

Tweed Valley Hospital

APPENDIX B. FLORISTIC AND VEGETATION INTEGRITY PLOT SURVEY FIELD RECORDS

Site Sheet no: 1

		Survey Name	Zone ID		R	ecorde	rs	
Date	15/06/18	TVH	Veg Zone 1	Damian	Gina M	linatel		
Zone <u>5</u> <u>6</u>	Datum GDA 1994	Plot ID	19	Plot dimensions	20m >	< 50m	Photo #	
Easting 5 55 890	Northing 687 39 27	IBRA region	Burringbar-Conondale Ranges	Midline bearing from 0 m	350	N	//agnetic °	
Vegetation Class Coastal Swamp Forest								
Plant Communi	ty Type	1064					es	onfidence:

Record easting and northing at 0 m on midline. Dimensions (Shape) of 0.04 ha base plot.

_,	Attribute m ² plot)	Sum values
	Trees	4
	Shrubs	1
Count of Native	Grasses etc.	2
Richness	Forbs	5
	Ferns	3
	Other	1
	Trees	30.3
Sum of Cover	Shrubs	0.2
of native	Grasses etc.	10.5
plants by	Forbs	30.3
growth form group	Ferns	50.4
	Other	15
High Threat	Weed cover	10

	BAM Attribute (1000)	m² plot)
DBH	# Tree Stems Count	# Stems with Hollows
80 + cm	0	
50 – 79 cm	0	
30 – 49 cm	Present	
20 – 29 cm	present	0
10 – 19 cm	present	
5 – 9 cm	absent	
< 5 cm	present	n/a
Length of logs (r (≥10 cm diameter, >50 cm in length)		Tally space

Counts apply when the **number of tree stems** within a size class is \leq 10. Estimates can be used when > 10 (eg. 10, 20, 30..., 100, 200, 300...). For a **multi-stemmed tree**, only the largest living stem is included in the count/estimate. **Tree stems must be living.**

For **hollows**, count only the presence of a stem containing hollows. For a **multi-stemmed tree**, only the largest stem is included in the count/estimate. **Stems may be dead and may be shrubs.**

BAM Attribute (1 x 1 m plots)		Litter cover (%)			Bare ground cover (%)					Cryptogam cover (%)						Rock cover (%)				
Subplot score (% in each)	100	100	100	100	100	а	b	С	d	е	а	b	С	d	е	а	b	С	d	е
Average of the 5 subplots	100																			

Litter cover is assessed as the average percentage ground cover of litter recorded from five 1 m x 1 m plots centred at 5, 15, 25, 35, 45 m along the plot midline. Litter cover includes leaves, seeds, twigs, branchlets and branches (less than 10 cm in diameter). Assessors may also record the cover of rock, bare ground and cryptogams.

Physiography + site features that may help in determining PCT and Management Zone (optional)

Morphological Type	Landform Element	Landform Pattern	Microrelief	
Lithology	Soil Surface Texture	Soil Colour	Soil Depth	
Slope	Aspect	Site Drainage	Distance to nearest water and type	

Plot Disturbance	Severity code	Age code	Observational evidence:
Clearing (inc. logging)			
Cultivation (inc. pasture)			
Soil erosion			
Firewood / CWD removal			
Grazing (identify native/stock)			
Fire damage			
Storm damage			
Weediness			
Other			

400 m ²	plot: Sheet _ of _	Survey Name	Plot Identifier	Recorders
Date	15/06/18	TVH	19	Damian Licari and Gina Minatel

Code All other native and exotic species: Full species nan	Il species name mandatory ne where practicable	N, E or HTE	Cover	Abund	stratum	voucher
Tree Melaleuca quinquenervia-Broad-lea	aved Paperbark	N	30		U	
Tree Macaranga tanarius-Blush Macara	nga	N	0.1	1	G	
Other Parsonsia straminea-Common Silk	pod	N	15		U	
Exotic Paspalum conjugatum-Sour Grass		Е	40		G	
Shurb Hibiscus diversifolius-Swamp Hibis	cus	N	0.2	2	М	
HTE Ipomoea cairica- Coastal Morning	Glory	HTE	10		G,M	
Fern Blechnum indicum-Swamp Water F	ern	N	50		G	
Forb Persicaria strigosa- Spotted Knotw	eed	N	20		G	
Grass Phragmites australis-Common Rec	ed	N	10		G	
Forb Solanum americanum-Glossy Nigh	tshade	N	0.1	2	G	
Forb Crinum pedunculatum-Swamp Lily		N	0.1	3	G,M	
Tree Glochidion ferdinandi-Cheese Tree	}	N	0.1	1	G	
Forb Persicaria dichotoma-Blume		N	0.1	3	G	
Grass Baumea rubiginosa- Soft twigrush		N	0.5	30	G	
Forb Persicaria spPersicaria		N	10		G	
Fern Hypolepis muelleri-Harsh Ground F	ern	N	0.1	2	G	
Fern Lygodium microphyllum-Climbing S	Snake Fern	N	0.3	2	М	
Tree Melicope elleryana-Pink-flowered [Doughwood	N	0.1	1	M	
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40		_				

GF Code: see Growth Form definitions in Appendix 1 **N:** native, **E:** exotic, **HTE:** high threat exotic **GF - circle code** if 'top 3'.

Cover: 0.1, 0.2, 0.3, ..., 1, 2, 3, ..., 10, 15, 20, 25, ...100% (foliage cover); **Note:** 0.1% cover represents an area of approximately 63 x 63 cm or a circle about 71 cm across, 0.5% cover represents an area of approximately 1.4 x 1.4 m, and $1\% = 2.0 \times 2.0 \, \text{m}$, $5\% = 4 \times 5 \, \text{m}$, $25\% = 10 \times 10 \, \text{m}$

Site Sheet no: 1

of 2

		Survey Name	Zone ID		R	ecorde	rs		
Date	10 / 07 / 18	TVH	Veg Zone 1	Damian	Gina M	linatel			
Zone <u>5</u> <u>6</u>	Datum GDA1994	Plot ID	16	Plot dimensions	20m >	K 50m	Photo #		
Easting 555 898	Northing 68 73830	IBRA region	IBRA region Burringbar-Conondale Ranges Midline bearing from 0 m						
Vegetation Clas	s	Coastal Swar				C H	onfidence: M L		
Plant Communit	ty Type	1064	EEC: \	∕es c	onfidence: M L				

Record easting and northing at 0 m on midline. Dimensions (Shape) of 0.04 ha base plot.

	Attribute m ² plot)	Sum values
	Trees	5
	Shrubs	2
Count of Native	Grasses etc.	5
Richness	Forbs	1
	Ferns	2
	Other	2
	Trees	26.8
Sum of Cover	Shrubs	0.7
of native	Grasses etc.	40
plants by	Forbs	10
growth form group	Ferns	120
	Other	25
High Threat	Weed cover	13.5

	BAM Attribute (1000 m ²)	plot)
DBH	# Tree Stems Count	# Stems with Hollows
80 + cm	0	
50 – 79 cm	0	
30 – 49 cm	present	1
20 – 29 cm	present	'
10 – 19 cm	present	
5 – 9 cm	present	
< 5 cm	present	n/a
Length of logs (≥10 cm diameter, >50 cm in length)		ly space

Counts apply when the **number of tree stems** within a size class is \leq 10. Estimates can be used when > 10 (eg. 10, 20, 30..., 100, 200, 300...). For a **multi-stemmed tree**, only the largest living stem is included in the count/estimate. **Tree stems must be living.**

For **hollows**, count only the presence of a stem containing hollows. For a **multi-stemmed tree**, only the largest stem is included in the count/estimate. **Stems may be dead and may be shrubs.**

BAM Attribute (1 x 1 m plots)		Litter cover (%)					Bare ground cover (%)				Cryptogam cover (%)						Rock cover (%)			
Subplot score (% in each)	95	70	80	95	100	а	b	С	d	е	а	b	С	d	е	а	b	С	d	е
Average of the 5 subplots	88	•																		

Litter cover is assessed as the average percentage ground cover of litter recorded from five 1 m x 1 m plots centred at 5, 15, 25, 35, 45 m along the plot midline. Litter cover includes leaves, seeds, twigs, branchlets and branches (less than 10 cm in diameter). Assessors may also record the cover of rock, bare ground and cryptogams.

Physiography + site features that may help in determining PCT and Management Zone (optional)

Morphological Type	Landform Element	Landform Pattern	Microrelief	
Lithology	Soil Surface Texture	Soil Colour	Soil Depth	
Slope	Aspect	Site Drainage	Distance to nearest water and type	

Plot Disturbance	Severity code	Age code	Observational evidence:
Clearing (inc. logging)			
Cultivation (inc. pasture)			
Soil erosion			
Firewood / CWD removal			
Grazing (identify native/stock)			
Fire damage			
Storm damage			
Weediness			
Other			

400 m ² plot: Sheet _ of _		Survey Name	Plot Identifier	Recorders
Date	10/07/18	TVH	16	Damian Licari and Gina Minatel

Melaleuca quinquenervia-Broad-leaved Paperbark N 20	GF Code	Top 3 native species in each growth form group: Full species name mandatory All other native and exotic species: Full species name where practicable	N, E or HTE	Cover	Abund	stratum	voucher
Other Tree Archontophoenix cunninghamiana-Bangalow Palm N 10 M Frem Melicope elleryana-Pink-flowered Doughwood N 5 4 M Frem Grass Blechnum indicum-Swamp Water Fern N 90 G Grass Phragmites australis-Common Reed N 10 G Other Parsonsia straminea-Common Silkpod N 10 G Grass Carex appressa-Tall Sedge N 5 40 G Grass Lipomoea cairica-Coastal Morning Glory HTE 10 G,M HTE Ipomoea cairica-Coastal Morning Glory HTE 3 20 G,M HTE Ipomoea cairica-Coastal Morning Glory HTE 3 20 G,M HTE Ipomoea cairica-Coastal Morning Glory HTE 3 20 G,M HTE Ipomoea cairica-Coastal Morning Glory HTE 3 20 G,M HTE Schefflera actinophylla-Umbrella Tree HTE 0 5 1 M Frem <t< td=""><td></td><td></td><td></td><td>20</td><td></td><td>11</td><td></td></t<>				20		11	
Tree Melicope elleryana-Pink-flowered Doughwood N 5 4 M Blechnum indicum-Swamp Water Fern N 90 G G Forb Phragmites australis-Common Reed N 10 G Forb Persicaria strigosa-Spotted Knotweed N 10 G G Parsonsia straminea-Common Silkpod N 15 U U Lepironia articulata-Grey Rush N 10 G G G G G G G G G							
Blechnum indicum-Swamp Water Fern N 90 G					1		
Grass Phragmites australis-Common Reed N 10 G Forb Persicaria striqosa-Spotted Knotweed N 10 G Other Parsonsia straminea-Common Silkpod N 15 U Grass Lepironia articulata-Grey Rush N 10 G Grass Carex appressa-Tall Sedge N 5 40 G HTE Ipomoea cairica- Coastal Morning Glory HTE 10 G,M HTE Cinnamomum camphora-Camphor Laurel HTE 3 20 G,M HTE Cinnamomum camphora-Camphor Laurel HTE 3 3 M Ficus coronata-Creek Sandpaper Fig N 0 2 3 M Tree Ficus obliqua-Small-leaved Fig N<	1				T		
Persicaria strigosa-Spotted Knotweed		•					
Other Grass Parsonsia straminea-Common Silkpod N 15 U Grass Lepironia articulata-Grey Rush N 10 G Grass Carex appressa-Tall Sedge N 5 40 G HTE Ipomoea cairica- Coastal Morning Glory HTE 10 G,M HTE Ipomoea cairica- Coastal Morning Glory HTE 10 G,M Shurb Ficus coronata-Creek Sandpaper Fig N 0.2 3 M Shurb Ficus coronata-Creek Sandpaper Fig N 0.2 3 M HTE Schefflera actinophylla-Moreton Bay Fig N 1 3 M Free Ficus obliqua-Small-leaved Fig N 0.5 1 M Fern Hypolepis muelleri-Harsh Ground Fern N 30 G Shurb Mvrsine Howittiana-Brush Muttonwood N 0.5 1 M Grass Baumea rubiginosa-Soft twigrush N 5 100 G 24 25 3 3		1.5					
Grass Lepironia articulata-Grey Rush N 10 G Grass Carex appressa-Tall Sedge N 5 40 G HTE Ipomoea cairica- Coastal Morning Glory HTE 10 G.M HTE Cinnamomum camphora-Camphor Laurel HTE 3 20 G.M Shurb Ficus coronata-Creek Sandpaper Fig N 0.2 3 M HTE Schefflera actinophylla-Umbrella Tree HTE 0.5 1 M Tree Ficus macrophylla-Moreton Bay Fig N 1 3 M Free Ficus obliqua-Small-leaved Fig N 0.5 1 M Grass Leersia hexandra-Swamp Ricegrass N 10 G G Fern Hypolepis muelleri-Harsh Ground Fern N 30 G G Shurb Mvrsine Howittiana-Brush Muttonwood N 0.5 1 M Tree Glochidion ferdinandi var.pubens-Cheese Tree N 0.3 1 G 28 <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td>				_			
Grass Carex appressa-Tall Sedge N 5 40 G HTE Ipomoea cairica- Coastal Morning Glory HTE 10 G,M HTE Cinnamomum camphora-Camphor Laurel HTE 3 20 G,M Shurb Ficus coronata-Creek Sandpaper Fig N 0.2 3 M HTE Schefflera actinophylla-Umbrella Tree HTE 0.5 1 M Tree Ficus macrophylla-Moreton Bay Fig N 1 3 M Tree Ficus obliqua-Small-leaved Fig N 0.5 1 M Grass Leersia hexandra-Swamp Ricegrass N 10 G G Hypolepis muelleri-Harsh Ground Fern N 30 G N 1 M Shurb Mvrsine Howittiana-Brush Muttonwood N 0.5 1 M M 1 G Grass Baumea rubiginosa-Soft twigrush N 5 100 G G G G G G G <						_	
HTE Ipomoea cairica- Coastal Morning Glory HTE 10 G,M HTE Cinnamomum camphora-Camphor Laurel HTE 3 20 G,M Ficus coronata-Creek Sandpaper Fig N 0.2 3 M HTE Schefflera actinophylla-Umbrella Tree HTE 0.5 1 M HTE Schefflera actinophylla-Moreton Bay Fig N 1 3 M Ficus macrophylla-Moreton Bay Fig N 0.5 1 M Ficus obliqua-Small-leaved Fig N 0.5 1 M Grass Leersia hexandra-Swamp Ricegrass N 10 G Hypolepis muelleri-Harsh Ground Fern N 30 G Shurb Mvrsine Howittiana-Brush Muttonwood N 0.5 1 M Tree Glochidion ferdinandi var.pubens-Cheese Tree N 0.3 1 G Grass Baumea rubiginosa-Soft twigrush N 5 100 G 21 22 23 24 25 26 27 28 29 30 31 30 31 32 33 31 32 33 34 35 36 37 36 37 38 39 39					40	_	
HTE Cinnamomum camphora-Camphor Laurel HTE 3 20 G,M		• •			70	_	
Shurb Ficus coronata-Creek Sandpaper Fig N 0.2 3 M HTE Schefflera actinophylla-Umbrella Tree HTE 0.5 1 M Tree Ficus macrophylla-Moreton Bay Fig N 1 3 M Tree Ficus obliqua-Small-leaved Fig N 0.5 1 M Grass Leersia hexandra-Swamp Ricegrass N 10 G G Fern Hypolepis muelleri-Harsh Ground Fern N 30 G G Shurb Mvrsine Howittiana-Brush Muttonwood N 0.5 1 M Grass Baumea rubiginosa-Soft twigrush N 5 100 G Grass Baumea rubiginosa-Soft twigrush N 5 100 G 21 22 23					20	•	
HTE Schefflera actinophylla-Umbrella Tree HTE 0.5 1 M Tree Ficus macrophylla-Moreton Bay Fig N 1 3 M Tree Ficus obliqua-Small-leaved Fig N 0.5 1 M Grass Leersia hexandra-Swamp Ricegrass N 10 G Fern Hypolepis muelleri-Harsh Ground Fern N 30 G Shurb Mvrsine Howittiana-Brush Muttonwood N 0.5 1 M Tree Glochidion ferdinandi var.pubens-Cheese Tree N 0.3 1 G Grass Baumea rubiginosa-Soft twigrush N 5 100 G 21 22 23 24 25 26 27 28 29 30 31 32 33 34 32 33 34 35 36 37 38 39 39 30 31 32 33 34 34 34 34 34						· ·	
Tree Ficus macrophylla-Moreton Bay Fig N 1 3 M Tree Ficus obliqua-Small-leaved Fig N 0.5 1 M Grass Leersia hexandra-Swamp Ricegrass N 10 G Ferm Hypolepis muelleri-Harsh Ground Fern N 30 G Shurb Mvrsine Howittiana-Brush Muttonwood N 0.5 1 M Tree Glochidion ferdinandi var.pubens-Cheese Tree N 0.3 1 G Grass Baumea rubiginosa-Soft twigrush N 5 100 G 24 22 23					_		
Tree Ficus obliqua-Small-leaved Fig N 0.5 1 M Grass Leersia hexandra-Swamp Ricegrass N 10 G Fern Hypolepis muelleri-Harsh Ground Fern N 30 G Shurb Myrsine Howittiana-Brush Muttonwood N 0.5 1 M Tree Glochidion ferdinandi var.pubens-Cheese Tree N 0.3 1 G Grass Baumea rubiginosa-Soft twigrush N 5 100 G 21 22 23 24 25 26 27 28 29 30 30 31 32 33 34 32 33 34 35 36 37 38 36 37 38 39 39 30	1				-		
Grass Leersia hexandra-Swamp Ricegrass N 10 G Fern Hypolepis muelleri-Harsh Ground Fern N 30 G Shurb Mvrsine Howittiana-Brush Muttonwood N 0.5 1 M Tree Glochidion ferdinandi var.pubens-Cheese Tree N 0.3 1 G Grass Baumea rubiginosa-Soft twigrush N 5 100 G 21 22 23 1 <							
Fern Hypolepis muelleri-Harsh Ground Fern N 30 G Shurb Myrsine Howittiana-Brush Muttonwood N 0.5 1 M Tree Glochidion ferdinandi var.pubens-Cheese Tree N 0.3 1 G Grass Baumea rubiginosa-Soft twigrush N 5 100 G 21 22 23 24 25 26 27 28 29 28 29 30 30 31 32 33 34 32 33 34 34 35 36 37 38 38 39 38 38 39	1						
Shurb Myrsine Howittiana-Brush Muttonwood N 0.5 1 M Tree Glochidion ferdinandi var.pubens-Cheese Tree N 0.3 1 G Grass Baumea rubiginosa-Soft twigrush N 5 100 G 21 22 3 4 <	1			_			
Tree Glochidion ferdinandi var.pubens-Cheese Tree N 0.3 1 G Grass Baumea rubiginosa-Soft twigrush N 5 100 G 21 22 3 <td< td=""><td>ł</td><td></td><td></td><td></td><td>1</td><td></td><td></td></td<>	ł				1		
Grass Baumea rubiginosa-Soft twigrush N 5 100 G 21 22 4	1						
21 22 23 3 24 3 25 3 27 3 28 3 29 3 30 3 31 3 32 3 33 3 34 3 35 3 36 3 37 3 38 39	1				100		
23	0.000						
23		22					
25							
26		24					
27 28 29 30 31 31 32 33 33 34 35 36 37 38 39 39		25					
29							
29		27					
30 31 31 32 33 34 35 35 36 37 38 39		28					
31 32 33 33 34 34 35 36 37 38 39 39		29					
32 33 33 34 35 35 36 37 38 39		30					
33 34 34 35 36 37 38 39		31					
34		32					
35 36 37 38 39 39		33					
36 37 38 39		34					
37 38 39		35					
38 39		36					
39		37					
		38					
40		39					
40		40					

