	*Leucopogon conostephioides*	SH	P				y						25	50	54		DIC	WA
Proteaceae	*Petrophile linearis*	SH	P		y		y						25	50	54		DIC	WA
Asteraceae	*Quinetia urvillei*	H	A	y									25	50	54		DIC	AUST
Apiaceae	*Xanthosia candida*	H-SH	P				?y						25	50	54		DIC	WA
Casuarinaceae	*Allocasuarina fraseriana*	T	P		y								0.25	1	55		DIC	WA
Myrtaceae	*Corymbia calophylla*	T	P		y				y	y	y	h	0.25	1	55		DIC	WA

2.3.2 Species richness per 10 m x 10 m quadrat (100 m^2)

An average of 32 native species per 10 m x 10 m quadrat/relevé (100 m^2 area) were recorded in transitional local reference sites by the BWR project.

Criteria	Targets
Species richness per 10 m x 10 m quadrat (100 m^2 area)	Return 60-80% of native species richness per 10 m x 10 m quadrat, i.e. 100 m^2 area, (19-26 species) from Table 27

2.3.3 Overstorey targets

Overstorey targets are taken from quadrat data since tree transect data is not available.

Two overstorey species were recorded in transitional local reference sites quadrats (Table 28). The two other overstorey species that are in Table 28 are not so appropriate at Forrestdale Lake transitional sites (*Allocasuarina fraseriana* and *Corymbia calophylla*). Another overstorey species, *Eucalyptus rudis*, has been observed at Forrestdale Lake NW and E restoration sites; this species does not appear in Table 28 nor in Table 29 as number of stems was not counted, but it could be planted at transitional sites at Forrestdale Lake restoration site.

Targets for overstorey species are average stems per hectare for the four quadrats. Targets for all overstorey species together are rounded to the nearest 100.

Criteria	Targets
Overstorey	All overstorey species: – Presence of all overstorey species that were in the local reference sites (*Banksia attenuata* and *Melaleuca preissiana).* At Forrestdale Lake NW and E restoration sites, also include presence of *Eucalyptus rudis*. – Establish 300 stems/ha Stems/ha targets for overstorey species: – All to be returned as in Table 29

Table 29 Stem targets/ha for individual overstorey species based on transitional local reference sites quadrat and relevé data. Species are ordered in decreasing importance value rank.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOP SOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS PER HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Melaleuca preissiana	T	P		y								175	287	11
Banksia attenuata	T	P	?y	y				y			h	150	300	20

2.3.4 Shrub targets

24 shrub species were recorded in transitional local reference sites. Targets for shrubs are average stems per hectare based on transitional local reference sites quadrat data. Targets for all shrub species together are rounded to the nearest 100.

Criteria	Targets
Understorey	
Shrubs	All shrub species: – Return 60-80% of species richness that was at local reference sites (14-19 species) from Table 30 – Presence of top 30% (7) most important species from local reference sites (*Adenanthos obovatus, Astartea scoparia, Hypocalymma angustifolium, Kunzea glabrescens, Pericalymma ellipticum, Pultenaea reticulata, Xanthorrhoea preissii*) – Establish 12,800 stems/ha Stems/ha targets for shrub species: – See Table 30

Table 30 Stem targets/ha for individual shrub species, based on transitional local reference sites quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Pultenaea reticulata	**SH**	**P**				**?y**						**250**	**500**	**4**
Kunzea glabrescens	**SH**	**P**		**y**			**y**					**1850**	**1196**	**5**
Xanthorrhoea preissii	**H-SH**	**P**		**y**				**y**			**m**	**2300**	**2667**	**6**
Astartea scoparia	**SH**	**P**		**y**		**?y**						**875**	**1109**	**7**
Hypocalymma angustifolium	**SH**	**P**		**y**		**?y**						**2975**	**3799**	**8**
Pericalymma ellipticum	**SH**	**P**										**1350**	**2441**	**14**
Adenanthos obovatus	**SH**	**P**										**400**	**483**	**22**
Melaleuca seriata	SH	P		y								850	1700	26
Jacksonia gracillima	SH/T	P										275	320	30
Melaleuca thymoides	SH	P		y			y					300	600	33
Acacia pulchella	SH	P	y				y					375	519	36
Dampiera linearis	H-SH	P			y	y						175	206	39
Philotheca spicata	SH	P										150	191	40
Gompholobium tomentosum	SH	P	y	y			y					100	141	41

