Site	name Lindheld F HESW				t no. cillary	6853 Date	575	5 - 1	7
	Natives (20m Quadrat)	F	C	Α	E	xotics (20m Quadrat)	F	C	A
		1_		RSTOR	EY	political and a second			
2	Corymbo gumm	T	35				-	-	
3	E. Traem	+	15	4			-		-
4	Ang crass.	+	100	1			-	-	
5	<u> </u>	+-	-				-	-	-
6		-	-						- 71
7				Mark T				-	
8	A section of the sect	1		O build					-
			MIE	STORE	Υ			2000	
1	Allocas litt	T	2	5	VI. C. L. C.) tria	15	2	2
2	Banu ser.	T	3	5	Pin	relea' II A			u1
3	Have sericea	S	2	10	Pers	con a laev.	S	1	
4	Microph enc	S	<1	50	Les	nbetta formaz	5	1	I
5	Ang jur	T	<1	1	ACE	Ecla Suav.	5		2
6	lesoon = pin	IT	<1	1	Unk	NORU (2)	5	1	2
7	anolonthus pop	T	1	1	Ac	acia 1009-	5	1	2
8	Ju euc.	T	<	1	EX Ele	ctyon sp			
9	Pitto und	1	<1	1			0		
10	letro puch	SPA		2_	Lashar	to MO	15	41	1
1	Lepido fili	-	-	100			TV	41	10
2	Lomandre long	C	2	20	O.C.	ragus aspar.		151	2
3	Lomandra plotiqua	R			-C	at a restall	1		-
4	Cyatho disodia.	6	21	-	Erro	one or man	110		
5	Xenth A (5).	13						1	
6	Patersonia sencea vadi	6		20		ve cuchi			
7	leado lat	V	5	100		- ALCOUNTAGE			
8	Anisopogon and	G	4	2		Omity:			
9	Ento Stacta	9	4)			Telleque s			
10	Dianella Caprulea va pro	1).		20		wate	9	12	50
11	Phyllanthus hirtellus	F		50		s scallop	F	41	1
12	Atimbra	1	14		Ptor	o acummete		4	1
13	Casutha pub	V	-		Scho	sens apogon	R	2	1
14	Rend var	P		1	-	——————————————————————————————————————	-	-	-
16	Philothia deulta	K		10		AUSTRAL	-	-	-
17	Inioina dusta	R	-	Marine Contract Contr				-	
18	Caustis flex	R	1	20					
19	Coesia par var parv							-	
20	Tomandra hi var 2000	FR	1	50					
21	Caloto arecta	0	21	5					Di .
22	Colleto sulo	0	21	50					
23	Ithis's aspera	IF	21	5					
For (V) S	over (C): Estimate of the appropriate cover me indance (A): A telative measure of the number vals, 1,2,3,4,5,6,7,8,9,10,20,50,100,500,100 m: * (T) Tree; (M) Mallee tree; (S) Shrub; (G) Tuss sedge (Cyperold); (R) Rush (Restiold, Juncaceae); un-blanquet: 1=<5% (rare, <3 individividuals); 4a=<5% (vary abundant, many individuals the control of the contr	or of i or s ock G (F) F); 2=< hru p	ndivid pecify rass (F orb; (E 5% (I lot); 4	luals or s a number loa/Theme) Fern; (P uncommo b=5-25%	hoots of a er greater (eda); (d) So) Palm; (A) on, scatter ; 5=25-50°	species within the plot. Use the than 1000 if required. d grass (Couch/Kikuyu); (L) Vine/cCycad ed/localised); 3=<5% (common %, 6=50-75%; 7=75-100%	e follov climber/s	ving scram isten	ıbler,
* No	te: Cover and Abundance should be collected unles	ss oth		stated, as	s per Native	Veg. Interim Type Standard (Sive	rtsen 20)09)	