GF Code: see Growth Form definitions in Appendix 1 N: native, E: exotic, HTE: high threat exotic

GF - circle code if 'top 3'.

Cover: 0.1, 0.2, 0.3, ..., 1, 2, 3, ..., 10, 15, 20, 25, ...100% (foliage cover); **Note:** 0.1% cover represents an area of approximately 63 x 63 cm or a circle about 71 cm across, 0.5% cover represents an area of approximately 1.4 x 1.4 m, and $1\% = 2.0 \times 2.0 \text{ m}$, $5\% = 4 \times 5 \text{ m}$, $25\% = 10 \times 10 \text{ m}$

Site Sheet no: 1

		Survey Name		Recorders					
Date	11/07/18	TVH	Veg Zone 2	Damian	Damian Licari and Gina Minate				
Zone <u>5</u> <u>6</u>	Datum GDA1994	Plot ID	11	Plot dimensions	20m >	< 50m	Photo #		
Easting 5 55 871	Northing 68 737 27	IBRA region	Burringbar-Conondale Ranges	Midline bearing from 0 m	220			Magnetic °	
Vegetation Clas	·s	Subtropical Rainforests						Confidence: H M L	
Plant Communi	ty Type	1302 EEC: Ye:					es	Confidence:	

Record easting and northing at 0 m on midline. Dimensions (Shape) of 0.04 ha base plot.

_,	Attribute m ² plot)	Sum values				
	Trees	6				
	Shrubs	0				
Count of Native	Grasses etc.	1				
Richness	Forbs	2				
	Ferns	1				
	Other	6				
	Trees	110.1				
Sum of Cover	Shrubs	0				
of native vascular	Grasses etc.	0.1				
plants by	Forbs	3				
growth form group	Ferns	0.2				
•	Other	39.4				
High Threat	High Threat Weed cover					

	BAM Attribute (1000 m ²	plot)
DBH	# Tree Stems Count	# Stems with Hollows
80 + cm	2	
50 – 79 cm	2	
30 – 49 cm	present	
20 – 29 cm	present	3
10 – 19 cm	present	
5 – 9 cm	present	
< 5 cm	present	n/a
Length of logs (≥10 cm diameter, >50 cm in length)		lly space

Counts apply when the **number of tree stems** within a size class is \leq 10. Estimates can be used when > 10 (eg. 10, 20, 30..., 100, 200, 300...). For a **multi-stemmed tree**, only the largest living stem is included in the count/estimate. **Tree stems must be living.**

For **hollows**, count only the presence of a stem containing hollows. For a **multi-stemmed tree**, only the largest stem is included in the count/estimate. **Stems may be dead and may be shrubs.**

BAM Attribute (1 x 1 m plots)		Litter cover (%)		Baı	Bare ground cover (%)		Cryptogam cover (%)				Rock cover (%)									
Subplot score (% in each)	80	75	95	100	100	а	b	С	d	е	а	b	С	d	е	а	b	С	d	е
Average of the 5 subplots	90	•		•																

Litter cover is assessed as the average percentage ground cover of litter recorded from five 1 m x 1 m plots centred at 5, 15, 25, 35, 45 m along the plot midline. Litter cover includes leaves, seeds, twigs, branchlets and branches (less than 10 cm in diameter). Assessors may also record the cover of rock, bare ground and cryptogams.

Physiography + site features that may help in determining PCT and Management Zone (optional)

	0 1 7		I		/		<u> </u>	/
Morphological Type		Landform Element		Landform Pattern		Microrelief		
Lithology		Soil Surface Texture		Soil Colour		Soil Depth		
Slope		Aspect		Site Drainage		Distance to nearest water and type		

Plot Disturbance	Severity code	Age code	Observational evidence:
Clearing (inc. logging)			
Cultivation (inc. pasture)			
Soil erosion			
Firewood / CWD removal			
Grazing (identify native/stock)			
Fire damage			
Storm damage			
Weediness			
Other			

400 m 2 plot: Sheet $_$ of $_$	Survey Name	Plot Identifier	Recorders			
Date 11/07/18	TVH	11	Damian Licari and Gina Minatel			

GF Code	Top 3 native species in each growth form group: Full species name mandatory All other native and exotic species: Full species name where practicable	N, E or HTE	Cover	Abund	stratum	voucher
Tree	Ficus macrophylla-Moreton Bay Fig	N	80		U	
Tree	Ficus obliqua-Small-leaved Fig	N	20		U	
Tree	Melaleuca quinquenervia-Broad-leaved Paperbark	N	5	1	M	
Other	Archontophoenix cunninghamiana-Bangalow Palm	N	14	•	G,M,U	
Other	Mucuna gigantea subsp. gigantea-Burny Bean	N	0.2	5	G,M	
Other	Maclura cochinchinensis-Cockspur Thorn	N	10		G,M,U	
HTE	Ochna serrulata-Mickey Mouse Plant	HTE	0.1	2	G	
HTE	Schefflera actinophylla-Umbrella Tree	HTE	5	10	G,M	
Other	Cordyline congesta- Narrow-leaved Palm Lily	N	0.1	2	G,M	
HTE	Ipomoea indica- Morning Glory	HTE	2	5	M,U	
Tree	Macaranga tanarius-Blush Macaranga	N	0.1	5	G	
Forb	Alpinia caerulea-Native Ginger	N	1	10	G	
HTE	Cinnamomum camphora-Camphor Laurel	HTE	0.1	2	М	
Tree	Ficus coronata-Creek Sandpaper Fig	N	2	3	M	
Exotic	Solanum chrysotrichum-Devil's Fig	Е	0.1	2	G	
Other	Flagellaria indica-Whip Vine	N	15		U	
Grass	Oplismenus aemulus-Australian Basket Grass	N	0.1	5	G	
Other	Smilax australis-Lawyer Vine	N	0.1	5	M,U	
Forb	Alocasia brisbanensis-Cunjevoi	N	2	10	G	
HTE	Ligustrum sinense-Small-leaved Privet	HTE	2	5	G,M	
HTE	Lantana camara- Lantana	HTE	0.2	2	G,M	
Exotic	Solanum mauritianum-Wild Tobacco Bush	Е	0.2	1	М	
Tree	Acmena smithii-Lilly Pilly	N	3	1	М	
Exotic	Murraya paniculata-Murraya	Е	0.4	1	G,M	
Fern	Christella dentata- Binung	N	0.2	2	G	
Exotic	Archontophoenix alexandrae - Alexandra palm	E	56		G,M,U	
	27					
	28					
	29					
	30					
	31					
	32					
	33					
	34					
	35					
	36					
	37					
	38					
	39					
	40					

GF Code: see Growth Form definitions in Appendix 1 N: native, E: exotic, H

N: native, E: exotic, HTE: high threat exotic

GF - circle code if 'top 3'.

Cover: 0.1, 0.2, 0.3, ..., 1, 2, 3, ..., 10, 15, 20, 25, ...100% (foliage cover); **Note:** 0.1% cover represents an area of approximately 63 x 63 cm or a circle about 71 cm across, 0.5% cover represents an area of approximately 1.4 x 1.4 m, and $1\% = 2.0 \times 2.0 \text{ m}$, $5\% = 4 \times 5 \text{ m}$, $25\% = 10 \times 10 \text{ m}$

Site Sheet no: 1

of 2

		Survey Name	Zone ID		Recorde	ecorders						
Date	11/07/18	TVH	Veg Zone 4	Damian	Licari and	l Gina M	linatel					
Zone <u>5</u> <u>6</u>	Datum GDA 1994	Plot ID	99	Plot dimensions	10m X100m	Photo #						
Easting 5 55 489	Northing 687 3425	IBRA region	Burringbar-Conondale Ranges	Midline bearing from 0 m	178	N	/lagnetic °					
Vegetation Clas	s	Subtropical R	С	onfidence: M L								
Plant Communit	ту Туре	1302	1302 EEC: No									

Record easting and northing at 0 m on midline. Dimensions (Shape) of 0.04 ha base plot.

DAM	Attribute	
	m ² plot)	Sum values
	Trees	2
	Shrubs	0
Count of Native	Grasses etc.	0
	Forbs	0
	Ferns	0
	Other	1
	Trees	90
Sum of Cover	Shrubs	0
of native vascular	Grasses etc.	0
plants by growth	Forbs	0
form group	Ferns	0
	Other	1
High Threat	Weed cover	42

	BAM Attribute (1000 m	² plot)					
DBH	# Tree Stems Count	# Stems with Hollows					
80 + cm	0						
50 – 79 cm	0						
30 – 49 cm	present	0					
20 – 29 cm	present						
10 – 19 cm	present						
5 – 9 cm	present						
< 5 cm	present	n/a					
Length of logs (m) (≥10 cm diameter, >50 cm in length) 34.5 Tally space							

Counts apply when the **number of tree stems** within a size class is \leq 10. Estimates can be used when > 10 (eg. 10, 20, 30..., 100, 200, 300...). For a **multi-stemmed tree**, only the largest living stem is included in the count/estimate. **Tree stems must be living.**

For **hollows**, count only the presence of a stem containing hollows. For a **multi-stemmed tree**, only the largest stem is included in the count/estimate. **Stems may be dead and may be shrubs.**

BAM Attribute (1 x 1 m plots)		Litter cover (%)			Bare ground cover (%)				Cryptogam cover (%)						Rock cover (%)					
Subplot score (% in each)	85	40	10	70	50	а	b	С	d	е	а	b	С	d	е	а	b	С	d	е
Average of the 5 subplots	51		•																	

Litter cover is assessed as the average percentage ground cover of litter recorded from five 1 m x 1 m plots centred at 5, 15, 25, 35, 45 m along the plot midline. Litter cover includes leaves, seeds, twigs, branchlets and branches (less than 10 cm in diameter). Assessors may also record the cover of rock, bare ground and cryptogams.