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Bossiaea eriocarpa	SH	P	y									150	300	49
Calytrix flavescens	SH	P		y		y						225	450	50
Hibbertia vaginata	SH	P				?y						50	100	53
Acacia stenoptera	SH	P										25	50	54
Aotus gracillima	SH	P										25	50	54
Brachyloma preissii	SH	P				?y						25	50	54
Lechenaultia floribunda	SH	P			y	?y	y					25	50	54
Leucopogon conostephioides	SH	P				y						25	50	54
Petrophile linearis	SH	P		y		y						25	50	54
Xanthosia candida	H-SH	P				?y						25	50	54

2.3.5 Perennial herb targets

16 perennial herb species were recorded in transitional local reference sites. Targets for perennial herbs are average stems per hectare based on transitional local reference sites quadrat data. Targets for all perennial herb species together are rounded to the nearest 100.

Criteria	Targets
Understorey	
Perennial herbs	All perennial herb species: – Return 60-80% of species richness that was at local reference sites (10-13 species) from Table 31 – Presence of top 30% (5) most important species from local reference sites (*Burchardia congesta, Caladenia flava, Dasypogon bromeliifolius, Drosera erythrorhiza, Phlebocarya ciliata*) – Establish 25,300 stems/ha Stems/ha targets for perennial herb species: – See Table 31

Table 31 Stem targets/ha for individual perennial herb species, based on transitional local reference sites quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOP SOIL	SED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Dasypogon bromeliifolius	**H**	**P**	**y**	**y**	**y**	**y**						**3550**	**2437**	**1**
Drosera erythrorhiza	**H**	**PAB**										**11175**	**22350**	**9**
Phlebocarya ciliata	**H**	**P**			**y**	**y**						**3325**	**3983**	**12**
Caladenia flava	**H**	**PAB**				**y**						**1400**	**2171**	**23**
Burchardia congesta	**H**	**PAB**	**y**	**y**								**850**	**1439**	**24**
Stylidium brunonianum	H	P										800	993	25
Lomandra caespitosa	H	P	y		y	y						650	520	27
Chamaescilla corymbosa	H	PAB	y	y		?y						1150	2234	29
Lomandra hermaphrodita	H	P	y		y	y						475	822	35
Stylidium repens	H	P				y						250	379	38
Lomandra suaveolens	H	P			y	y						575	1150	44
Cassytha glabella	H (CL)	P-PAR										500	1000	45
Lomandra sericea	H	P										325	650	47
Patersonia occidentalis	H	P	y	y	y	y						125	250	51
Stylidium piliferum	H	P				y						50	100	53
Tricoryne elatior	H	P										50	100	53
Conostylis juncea	H	P		y	y	y						25	50	54
Drosera sp. climbing	H	PAB										25	50	54

2.3.6 Annual herb targets

13 annual herb species were recorded in transitional local reference sites. Targets for annual herbs are average stems per hectare based on transitional local reference sites quadrat data. Targets for all annual herb species are rounded to the nearest 100.

Criteria	Targets
Understorey	
Perennial herbs	All annual herb species: – Return 60-80% of species richness that was at local reference sites (8-10 species) from Table 32

Criteria	Targets
	– Presence of top 30% (4) most important species from local reference sites (*Crassula colorata, Poranthera microphylla, Rhodanthe citrine, Trachymene pilosa*) – Establish 65,400 stems/ha Stems/ha targets for annual herb species: – See Table 32