Cit	-	ioui	Austra	alla -	DIOI	Jaili	(pio	uat	a sr	eet		Site	Sh	eet No	· 1 of
Site Ident		BE	A Jadral	ID I	Record	ders	1 -	TP			Data		N. ST	0.5	
Project Ide	entif.	Pro	ect name number	77 0	Easting		St:	3298			Date		1	St: 629	11-17-
GPS datu		0.00	TOA		Photo Came		End: 329 853 St: 886 Start		Trans orient/		nt/	End: 67	25970		
Record from	om Ea	sting a	and Northi	ng fron	n both	ends o	of the 5	Om trai	En	Doint	Slop	e/Aspe	ect	0969	/ 95 transect line
Biomotria			Vegeta	ation	Zone	e Ide	ntific	ation	an	d Ch	arac	terist	ar pic	ket along	transect line
Biometric V Create a sta Ancillary Co	andard	tion short	ype version)	C	oryn	noic	o qu	m.	Eu	ch	oen	7, .6	E. p	P , A	ng hise
Usually con Condition	dition	descri	ption)		nder										0 ,
Low or Mod	-Good)		(m-	9		Habit		Ne	st b schu	20×c	eles.	reaf	later ss
atch Size	– withi	n 100	m (select)	< 0.		-0.5	0.5	1-2	2.5	5+ h	a Mr	etlyes	ame /	different	type? (selec
Whole		Ove	r-storey	All c	anopy	spp.	in veg	etation	zone	Re	gen Y	/N (< 5	cm	DBH)	Proportion
vegetation Zone	n		neration		your			4	1	mp	ph o	Va6	5	Ч	1
Zone				EU	ch	æn	7	14	-						1
20 x 20m	Nun	nber	of NSW		specie		Marin Committee	ae (full	ld is				1		
Quadrat	nati	ve pl	ant spp.	not r	equire	d wher	n guara	inteed	native)		5	5		(NP:
50m Transect	- 100 Marine	ve o	ver- over (%)	10	45	30	35	30	7	10	30	125	-	Sum /	26:7
at 10	15/2015/05/05/05/05	5000 No. 100	d-storey	3.5		0	33	50	1	10	30	23	SC	10	(NC
Points	COVE	er (pfc	% /1m ²)	0	0	0	0	0	11	0	0	0	0	Sum /	ONN
NATIVE	10.47		ound	IH	111				1-		10		2		(NN
GROUND		50 po	irasses ints)		1.									e score out to get '%'	(NGC
50m	Nati	ve gr	ound	bee	hrubs a			100						F 10 00	
Transect		er - S 50 po	hrubs	and le								1		score out to get '%'	2
50 Points			ound	THE	thing in	the or	unden	or .	-					10 901 70	(NGC
Record all 'hits'		er - O										[score out	10
EXOTIC		50 po	ints) ey (10	0	ones lar	1. Sedg	es etc						01 00) to get '%'	(NGC
along 50m	pts)		, (,,	0	0	0	0	0	0	0	0	0	0	(a)	Sum exoti
Transect	Mids	torey	(10 pts)	0	0	0	0	0	0	0	0	0	0	O ^(b)	(a)+(b)+(c
10 + 50 points	- 1000000000000000000000000000000000000	ind co		Alex	olic hed	ageou	s plants	and the	sest.	or who	v th oil u	0		(c)	()
10000			copts	Count	of bare	- Control	1 6	Cock	1					10	
ransect			%age		tercept			an a	-01	-				Litte	er lots
0m x 50m Quadrat		ber o	of trees llows		A box	_	ned in a	To	tal le	ngth f	allen dth (m	logs	1	8~	inny and 10 op
Strata	Grov		U	Jp to 4	Spec	ies pe	er strat	um in	quad	rat at	scale:	9 3 7 7		Height	Projecte
Jpper 1	FUII	11/5	Nominate					20) or	0.1 h	a (e.g	20 x	50)	>_	range	Cover
Upper 2				Jurk		gu	m		100				17	- 15m	
oppor z	Cano	ny ne	ercentage	C F		01/0	loot)	0.1						>-12m	1 0
Mid 1	Ouric	py po					Hect)	0-8	5 5-9	1.9	0-29	30-		_	70-90 90-
Mid 2		- 3			200						1000		3-	-bm	1.0
Inderstore	v woo	dy ne			20		loot)	0.7			0.00		2000	1.1 - Ya	
ower 1	,	-, pe				_	-	0-5	5-9	.9 1	0-29	30-4	1		70-90 90+
ower 2			Aniso		200	20	inde							-0.8	
erennial na	ative	roup	dcover or	COV	er %ar	100	lect)		FO	0 4	0.00	00	0		3
rowth Form:	e.g. (1) Tree	: (M) Mallee	tree (S) Shruk	· (G) T	usenck	Grass (Doo/Th		0-29 i); (D) S	30-4 Sod gras	10	1 1100	70-90 90+ u); (V) Sedge Xanthorrhoea
															Xanthorrhoea olid polygons

Printed 22/11/2017



0t# Project Identifie	r	Limit	held	UTS	Date	23	-11	17	
Nett (00 - Overdent)	DE	I C	A		20m Quadrat)	T	PF	C	A
Natives (20m Quadrat) ERSTOREY (Tallest stratum >1 m tall whe	n ma	ture)							
Cocyools 2 Circo	Y	20	9						
Corymba gum	V	15	6						
Angoph hoston Class	Y	02	14						
Angoph resulting	Y	-	-						
	Y	100							
DSTOREY (>1 m when mature, generally v	voody	/)							_
about food	Y	0.1	2	Lepto +	terminalis				3 \$
Eleocarp retic	Y	01	1	Acacia	terminalis		-	1	1
Personnia leans	Y	0.1	1						
lamberta tormsa	Y	1.0	1			-	-		
Dillwynia retorta or flons	Y	0.1	1	BEET TO THE		_			
Halles tact	Y	01				-	-		Olson .
Kunzes ambiges Cireniles bux	Y	0.1		X 3/2 X 17/3			-		
Cireniles bux	Y	0.1	1						
Harris	Y	101	7				-	-	
Bonusia enc	Y			1101000	whon motire	alen li	thool	wtos'	
ROUNDCOVER / other (All herbaceous sp	ecies	and w	oody a	Las	- Wildit Hature,	1 00 11	PF	04	5
morathium enc	PI	F	50		a scanosa	-	1	0.1	
entalasia Stricta	-	3	50	Lindsea	2 2 2 2 1	101		01	
Ansopagan aven	-	_	100	regene	ue sp3 long	3		0.1	-
Caushs liex		0.1	10		purgens			0.1	
Lomandra obliqua		01		Australia	nt (thin)	50		0.1	
Lamandra mush.		0.8	10	C- NUSTY BOO	in all die	10		0.1	
Lepido fili		6.1		Some	12 100 C	911.6		0.1	1
Heres		0.1		2		,	77		Z
Regen euc	-	0.		1 OS DOS	tolum fer	20		01	
1 Dishelle caervier ver 190		0		Angoor	hisp ju	er		01	3
2 Act notus minor	1	0.1	3	WOOKS	aina			0.1	2
3 Xaathachaea Se	1	0.1	_	1	10				
3 Xanthorrhoea sp. 4 Philotrix deuste		0			,			1	
5 latorsporta sencea			1 10			1			
6 Lonardia glauca		1019	-						
17 Lepto @ min(?) (pdy B)		5	120	The state of					
18 Cossutha orlah		1	1						
Longora fili		0.1	5						
20 Pomax umb		0					1	-	
Xanthocia todenteta			110				11		
22 Banksia Marg.		0					111	-	
23 Longtia Sal-4		0:					1/1	-	-
24 Paricum (D)	2	_	110	,			+	1	+
25 Patersonia grab		0.	-				+		-
26 manataca (scap (S)		0	1 4				+	+	-
27 Cyatho Clardra		6.					1	-	+
28 Acthorus helianth		0.	1 -		- Warran		1	-	-
29 Bonus 2 Spin	+	0.	1 2				++	+	
30 Platysace 1.0	-	0.	10				++	-	1
31 Bosises scallop	+	0.	1				1		
The state of the s	-	0	1 1				11		
Perennial: lifecycle of more than 2 growing seasons	- not -		orm: /ac	above): e a T M S	GDEEVEL	PA	×	t critics	
* COVER (C): Estimate of the appropriate CROWN	COV	ER for e	ach reco	orded species: from	0.1-5% and then	to the	neare	st 5%	
1% = 2 m x 2 m square: 0.1% = 64 cm square, est	imates	should	be done	by mentally cluste	ring each species.	>>100	% sun	is ok	ay.
ABUNDANCE (A): A relative measure of the number 1,2,3,4,5,6,7,8,9,10,20,50,100,500,1000 or specify	per of i	ndividua	is or sho	oots of a species w	ithin the plot. Use the	ne follo	wing	interva	is,

ecoplanning ecology | planning | offsets

Appendix B: Calculation of future site value for APZ

Vegetation Zone: Dwarf Apple - Broad-leaved Scribbly Gum - Sydney Peppermint low open woodland on sandstone ridges with subtle enrichement in northern Sydney - Moderate/Good (Intact)