Physiography + site features that may help in determining PCT and Management Zone (optional)

Morphological Type	Landform Element	Landform Pattern	Microrelief	
Lithology	Soil Surface Texture	Soil Colour	Soil Depth	
Slope	Aspect	Site Drainage	Distance to nearest water and type	

Plot Disturbance	Severity code	Age code	Observational evidence:
Clearing (inc. logging)			
Cultivation (inc. pasture)			
Soil erosion			
Firewood / CWD removal			
Grazing (identify native/stock)			
Fire damage			
Storm damage			
Weediness			
Other			

400 m ² plot: Sheet _ of _	Survey Name	Plot Identifier	Recorders
Date 11/07/18	TVH	99	Damian Licari and Gina Minatel

GF Code	Top 3 native species in each growth form group: Full species name mandatory All other native and exotic species: Full species name where practicable	N, E or HTE	Cover	Abund	stratum	voucher
Tree	Macaranga tanarius-Blush Macaranga	N	80		M,U	
HTE	Ochna serrulata-Mickey Mouse Plant	HTE	5	10	G	
HTE	Bidens pilosa-Cobblers Pegs	HTE	2	20	G	
HTE	Chloris gayana-Rhodes Grass	HTE	10		G	
HTE	Cinnamomum camphora-Camphor Laurel	HTE	10		M,U	
HTE	Schefflera actinophylla- Umbrella Tree	HTE	5	4	M,U	
Tree	Cupaniopsis anacardioides-Tuckeroo	Ν	10	2	M,U	
Exotic	Strelizia SpStrelizia	Е	0.1	1	G	
HTE	Asparagus aethiopicus-Ground Asparagus	HTE	10		G	
Other	Parsonsia straminea-Common Silkpod	Ν	1	1	U	
Exotic	Sonchus asper-Prickly Sowthistle	Е	0.1	5	G	
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					
	32					
	33					
	34					
	35					
	36					
	37					
	38					
	39					
	40					

GF Code: see Growth Form definitions in Appendix 1 N: native, E: exotic, HTE: high threat exotic GF - circle code if 'top 3'.

Cover: 0.1, 0.2, 0.3, ..., 1, 2, 3, ..., 10, 15, 20, 25, ...100% (foliage cover); **Note:** 0.1% cover represents an area of approximately 63 x 63 cm or a circle about 71 cm across, 0.5% cover represents an area of approximately 1.4 x 1.4 m, and $1\% = 2.0 \times 2.0 \text{ m}$, $5\% = 4 \times 5 \text{ m}$, $25\% = 10 \times 10 \text{ m}$

Site Sheet no: 1

of 2

		Survey Name	Zone ID		Recorde	rs				
Date	12/07/18	TVH	Veg Zone 8	Damian	Damian Licari and Gir					
Zone <u>5</u> <u>6</u>	Datum GDA 1994	Plot ID	98	Plot dimensions	10m X100m	Photo #				
Easting 5 55 619	Northing 687 33 27	IBRA region	Burringbar-Conondale Ranges	Midline bearing from 0 m	38	N	Magnetic °			
Vegetation Clas	s	Subtropical R	C H	onfidence: M L						
Plant Communit	ту Туре	1302	1302 EEC: No							

Record easting and northing at 0 m on midline. Dimensions (Shape) of 0.04 ha base plot.

	Attribute m ² plot)	Sum values
	Trees	6
	Shrubs	0
Count of Native	Grasses etc.	0
Richness	Forbs	0
	Ferns	0
	Other	5
	Trees	42
Sum of Cover	Shrubs	0
of native	Grasses etc.	0
plants by	Forbs	0
growth form group	Ferns	0
	Other	4.7
High Threat	Weed cover	106

	BAM Attribute (1000	m² plot)
DBH	# Tree Stems Count	# Stems with Hollows
80 + cm	0	
50 – 79 cm	0	
30 – 49 cm	absent	0
20 – 29 cm	present	
10 – 19 cm	present	
5 – 9 cm	present	
< 5 cm	present	n/a
Length of logs (≥10 cm diameter, >50 cm in length)	(m) O	Tally space

Counts apply when the **number of tree stems** within a size class is \leq 10. Estimates can be used when > 10 (eg. 10, 20, 30..., 100, 200, 300...). For a **multi-stemmed tree**, only the largest living stem is included in the count/estimate. **Tree stems must be living.**

For **hollows**, count only the presence of a stem containing hollows. For a **multi-stemmed tree**, only the largest stem is included in the count/estimate. **Stems may be dead and may be shrubs.**

BAM Attribute (1 x 1 m plots)	Litter cover (%)			Bare ground cover (%)					Cryptogam cover (%)						Rock cover (%)					
Subplot score (% in each)	100	40	100	60	100	а	b	С	d	е	а	b	С	d	е	а	b	С	d	е
Average of the 5 subplots	80																			

Litter cover is assessed as the average percentage ground cover of litter recorded from five 1 m x 1 m plots centred at 5, 15, 25, 35, 45 m along the plot midline. Litter cover includes leaves, seeds, twigs, branchlets and branches (less than 10 cm in diameter). Assessors may also record the cover of rock, bare ground and cryptogams.

Physiography + site features that may help in determining PCT and Management Zone (optional)

Morphological Type	Landform Element		Landform Pattern	Microrelief	
Lithology	Soil Surfa Texture	ce	Soil Colour	Soil Depth	
Slope	Aspect		Site Drainage	Distance to nearest water and type	

Plot Disturbance	Severity code	Age code	Observational evidence:
Clearing (inc. logging)			
Cultivation (inc. pasture)			
Soil erosion			
Firewood / CWD removal			
Grazing (identify native/stock)			
Fire damage			
Storm damage			
Weediness			
Other			

400 m ²	plot: Sheet _ of _	Survey Name	Plot Identifier	Recorders			
Date	12/07/18	TVH	98	Damian Licari and Gina Minatel			

GF Code	Top 3 native species in each growth form group: Full species name mandatory All other native and exotic species: Full species name where practicable	N, E or HTE	Cover	Abund	stratum	voucher
HTE	Pinus elliottii-Slash Pine	HTE	75		U	
Tree	Guioa semiglauca-Guioa	N	3	5	M	
Tree	Mallotus philippensis-Red Kamala	N	2	3	M	
Tree	Cryptocarya triplinervis var.triplinervis-3 veined laurel	N	2	5	M	
Tree	Macaranga tanarius-Blush Macaranga	N	30	J	M	
HTE		HTE	1	1	M	
HTE	Senna pendula- Senna Ipomoea cairica- Coastal Morning Glory	HTE	5	10	M,U	
		N	1	3		
Other	Smilax australis-Lawyer Vine		-		M,U	
HTE	Cinnamomum camphora-Camphor Laurel	HTE	5	5	M,U	
HTE	Ochna serrulata-Mickey Mouse Plant	HTE	2	5	M	
HTE	Schefflera actinophylla-Umbrella Tree	HTE	2	5	M,U	
Exotic	Murraya paniculata-Murraya	E	0.5	2	M	
HTE	Bidens pilosa-Cobblers Pegs	HTE	5	50	G	
Other	Maclura cochinchinensis-Cockspur Thorn	N	1	1	G,M	
HTE	Chloris gayana-Rhodes Grass	HTE	1	20	G	
Other	Parsonsia straminea-Common Silkpod	N	2	3	M,U	
Tree	Mallotus discolor-White Kamala	N	1	1	М	
HTE	Asparagus aethiopicus-Ground Asparagus	HTE	10		G	
Exotic	Syagrus romanzoffiana-Cocos Palm	Е	2	1	М	
Other	Archontophoenix cunninghamiana-Bangalow Palm	N	0.5	1	G,M	
Tree	Cupaniopsis anacardioides-Tuckeroo	N	4	3	M	
Exotic	Rhaphiolepis indica-Indian Hawthorn	Е	1	1	M	
Exotic	Eragrostis tenuifolia-Elastic Grass	Е	10		G	
Other	Amylotheca dictyophleba-Brush Mistletoe	N	0.2	5	М	
	25					
	26					
	27					
	28					
	29					
	30					
	31					
	32					
	33					
	34					
	35					
	36		<u> </u>			
	37					
	38					
	39					
	40					
CE Cod		th throat ava				

GF Code: see Growth Form definitions in Appendix 1 N

N: native, E: exotic, HTE: high threat exotic

GF - circle code if 'top 3'.

Cover: 0.1, 0.2, 0.3, ..., 1, 2, 3, ..., 10, 15, 20, 25, ...100% (foliage cover); **Note:** 0.1% cover represents an area of approximately 63 x 63 cm or a circle about 71 cm across, 0.5% cover represents an area of approximately 1.4 x 1.4 m, and 1% = 2.0 x 2.0 m, 5% = 4 x 5 m, 25% = 10 x 10 m **Abundance:** 1, 2, 3, ..., 10, 20, 30, ... 1000, 200, ..., 1000, ...

Site Sheet no: 1

		Survey Name	Recorders					
Date	<u>15</u> / <u>08</u> / <u>1</u> 8	TVH	Veg Zone 7	Damian Li	Maloney			
Zone <u>56</u>	Datum GDA1994	Plot ID	100	Plot dimensions	10mx100m		Photo #	
555953	Northing 6873675	IBRA region	Burringbar-Conondale Ranges	Midline bearing from 0 m	174	174		√lagnetic °
Vegetation Clas	s	Coastal Floodplain Wetlands					C	onfidence: I M L
Plant Communit	ty Type	1235 EEG					NO	onfidence:

Record easting and northing at 0 m on midline. Dimensions (Shape) of 0.04 ha base plot.

	Attribute m ² plot)	Sum values
	Trees	4
	Shrubs	0
Count of Native	Grasses etc.	0
Richness	Forbs	1
	Ferns	0
	Other	1
	Trees	35.8
Sum of Cover	Shrubs	0
of native	Grasses etc.	0
plants by	Forbs	0.1
growth form group	Ferns	0
	Other	3
High Threat	33.3	

	BAM Attribute (1	000 m² plot)
DBH	# Tree Stems Count	# Stems with Hollows
80 + cm	0	
50 – 79 cm	1	
30 – 49 cm	Present	0
20 – 29 cm	Present	U
10 – 19 cm	Present	
5 – 9 cm	Present	
< 5 cm	Present	n/a
Length of logs (≥10 cm diameter, >50 cm in length)	(m) 9.5	Tally space

Counts apply when the **number of tree stems** within a size class is \leq 10. Estimates can be used when > 10 (eg. 10, 20, 30..., 100, 200, 300...). For a **multi-stemmed tree**, only the largest living stem is included in the count/estimate. **Tree stems must be living.**

For **hollows**, count only the presence of a stem containing hollows. For a **multi-stemmed tree**, only the largest stem is included in the count/estimate. **Stems may be dead and may be shrubs.**

BAM Attribute (1 x 1 m plots)	Litter cover (%)		Bar	e gro	und (cover	(%)	Cryptogam cover (%)			Rock cover (%)									
Subplot score (% in each)	85	95	90	95	95	а	b	С	d	е	а	b	С	d	е	а	b	С	d	е
Average of the 5 subplots	92																			

Litter cover is assessed as the average percentage ground cover of litter recorded from five 1 m x 1 m plots centred at 5, 15, 25, 35, 45 m along the plot midline. Litter cover includes leaves, seeds, twigs, branchlets and branches (less than 10 cm in diameter). Assessors may also record the cover of rock, bare ground and cryptogams.

Physiography + site features that may help in determining PCT and Management Zone (optional)

Morphological Type	Landform Element	Landform Pattern	Microrelief	
Lithology	Soil Surface Texture	Soil Colour	Soil Depth	
Slope	Aspect	Site Drainage	Distance to nearest water and type	

Plot Disturbance	Severity code	Age code	Observational evidence:
Clearing (inc. logging)			
Cultivation (inc. pasture)			
Soil erosion			
Firewood / CWD removal			
Grazing (identify native/stock)			
Fire damage			
Storm damage			
Weediness			
Other			

400 m ² plot: Sheet _ of _	Survey Name	Plot Identifier	Recorders
Date 15_/08_/_1_8	TVH	100	Damian Licari and Christina Maloney

GF Code	Top 3 native species in each growth form group: Full species name mandatory All other native and exotic species: Full species name where practicable	N, E or HTE	Cover	Abund	stratum	voucher
Tree	Casuarina glauca-Swamp Oak	N	25		U	
Exotic	Melinis repens-Red Natal Grass	E	0.1	2	G	
HTE	Lantana camara-Lantana	HTE	2	3	М	
HTE	Bidens pilosa-Cobblers Pegs	HTE	10		G	
Tree	Macaranga tanarius-Blush Macaranga	N	0.5	10	М	
HTE	Senna pendula-Senna	HTE	2	5	М	
Exotic	Cenchrus purpureus-Barner Grass	E	35		М	
Forb	Oxalis sp Oxalis	N	0.1	1	G	
Exotic	Sonchus asper-Prickly Sowthistle	Е	0.1	5	G	
HTE	Ricinus communis-Castor Oil Plant	HTE	0.2	1	М	
HTE	Ipomoea cairica-Coastal Morning Glory	HTE	6		M,U	
Exotic	Solanum mauritianum- Wild Tobacco Bush	Е	5	4	М	
HTE	Schefflera actinophylla-Umbrella Tree	HTE	0.1	1	М	
Tree	Mallotus philippensis-Red Kamala	N	0.3	1	M	
Exotic	Macroptilium atropurpureum-Siratro	E	2	3	G	
Other	Diplocyclos palmatus- Native bryony	N	3	3	M	
HTE	Chloris gayana-Rhodes Grass	HTE	10		G	
HTE	Ipomoea indica-Morning Glory	HTE	3	10	M,U	
Exotic	Triumfetta rhomboidea-Chinese Bur	Е	0.2	20	G	
Exotic	Passiflora subpeltata-White Passionflower	Е	3	3	G,M	
Tree	Callistemon viminalis-Weeping Bottlebrush	N	10		М	
Exotic	Megathyrsus maximus var. coloratus- guinea grass	Е	15		G	
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					
	32					
	33					
	34					
	35					
	36					
	37					
	38					
	39					
	40					

GF Code: see Growth Form definitions in Appendix 1 N: n

N: native, E: exotic, HTE: high threat exotic

GF - circle code if 'top 3'.

Cover: 0.1, 0.2, 0.3, ..., 1, 2, 3, ..., 10, 15, 20, 25, ...100% (foliage cover); **Note:** 0.1% cover represents an area of approximately 63 x 63 cm or a circle about 71 cm across, 0.5% cover represents an area of approximately 1.4 x 1.4 m, and $1\% = 2.0 \times 2.0 \text{ m}$, $5\% = 4 \times 5 \text{ m}$, $25\% = 10 \times 10 \text{ m}$

Site Sheet no: 1

of 3

		Survey Name	Zone ID		R	ecorde	ders		
Date	15 / 08 / 18	TVH	Veg Zone 6	Damian Licari and Christina Malone					
Zone <u>5</u> 6_	Datum GDA 1994	Plot ID	101	Plot dimensions	20m >	< 50m	Photo #		
55595 <u>7</u>	Northing 6873725	IBRA region	Burringbar-Conondale Ranges	Midline bearing from 0 m	255		Magnetic °		
Vegetation Clas	s	North Coast Wet Sclerophyll Forests					Co H	onfidence: M L	
Plant Communit	у Туре	1569 EEG				EEC:	10 H	onfidence: M L	

Record easting and northing at 0 m on midline. Dimensions (Shape) of 0.04 ha base plot.