Table 32 Stem targets/ha for individual annual herb species, based on transitional local reference sites quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	IMPORTANCE VALUE RANK	SD STEMS/HA (n=4)
Trachymene pilosa	**H**	**A**	**y**			**?y**	**y**					**19575**	**2**	**32483**
Poranthera microphylla	**H**	**A**										**17425**	**3**	**17000**
Crassula colorata* var. *colorata	**H**	**A**										**8000**	**13**	**16000**
Rhodanthe citrina	**H**	**A**										**4475**	**15**	**8684**
Crassula colorata	H	A										5525	16	6596
Hyalosperma cotula	H	A										5700	17	11400
Homalosciadium homalocarpum	H	A	y									2175	21	1556
Podotheca gnaphalioides	H	A	y	y			y					175	31	171
Phyllangium paradoxum	H	A										1025	32	1184
Siloxerus humifusus	H	A										575	34	850
Levenhookia stipitata	H	A	y			?y						725	42	1450
Hydrocotyle callicarpa	H	A										25	54	50
Quinetia urvillei	H	A	y									25	54	50

2.3.7 Grasses targets

1 grass species was recorded in transitional local reference sites. Targets for grasses are average stems per hectare based on recorded transitional local reference sites quadrat data. Targets for all annual herb species are rounded to the nearest 100.

Criteria	Targets
Understorey	
Grasses	Species diversity target:

Criteria	Targets
	– presence of *Austrostipa compressa* All grass species: – Establish 5300 stems/ha Targets are for early in restoration process as they will naturally decline following disturbance

Table 33 Stem targets/ha for individual grass species, based on transitional local reference sites quadrat data.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOP SOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Austrostipa compressa	G	A	y	y			y					3950	6274	19

2.3.8 Sedge targets

10 sedge species were recorded in transitional local reference sites. Targets for sedges are average stems per hectare based on transitional local reference sites quadrat data. Targets for all sedge species are rounded to the nearest 100.

Criteria	Targets
Understorey	
Sedges	All sedge species: – Return 60-80% of species richness that was at local reference sites (6-8 species) from Table 34 – Presence of top 30% (3) most important species from local reference sites (*Centrolepis drummondiana, Lyginia imberbis, Hypolaena exsulca*). – Establish 12,300 stems/ha Stems/ha targets for sedge species: – See Table 34

Table 34 Stem targets/ha for individual sedge species, based on transitional local reference sites quadrat data. Species are ordered in decreasing importance value rank. The top 30% are in bold.

SPECIES NAME	GROWTH FORM	LIFE FORM	TOP SOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC FEEDING	CBC NESTING	CBC ROOSTING	CBC PRIORITY	AVERAGE STEMS/HA	SD STEMS/HA (n=4)	IMPORTANCE VALUE RANK
Centrolepis drummondiana	**S-C**	**A**	**y**									**8325**	**15151**	**10**
Lyginia imberbis	**S-R**	**P**			**y**	**y**						**1825**	**2014**	**18**
Hypolaena exsulca	**S-R**	**P**										**775**	**1420**	**28**
Centrolepis aristata	S-C	A										375	479	37
Lepidosperma longitudinale	S-C	P										50	100	43
Desmocladus fasciculatus	S-R	P				y						450	900	46
Schoenus efoliatus	S-C	P			y	y						250	500	48
Lepidosperma pubisquameum "flat form"	S-C	P										100	200	52
Lepidosperma squamatum	S-C	P			y	y						100	200	52
Desmocladus flexuosus	S-R	P	y		y	y						25	50	54

2.3.9 Species enrichment

Quadrats from the Swan Coastal Plain and System 6 and Part 1 Update indicate further species that will naturally appear at the restoration site, spreading from adjacent bushland, and that may be planted or used in direct seeding mixes (Table 35).

Table 35 Species that may appear naturally, or that may be planted or used in direct seeding mixes. Quadrat sources are indicated. Species that were also found in transitional local reference sites (as per 2.3.1-2.3.8) are indicated in the last column.