Site attribute	Benchmark	Biometric plot data values*	Current site value scores	Future site value score - IPA	Justification
Native plant species richness	39	45	3	2	Current species richness substantially higher than benchmark. It is unlikely that more than 20 species will be completely removed through IPA management, which is required for the score to drop below 2. A score of 2 has therefore been allocated.
Native over- storey cover	14.0 to 41.0	24	3	2	The target of 15% cover for IPAs remains within benchmark. However as this is the maximum allowable cover the IPA management is likely to reduce cover to less than this amount. Cover should remain higher than 7%, which is the lower limit for a score of 2. Therefore a future score of 2 is recorded.
Native mid- storey cover	6.0 to 35.0	17.5	3	0	It is likely that all midstorey is removed within the IPA. Therefore future score is reduced to 0.
Native ground cover (grasses)	2.0 to 16.0	40	0	0	Site value score is currently 0. Some grasses will be maintained within the IPA, however the credit calculator does not allow an increase. Therefore 0 has been allocated.
Native ground cover (shrubs)	11.0 to 39.0	18	3	2	Site value score is currently 3. Some shrubs will be maintained within the IPA (to a maximum 10% cover), Cover is unlikely to be reduced below 5%, which is required to obtain a score less than 2. Therefore 2 has been allocated.
Native ground cover (other)	7.0 to 44.0	17	3	2	Site value score has been reduced to 2 to allow for thinning of the ground layer within the IPA.
Number of trees with hollows	1	0	0	0	Site value score is currently 0. The credit calculator does not allow an increase. Therefore 0 has been allocated.
Total length of fallen logs	30	15	2	0	Fallen logs reduced to 0 for IPA due to management.
Exotic plant cover	N/A	0	3	3	Site currently has low weed levels. IPA management will continue to suppress weed cover. Score has been maintained at 3.
Overstorey regeneration	N/A	1	3	0	Overstorey regeneration reduced to 0 for IPA in recognition of maintenance of ground layer.

^{*} Based on Plot BB03



Vegetation Zone: Dwarf Apple - Broad-leaved Scribbly Gum - Sydney Peppermint low open woodland on sandstone ridges with subtle enrichement in northern Sydney - Moderate/Good (Underscrubbed)

Site attribute	Benchmark	Biometric plot data values*	Current site value scores	Future site value score - IPA	Justification
Native plant species richness	39	45	3	2	Current species richness substantially higher than benchmark. It is unlikely that more than 20 species will be completely removed through IPA management, which is required for the score to drop below 2. A score of 2 has therefore been allocated.
Native over- storey cover	14.0 to 41.0	18.9	3	2	The target of 15% cover for IPAs remains within benchmark. However as this is the maximum allowable cover the IPA management is likely to reduce cover to less than this amount. Cover should remain higher than 7%, which is the lower limit for a score of 2. Therefore a future score of 2 is recorded.
Native mid- storey cover	6.0 to 35.0	6.3	3	0	It is likely that all midstorey is removed within the IPA. Therefore future score is reduced to 0.
Native ground cover (grasses)	2.0 to 16.0	40	0	0	Site value score is currently 0. Some grasses will be maintained within the IPA, however the credit calculator does not allow an increase. Therefore 0 has been allocated.
Native ground cover (shrubs)	11.0 to 39.0	5	1	1	Site value score is currently 1. Some shrubs will be maintained within the IPA (to a maximum 10% cover), however the credit calculator does not allow an increase. Therefore 1 has been allocated.
Native ground cover (other)	7.0 to 44.0	13	3	2	Site value score has been reduced to 2 to allow for thinning of the ground layer within the IPA.
Number of trees with hollows	1	0	0	0	Site value score is currently 0. The credit calculator does not allow an increase. Therefore 0 has been allocated.
Total length of fallen logs	30	29	2	0	Fallen logs reduced to 0 for IPA due to management.
Exotic plant cover	N/A	0	3	3	Site currently has low weed levels. IPA management will continue to suppress weed cover. Score has been maintained at 3.
Overstorey regeneration	N/A	1	3	0	Overstorey regeneration reduced to 0 for IPA in recognition of maintenance of ground layer.

^{*} Average based on two plots (BB01 and BB04)



Vegetation Zone: Smooth-barked Apple - Red Bloodwood open forest on enriched sandstone slopes around Sydney and the Central Coast (Intact)

Site attribute	Benchmark	Biometric plot data values	Current site value scores	Future site value score - IPA	Justification
Native plant species richness	39	43	3	2	Current species richness substantially higher than benchmark. It is unlikely that more than 20 species will be completely removed, which is required for the score to drop below 2. A score of 2 has therefore been allocated.
Native over- storey cover	14.0 to 41.0	43.5	2	2	The target of 15% cover for IPAs remains within benchmark. However as this is the maximum allowable cover the IPA management is likely to reduce cover to less than this amount. Cover should remain higher than 7%, which is the lower limit for a score of 2. Therefore a future score of 2 is recorded.
Native mid- storey cover	6.0 to 35.0	0.2	0	0	It is likely that all midstorey is removed within the IPA. Therefore future score is reduced to 0.
Native ground cover (grasses)	2.0 to 16.0	14	3	2	Site value score has been reduced to 2 to allow for thinning of the ground layer.
Native ground cover (shrubs)	11.0 to 39.0	2	1	1	Site value score is currently 1. Some shrubs will be maintained within the IPA (to a maximum 10% cover), however the credit calculator does not allow an increase. Therefore 1 has been allocated.
Native ground cover (other)	7.0 to 44.0	30	3	2	Site value score has been reduced to 2 to allow for thinning of the ground layer.
Number of trees with hollows	1	7	3	3	IPA management will minimise impacts on hollows. Score maintained at 3.
Total length of fallen logs	30	25	2	0	Fallen logs reduced to 0 for IPA due to management.
Exotic plant cover	N/A	0	3	3	Site currently has low weed levels. IPA management will continue to suppress weed cover. Score has been maintained at 3.
Overstorey regeneration	N/A	1	3	0	Overstorey regeneration reduced to 0 for IPA in recognition of maintenance of ground layer.