	Attribute m ² plot)	Sum values			
	Trees	8			
	Shrubs	1			
Count of Native	Grasses etc.	0			
Richness	Forbs	3			
	Ferns	0			
	Other	6			
	Trees	78.4			
Sum of Cover	Shrubs	2			
of native vascular	Grasses etc.	0			
plants by growth	Forbs	0.7			
form group	Ferns	0			
	Other	7.8			
High Threat	High Threat Weed cover				

	BAM Attribute (1000 r	m ² plot)
DBH	# Tree Stems Count	# Stems with Hollows
80 + cm	0	
50 – 79 cm	present	
30 – 49 cm	present	1
20 – 29 cm	present	·
10 – 19 cm	present	
5 – 9 cm	present	
< 5 cm	present	n/a
Length of logs (t (≥10 cm diameter, >50 cm in length)	Tally space	

Counts apply when the **number of tree stems** within a size class is \leq 10. Estimates can be used when > 10 (eg. 10, 20, 30..., 100, 200, 300...). For a **multi-stemmed tree**, only the largest living stem is included in the count/estimate. **Tree stems must be living.**

For **hollows**, count only the presence of a stem containing hollows. For a **multi-stemmed tree**, only the largest stem is included in the count/estimate. **Stems may be dead and may be shrubs.**

BAM Attribute (1 x 1 m plots)	Litter cover (%)		bute (1 x 1 m plots) Litter cover (%) Bare ground cover (%)			Cryptogam cover (%)				Rock cover (%))							
Subplot score (% in each)	95	90	90	98	100	а	b	С	d	е	а	b	С	d	е	а	b	С	d	е
Average of the 5 subplots	94.	94.6				•				•										

Litter cover is assessed as the average percentage ground cover of litter recorded from five 1 m x 1 m plots centred at 5, 15, 25, 35, 45 m along the plot midline. Litter cover includes leaves, seeds, twigs, branchlets and branches (less than 10 cm in diameter). Assessors may also record the cover of rock, bare ground and cryptogams.

Physiography + site features that may help in determining PCT and Management Zone (optional)

Morphological Type	Landform Element	Landform Pattern	Microrelief	
Lithology	Soil Surface Texture	Soil Colour	Soil Depth	
Slope	Aspect	Site Drainage	Distance to nearest water and type	

Plot Disturbance	Severity code	Age code	Observational evidence:
Clearing (inc. logging)			
Cultivation (inc. pasture)			
Soil erosion			
Firewood / CWD removal			
Grazing (identify native/stock)			
Fire damage			
Storm damage			
Weediness			
Other			

400 m ² plot: Sheet _ of _	Survey Name	Plot Identifier	Recorders
Date 15_08_/18	TVH	101	Damian Licari and Christina Maloney

GF Code	Top 3 native species in each growth form group: Full species name mandatory All other native and exotic species: Full species name where practicable	N, E or HTE	Cover	Abund	stratum	voucher
Tree	Eucalyptus grandis-Flooded Gum	N	40		U	
Tree	Eucalyptus microcorys-Tallowwood	N	20		U	
Tree	Macaranga tanarius-Blush Macaranga	Ν	10		G,M	
HTE	Schefflera actinophylla-Umbrella Tree	HTE	15		M	
Tree	Cryptocarya triplinervis-Three-veined laurel	Ν	6		G,M	
HTE	Senna pendula-Senna	HTE	2	10	M	
Other	Geitonoplesium cymosum-Scrambling Lily	N	0.1	5	G	
Exotic	Syagrus romanzoffiana- Cocos Palm	Е	0.3	20	М	
Other	Smilax australis-Lawyer Vine	N	2	10	G,M,U	
Exotic	Ambrosia Artemisiaefolia-Common Ragweed	Е	6		G	
Forb	Alpinia caerulea-Native Ginger	Ν	0.5	2	G	
HTE	Ipomoea cairica- Coastal Morning Glory	HTE	10		G,M	
Other	Parsonsia straminea-Common Silkpod	N	0.1	4	М	
HTE	Asparagus aethiopicus-Ground Asparagus	HTE	0.5	10	G	
Forb	Alocasia brisbanensis-Cunjevoi	N	0.1	1	G	
Tree	Ficus coronata-Creek Sandpaper Fig	N	0.2	2	М	
Other	Maclura cochinchinensis-Cockspur Thorn	Ν	5	5	G,M,U	l
HTE	Bidens pilosa-Cobblers Pegs	HTE	10		G	
Exotic	Hypochaeris glabra-Smooth Catsear	Е	0.1	1	G	
Exotic	Ageratum conyzoides subsp. Conyzoides-Goatweed	Е	2	20	G	
HTE	Chloris gayana- Rhodes Grass	HTE	0.5	20	G	
Exotic	Stelitzia sp-Strelizia	E	0.1	1	G	
HTE	Ochna serrulata-Mickey Mouse Plant	HTE	1	15	G	
HTE	Lantana camara- Lantana	HTE	2	3	М	
Tree	Glochidion ferdinandi-Cheese Tree	N	0.1	1	G	
HTE	Chrysanthemoides monilifera- Bitou Bush	HTE	0.2	1	G	
Forb	Oxalis spOxalis	N	0.1	1	G	
Exotic	Murraya paniculata-Murraya	Е	2	10	M	
Exotic	Setaria sphacelata- Setaria	Е	1	20	G	
HTE	Ipomoea purpurea- Common Morning Glory	HTE	10		G,M	
Exotic	Passiflora subpeltata-White Passionflower	Е	2	20	G,M	
Exotic	Triumfetta rhomboidea- Chinese Bur	Е	20		G	
Exotic	Paspalum conjugatum- Sour Grass	Е	1	30	G	
Exotic	Vicia tetrasperma-Slender Vetch	Е	0.1	5	G	
Exotic	Conyza bonariensis- Flaxleaf Fleabane	Е	0.1	1	G	
Other	Hibbertia scandens-Climbing Guinea Flower	N	0.5	20	G	
Exotic	Tagetes minuta- Stinking Roger	Е	1	10	G	
Exotic		Е	5	10	G	
HTE	Ageratina riparia- Mistflower	HTE	0.1	4	G	
Tree	Notelaea longifolia-Large Mock-olive	N	2	2	М	
	e: see Growth Form definitions in Appendix 1 N: native F: exotic HTF: hid				code if 'to	

GF Code: see Growth Form definitions in Appendix 1

N: native, E: exotic, HTE: high threat exotic

GF - circle code if 'top 3'.

Cover: 0.1, 0.2, 0.3, ..., 1, 2, 3, ..., 10, 15, 20, 25, ...100% (foliage cover); **Note:** 0.1% cover represents an area of approximately 63 x 63 cm or a circle about 71 cm across, 0.5% cover represents an area of approximately 1.4 x 1.4 m, and $1\% = 2.0 \times 2.0 \text{ m}$, $5\% = 4 \times 5 \text{ m}$, $25\% = 10 \times 10 \text{ m}$

400 m ² plot: Sheet _ of _	Survey Name	Plot Identifier	Recorders
Date 15_/08_/18	TVH	101	Damian Licari and Christina Maloney

GF Code	Top 3 native species in each growth form group: Full species name mandatory All other native and exotic species: Full species name where practicable	N, E or HTE	Cover	Abund	stratum	voucher
Tree	Glochidion sumatranum-Umbrella Cheese Tree	N	0.1	5	G	
Other	Marsdenia rostrata- Milk Vine	N	0.1	10	G,M	
Shrub	Myrsine variabilis- Muttonwood	N	2	10	М	
HTE	Melinis minutiflora-Molasses Grass	HTE	10		G	
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					
	32					
	33					
	34					
	35					
	36					
	37					
	38					
	39					
	40					

GF Code: see Growth Form definitions in Appendix 1 N: native, **E**: exotic, **HTE**: high threat exotic **GF - circle code** if 'top 3'. **Cover**: 0.1, 0.2, 0.3, ..., 1, 2, 3, ..., 10, 15, 20, 25, ...100% (foliage cover); **Note**: 0.1% cover represents an area of approximately 63 x 63 cm or a circle about 71 cm across, 0.5% cover represents an area of approximately 1.4 x 1.4 m, and $1\% = 2.0 \times 2.0 \text{ m}$, $5\% = 4 \times 5 \text{ m}$, $25\% = 10 \times 10 \text{ m}$

Biodiversity Assessment Report - September 2018

Site Sheet no:	1	of	2	
				_

		Survey Name	Recorders						
Date	15 / 08 / 18	TVH	Veg Zone 5	Damian Licari and Christina Malone					
Zone <u>56</u>	Datum GDA1994	Plot ID	102	Plot dimensions	10mX100m		Photo #		
555362	Northing 6873160	IBRA region	Burringbar-Conondale Ranges	Midline bearing from 0 m	13		N	/lagnetic °	
Vegetation Clas	s	North Coast Wet Sclerophyll Forests					Co H	onfidence: M L	
Plant Communit	ту Туре	1569 EEC:					No H	onfidence: M L	

Record easting and northing at 0 m on midline. Dimensions (Shape) of 0.04 ha base plot.

	Attribute m ² plot)	Sum values				
	Trees	3				
	Shrubs	0				
Count of Native	Grasses etc.	0				
Richness	Forbs	1				
	Ferns	0				
	Other	4				
	Trees	70				
Sum of Cover	Shrubs	0				
of native vascular	Grasses etc.	0				
plants by	Forbs	0.1				
growth form group	Ferns	0				
	Other	14.3				
High Threat	High Threat Weed cover					

	BAM Attribute (1000	m² plot)
DBH	# Tree Stems Count	# Stems with Hollows
80 + cm	5	
50 – 79 cm	Present	
30 – 49 cm	present	1
20 – 29 cm	present	
10 – 19 cm	present	
5 – 9 cm	present	
< 5 cm	present	n/a
Length of logs ((≥10 cm diameter, >50 cm in length)		Tally space

Counts apply when the **number of tree stems** within a size class is \leq 10. Estimates can be used when > 10 (eg. 10, 20, 30..., 100, 200, 300...). For a **multi-stemmed tree**, only the largest living stem is included in the count/estimate. **Tree stems must be living.**

For **hollows**, count only the presence of a stem containing hollows. For a **multi-stemmed tree**, only the largest stem is included in the count/estimate. **Stems may be dead and may be shrubs.**

BAM Attribute (1 x 1 m plots)		Litter cover (%)			Bare ground cover (%)				Cryptogam cover (%)				Rock cover (%)							
Subplot score (% in each)	80	95	95	97	100	а	b	С	d	е	а	b	С	d	е	а	b	С	d	е
Average of the 5 subplots	93.4	4	•									•								

Litter cover is assessed as the average percentage ground cover of litter recorded from five 1 m x 1 m plots centred at 5, 15, 25, 35, 45 m along the plot midline. Litter cover includes leaves, seeds, twigs, branchlets and branches (less than 10 cm in diameter). Assessors may also record the cover of rock, bare ground and cryptogams.

Physiography + site features that may help in determining PCT and Management Zone (optional)

Morphological Type	Landform Element		Landform Pattern	Microrelief	
Lithology	Soil Surfa Texture	ce	Soil Colour	Soil Depth	
Slope	Aspect		Site Drainage	Distance to nearest water and type	

Plot Disturbance	Severity code	Age code	Observational evidence:
Clearing (inc. logging)			
Cultivation (inc. pasture)			
Soil erosion			
Firewood / CWD removal			
Grazing (identify native/stock)			
Fire damage			
Storm damage			
Weediness			
Other			

400 m ² plot: Sheet _ of _	Survey Name	Plot Identifier	Recorders
Date 15_/08_/18	TVH	102	Damian Licari and Christina Maloney

GF Code	Top 3 native species in each growth form group: Full species name mandatory All other native and exotic species: Full species name where practicable	N, E or HTE	Cover	Abund	stratum	voucher
Exotic	Syagrus romanzoffiana- Cocos Palm	Е	4	3	M,U	
Tree	Macaranga tanarius-Blush Macaranga	N	20		M,U	
Tree	Eucalyptus grandis- Flooded Gum	N	40		U	
Tree	Guioa semiglauca-Guioa	N	10		M,U	
HTE	Cinnamomum camphora- Camphor Laurel	HTE	35		M,U	
Other	Maclura cochinchinensis-Cockspur Thorn	N	4	10	G,M,U	
Other	Smilax australis-Lawyer Vine	N	10		G,M,U	
HTE	Bidens pilosa- Cobblers Pegs	HTE	15		G	
HTE	Schefflera actinophylla- Umbrella Tree	HTE	0.5	3	M,U	
HTE	Ochna serrulata- Mickey Mouse Plant	HTE	0.5	10	G	
Exotic	Solanum nigrum- Black-berry Nightshade	Е	0.2	15	G	
Exotic	Murraya paniculata- Murraya	Е	0.3	10	M,U	
HTE	Lantana camara- Lantana	HTE	0.2	5	G,M	
HTE	Asparagus aethiopicus- Ground Asparagus	HTE	0.1	3	G	
HTE	Ligustrum sinense- Small-leaved Privet	HTE	0.5	6	G,M	
HTE	Senna pendula- Senna	HTE	0.5	10	M,U	
HTE	Tradescantia fluminensis- Trad	HTE	0.1	10	G	
Forb	Oxalis sp Oxalis	N	0.1	1	G	
Exotic	Triumfetta rhomboidea- Chinese Bur	Е	10		G	
Other	Hibbertia scandens-Climbing Guinea Flower	N	0.1	2	G	
Exotic	Passiflora subpeltata- White Passionflower	Е	1	3	G,M	
Exotic	Cestrum nocturnum- Lady of the Night	Е	0.5	5	G,M	
Other	Stephania japonica-Snake vine	N	0.2	3	G,M	
Exotic	Passiflora suberosa- Cork Passionflower	Е	0.5	15	G,M	
HTE	Ageratina riparia- Mistflower	HTE	0.2	5	G	
HTE	Melinis minutiflora- Molasses Grass	HTE	10		G	
	27					
	28					
	29					
	30					
	31					
	32					
	33					
	34					
	35					
	36					
	37					
	38					
	39					
	40					

GF Code: see Growth Form definitions in Appendix 1 N:

N: native, E: exotic, HTE: high threat exotic

GF - circle code if 'top 3'.

Cover: 0.1, 0.2, 0.3, ..., 1, 2, 3, ..., 10, 15, 20, 25, ...100% (foliage cover); **Note:** 0.1% cover represents an area of approximately 63 x 63 cm or a circle about 71 cm across, 0.5% cover represents an area of approximately 1.4 x 1.4 m, and $1\% = 2.0 \times 2.0 \text{ m}$, $5\% = 4 \times 5 \text{ m}$, $25\% = 10 \times 10 \text{ m}$

Site Sheet no: 1

of 2

		Survey Name	Zone ID		Record	ers		
Date	03_/09_/18_	TVH	Veg Zone 3	Annette Mo	Christina	Maloney		
Zone <u>56</u>	Datum GDA1994	Plot ID	103	Plot dimensions	20mX50m	Photo #		
555433	6873550	IBRA region	IBRA region Burringbar-Conondale Ranges Midline bearing from 0 m					
Vegetation Clas	s	Subtropical R		Confidence: H M L				
Plant Communit	ту Туре	1302	Yes	Confidence: H M L				

Record easting and northing at 0 m on midline. Dimensions (Shape) of 0.04 ha base plot.