SPECIES_NAME	GROWTH_FORM	LIFE_FORM	TOPSOIL	SEED	VEG	RECALCITRANT	DISTURBANCE	CBC_FEEDING	CBC_NESTING	CBC_ROOSTING	CBC_PRIORITY	FL-10	FL-9	gosn01	gosn03	MODO-1	MODO-6	IN TRANSITIONAL LOCAL REFERENCE SITES
Acacia pulchella	SH	P	y				y								1			y
Acacia stenoptera	SH	P														1		y
Adenanthos obovatus	SH	P											1	1		1		y
Amphipogon laguroides	G	P												1	1			
Aphelia cyperoides	S-C	A											1		1	1		

SPECIES_NAME	GROWTH_FORM	LIFE_FORM	TOPSOIL	SED	VEG	RECALCITRANT	DISTURBANCE	CBC_FEEDING	CBC_NESTING	CBC_ROOSTING	CBC_PRIORITY	FL-10	FL-9	gosn01	gosn03	MODO-1	MODO-6	IN TRANSITIONAL LOCAL REFERENCE SITES
Astartea aff. fascicularis (Gibson et al. 1994)	SH	P										1	1	1		1	1	
Asteridea pulverulenta	H	A													1			
Austrostipa compressa	G	A	y	y			y								1			y
Boronia dichotoma	SH	P												1	1			
Boronia spathulata	SH	P											1					
Burchardia bairdiae	H	PAB											1					
Burchardia multiflora	H	PAB												1				
Calothamnus lateralis	SH	P		y								1					1	
Cassytha flava	H (CL)	P-PAR												1				
Cassytha glabella	H (CL)	P-PAR												1				y
Cassytha micrantha	H (CL)	P-PAR														1	1	
Cassytha racemosa	H (CL)	P-PAR										1						
Centrolepis aristata	S-C	A											1	1	1	1		y
Centrolepis drummondiana	S-C	A	y									1		1	1			y
Chordifex sinuosus	S-R	P														1		
Comesperma calymega	SH-H	P															1	
Conostylis juncea	H	P		y	y	y									1			y

SPECIES_NAME	GROWTH_FORM	LIFE_FORM	TOPSOIL	SED	VEG	RECALCITRANT	DISTURBANCE	CBC_FEEDING	CBC_NESTING	CBC_ROOSTING	CBC_PRIORITY	FL-10	FL-9	gosn01	gosn03	MODO-1	MODO-6	IN TRANSITIONAL LOCAL REFERENCE SITES
Cyathochaeta avenacea	S-C	P													1			
Cytogonidium leptocarpoides	S-R	P													1			
Dampiera linearis	H-SH	P			y	y							1	1	1	1	1	y
Dasypogon bromeliifolius	H	P	y	y	y	y							1	1	1	1		y
Drosera gigantea subsp. *gigantea*	H	PAB														1		
Drosera glanduligera	H	A													1		1	
Drosera neesii subsp. *neesii*	H	PAB											1					
Drosera paleacea subsp. *paleacea*	H	PAA												1	1			
Drosera pulchella	H	PAA										1						
Epilobium billardiereanum	H	P										1						
Eragrostis elongata	G	P										1						
Euchilopsis linearis	SH	P				?y							1		1		1	
Eutaxia virgata	SH	P											1					
Evandra pauciflora	S-C	P												1		1	1	
Gomphobium tomentosum	SH	P	y	y			y								1			y
Goodenia micrantha	H	P										1						
Hemiandra pungens	SH (PR)	P				y									1			

SPECIES_NAME	GROWTH_FORM	LIFE_FORM	TOPSOIL	SED	VEG	RECALCITRANT	DISTURBANCE	CBC_FEEDING	CBC_NESTING	CBC_ROOSTING	CBC_PRIORITY	FL-10	FL-9	gosn01	gosn03	MODO-1	MODO-6	IN TRANSITIONAL LOCAL REFERENCE SITES
Homalosciadium homalocarpum	H	A	y												1		1	y
Hyalosperma cotula	H	A													1			y
Hypocalymma angustifolium	SH	P		y		?y							1	1	1	1	1	y
Hypolaena exsulca	S-R	P											1	1	1	1	1	y
Hypoxis occidentalis var. *occidentalis*	H	PAB											1					
Isolepis stellata	S-C	A															1	
Isotropis cuneifolia subsp. *cuneifolia*	H-SH	P											1					
Kunzea glabrescens	SH	P		y			y							1			1	y
Laxmannia ramosa subsp. *ramosa*	H	P													1			
Lechenaultia expansa	H-SH	P													1			
Lepidosperma longitudinale	S-C	P										1			1			y
Lepidosperma squamatum	S-C	P			y	y									1	1		y
Leptomeria pauciflora	SH	P-PAR														1	1	
Leucopogon gracillimus	SH	P												1				
Levenhookia stipitata	H	A	y			?y								1				y
Lobelia tenuior	H	A													1			
Lomandra hermaphrodita	H	P	y		y	y								1				y