Appendix C: Likelihood Table

Scientific Name		Number of	Closest record and	Most recent and	Likelihood o	f occurrence
Common Name	Legal Status	records	date	proximity	Prior to field assessment	Post field assessment
		KINGDOM: A	nimalia; CLASS: Amphibia			
Heleioporus australiacus Giant Burrowing Frog	EPBC Act: V TSC Act: V	0	N/A	N/A	Not present	Not present
Litoria aurea Green and Golden Bell Frog	EPBC Act: V TSC Act: E	1	4.25 km (5/03/1999)	5/03/1999 (4.25 km)	Low	Not present
Pseudophryne australis Red-crowned Toadlet	TSC Act: V	33	0.2 km (1/12/2003)	4/02/2012 (2.56 km)	Moderate	Low
		KINGDOM:	Animalia; CLASS: Aves			
Apus pacificus Fork-tailed Swift	EPBC Act: C, J, K	1	0.77 km (30/12/2004)	30/12/2004 (0.77 km)	Low	Low
Botaurus poiciloptilus Australasian Bittern	EPBC Act: E TSC Act: E1	2	1.15 km (30/10/2000)	23/06/2011 (1.39 km)	Low	Not present
Callocephalon fimbriatum Gang-Gang Cockatoo	TSC Act: V	4	4.86 km (20/11/2004)	20/11/2004 (4.86 km)	Moderate	Low
Calyptorhynchus lathami Glossy Black-Cockatoo	TSC Act: V	5	1.11 km (30/12/2004)	23/07/2005 (3.33 km)	Moderate	Low
Daphoenositta chrysoptera Varied Sittella	TSC Act: V	2	3.91 km (7/04/1997)	10/01/2004 (4.04 km)	Low	Low
Egretta sacra Eastern Reef Egret	EPBC Act: C	1	4.1 km (10/01/2004)	10/01/2004 (4.1 km)	Not present	Not present



Scientific Name		Number of	Closest record and	Most recent and	Likelihood o	f occurrence
Common Name	Legal Status	records	date	proximity	Prior to field assessment	Post field assessment
Ephippiorhynchus asiaticus Black-necked Stork	TSC Act: E1	1	2.63 km (25/10/2004)	25/10/2004 (2.63 km)	Not present	Not present
Glossopsitta pusilla Little Lorikeet	TSC Act: V	1	0.77 km (30/12/2004)	30/12/2004 (0.77 km)	Low	Low
Haliaeetus leucogaster White-bellied Sea-Eagle	TSC Act: V	30	0.27 km (30/12/2004)	15/10/2011 (4.9 km)	Moderate	Not present
Hieraaetus morphnoides Little Eagle	TSC Act: V	2	0.77 km (30/12/2004)	30/12/2004 (0.77 km)	Low	Low
Hirundapus caudacutus White-throated Needletail	EPBC Act: C, J, K	13	0.27 km (30/12/2004)	30/12/2004 (0.27 km)	Low	Low
Ixobrychus flavicollis Black Bittern	TSC Act: V	6	0.48 km (6/08/2008)	1/10/2009 (0.77 km)	Low	Not present
Lathamus discolor Swift Parrot	EPBC Act: CE TSC Act: E1	6	0.42 km (20/04/2002)	30/05/2007 (4.35 km)	Moderate	Low
Ninox connivens Barking Owl	TSC Act: V	7	0.29 km (28/09/2007)	13/05/2014 (3.11 km)	Moderate	Moderate
Ninox strenua Powerful Owl	TSC Act: V	221	0.31 km (8/11/1998)	1/08/2016 (0.95 km)	High	Moderate
Pandion cristatus Eastern Osprey	TSC Act: V	4	1.54 km (31/05/2012)	31/05/2012 (1.54 km)	Low	Low
		KINGDOM: Ar	nimalia; CLASS: Mammalia			
Cercartetus nanus Eastern Pygmy-possum	TSC Act: V	1	4.13 km (15/10/2004)	15/10/2004 (4.13 km)	Moderate	Low



Scientific Name		Number of	Closest record and	Most recent and	Likelihood o	f occurrence
Common Name	Legal Status	records	date	proximity	Prior to field assessment	Post field assessment
Dasyurus maculatus Spotted-tailed Quoll	TSC Act: V EPBC Act: E	1	2.27 km (9/01/2002)	9/01/2002 (2.27 km)	Moderate	Low
Isoodon obesulus obesulus Southern Brown Bandicoot (eastern)	TSC Act: E1 EPBC Act: E	1	4.92 km (20/09/2011)	20/09/2011 (4.92 km)	Moderate	Low
Miniopterus schreibersii oceanensis Eastern Bentwing-bat	TSC Act: V	24	0.74 km (18/09/2012)	26/04/2016 (3.92 km)	High	Recent record
Mormopterus norfolkensis Eastern Freetail-bat	TSC Act: V	2	4.04 km (9/01/2004)	31/03/2005 (4.57 km)	Low	Low
Myotis macropus Southern Myotis	TSC Act: V	3	3.76 km (9/02/2016)	9/02/2016 (3.76 km)	Low	Low
Petauroides volans Greater Glider	EPBC Act: V	1	4.29 km (24/02/2004)	24/02/2004 (4.29 km)	Low	Not present
Petaurus australis Yellow-bellied Glider	TSC Act: V	1	0.67 km (20/01/1999)	20/01/1999 (0.67 km)	Low	Not present
Phascolarctos cinereus Koala	EPBC Act: V TSC Act: V	0	N/A	N/A	Not present	Not present
Pteropus poliocephalus Grey-headed Flying-fox	TSC Act: V	540	0.6 km (1/12/2001)	25/04/2016 (3.92 km)	High	Moderate
Scoteanax rueppellii Greater Broad-nosed Bat	TSC Act: V	1	3.76 km (9/02/2016)	9/02/2016 (3.76 km)	Low	Low
		KINGDOM:	Animalia; CLASS: Reptilia			
Hoplocephalus bungaroides Broad-headed Snake	EPBC Act: V TSC Act: E	0	N/A	N/A	Not present	Not present