	A	
_,	Attribute m² plot)	Sum values
	Trees	8
	Shrubs	3
Count of Native	Grasses etc.	0
	Forbs	0
	Ferns	0
	Other	5
	Trees	31.5
Sum of Cover	Shrubs	0.7
of native vascular	Grasses etc.	0
plants by	Forbs	0
growth form group	Ferns	0
	Other	1.7
High Threat	Weed cover	19.1

	BAM Attribute (100	00 m² pl	lot)
DBH	# Tree Stems Count		# Stems with Hollows
80 + cm	0		
50 – 79 cm	0		
30 – 49 cm	present		0
20 – 29 cm	present		G
10 – 19 cm	present		
5 – 9 cm	present		
< 5 cm	present		n/a
Length of logs ((≥10 cm diameter, >50 cm in length)	space		

Counts apply when the **number of tree stems** within a size class is \leq 10. Estimates can be used when > 10 (eg. 10, 20, 30..., 100, 200, 300...). For a **multi-stemmed tree**, only the largest living stem is included in the count/estimate. **Tree stems must be living.**

For **hollows**, count only the presence of a stem containing hollows. For a **multi-stemmed tree**, only the largest stem is included in the count/estimate. **Stems may be dead and may be shrubs.**

BAM Attribute (1 x 1 m plots)	Litter cover (%)			Bare ground cover (%)				Cryptogam cover (%)				Rock cover (%)								
Subplot score (% in each)	85	75	75	95	95	а	b	С	d	е	а	b	С	d	е	а	b	С	d	е
Average of the 5 subplots	85	•	•	•																

Litter cover is assessed as the average percentage ground cover of litter recorded from five 1 m x 1 m plots centred at 5, 15, 25, 35, 45 m along the plot midline. Litter cover includes leaves, seeds, twigs, branchlets and branches (less than 10 cm in diameter). Assessors may also record the cover of rock, bare ground and cryptogams.

Physiography + site features that may help in determining PCT and Management Zone (optional)

Morphological	Landform	Landform	Microrelief
Type	Element	Pattern	
Lithology	Soil Surface	Soil	Soil
	Texture	Colour	Depth
Slope	Aspect	Site Drainage	Distance to nearest water and type

Plot Disturbance	Severity code	Age code	Observational evidence:
Clearing (inc. logging)	0		
Cultivation (inc. pasture)	1		Edge of plot
Soil erosion			
Firewood / CWD removal			
Grazing (identify native/stock)			
Fire damage			
Storm damage			
Weediness	2		Lantana camera, Madeira vine, elephant grass, Bidens pilosa
Other			

Severity: 0=no evidence, 1=light, 2=moderate, 3=severe

Age: R=recent (<3yrs), NR=not recent (3-10yrs), O=old (>10yrs)

400 m 2 plot: Sheet $_$ of $_$	Survey Name	Plot Identifier	Recorders
Date 03_/09_/18	TVH	103	Annette McKinley and Christina Maloney

Tree Macaranga tanarius-Blush Macaranga N 10 M.U Tree Diospyros fasciculosa-Grey Ebony N 0.5 1 U HTE Ligustrum sinense- Small-leaved Privet HTE 10 G,M Exotic Rivina humilis- Coral Berry E 1 50 G HTE Indius philippensis-Red Kamala N 2 2 M HTE Ligustrum sinense- Small-leaved Privet HTE 1 10 G,M.U HTE Ligustrum sinense- Small-leaved Privet HTE 1 10 G,M.U HTE Ipomoea cairica- Coastal Morning Glory HTE 1 10 G,M.U HTE Lantana camara-Lantana N 2 2 M HTE Lantana camara-Lantana HTE 4 2 G,M. Other Mucuna gigantea subsp. gigantea-Burny Bean N 0.5 4 G,M.U Exotic Passiflora edulis- Common Passionfruit E 0.1 1 G,M.U HTE Ochna serrulata- Mickey Mouse Plant HTE 1 10 G Other Trophis scandens-Burny Vine N 0.1 2 G,M. HTE Bidens pilosa- Cobblers Pegs HTE 3 500 G HTE Senna pendula- Senna HTE 0.1 2 M Exotic Persea americana-avocado E 0.5 2 M Tree Commersonia bartramia-Brown Kurrajong N 3 2 M.U Exotic Cenchrus purpureus- Barner Grass E 10 G Exotic Cestrum Sp. Cestrum Exotic Proposition Congesta- Narrow-leaved Palm Lily N 0.5 3 G Ficus fraseri-Sandpaper Fig N 1 1 M Diher Cordyline congesta- Narrow-leaved Palm Lily N 0.5 1 M, U Passiflora suberosa- Cork Passionflower E 0.1 2 G,M.U Passiflora suberosa- Cork Passionflower E 0.1 2 G,M.U Passiflora suberosa- Cork Passionflower E 0.1 1 G Exotic Paspailum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 37 48	GF Code	Top 3 native species in each growth form group: Full species name mandatory All other native and exotic species: Full species name where practicable	N, E or HTE	Cover	Abund	stratum	voucher
Tree Diospyros fasciculosa-Grey Ebony	Tree	Guioa semiglauca-Guioa	N	8		M,U	
HTE Ligustrum sinense- Small-leaved Privet HTE 10 G,M Exotic Rivina humilis- Coral Berry E 1 50 G HTE Ipomoea cairica- Coastal Morning Glory HTE 1 10 G,M,U Tree Mallotus philippensis-Red Kamala N 2 2 M HTE Lantana camara-Lantana HTE 4 2 G,M Cher Mucuna gigantea subsp. gigantea-Burny Bean N 0.5 4 G,M,U Exotic Passiflora edulis- Common Passionfruit E 0.1 1 G,M,U China serrulata- Mickey Mouse Plant HTE 1 10 G Chiner Trophis scandens-Burny Vine N 0.1 2 G,M HTE Bidens pilosa- Cobblers Pegs HTE 3 500 G HTE Bidens pilosa- Cobblers Pegs HTE 3 500 G HTE Senna pendula- Senna HTE 0.1 2 M Exotic Persea americana-avocado E 0.5 2 M Tree Commersonia bartramia-Brown Kurrajong N 3 2 M,U Exotic Cenchrus purpureus- Barner Grass E 10 G Exotic Solanum mauritianum- Wild Tobacco Bush E 0.5 3 M Murraya paniculata-Murraya E 0.1 1 M Exotic Cestrum sp. Cestrum E 0.1 1 M Exotic Cestrum sp. Cestrum E 1 1 M Cother Cordyline congesta- Narrow-leaved Palm Lily N 0.5 3 G Shrub Eupomatia bennettii-Small Bolwarra N 0.1 1 M Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 0.5 1 M The Flagellaria indica-Whip Vine N 0.5 1 M Shrub Capparis arborea-Native Pomegranate N 0.5 1 M Tabernaemontana pandacaqui-Banana Bush N 0.1 1 G Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Monstera deliciosa-Frui	Tree	Macaranga tanarius-Blush Macaranga	N	10		M,U	
Exotic Rivina humilis- Coral Berry E 1 50 G	Tree	Diospyros fasciculosa-Grey Ebony	N	0.5	1	U	
Exotic Rivina humilis- Coral Berry E 1 50 G HTE Ipomoea cairica- Coastal Morning Glory HTE 1 10 G,M,U ITE Ipomoea cairica- Coastal Morning Glory HTE 1 10 G,M,U ITE Ipomoea cairica- Coastal Morning Glory HTE 1 10 G,M,U ITE Ipomoea cairica- Coastal Morning Glory HTE 1 10 G G,M,U ITE Ipomoea camara-Lantana HTE 4 2 G,M ITE Ipomoea camara-Lantana HTE 1 10 G Ipomoea common Passionfruit E 0.1 1 G,M,U Inch Ipomoea common Passionfruit E 0.1 1 G,M,U Inch Ipomoea common Passionfruit E 0.1 1 Ipomoea camara-Lantana Item Item Ipomoea camara-Lantana Item	HTE	Ligustrum sinense- Small-leaved Privet	HTE	10		G,M	
Tree Mallotus philippensis-Red Kamala N 2 2 M HTE Lantana camara-Lantana HTE 4 2 G,M Other Mucuna gigantea subsp. gigantea-Burny Bean N 0.5 4 G,M,U Passiflora edulis- Common Passionfruit E 0.1 1 G,M,U HTE Ochna serrulata- Mickey Mouse Plant HTE 1 10 G Other Trophis scandens-Burny Vine N 0.1 2 G,M HTE Bidens pilosa- Cobblers Pegs HTE 3 500 G HTE Senna pendula- Senna HTE 0.1 2 M Persea americana-avocado E 0.5 2 M Commersonia bartramia-Brown Kurrajong N 3 2 M,U Commersonia bartramia-Brown Kurrajong N 3 2 M,U Conchrus purpureus- Barner Grass E 10 G Conchrus purpureus- Barner Grass E 10 G Conchrus purpureus- Barner Grass E 10 G Conchrus purpureus- Barner Grass E 10 M Ficus fraseri-Sandpaper Fig Exotic Murraya paniculata-Murraya E 0.1 1 M Ficus fraseri-Sandpaper Fig N 1 1 M Cother Cordyline congesta- Narrow-leaved Palm Lily N 0.5 3 G Exotic Passiflora suberosa- Cork Passionflower E 0.1 2 G,M,U Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Other Graparis arborea-Native Pomegranate N 0.1 1 M M Tabernaemontana pandacaqui-Banana Bush N 0.1 1 M M Tabernaemontana pandacaqui-Banana Bush N 0.1 1 G M,U Monstera deliciosa-Fruit Salad Plant Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U	Exotic	Rivina humilis- Coral Berry	Е	1	50	G	
HTE	HTE	Ipomoea cairica- Coastal Morning Glory	HTE	1	10	G,M,U	
Other Mucuna gigantea subsp. gigantea-Burny Bean N 0.5 4 G,M,U Exotic Passiflora edulis- Common Passionfruit E 0.1 1 G,M,U Other Trophis scandens-Burny Vine N 0.1 2 G,M HTE Bidens pilosa- Cobblers Pegs HTE Senna pendula- Senna HTE 0.1 2 M Exotic Persea americana-avocado E 0.5 2 M Exotic Cenchrus purpureus- Barner Grass E 10 G Exotic Cenchrus purpureus- Barner Grass E 10 G Exotic Cenchrus purpureus- Barner Grass E 10 G Exotic Cenchrus purpureus- Barner Grass E 10 M Exotic Cenchrus purpureus- Barner Grass E 10 G Exotic Cenchrus purpureus- Barner Grass E 0.5 3 M Exotic Cenchrus purpureus- Barner Grass E 0.5 3 M Exotic Cenchrus purpureus- Barner Grass E 0.5 3 M Exotic Cenchrus purpureus- Barner Grass E 0.5 3 M Exotic Cenchrus purpureus- Barner Grass E 0.5 3 M Exotic Cenchrus purpureus- Barner Grass E 0.5 3 M Exotic Cestrum sp. Cestrum Pilo Pala Pala Pala Pala Pala Pala Pala Pa	Tree	Mallotus philippensis-Red Kamala	N	2	2	М	
Exotic Passiflora edulis- Common Passionfruit E 0.1 1 G,M,U HTE Ochna serrulata- Mickey Mouse Plant HTE 1 10 G Other Trophis scandens-Burny Vine N 0.1 2 G,M HTE Bidens pilosa- Cobblers Pegs HTE 3 500 G HTE Senna pendula- Senna HTE 0.1 2 M Exotic Persea americana-avocado E 0.5 2 M Tree Commersonia bartramia-Brown Kurrajong N 3 2 M,U Exotic Cenchrus purpureus- Barner Grass E 10 G Exotic Solanum mauritianum- Wild Tobacco Bush E 0.5 3 M Exotic Murraya paniculata-Murraya E 0.1 1 M Tree Ficus fraseri-Sandpaper Fig N 1 1 M Cother Cordyline congesta- Narrow-leaved Palm Lily N 0.5 3 G Shrub Eupomatia bennettii-Small Bolwarra N 0.1 1 M Exotic Passiflora suberosa- Cork Passionflower E 0.1 2 G,M,U Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Other Flagellaria indica-Whip Vine N 0.5 1 M,U Shrub Capparis arborea-Native Pomegranate N 0.1 1 M Tabernaemontana pandacaqui-Banana Bush N 0.1 1 M Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G Macdura cochinchinensis-Cockspur Thorn N 0.1 1 G Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U	HTE	Lantana camara-Lantana	HTE	4	2	G,M	
Exotic Passiflora edulis- Common Passionfruit E 0.1 1 G,M,U HTE Ochna serrulata- Mickey Mouse Plant HTE 1 10 G Other Trophis scandens-Burny Vine N 0.1 2 G,M HTE Bidens pilosa- Cobblers Pegs HTE 3 500 G HTE Senna pendula- Senna HTE 0.1 2 M Exotic Persea americana-avocado E 0.5 2 M Tree Commersonia bartramia-Brown Kurrajong N 3 2 M,U Exotic Cenchrus purpureus- Barner Grass E 10 G Exotic Solanum mauritianum- Wild Tobacco Bush E 0.5 3 M Exotic Murraya paniculata-Murraya E 0.1 1 M Tree Ficus fraseri-Sandpaper Fig N 1 1 M Exotic Cestrum sp. Cestrum E 1 1 M Other Cordyline congesta- Narrow-leaved Palm Lily N 0.5 3 G Shrub Eupomatia bennettii-Small Bolwarra N 0.1 1 M Exotic Passiflora suberosa- Cork Passionflower E 0.1 2 G,M,U Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Other Flagellaria indica-Whip Vine N 0.5 1 M,U Shrub Capparis arborea-Native Pomegranate N 0.1 1 M Tabernaemontana pandacaqui-Banana Bush N 0.1 1 G,M,U Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U	Other	Mucuna gigantea subsp. gigantea-Burny Bean	N	0.5	4	G,M,U	
HTE Ochna serrulata- Mickey Mouse Plant HTE 1 10 G Other Trophis scandens-Burny Vine N 0.1 2 G,M HTE Bidens pilosa- Cobblers Pegs HTE 3 500 G HTE Senna pendula- Senna HTE 0.1 2 M Persea americana-avocado E 0.5 2 M Commersonia bartramia-Brown Kurrajong N 3 2 M,U Exotic Cenchrus purpureus- Barner Grass E 10 G Exotic Solanum mauritianum- Wild Tobacco Bush E 0.5 3 M Exotic Murraya paniculata-Murraya E 0.1 1 M Exotic Cestrum sp. Cestrum E 1 1 M Exotic Cestrum sp. Cestrum E 1 1 M Other Cordyline congesta- Narrow-leaved Palm Lily N 0.5 3 G Shrub Eupomatia bennettii-Small Bolwarra N 0.1 1 M Exotic Passiflora suberosa- Cork Passionflower E 0.1 2 G,M,U Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Other Flagellaria indica-Whip Vine N 0.5 1 M,U Shrub Tabernaemontana pandacaqui-Banana Bush N 0.1 1 G Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 38 36 37 38	Exotic		Е	0.1	1		
HTE Bidens pilosa- Cobblers Pegs HTE 3 500 G HTE Senna pendula- Senna HTE 0.1 2 M Exotic Persea americana-avocado E 0.5 2 M Tree Commersonia bartramia-Brown Kurrajong N 3 2 M,U Exotic Cenchrus purpureus- Barner Grass E 10 G Exotic Solanum mauritianum- Wild Tobacco Bush E 0.5 3 M Exotic Solanum mauritianum- Wild Tobacco Bush E 0.5 3 M Exotic Solanum mauritianum- Wild Tobacco Bush E 0.1 1 M Exotic Colarum mauritianum- Wild Tobacco Bush E 0.1 1 M Tree Ficus fraseri-Sandpaper Fig N 1 1 M Costrum sp. Cestrum E 0.1 1 M Other Costrum sp. Cestrum N 0.5 3 G Shrub Euoinatia Suberosa- Cork Pa	HTE	Ochna serrulata- Mickey Mouse Plant	HTE	1	10		
HTE Senna pendula- Senna HTE 0.1 2 M Exotic Persea americana-avocado E 0.5 2 M Tree Commersonia bartramia-Brown Kurrajong N 3 2 M,U Exotic Cenchrus purpureus- Barner Grass E 10 G Exotic Solanum mauritianum- Wild Tobacco Bush E 0.5 3 M Exotic Murraya paniculata-Murraya E 0.1 1 M Tree Ficus fraseri-Sandpaper Fig N 1 1 M Exotic Cestrum sp. Cestrum Cordyline congesta- Narrow-leaved Palm Lily N 0.5 3 G Shrub Eupomatia bennettii-Small Bolwarra N 0.1 1 M Exotic Passiflora suberosa- Cork Passionflower E 0.1 2 G,M,U Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1.5 G,M Other Flagellaria indica-Whip Vine N 0.5 1 M,U Shrub Capparis arborea-Native Pomegranate N 0.5 1 M Shrub Tabernaemontana pandacaqui-Banana Bush N 0.1 1 G,M,U Exotic Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 38 39 39 39 39 39 39 30 30 30 30 31 31 32 31 31 32 31 33 34 35 36 37 38	Other	Trophis scandens-Burny Vine	N	0.1	2	G,M	
Exotic Persea americana-avocado E 0.5 2 M U Tree Commersonia bartramia-Brown Kurrajong N 3 2 M,U Exotic Cenchrus purpureus- Barner Grass E 10 G Exotic Solanum mauritianum- Wild Tobacco Bush E 0.5 3 M Exotic Murraya paniculata-Murraya E 0.1 1 M Exotic Cestrum sp. Cestrum E 1 1 M Exotic Cestrum sp. Cestrum E 1 1 M Exotic Costrum sp. Cestrum E 1 1 M M Exotic Cordyline congesta- Narrow-leaved Palm Lily N 0.5 3 G Shrub Eupomatia bennettii-Small Bolwarra N 0.1 1 M Exotic Passiflora suberosa- Cork Passionflower E 0.1 2 G,M,U Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Other Flagellaria indica-Whip Vine N 0.5 1 M,U Shrub Capparis arborea-Native Pomegranate N 0.1 1 M Exotic Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G,M,U Exotic Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Exotic Pasp	HTE	Bidens pilosa- Cobblers Pegs	HTE	3	500		
Tree Commersonia bartramia-Brown Kurrajong N 3 2 M,U Exotic Cenchrus purpureus- Barner Grass E 10 G Exotic Solanum mauritianum- Wild Tobacco Bush E 0.5 3 M Exotic Murraya paniculata-Murraya E 0.1 1 M Tree Ficus fraseri-Sandpaper Fig N 1 1 M Exotic Cestrum sp. Cestrum E 1 1 M Other Cordyline congesta- Narrow-leaved Palm Lily N 0.5 3 G Shrub Eupomatia bennettii-Small Bolwarra N 0.1 1 M Exotic Passiflora suberosa- Cork Passionflower E 0.1 2 G,M,U Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Other Flagellaria indica-Whip Vine N 0.5 1 M,U Shrub Capparis arborea-Native Pomegranate N 0.1 1 M Shrub Tabernaemontana pandacaqui-Banana Bush N 0.1 1 M Other Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G,M,U Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	HTE	Senna pendula- Senna	HTE	0.1	2	M	
Exotic Cenchrus purpureus- Barner Grass	Exotic	Persea americana-avocado	Е	0.5	2	М	
Exotic Solanum mauritianum- Wild Tobacco Bush E 0.5 3 M Exotic Murraya paniculata-Murraya E 0.1 1 M Tree Ficus fraseri-Sandpaper Fig N 1 1 M Exotic Cestrum sp. Cestrum E 1 1 M Other Cordyline congesta- Narrow-leaved Palm Lily N 0.5 3 G Shrub Eupomatia bennettii-Small Bolwarra N 0.1 1 M Exotic Passiflora suberosa- Cork Passionflower E 0.1 2 G,M,U Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Other Flagellaria indica-Whip Vine N 0.5 1 M,U Shrub Capparis arborea-Native Pomegranate N 0.5 1 M Shrub Tabernaemontana pandacaqui-Banana Bush N 0.1 1 M Other Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G,M,U Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	Tree	Commersonia bartramia-Brown Kurrajong	N	3	2	M,U	
Exotic Murraya paniculata-Murraya Tree Ficus fraseri-Sandpaper Fig N 1 1 M Exotic Cestrum sp. Cestrum Cordyline congesta- Narrow-leaved Palm Lily N 0.5 3 G Shrub Eupomatia bennettii-Small Bolwarra N 0.1 1 M Exotic Passiflora suberosa- Cork Passionflower E 0.1 2 G,M,U Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Other Flagellaria indica-Whip Vine N 0.5 1 M,U Shrub Capparis arborea-Native Pomegranate N 0.5 1 M Shrub Tabernaemontana pandacaqui-Banana Bush N 0.1 1 M Other Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G,M,U Exotic Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	Exotic	Cenchrus purpureus- Barner Grass	Е	10		G	
Tree Ficus fraseri-Sandpaper Fig N 1 1 M Exotic Cestrum sp. Cestrum PC Cordyline congesta- Narrow-leaved Palm Lily N 0.5 3 G Shrub Eupomatia bennettii-Small Bolwarra N 0.1 1 M Exotic Passiflora suberosa- Cork Passionflower E 0.1 2 G,M,U Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Other Flagellaria indica-Whip Vine N 0.5 1 M,U Shrub Capparis arborea-Native Pomegranate N 0.5 1 M Shrub Tabernaemontana pandacaqui-Banana Bush N 0.1 1 M M Other Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G,M,U Exotic Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 37 38	Exotic	Solanum mauritianum- Wild Tobacco Bush	E	0.5	3	М	
Exotic Cestrum sp. Cestrum Other Cordyline congesta- Narrow-leaved Palm Lily N 0.5 3 G Shrub Eupomatia bennettii-Small Bolwarra N 0.1 1 M Exotic Passiflora suberosa- Cork Passionflower Free Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Other Flagellaria indica-Whip Vine N 0.5 1 M,U Shrub Capparis arborea-Native Pomegranate N 0.5 1 M Shrub Tabernaemontana pandacaqui-Banana Bush Other Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G,M,U Exotic Monstera deliciosa-Fruit Salad Plant Exotic Paspalum mandiocanum-Boradleaf Paspalum Free Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	Exotic	Murraya paniculata-Murraya	Е	0.1	1	M	
Other Cordyline congesta- Narrow-leaved Palm Lily N 0.5 3 G Shrub Eupomatia bennettii-Small Bolwarra N 0.1 1 M Exotic Passiflora suberosa- Cork Passionflower E 0.1 2 G,M,U Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Other Flagellaria indica-Whip Vine N 0.5 1 M,U Shrub Capparis arborea-Native Pomegranate N 0.5 1 M Shrub Tabernaemontana pandacaqui-Banana Bush N 0.1 1 M Other Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G,M,U Exotic Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	Tree	Eicus fraseri-Sandpaper Fig	N	1	1	М	
Shrub Eupomatia bennettii-Small Bolwarra N 0.1 1 M Exotic Passiflora suberosa- Cork Passionflower E 0.1 2 G,M,U Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Other Flagellaria indica-Whip Vine N 0.5 1 M,U Shrub Capparis arborea-Native Pomegranate N 0.5 1 M Shrub Tabernaemontana pandacaqui-Banana Bush N 0.1 1 M Other Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G,M,U Exotic Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	Exotic	Cestrum sp. Cestrum	Е	1	1	М	
Exotic Passiflora suberosa- Cork Passionflower Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Other Flagellaria indica-Whip Vine N 0.5 1 M,U Shrub Capparis arborea-Native Pomegranate N 0.5 1 M Shrub Tabernaemontana pandacaqui-Banana Bush N 0.1 1 M Other Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G,M,U Exotic Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	Other	Cordyline congesta- Narrow-leaved Palm Lily	N	0.5	3	G	
Tree Cryptocarya triplinervis var. triplinervis-3 veined laurel N 1 5 G,M Other Flagellaria indica-Whip Vine N 0.5 1 M,U Shrub Capparis arborea-Native Pomegranate N 0.5 1 M Shrub Tabernaemontana pandacaqui-Banana Bush N 0.1 1 M Other Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G,M,U Exotic Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	Shrub	Eupomatia bennettii-Small Bolwarra	N	0.1	1	М	
Other Elagellaria indica-Whip Vine Shrub Capparis arborea-Native Pomegranate N 0.5 1 M Shrub Tabernaemontana pandacaqui-Banana Bush Other Maclura cochinchinensis-Cockspur Thorn Exotic Monstera deliciosa-Fruit Salad Plant Exotic Paspalum mandiocanum-Boradleaf Paspalum Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	Exotic	Passiflora suberosa- Cork Passionflower	Е	0.1	2	G,M,L	J
Shrub Capparis arborea-Native Pomegranate N 0.5 1 M Shrub Tabernaemontana pandacaqui-Banana Bush N 0.1 1 M Other Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G,M,U Exotic Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	Tree	Cryptocarya triplinervis var. triplinervis-3 veined laurel	N	1	5	G,M	
Shrub Tabernaemontana pandacaqui-Banana Bush N 0.1 1 M Other Maclura cochinchinensis-Cockspur Thorn N 0.1 1 G,M,U Exotic Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	Other	Elagellaria indica-Whip Vine	N	0.5	1	M,U	
Other Maclura cochinchinensis-Cockspur Thorn Exotic Monstera deliciosa-Fruit Salad Plant Exotic Paspalum mandiocanum-Boradleaf Paspalum Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	Shrub	Capparis arborea-Native Pomegranate	N	0.5	1	М	
Exotic Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	Shrub	Tabernaemontana pandacagui-Banana Bush	N	0.1	1	М	
Exotic Monstera deliciosa-Fruit Salad Plant E 0.2 1 G Exotic Paspalum mandiocanum-Boradleaf Paspalum E 0.1 1 G Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	Other	Maclura cochinchinensis-Cockspur Thorn	N	0.1	1	G,M,U	
Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 37 38 38 38 38 38 38 38 30 3	Exotic	Monstera deliciosa-Fruit Salad Plant	Е	0.2	1		
Tree Macadamia integrifolia <-> tetraphylla hybrid N 6 5 M,U 33 34 35 36 37 38	Exotic	Paspalum mandiocanum-Boradleaf Paspalum	Е	0.1	1	G	
33 34 35 36 37 38	Tree		N	6	5	M,U	
35 36 37 38						,	
36 37 38 38		34					
37 38		35					
38		36					
		37					
		38					
39		39					
40		40					