SPECIES_NAME	GROWTH_FORM	LIFE_FORM	TOPSOIL	SED	VEG	RECALCITRANT	DISTURBANCE	CBC_FEEDING	CBC_NESTING	CBC_ROOSTING	CBC_PRIORITY	FL-10	FL-9	gosn01	gosn03	MODO-1	MODO-6	IN TRANSITIONAL LOCAL REFERENCE SITES
Lomandra suaveolens	H	P			y	y								1		1		y
Lyginia barbata	S-R	P	?y		y	y								1	1	1	1	
Meeboldina coangustata	S-R	P										1						
Melaleuca preissiana	T	P		y									1	1	1		1	y
Melaleuca sp. B Perth Flora (B.J. Keighery and N. Gibson 54) (seriata ?)	SH	P													1			
Melaleuca teretifolia	SH	P		y								1						
Melaleuca viminea subsp. *viminea*	SH	P		y								1						
Patersonia occidentalis	H	P	y	y	y	y							1	1		1		y
Pericalymma ellipticum	SH	P											1	1	1	1	1	y
Philotheca spicata	SH	P												1	1	1		y
Phlebocarya ciliata	H	P			y	y								1	1	1	1	y
Phyllangium paradoxum	H	A												1	1			y
Pimelea lanata	SH	P												1				
Poranthera microphylla	H	A												1	1			y
Quinetia urvillei	H	A	y												1			y
Regelia ciliata	SH	P		y									1		1			

SPECIES_NAME	GROWTH_FORM	LIFE_FORM	TOPSOIL	SED	VEG	RECALCITRANT	DISTURBANCE	CBC_FEEDING	CBC_NESTING	CBC_ROOSTING	CBC_PRIORITY	FL-10	FL-9	gosn01	gosn03	MODO-1	MODO-6	IN TRANSITIONAL LOCAL REFERENCE SITES
Schoenus efoliatus	S-C	P			y	y							1	1	1	1	1	y
Schoenus odontocarpus	S-C	A											1		1			
Schoenus rigens	S-C	P													1			
Schoenus sp. "no teeth" (BJ Keighery and N Gibson 233)	S-C	P										1						
Schoenus subbulbosus	S-C	P												1	1	1		
Scholtzia involucrata	SH	P		y	y		y						1					
Selaginella gracillima	H	A													1			
Siloxerus humifusus	H	A											1	1	1	1	1	y
Stylidium brunonianum	H	P														1	1	y
Stylidium brunonianum subsp. *brunonianum*	H	P											1	1	1			
Stylidium calcaratum	H	A													1			
Stylidium mimeticum	H	A														1		
Stylidium repens	H	P				y							1	1	1	1	1	y
Thysanotus multiflorus	H	P												1		1	1	
Thysanotus thyrsoideus	H	PAB				y							1		1			

SPECIES_NAME	GROWTH_FORM	LIFE_FORM	TOPSOIL	SED	VEG	RECALCITRANT	DISTURBANCE	CBC_FEEDING	CBC_NESTING	CBC_ROOSTING	CBC_PRIORITY	FL-10	FL-9	gosn01	gosn03	MODO-1	MODO-6	IN TRANSITIONAL LOCAL REFERENCE SITES
Trachymene pilosa	H	A	y			?y	y								1			y
Tremulina tremula	S-R	P										1						
Tricoryne elatior	H	P														1		y
Verticordia densiflora	SH	P												1				
Villarsia violifolia	H	PAB										1						
Xanthorrhoea preissii	H-SH	P		y				y			m			1	1	1		y
Xanthosia huegelii subsp. *huegelii MS*	H-SH	P											1		1	1	1	

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4 CITATION

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