Scientific Name		Number of	Closest record and	Most recent and	Likelihood o	of occurrence
Common Name	Legal Status	records	date	proximity	Prior to field assessment	Post field assessment
Varanus rosenbergi Rosenberg's Goanna	TSC Act: V	3	3.67 km (30/11/2002)	30/11/2002 (3.67 km)	Moderate	Low
		KIN	IGDOM: Plantae			
Callistemon linearifolius Nettled Bottle Brush	TSC Act: V	4	2.01 km (6/11/2000)	23/05/2001 (3.99 km)	Low	Not present
Darwinia biflora	EPBC Act: V TSC Act: V	146	0.18 km (13/10/2003)	16/05/2014 (2.61 km)	High	Low. Although occurs outside of the study area.
Epacris purpurascens var. purpurascens	TSC Act: V	9	0.22 km (4/01/1999)	16/05/2014 (3.76 km)	Moderate	Low
Eucalyptus camfieldii Camfield's Stringybark	TSC Act: V EPBC Act: V	3	4.3 km (19/08/2011)	24/11/2001 (4.8 km)	Low	Low
Grevillea parviflora subsp. parviflora Small-flower Grevillea	EPBC Act: V TSC Act: V	1	3.13 km (20/08/2009)	20/08/2009 (3.13 km)	Low	Low
Hibbertia puberula	TSC Act: V	0	N/A	N/A	Not present	Not present
Hibbertia spanantha Julian's Hibbertia	EPBC Act: CE TSC Act: E4A	1	1.91 km (15/09/2014)	15/09/2014 (1.91 km)	Low	Low
Lasiopetalum joyceae	EPBC Act: V TSC Act: V	1	4.8 km (23/11/2005)	23/11/2005 (4.8 km)	Low	Low
<i>Melaleuca deanei</i> Deane's Paperbark	EPBC Act: V TSC Act: V	2	3.76 km (9/02/2016)	9/02/2016 (3.76 km)	Low	Low
Microtis angusii Angus's Onion Orchid	EPBC Act: E TSC Act: E	0	N/A	N/A	Not present	Not present
Pimelea curviflora var. curviflora	EPBC Act: V TSC Act: V	1	3.89 km (1/03/2007)	1/03/2007 (3.89 km)	Low	Low



Scientific Name		Number of	Closest record and	Most recent and	Likelihood o	f occurrence
Common Name	Legal Status	records	date	proximity	Prior to field assessment	Post field assessment
Prostanthera marifolia Seaforth Mintbush	EPBC Act: CE TSC Act: CE	0	N/A	N/A	Not present	Not present
Syzygium paniculatum Magenta Lilly Pilly	TSC Act: E EPBC Act: V	10	1.64 km (26/08/2008)	22/04/2014 (1.96 km)	Low	Low
Tetratheca glandulosa	TSC Act: V	2	4.3 km (28/10/2001)	28/10/2001 (4.3 km)	Low	Low
		KI	NGDOM: Fungi			
Camarophyllopsis kearneyi	TSC Act: E1	1	2.86 km (13/06/1998)	13/06/1998 (2.86 km)	Low	Low
Hygrocybe anomala var. ianthinomarginata	TSC Act: V	1	2.86 km (13/06/1998)	13/06/1998 (2.86 km)	Low	Low
Hygrocybe austropratensis	TSC Act: E1	1	2.86 km (7/06/1998)	7/06/1998 (2.86 km)	Low	Low
Hygrocybe collucera	TSC Act: E1	1	4.03 km (12/06/1999)	12/06/1999 (4.03 km)	Low	Low
Hygrocybe griseoramosa	TSC Act: E1	1	4.03 km (29/05/1999)	29/05/1999 (4.03 km)	Low	Low
Hygrocybe lanecovensis	TSC Act: E1	1	2.86 km (23/08/1998)	23/08/1998 (2.86 km)	Low	Low
Hygrocybe reesiae	TSC Act: V	1	2.86 km (6/07/1998)	6/07/1998 (2.86 km)	Low	Low
Hygrocybe rubronivea	TSC Act: V	1	2.86 km (7/06/1998)	7/06/1998 (2.86 km)	Low	Low



Appendix D: Flora and fauna species inventories

Flora

Family	Genus	Species	Common name	Native/Exotic
Acanthaceae	Pseuderanthemum	variable	Pastel Flower	Native
Alliaceae	Agapanthus	praecox	African Lily	Exotic
Anthericaceae	Caesia	parviflora var. parviflora	Pale Grass-lily	Native
Anthericaceae	Tricoryne	simplex		Native
Apiaceae	Actinotus	minor	Lesser Flannel Flower	Native
Apiaceae	Actinotus	helianthi	Flannel Flower	Native
Apiaceae	Platysace	lanceolata	Shrubby Platysace	Native
Apiaceae	Platysace	linearifolia		Native
Apiaceae	Xanthosia	tridentata	Rock Xanthosia	Native
Araliaceae	Polyscias	sambucifolia	Elderberry Panax	Native
Asparagaceae	Asparagus	aethiopicus	Ground Asparagus	Exotic
Aspleniaceae	Asplenium	flabellifolium	Necklace Fern	Native
Asteraceae	Bidens	pilosa	Cobblers Peg	Exotic
Blechnaceae	Blechnum	sp.		Native
Casuarinaceae	Allocasuarina	littoralis	Black She-oak	Native
Cunoniaceae	Ceratopetalum	gummiferum	New South Wales Christmas-bush	Native
Cyperaceae	Caustis	flexuosa	Curly Wig	Native
Cyperaceae	Cyathochaeta	diandra		Native
Cyperaceae	Lepidosperma	filiforme		Native
Cyperaceae	Lepidosperma	laterale		Native
Cyperaceae	Ptilothrix	deusta		Native
Cyperaceae	Schoenus	apogon	Common Bog-rush	Native
Dicksoniaceae	Calochlaena	dubia	Rainbow Fern	Native
Dilleniaceae	Hibbertia	aspera	Rough Guinea Flower	Native
Dilleniaceae	Hibbertia	dentata	Trailing Guinea Flower	Native