GF Code: see Growth Form definitions in Appendix 1 N: native, **E:** exotic, **HTE:** hi

N: native, E: exotic, HTE: high threat exotic GF – circle code if 'top 3'.

Cover: 0.1, 0.2, 0.3, ..., 1, 2, 3, ..., 10, 15, 20, 25, ...100% (foliage cover); **Note:** 0.1% cover represents an area of approximately 63 x 63 cm or a circle about 71 cm across, 0.5% cover represents an area of approximately 1.4 x 1.4 m, and $1\% = 2.0 \times 2.0 \text{ m}$, $5\% = 4 \times 5 \text{ m}$, $25\% = 10 \times 10 \text{ m}$



Tweed Valley Hospital

APPENDIX C. FLORISTIC VEGETATION SURVEY SUMMARY OF RESULTS

Plot Name	Scientific Name	Common Name	Growth Form Group	Stratum	Species Type	Cover	Abundance			
					Plot 19					
19	Baumea rubiginosa	Soft twigrush	Grass or grass like	G	Native	0.5	30	Growth Form Group	Count of Native Species Richness	Sum of Cover
19	Blechnum indicum	Swamp Water Fern	Fern	G	Native	50	-	Tree	4	30.3
19	Crinum pedunculatum	Swamp Lily	Forb	G, M	Native	0.1	3	Shrub	1	0.2
19	Glochidion ferdinandi	Cheese Tree	Tree	G	Native	0.1	1	Forb	5	30.3
19	Hibiscus diversifolius	Swamp Hibiscus	Shrub	M	Native	0.2	2	Grass or grass like	2	10.5
19	Hypolepis muelleri	Harsh Ground Fern	Fern	G	Native	0.1	2	Fern	3	50.4
19	Ipomoea cairica	Coastal Morning Glory	N/A	G, M	Hight Threat Exotic	10	-	Other	1	15
19	Lygodium microphyllum	Climbing Snake Fern	Fern	M	Native	0.3	2	High Threat Weed Cover	10	
19	Macaranga tanarius	Blush Macaranga	Tree	G	Native	0.1	1	DBH (cm)	Stem Count	
19	Melaleuca quinquenervia	Broad-leaved Paperbark	Tree	U	Native	30	-	>80 cm	0	
19	Melicope elleryana	Pink-flowered Doughwood	Tree	M	Native	0.1	1	50-79	0	
19	Parsonsia straminea	Common Silkpod	Other	U	Native	15	-	30-49	Present	
19	Paspalum conjugatum	Sour Grass	N/A	G	Exotic	40	-	20-29	Present	
19	Persicaria dichotoma	Blume	Forb	G	Native	0.1	3	10-19	Present	
19	Persicaria sp.	Persicaria	Forb	G	Native	10	-	5-9	Absent	
19	Persicaria strigosa	Spotted Knotweed	Forb	G	Native	20	-	<5	Present	
19	Phragmites australis	Common Reed	Grass or grass like	G	Native	10	-	Stems with hollow (No.)	0	
19	Solanum americanum	Glossy Nightshade	Forb	G	Native	0.1	2	Length of logs (m)	253.5	
								Litter plot	Litter cover	
								1	100	
								2	100	
								3	100]
								4	100	
								5	100	
								Average	100	

					Plot 16					
16	Archontophoenix cunninghamiana	Bangalow Palm	Other	M	Native	10	-	Growth Form Group	Count of Native Species Richness	Sum of Cove
16	Baumea rubiginosa	Soft twigrush	Grass or grass like	G	Native	5	100	Tree	5	26.8
16	Blechnum indicum	Swamp Water Fern	Fern	G	Native	90	-	Shrub	2	0.7
16	Carex appressa	Tall Sedge	Grass or grass like	G	Native	5	40	Forb	1	10
16	Cinnamomum camphora	Camphor Laurel	N/A	G, M	Hight Threat Exotic	3	20	Grass or grass like	5	40
16	Ficus coronata	Creek Sandpaper Fig	Shrub	М	Native	0.2	3	Fern	2	120
16	Ficus macrophylla	Moreton Bay Fig	Tree	М	Native	1	3	Other	2	25
16	Ficus obliqua	Small-leaved Fig	Tree	М	Native	0.5	1	High Threat Weed Cover	13.5	
16	Glochidion ferdinandi var.pubens	Cheese Tree	Tree	G	Native	0.3	1	DBH (cm)	Stem Count	
16	Hypolepis muelleri	Harsh Ground Fern	Fern	G	Native	30	-	>80 cm	0	
16	Ipomoea cairica	Coastal Morning Glory	N/A	G, M	Hight Threat Exotic	10	-	50-79	0	
16	Leersia hexandra	Swamp Ricegrass	Grass or grass like	G	Native	10	-	30-49	Present	
16	Lepironia articulata	Grey Rush	Grass or grass like	G	Native	10	-	20-29	Present	
16	Melaleuca quinquenervia	Broad-leaved Paperbark	Tree	U	Native	20	-	10-19	Present	
16	Melicope elleryana	Pink-flowered Doughwood	Tree	М	Native	5	4	5-9	Present	
16	Myrsine Howittiana	Brush Muttonwood	Shrub	М	Native	0.5	1	<5	Present	
16	Parsonsia straminea	Common Silkpod	Other	U	Native	15	-	Stems with hollow (No.)	1	
16	Persicaria strigosa	Spotted Knotweed	Forb	G	Native	10	-	Length of logs (m)	252	
16	Phragmites australis	Common Reed	Grass or grass like	G	Native	10	-	Litter plot	Litter cover	
16	Schefflera actinophylla	Umbrella Tree	N/A	М	Hight Threat Exotic	0.5	1	1	95	
								2	70	
								3	80	1
								4	95	
								5	100	1
								Average	88	1