Family	Genus	Species	Common name	Native/Exotic
Elaeocarpaceae	Elaeocarpus	reticulatus	Blueberry Ash	Native
Ericaceae - Epacridoideae	Woollsia	pungens		Native
Euphorbiaceae	Homalanthus	populifolius	Bleeding Heart	Native
Fabaceae - Caesalpiniodeae	Senna	pendula var. glabrata		Exotic
Fabaceae - Faboideae	Bossiaea	heterophylla	Variable Bossiaea	Native
Fabaceae - Faboideae	Bossiaea	scolopendria		Native
Fabaceae - Faboideae	Desmodium	sp.		Native
Fabaceae - Faboideae	Dillwynia	retorta		Native
Fabaceae - Faboideae	Hovea	heterophylla		Native
Fabaceae - Faboideae	Mirbelia	rubifolia	Heathy Mirbelia	Native
Fabaceae - Faboideae	Pultenaea	tuberculata	Wreath Bush-pea	Native
Fabaceae - Mimosoideae	Acacia	suaveolens	Sweet Wattle	Native
Fabaceae - Mimosoideae	Acacia	irrorata	Green Wattle	Native
Fabaceae - Mimosoideae	Acacia	terminalis	Sunshine Wattle	Native
Fabaceae - Mimosoideae	Acacia	longifolia subsp. longifolia	Sydney Golden Wattle	Native
Goodeniaceae	Dampiera	stricta		Native
Goodeniaceae	Goodenia	bellidifolia		Native
Goodeniaceae	Goodenia	heterophylla		Native
Haloragaceae	Gonocarpus	teucrioides	Raspwort	Native
Iridaceae	Patersonia	glabrata	Leafy Purple-flag	Native
Iridaceae	Patersonia	sericea	Silky Purple-flag	Native
Lauraceae	Cassytha	glabella		Native
Lauraceae	Cassytha	pubescens		Native
Lauraceae	Cinnamomum	camphora	Camphor Laurel	Exotic
Lindsaeaceae	Lindsaea	linearis	Screw Fern	Native
Lindsaeaceae	Lindsaea	microphylla	Lacy Wedge Fern	Native
Lomandraceae	Lomandra	filiformis	Wattle Mat-rush	Native
Lomandraceae	Lomandra	glauca	Pale Mat-rush	Native
Lomandraceae	Lomandra	longifolia	Spiny-headed Mat-rush	Native
Lomandraceae	Lomandra	obliqua		Native



Family	Genus	Species	Common name	Native/Exotic
Lomandraceae	Lomandra	multiflora	Many-flowered Mat-rush	Native
Lomariopsidaceae	Nephrolepis	cordifolia	Fishbone Fern	Exotic
Luzuriagaceae	Eustrephus	latifolius	Wombat Berry	Native
Malvaceae	Lasiopetalum	ferrugineum		Native
Moraceae	Morus	alba	White Mulberry	Exotic
Myrtaceae	Angophora	costata	Sydney Red Gum	Native
Myrtaceae	Angophora	crassifolia		Native
Myrtaceae	Angophora	hispida	Dwarf Apple	Native
Myrtaceae	Callistemon	sp.		Native
Myrtaceae	Corymbia	gummifera	Red Bloodwood	Native
Myrtaceae	Eucalyptus	piperita	Sydney Peppermint	Native
Myrtaceae	Eucalyptus	grandis	Flooded Gum	Native
Myrtaceae	Eucalyptus	haemastoma	Scribbly Gum	Native
Myrtaceae	Kunzea	ambigua	Tick Bush	Native
Myrtaceae	Leptospermum	trinervium	Flaky-barked Tea-tree	Native
Myrtaceae	Leptospermum	sp.		Native
Ochnaceae	Ochna	serrulata	Mickey Mouse Plant	Exotic
Oleaceae	Ligustrum	lucidum	Large-leaved Privet	Exotic
Oleaceae	Ligustrum	sinense	Small-leaved Privet	Exotic
Orchidaceae	Acianthus	sp.		Native
Orchidaceae	Cryptostylis	subulata	Large Tongue Orchid	Native
Orchidaceae	Cryptostylis	erecta	Bonnet Orchid	Native
Orchidaceae	Pterostylis	acuminata	Pointed Greenhood	Native
Phormiaceae	Dianella	caerulea var. producta		Native
Phyllanthaceae	Billardiera	scandens	Hairy Apple Berry	Native
Phyllanthaceae	Glochidion	ferdinandi	Cheese Tree	Native
Phyllanthaceae	Phyllanthus	tenellus	Hen and Chicken	Exotic
Phyllanthaceae	Phyllanthus	hirtellus	Thyme Spurge	Native
Phyllanthaceae	Pittosporum	undulatum	Native Daphne	Native
Picrodendraceae	Micrantheum	ericoides		Native



Family	Genus	Species	Common name	Native/Exotic
Poaceae	Andropogon	virginicus	Whisky Grass	Exotic
Poaceae	Anisopogon	avenaceus	Oat Speargrass	Native
Poaceae	Entolasia	marginata	Bordered Panic	Native
Poaceae	Entolasia	stricta	Wiry Panic	Native
Poaceae	Imperata	cylindrica	Blady Grass	Native
Poaceae	Microlaena	stipoides subsp. stipoides	Weeping Grass	Native
Poaceae	Oplismenus	aemulus	Australian Basket Grass	Native
Poaceae	Panicum	simile	Two-colour Panic	Native
Poaceae	Rytidosperma	sp.		Native
Proteaceae	Banksia	ericifolia	Heath-leaved Banksia	Native
Proteaceae	Banksia	marginata	Silver Banksia	Native
Proteaceae	Banksia	serrata	Old-man Banksia	Native
Proteaceae	Banksia	spinulosa	Hairpin Banksia	Native
Proteaceae	Grevillea	speciosa	Red Spider Flower	Native
Proteaceae	Grevillea	buxifolia	Grey Spider Flower	Native
Proteaceae	Hakea	sericea	Needlebush	Native
Proteaceae	Hakea	teretifolia	Needlebush	Native
Proteaceae	Lambertia	formosa	Mountain Devil	Native
Proteaceae	Lomatia	silaifolia	Crinkle Bush	Native
Proteaceae	Persoonia	pinifolia	Pine-leaved Geebung	Native
Proteaceae	Persoonia	levis	Broad-leaved Geebung	Native
Proteaceae	Petrophile	pulchella	Conesticks	Native
Restionaceae	Lepyrodia	scariosa		Native
Rosaceae	Rubus	fruticosus	Blackberry	Exotic
Rubiaceae	Opercularia	hispida	Hairy Stinkweed	Native
Rubiaceae	Pomax	umbellata		Native
Rutaceae	Zieria	smithii	Sandfly Zieria	Native
Sapindaceae	Alectryon	sp.		Exotic
Sapindaceae	Dodonaea	triquetra	Large-leaf Hop-bush	Native
Smilacaceae	Smilax	glyciphylla	Sweet Sarsaparilla	Native



Family	Genus	Species	Common name	Native/Exotic
Solanaceae	Solanum	mauritianum	Wild Tobacco Bush	Exotic
Solanaceae	Solanum	nigrum	Black-berry Nightshade	Exotic
Stylidiaceae	Stylidium	productum		Native
Thymelaeaceae	Pimelea	linifolia	Slender Rice Flower	Native
Vitaceae	Cayratia	clematidea	Native Grape	Native
Xanthorrhoeaceae	Xanthorrhoea	arborea		Native
Xanthorrhoeaceae	Xanthorrhoea	media	Grass Tree	Native



Fauna

Class	Family	Scientific name	Common name	Native/ Exotic	Observation type
Amphibia	Limnodynastidae	Limnodynastes peronii	Brown-striped Frog	Native	W
Amphibia	Myobatrachidae	Crinia signifera	Common Eastern Froglet	Native	W
Aves	Accipitridae	Accipiter cirrocephalus	Collared Sparrowhawk	Native	Q
Aves	Artamidae	Cracticus tibicen	Australian Magpie	Native	OW
Aves	Artamidae	Cracticus torquatus	Grey Butcherbird	Native	W
Aves	Artamidae	Strepera graculina	Pied Currawong	Native	W
Aves	Cacatuidae	Cacatua galerita	Sulphur-crested Cockatoo	Native	W
Aves	Cacatuidae	Calyptorhynchus funereus	Yellow-tailed Black-Cockatoo	Native	W
Aves	Campephagidae	Coracina novaehollandiae	Black-faced Cuckoo-shrike	Native	W
Aves	Charadriidae	Vanellus miles	Masked Lapwing	Native	W
Aves	Climacteridae	Cormobates leucophaea	White-throated Treecreeper	Native	OW
Aves	Columbidae	Streptopelia chinensis	Spotted Dove	Exotic	0
Aves	Corvidae	Corvus coronoides	Australian Raven	Native	W
Aves	Megapodiidae	Alectura lathami	Australian Brush-turkey	Native	Q
Aves	Meliphagidae	Manorina melanocephala	Noisy Miner	Native	OW
Aves	Meliphagidae	Meliphaga lewinii	Lewin's Honeyeater	Native	OW
Aves	Pardalotidae	Pardalotus punctatus	Spotted Pardalote	Native	W
Aves	Petroicidae	Eopsaltria australis	Eastern Yellow Robin	Native	W
Aves	Psittacidae	Glossopsitta concinna	Musk Lorikeet	Native	W
Aves	Psittacidae	Platycercus elegans	Crimson Rosella	Native	OW
Aves	Psittacidae	Trichoglossus haematodus	Rainbow Lorikeet	Native	W
Aves	Rhipiduridae	Rhipidura albiscapa	Grey Fantail	Native	OW
Mammalia	Canidae	Vulpes vulpes	European Red Fox	Exotic	Q
Mammalia	Felidae	Felis catus	Domestic Cat	Exotic	Q
Mammalia	Macropodidae	Wallabia bicolour	Swamp Wallaby	Native	Q
Mammalia	Miniopteridae	Miniopterus schreibersii oceanensis	Eastern Bentwing Bat	Native	U
Mammalia	Molossidae	Austronomus australis	White-striped freetail Bat	Native	U



Class	Family	Scientific name	Common name	Native/ Exotic	Observation type
Mammalia	Muridae	Rattus rattus	Black Rat	Exotic	Q
Mammalia	Peramelidae	Perameles nasuta	Long-nosed Bandicoot	Native	Q
Mammalia	Phalangeridae	Trichosurus vulpecula	Common Brushtail Possum	Exotic	Q
Mammalia	Pseudocheiridae	Pseudocheirus peregrinus	Common Ringtail Possum	Native	O,Q
Mammalia	Pteropodidae	Pteropus poliocephalus	Grey-headed Flying-fox	Native	W
Mammalia	Vespertilionidae	Chalinolobus gouldii	Gould's Wattled Bat	Native	U

Observation type = O (seen), W (heard call), OW (seen and heard), U (ultrasonic recording, Q (camera)



Appendix E: Biodiversity Credit Report

Attached as PDF.