	Plot 11											
11	Acmena smithii	Lilly Pilly	Tree	M	Native	3	1	Growth Form Group	Count of Native Species Richness	Sum of Cover		
11	Alocasia brisbanensis	Cunjevoi	Forb	G	Native	2	10	Tree	6	110.1		
11	Alpinia caerulea	Native Ginger	Forb	G	Native	1	10	Shrub	0	0		
11	Archontophoenix alexandrae	Alexandra Palm	N/A	G,M, U	Exotic	56	-	Forb	2	3		

Plot Name	Scientific Name	Common Name	Growth Form Group	Stratum	Species Type	Cover	Abundance			
11	Archontophoenix cunninghamiana	Bangalow Palm	Other	G,M, U	Native	14	-	Grass or grass like	1	0.1
11	Christella dentata	Binung	Fern	G	Native	0.2	2	Fern	1	0.2
11	Cinnamomum camphora	Camphor Laurel	N/A	М	Hight Threat Exotic	0.1	2	Other	6	39.4
11	Cordyline congesta	Narrow-leaved Palm Lily	Other	G, M	Native	0.1	2	High Threat Weed Cover	9.4	
11	Ficus coronata	Creek Sandpaper Fig	Tree	M	Native	2	3	DBH (cm)	Stem Count	
11	Ficus macrophylla	Moreton Bay Fig	Tree	U	Native	80	-	>80 cm	2	
11	Ficus obliqua	Small-leaved Fig	Tree	U	Native	20	-	50-79	2	
11	Flagellaria indica	Whip Vine	Other	U	Native	15	-	30-49	Present	
11	Ipomoea indica	Morning Glory	N/A	M, U	Hight Threat Exotic	2	5	20-29	Present	
11	Lantana camara	Lantana	N/A	G, M	Hight Threat Exotic	0.2	2	10-19	Present	
11	Ligustrum sinense	Small-leaved Privet	N/A	G, M	Hight Threat Exotic	2	5	5-9	Present	
11	Macaranga tanarius	Blush Macaranga	Tree	G	Native	0.1	5	<5	Present	
11	Maclura cochinchinensis	Cockspur Thorn	Other	G, M, U	Native	10	-	Stems with hollow (No.)	3	
11	Melaleuca quinquenervia	Broad-leaved Paperbark	Tree	M	Native	5	1	Length of logs (m)	119.5	
11	Mucuna gigantea subsp. gigantea	Burny Bean	Other	G, M	Native	0.2	5	Litter plot	Litter cover	
11	Murraya paniculata	Murraya	N/A	G, M	Exotic	0.4	1	1	80	
11	Ochna serrulata	Mickey Mouse Plant	N/A	G	Hight Threat Exotic	0.1	2	2	75	
11	Oplismenus aemulus	Australian Basket Grass	Grass or grass like	G	Native	0.1	5	3	95	
11	Schefflera actinophylla	Umbrella Tree	N/A	G, M	Hight Threat Exotic	5	10	4	100	
11	Smilax australis	Lawyer Vine	Other	M, U	Native	0.1	5	5	100	
11	Solanum chrysotrichum	Devil's Fig	N/A	G	Exotic	0.1	2	Average	90	
11	Solanum mauritianum	Wild Tobacco Bush	N/A	M	Exotic	0.2	1	_		

								_		
					Plot 99					
99	Asparagus aethiopicus	Ground Asparagus	N/A	G	Hight Threat Exotic	10	-	Growth Form Group	Count of Native Species Richness	Sum of Cove
99	Bidens pilosa	Cobblers Pegs	N/A	G	Hight Threat Exotic	2	20	Tree	2	90
99	Chloris gayana	Rhodes Grass	N/A	G	Hight Threat Exotic	10	-	Shrub	0	0
99	Cinnamomum camphora	Camphor Laurel	N/A	M, U	Hight Threat Exotic	10	-	Forb	0	0
99	Cupaniopsis anacardioides	Tuckeroo	Tree	M, U	Native	10	2	Grass or grass like	0	0
99	Macaranga tanarius	Blush Macaranga	Tree	M, U	Native	80	-	Fern	0	0
99	Ochna serrulata	Mickey Mouse Plant	N/A	G	Hight Threat Exotic	5	10	Other	1	1
99	Parsonsia straminea	Common Silkpod	Other	U	Native	1	1	High Threat Weed Cover	42	
99	Schefflera actinophylla	Umbrella Tree	N/A	M, U	Hight Threat Exotic	5	4	DBH (cm)	Stem Count	
99	Sonchus asper	Prickly Sowthistle	N/A	G	Exotic	0.1	5	>80 cm	0]
99	Strelizia Sp.	Strelizia	N/A	G	Exotic	0.1	1	50-79	0	
								30-49	Present]
								20-29	Present	
								10-19	Present	
								5-9	Present	

50-79	0
30-49	Present
20-29	Present
10-19	Present
5-9	Present
<5	Present
Stems with hollow (No.)	0
Length of logs (m)	34.5
Litter plot	Litter cover
1	85
2	40
3	10
4	70
5	50
Average	51

					Plot 98					
98	Amylotheca dictyophleba	Brush Mistletoe	Other	M	Native	0.2	5	Growth Form Group	Count of Native Species Richness	Sum of Cover
98	Archontophoenix cunninghamiana	Bangalow Palm	Other	G, M	Native	0.5	1	Tree	6	42
98	Asparagus aethiopicus	Ground Asparagus	N/A	G	Hight Threat Exotic	10	-	Shrub	0	0
98	Bidens pilosa	Cobblers Pegs	N/A	G	Hight Threat Exotic	5	50	Forb	0	0
98	Chloris gayana	Rhodes Grass	N/A	G	Hight Threat Exotic	1	20	Grass or grass like	0	0
98	Cinnamomum camphora	Camphor Laurel	N/A	M, U	Hight Threat Exotic	5	5	Fern	0	0
98	Cryptocarya triplinervis var. tripliner	Three-veined laurel	Tree	M	Native	2	5	Other	5	4.7
98	Cupaniopsis anacardioides	Tuckeroo	Tree	Μ,	Native	4	3	High Threat Weed Cover	106	

Plot Name	Scientific Name	Common Name	Growth Form Group	Stratum	Species Type	Cover	Abundance		
98	Eragrostis tenuifolia	Elastic Grass	N/A	G	Exotic	10	-	DBH (cm)	Stem Count
98	Guioa semiglauca	Guioa	Tree	M	Native	3	5	>80 cm	0
98	Ipomoea cairica	Coastal Morning Glory	N/A	M, U	Hight Threat Exotic	5	10	50-79	0
98	Macaranga tanarius	Blush Macaranga	Tree	M	Native	30	-	30-49	Absent
98	Maclura cochinchinensis	Cockspur Thorn	Other	G, M	Native	1	1	20-29	Present
98	Mallotus discolor	White Kamala	Tree	M	Native	1	1	10-19	Present
98	Mallotus philippensis	Red Kamala	Tree	M	Native	2	3	5-9	Present
98	Murraya paniculata	Murraya	N/A	М	Exotic	0.5	2	<5	Present
98	Ochna serrulata	Mickey Mouse Plant	N/A	M	Hight Threat Exotic	2	5	Stems with hollow (No.)	0
98	Parsonsia straminea	Common Silkpod	Other	M, U	Native	2	3	Length of logs (m)	0
98	Pinus elliottii	Slash Pine	N/A	U	Hight Threat Exotic	75	-	Litter plot	Litter cover
98	Rhaphiolepis indica	Indian Hawthorn	N/A	M	Exotic	1	1	1	100
98	Schefflera actinophylla	Umbrella Tree	N/A	M, U	Hight Threat Exotic	2	5	2	40
98	Senna pendula	Senna	N/A	M	Hight Threat Exotic	1	1	3	100
98	Smilax australis	Lawyer Vine	Other	M, U	Native	1	3	4	60
98	Syagrus romanzoffiana	Cocos Palm	N/A	M	Exotic	2	1	5	100
							•	Average	80

					Plot 100					
100	Bidens pilosa	Cobblers Pegs	N/A	G	Hight Threat Exotic	10	-	Growth Form Group	Count of Native Species Richness	Sum of Cover
100	Callistemon viminalis	Weeping Bottlebrush	Tree	M	Native	10		Tree	4	35.8
100	Casuarina glauca	Swamp Oak	Tree	U	Native	25	-	Shrub	0	0
100	Chloris gayana	Rhodes Grass	N/A	G	Hight Threat Exotic	10	-	Forb	1	0.1
100	Diplocyclos palmatus	Native bryony	Other	М	Native	3	3	Grass or grass like	0	0
100	Ipomoea cairica	Coastal Morning Glory	N/A	M, U	Hight Threat Exotic	6	-	Fern	0	0
100	Ipomoea indica	Morning Glory	N/A	M, U	Hight Threat Exotic	3	10	Other	1	3
100	Lantana camara	Lantana	N/A	M	Hight Threat Exotic	2	3	High Threat Weed Cover	33.3	
100	Macaranga tanarius	Blush Macaranga	Tree	M	Native	0.5	10	DBH (cm)	Stem Count	
100	Macroptilium atropurpureum	Siratro	N/A	G	Exotic	2	3	>80 cm	0	
100	Mallotus philippensis	Red Kamala	Tree	M	Native	0.3	1	50-79	1	
100	Megathyrsus maximus var. coloratus	Guinea Grass	N/A	G	Exotic	15	-	30-49	Present	
100	Melinis repens	Red Natal Grass	N/A	G	Exotic	0.1	2	20-29	Present	
100	Oxalis Sp.	Oxalis	Forb	G	Native	0.1	1	10-19	Present	
100	Passiflora subpeltata	White Passionflower	N/A	G, M	Exotic	3	3	5-9	Present	
100	Cenchrus purpureus	Barner Grass	N/A	M	Exotic	35	-	<5	Present	
100	Ricinus communis	Castor Oil Plant	N/A	М	Hight Threat Exotic	0.2	1	Stems with hollow (No.)	0	
100	Schefflera actinophylla	Umbrella Tree	N/A	M	Hight Threat Exotic	0.1	1	Length of logs (m)	9.5	
100	Senna pendula	Senna	N/A	M	Hight Threat Exotic	2	5	Litter plot	Litter cover	
100	Solanum mauritianum	Wild Tobacco Bush	N/A	M	Exotic	5	4	1	85	
100	Sonchus asper	Prickly Sowthistle	N/A	G	Exotic	0.1	5	2	95	
100	Triumfetta rhomboidea	Chinese Bur	N/A	G	Exotic	0.2	20	3	90	
	_		•	•				4	95	
								5	95	
								Average	92	

					Plot 101					
101	Ageratina riparia	Mistflower	N/A	G	Hight Threat Exotic	0.1	4	Growth Form Group	Cover of Native Richness	Sum of Cover
101	Ageratum conyzoides subsp. Conyzoi	Goatweed	N/A	G	Exotic	2	20	Tree	8	78.4
101	Alocasia brisbanensis	Cunjevoi	Forb	G	Native	0.1	1	Shrub	1	2
101	Alpinia caerulea	Native Ginger	Forb	G	Native	0.5	2	Forb	3	0.7
101	Ambrosia Artemisiaefolia	Common Ragweed	N/A	G	Exotic	6	-	Grass or grass like	0	0
101	Asparagus aethiopicus	Ground Asparagus	N/A	G	Hight Threat Exotic	0.5	10	Fern	0	0
101	Bidens pilosa	Cobblers Pegs	N/A	G	Hight Threat Exotic	10	-	Other	6	7.8
101	Chloris gayana	Rhodes Grass	N/A	G	Hight Threat Exotic	0.5	20	High Threat Weed Cover	61.8	
101	Chrysanthemoides monilifera	Bitou Bush	N/A	G	Hight Threat Exotic	0.2	1	DBH (cm)	Stem Count	
101	Conyza bonariensis	Flaxleaf Fleabane	N/A	G	Exotic	0.1	1	>80 cm	0	
101	Cryptocarya triplinervis	Three-veined laurel	Tree	G, M	Native	6	-	50-79	Present	
101	Desmodium intortum	Green-leaved Desmodium	N/A	G	Exotic	5	10	30-49	Present	
101	Eucalyptus grandis	Flooded Gum	Tree	U	Native	40	-	20-29	Present	1

Plot Name	Scientific Name	Common Name	Growth Form Group	Stratum	Species Type	Cover	Abundance		
101	Eucalyptus microcorys	Tallowwood	Tree	U	Native	20	-	10-19	Present
101	Ficus coronata	Creek Sandpaper Fig	Tree	M	Native	0.2	2	5-9	Present
101	Geitonoplesium cymosum	Scrambling Lily	Other	G	Native	0.1	5	<5	Present
101	Glochidion ferdinandi	Cheese Tree	Tree	G	Native	0.1	1	Stems with hollow (No.)	1
101	Glochidion sumatranum	Umbrella Cheese Tree	Tree	G	Native	0.1	5	Length of logs (m)	15
101	Hibbertia scandens	Climbing Guinea Flower	Other	G	Native	0.5	20	Litter plot	Litter cover
101	Hypochaeris glabra	Smooth Catsear	N/A	G	Exotic	0.1	1	1	95
101	Ipomoea cairica	Coastal Morning Glory	N/A	G, M	Hight Threat Exotic	10	-	2	90
101	Ipomoea purpurea	Common Morning Glory	N/A	G, M	Hight Threat Exotic	10	-	3	90
101	Lantana camara	Lantana	N/A	М	Hight Threat Exotic	2	3	4	98
101	Macaranga tanarius	Blush Macaranga	Tree	G, M	Native	10	-	5	100
101	Maclura cochinchinensis	Cockspur Thorn	Other	G, M, U	Native	5	5	Average	94.6
101	Marsdenia rostrata	Milk Vine	Other	G, M	Native	0.1	10		
101	Melinis minutiflora	Molasses Grass	N/A	G	Hight Threat Exotic	10	-		
101	Murraya paniculata	Murraya	N/A	M	Exotic	2	10		
101	Myrsine variabilis	Muttonwood	Shrub	М	Native	2	10		
101	Notelaea longifolia	Large Mock-olive	Tree	M	Native	2	2		
101	Ochna serrulata	Mickey Mouse Plant	N/A	G	Hight Threat Exotic	1	15	'	
101	Oxalis Sp.	Oxalis	Forb	G	Native	0.1	1		
101	Parsonsia straminea	Common Silkpod	Other	М	Native	0.1	4		
101	Paspalum conjugatum	Sour Grass	N/A	G	Exotic	1	30		
101	Passiflora subpeltata	White Passionflower	N/A	G, M	Exotic	2	20		