Appendix F: Application for reasonable equivalence



Application for an assessment of reasonable equivalence of biodiversity credits

Clause 22 of the *Biodiversity Conservation (Savings and Transitional) Regulation 2017* (BC S&T Regulation) provides that obligations to retire biodiversity credits under the *Threatened Species Conservation Act 1995* (TSC Act) become obligations to retire biodiversity credits under the *Biodiversity Conservation Act 2016* (BC Act).

The Chief Executive of the Office of Environment and Heritage (**OEH**) or his/her delegate will determine the 'reasonably equivalent' credit obligation that remains to be satisfied by the retirement of biodiversity credits under clause 22.

This purpose of this form is to apply for OEH assessment of reasonable equivalence of biodiversity credits associated with an existing offset obligation. This step is not necessary for biodiversity credits that have been calculated in accordance with the Biodiversity Assessment Method under the BC Act.

Once a determination of reasonable equivalence has been made, OEH will provide a statement that sets out the number and class of biodiversity credits that are reasonably equivalent under the BC Act Biodiversity Offsets Scheme.

For any questions or for assistance completing this form, please email lmbc.support@environment.nsw.gov.au or call 1800 931 717.

APPLICANT DETAILS

Complete this part to identify the applicant:

Applicant (if an individual)				
Title				
Last name				
First name				
Applicant (if a company)				
Company				
ACN		GST registered Yes No		
ARBN		GST registered Yes No		
Street address		*		
Address				
Suburb /city	660			
State / territory	Postcode			
Country				
Mailing address (if different	from above)			
Address				
Suburb / city				

Application for assessment of reasonable equivalence of biodiversity credits • 2018

Page 1 of 4



State / territory	Postcode
Country	
Contact details	
Contact name	
Capacity in which making application (e.g. applicant company director, appointed nominee etc)	
Phone	Mobile
Fax	Email

BIODIVERSITY CREDITS

Please list details below of the biodiversity credits that are required to be retired under the TSC Act in relation to which you wish OEH to determine reasonably equivalent biodiversity credits under the BC Act:

Existing statutory obligation reference ¹	Biodiversity credit name (Plant Community Type name and ID, or threatened species name) ²	IBRA sub region ³	EPBC Act relevant	Number of credits ⁴

Application for assessment of reasonable equivalence of biodiversity credits • 2018



¹ This refers to either; a development application number for a development consent under Part 4 of the *Environmental Planning and Assessment Act* 1979 (**EP&A Act**), a State significant infrastructure approval under the previous Part 5.1 (now Part 5, Division 5.2) of the EP&A Act, a decision of a determining authority to carry out or approve the carrying out of an activity under Part 5 of the EP&A Act, or a biobank statement number or biodiversity certification number.

² Refers to the name of the biodiversity credits required under the statutory obligation

³ Refers to the Interim Biogeographic Regionalisation for Australia subregion in which the development or activity

⁴ The number of biodiversity credits as set out in the consent or approval conditions, biobanking statement or biodiversity certification approval that are required to be retired, and that you wish OEH to determine equivalence

SUPPORTING DOCUMENTATION REQUIRED

Please provide the following supporting documentation:

Documentation required	Attached
Development consent including all conditions of approval relating to the credit retirement obligation	☐ Yes
Is this development a controlled action under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). If yes please provide details	☐ Yes ☐ No
Credit report from the Credit Calculator for Major Projects/Biobanking, or Biodiversity Certification Assessment Method Credit Calculator	☐ Yes
For flora species credits only - species data including count and polygon area in hectares and relevant shapefiles	☐ Yes ☐ N/A
Documentary evidence of legal authority if this form is to be signed on applicant's behalf by someone other than the applicant (e.g. power of attorney, executor, trustee, company director etc)	☐ Yes

DECLARATION

Signature of applicant

This application must be completed and signed by the applicant or by the participant/appointed nominee who is making this application on behalf of the applicant and who has the legal authority to sign⁵.

Owner category	Application is signed and certified by
☐ Individual(s)	All the individuals who are the entity holding credit obligation
Company	 □ the common seal being affixed in accordance with the Corporations Act 2001, or □ two directors, or □ a director and a company secretary, or □ the director, if a proprietary company that has a sole director who is also the sole company secretary.
A local council	 the general manager in accordance with section 377 of the Local Government Act 1993 (LG Act), or the seal of the council being affixed in a manner authorised under the LG Act.
A public authority other than a council	The chief executive officer of the public authority.

Application for assessment of reasonable equivalence of biodiversity credits • 2018

Page 3 of 4



⁵ If you are signing on the applicant's behalf you must state the nature of your legal authority and attach documentary evidence of your legal authority (e.g. power of attorney, executor, trustee, company director, etc.).

I/We:

- Declare that the information in this application form (including any attachments) is accurate and
 up to date to the best of my/our knowledge;
- Understand and acknowledge that it is an offence under section 307B of the Crimes Act 1900
 (NSW) for a person to give information to a public authority, knowing the information is false or
 misleading or omits any matter or thing without which the information is misleading.

Signature	Signature
Name	Name
Position	Position
Date	Date

Affix common seal (if signing under seal):

LODGING YOUR REQUEST WITH OEH

Once you have fully completed and signed the form, send the application with all attachments to OEH in one of the following ways:

Email your request with the required accompanying documentation to lmbc.support@environment.nsw.gov.au. If the email and its attachments are larger than 20MB, please contact us via email to organise method of delivery.

Post your completed application with the required accompanying documentation to:

Office of Environment and Heritage PO Box A290 Sydney South, NSW 1232 Australia

Once received, OEH will acknowledge receipt of your request.

OEH OFFICE USE ONLY

Received date	Completed date	Confirmation issued	Invoice number
1 1	1 1	1 1	

Published by: Office of Environment and Heritage, NSW 59-61 Goulburn Street, Sydney PO Box A290, Sydney South, 1232 Phone: (02) 9995 5000 (switchboard) TTY: (02) 9211 4723

Fax: (02) 9995 5999

Email: <u>info@environment.nsw.gov.au</u> Website: <u>www.environment.nsw.gov.au</u>

Application for assessment of reasonable equivalence of biodiversity credits • 2018

Page 4 of 4