M

М

G

G

G, M, U Native

Hight Threat Exotic

Hight Threat Exotic

Exotic

Exotic

Exotic

Exotic

15

0.1

10

20

10

20

10

5

					Plot 102					
102	Ageratina riparia	Mistflower	N/A	G	Hight Threat Exotic	0,2	5	Growth Form Group	Cover of Native Richness	Sum of Cover
102	Asparagus aethiopicus	Ground Asparagus	N/A	G	Hight Threat Exotic	0.1	3	Tree	3	70
	Bidens pilosa	Cobblers Pegs	N/A	G	Hight Threat Exotic	15	-	Shrub	0	0
	Cestrum nocturnum	Lady of the Night	N/A	G. M	Exotic	0.5	5	Forb	1	0.1
102	Cinnamomum camphora	Camphor Laurel	N/A	M, U	Hight Threat Exotic	35	-	Grass or grass like	0	0
102	Eucalyptus grandis	Flooded Gum	Tree	U	Native	40	-	Fern	0	0
102	Guioa semiglauca	Guioa	Tree	M, U	Native	10	-	Other	4	14.3
102	Hibbertia scandens	Climbing Guinea Flower	Other	G	Native	0.1	2	High Threat Weed Cover	62.6	
102	Lantana camara	Lantana	N/A	G, M	Hight Threat Exotic	0.2	5	DBH (cm)	Stem Count	
102	Ligustrum sinense	Small-leaved Privet	N/A	G, M	Hight Threat Exotic	0.5	6	>80 cm	5	
102	Macaranga tanarius	Blush Macaranga	Tree	M, U	Native	20	-	50-79	Present	1
102	Maclura cochinchinensis	Cockspur Thorn	Other	G, M, U	Native	4	10	30-49	Present	
102	Melinis minutiflora	Molasses Grass	N/A	G	Hight Threat Exotic	10	-	20-29	Present	
102	Murraya paniculata	Murraya	N/A	M, U	Exotic	0.3	10	10-19	Present	
102	Ochna serrulata	Mickey Mouse Plant	N/A	G	Hight Threat Exotic	0.5	10	5-9	Present	
102	Oxalis Sp.	Oxalis	Forb	G	Native	0.1	1	<5	Present	
102	Passiflora suberosa	Cork Passionflower	N/A	G, M	Exotic	0.5	15	Stems with hollow (No.)	1	
102	Passiflora subpeltata	White Passionflower	N/A	G, M	Exotic	1	3	Length of logs (m)	146	
102	Schefflera actinophylla	Umbrella Tree	N/A	M, U	Hight Threat Exotic	0.5	3	Litter plot	Litter cover	
102	Senna pendula	Senna	N/A	M, U	Hight Threat Exotic	0.5	10	1	80	
102	Smilax australis	Lawyer Vine	Other	G, M, U	Native	10	-	2	95	1
102	Solanum nigrum	Black-berry Nightshade	N/A	G	Exotic	0.2	15	3	95	
102	Stephania japonica	Snake Vine	Other	G, M	Native	0.2	3	4	97	1
102	Syagrus romanzoffiana	Cocos Palm	N/A	M, U	Exotic	4	3	5	100	
102	Tradescantia fluminensis	Trad	N/A	G	Hight Threat Exotic	0.1	10	Average	93.4	
102	Triumfetta rhomboidea	Chinese Bur	N/A	G	Exotic	10	-		·	_

Umbrella Tree

Senna

Setaria

Strelizia

Lawyer Vine

Cocos Palm

Chinese Bur

Stinking Roger

Slender Vetch

N/A

N/A

N/A

Other

N/A

N/A

N/A

N/A

101

Schefflera actinophylla

Syagrus romanzoffiana

Triumfetta rhomboidea

Senna pendula

Smilax australis

Tagetes minuta

Vicia tetrasperma

Strelizia Sp.

Setaria sphacelata

Plot Name	Scientific Name	Common Name	Growth Form Group	Stratum	Species Type	Cover	Abundance			
					Plot 103					
103	Bidens pilosa	Cobblers Pegs	N/A	G	Hight Threat Exotic	3	500	Growth Form Group	Cover of Native Richness	Sum of Cover
103	Capparis arborea	Native Pomegranate	Shrub	M	Native	0.5	1	Tree	8	31.5
103	Cestrum sp.	Cestrum	N/A	М	Exotic	1	1	Shrub	3	0.7
103	Commersonia bartramia	Brown Kurrajong	Tree	M, U	Native	3	2	Forb	0	0
103	Cordyline congesta	Narrow-Leaved Palm Lily	Other	G	Native	0.5	3	Grass or grass like	0	0
103	Cryptocarya triplinervis var. tripliner	Three-veined laurel	Tree	G, M	Native	1	5	Fern	0	0
103	Diospyros fasciculosa	Grey Ebony	Tree	U	Native	0.5	1	Other	5	1.7
103	Eupomatia bennettii	Small Bolwarra	Shrub	М	Native	0.1	1	High Threat Weed Cover	19.1	
103	Ficus fraseri	Sandpaper Fig	Tree	М	Native	1	1	DBH (cm)	Stem Count	
103	Flagellaria indica	Whip Vine	Other	M, U	Native	0.5	1	>80 cm	0	
103	Guioa semiglauca	Guioa	Tree	M, U	Native	8	-	50-79	0	
103	Ipomoea cairica	Coastal Morning Glory	N/A	G, M, U	Hight Threat Exotic	1	10	30-49	Present	
103	Lantana camara	Lantana	N/A	G, M	Hight Threat Exotic	4	2	20-29	Present	
103	Ligustrum sinense	Small-leaved Privet	N/A	G, M	Hight Threat Exotic	10	-	10-19	Present	
103	Macadamia integrifolia x tetraphyllo	Macadamia	Tree	M, U	Native	6	5	5-9	Present	
103	Macaranga tanarius	Blush Macaranga	Tree	M, U	Native	10	-	<5	Present	
103	Maclura cochinchinensis	Cockspur Thorn	Other	G, M, U	Native	0.1	1	Stems with hollow (No.)	0	
103	Trophis scandens	Burny Vine	Other	G, M	Native	0.1	2	Length of logs (m)	38.5	
103	Mallotus philippensis	Red Kamala	Tree	M	Native	2	2	Litter plot	Litter cover	
103	Monstera deliciosa	Fruit Salad Plant	N/A	G	Exotic	0.2	1	1	85	
103	Mucuna gigantea subsp. Gigantea	Burny Bean	Other	G, M, U	Native	0.5	4	2	75	
103	Murraya paniculata	Murraya	N/A	М	Exotic	0.1	1	3	75	
103	Ochna serrulata	Mickey Mouse Plant	N/A	G	Hight Threat Exotic	1	10	4	95	
103	Paspalum mandiocanum	Broadleaf Paspalum	N/A	G	Exotic	0.1	1	5	95	
103	Passiflora edulis	Common Passionfruit	N/A	G, M ,U	Exotic	0.1	1	Average	85	
103	Passiflora suberosa	Cork Passionflower	N/A	G, M, U	Exotic	0.1	2			
103	Cenchrus purpureus	Barner Grass	N/A	G	Exotic	10	-			
103	Persea americana	Avocado	N/A	M	Exotic	0.5	2			
103	Rivina humilis	Coral Berry	N/A	G	Exotic	1	50			
103	Senna pendula	Senna	N/A	M	Hight Threat Exotic	0.1	2			
103	Solanum mauritianum	Wild Tobacco Bush	N/A	М	Exotic	0.5	3			
103	Tabernaemontana pandacaqui	Banana Bush	Shrub	M	Native	0.1	1			



Tweed Valley Hospital

APPENDIX D. VEGETATION INTEGRITY SURVEY SUMMARY OF RESULTS

Plot	Date of		Veg				Patch	Plot	Condition						IBRA		Vegetation		DBH	DBH 5cm to	DBH 10cm to	DBH 20cm to
Name	Survey	Recorders	Zone	PCT	EEC	Area	Size	Dimensions	Class	Datum	Zone	Easting	Northing	Bearing	Bioregion	IBRA Subregion	Formation	Vegetation Class	<5cm	9cm	19cm	29cm
		Damian Licari and														Burringbar-Conondale	Forested	Coastal Swamp				
19	15/06/2018	Gina Minatel	1	1064	Yes	3.8	68	20m X 50m	Moderate	GDA1994	56	555890	6873927	350	South East QLD	Ranges	Wetlands	Forests	yes	no	yes	yes
		Damian Licari and														Burringbar-Conondale	Forested	Coastal Swamp				
16	10/07/2018	Gina Minatel	1	1064	Yes	3.8	68	20m X 50m	Moderate	GDA1994	56	555898	6873830	310	South East QLD	Ranges	Wetlands	Forests	yes	yes	yes	yes
		Damian Licari and														Burringbar-Conondale		Subtropical				
11	11/07/2018	Gina Minatel	2	1302	Yes	1.0	68	20m X 50m	Moderate	GDA1994	56	555871	6873727	220	South East QLD	Ranges	Rainforests	Rainforests	yes	yes	yes	yes
		Damian Licari and														Burringbar-Conondale		Subtropical				
99	11/07/2018	Gina Minatel	4	1302	No	0.6	68	10 x 100m	Derived	GDA1994	56	555489	6873425	178	South East QLD		Rainforests	Rainforests	yes	yes	yes	yes
		Damian Licari and														Burringbar-Conondale		Subtropical				
98	12/07/2018	Gina Minatel	8	1302	No	0.7	68	10 x 100m	Derived	GDA1994	56	555619	6873327	38	South East QLD	Ranges	Rainforests	Rainforests	yes	yes	yes	yes
		Damian Licari and														Burringbar-Conondale	Forested	Coastal Floodplain				
100	15/08/2018	Christina Maloney	7	1235	No	0.1	68	10 x 100m	Derived	GDA1994	56	555953	6873675	174	South East QLD	Ranges	Wetlands	Wetlands	yes	yes	yes	yes
		Damian Licari and														Burringbar-Conondale		North Coast Wet				
101	15/08/2018	Christina Maloney	6	1569	No	0.2	68	20m X 50m	Derived	GDA1994	56	555957	6873725	255	South East QLD	Ranges	Wet sclerophyll	Sclerophyll Forests	yes	yes	yes	yes
		Damian Licari and														Burringbar-Conondale		North Coast Wet				
102	15/08/2018	Christina Maloney	5	1569	No	0.5	68	10 x 100m	Derived	GDA1994	56	555362	6873160	13	South East QLD	Ranges	Wet sclerophyll	Sclerophyll Forests	yes	yes	yes	yes
		Annette McKinley														Burringbar-Conondale		Subtropical				
103	3/09/2018	and Christina	3	1302	Yes	0.3	68	20m X 50m	Low	GDA1994	56	555433	6873550	68	South East QLD	Ranges	Rainforests	Rainforests	yes	yes	yes	yes

Plot Name	DBH 30cm to 49cm	DBH 30cm to 49cm Count	DBH 50cm to 79cm	DBH 50cm to 79cm Count	DBH 80cm	DBH 80cm Count	Length of logs (m)	Hollow Trees Count	Litter Cover Plot 1	Litter Cover Plot 2	Litter Cover Plot 3	Litter Cover Plot 4	Litter Cover Plot 5
19	yes	0	no	0	no	0	253.5	0	100	100	100	100	100
16	yes	17	no	0	no	0	252	1	95	70	80	95	100
11	yes	7	yes	2	yes	2	119.5	3	80	75	95	100	100
99	yes	2	no	0	no	0	34.5	0	85	40	10	70	50
98	no	0	no	0	no	0	0	0	100	40	100	60	100
100	yes	0	yes	1	no	0	9.5	0	85	95	90	95	95
101	yes	9	yes	7	no	0	15	1	95	90	90	98	100
102	yes	0	yes	0	yes	5	146	1	80	95	95	100	97
103	yes	0	no	0	no	0	38.5	0	85	75	75	95	95





Tweed Valley Hospital

APPENDIX E. PREDICTED THREATENED SPECIES ASSOCIATED ON SITE HABITAT AND SENSITIVITY CLASSES

					PCT 1064 Zone 1	PCT 1302 Zone 2	PCT 1302 Zone 3	PCT 1302 Zone 4	PCT 1569 Zone 5	PCT 1569 Zone 6	PCT 1235 Zone 7	PCT 1302 Zone 8	
Animal	Bat	Emballonuridae	Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Yes	Yes	Yes	No	No	No	No	No	High Sensitivity to Potential Gain
Animal	Bat	Molossidae	Mormopterus lumsdenae	Northern Free-tailed Bat	Yes	Yes	Yes	No	-	-	No	No	High Sensitivity to Potential Gain
Animal	Bat	Molossidae	Mormopterus norfolkensis	Eastern Freetail-bat	Yes	Yes	Yes	No	No	No	No	No	High Sensitivity to Potential Gain
Animal	Bat	Vespertilionidae	Chalinolobus nigrogriseus	Hoary Wattled Bat	Yes	-	-	-	-	-	No	-	High Sensitivity to Potential Gain
Animal	Bat	Vespertilionidae	Miniopterus australis	Little Bentwing-bat	Yes	Yes	Yes	No	No	No	No	No	High Sensitivity to Potential Gain
Animal	Bat	Vespertilionidae	Miniopterus schreibersii oceanensis	Eastern Bentwing-bat	Yes	Yes	Yes	No	No	No	No	No	High Sensitivity to Potential Gain
Animal	Bat	Pteropodidae	Pteropus poliocephalus	Grey-headed Flying-fox	Yes	Yes	Yes	No	No	No	No	No	High Sensitivity to Potential Gain
Animal	Bird	Accipitridae	Haliaeetus leucogaster	White-bellied Sea-Eagle	Yes	-	-	-	-	-	No	-	High Sensitivity to Potential Gain
Animal	Bird	Accipitridae	Hieraaetus morphnoides	Little Eagle	Yes	-	-	-	-	-	No	-	Moderate Sensitivity to Potential Gain
Animal	Bird	Accipitridae	Lophoictinia isura	Square-tailed Kite	-	-	-	-	-	-	Yes	-	-
Animal	Bird	Accipitridae	Pandion cristatus	Eastern Osprey	Yes	-	-	-	-	-	No	-	Moderate Sensitivity to Potential Gain
Animal	Bird	Anatidae	Stictonetta naevosa	Freckled Duck	Yes	-	-	-	-	-	No	-	Moderate Sensitivity to Potential Gain
Animal	Bird	Ardeidae	Botaurus poiciloptilus	Australasian Bittern	Yes	-	-	-	-	-	No	-	Moderate Sensitivity to Potential Gain
Animal	Bird	Ardeidae	Ixobrychus flavicollis	Black Bittern	Yes	-	=	-	=	-	No	=	Moderate Sensitivity to Potential Gain
Animal	Bird	Cacatuidae	Calyptorhynchus lathami	Glossy Black-Cockatoo	Yes	-	=	-	No	No	No	=	High Sensitivity to Potential Gain
Animal	Bird	Campephagidae	Coracina lineata	Barred Cuckoo-shrike	Yes	Yes	Yes	No	=	-	No	No	Moderate Sensitivity to Potential Gain
Animal	Bird	Ciconiidae	Ephippiorhynchus asiaticus	Black-necked Stork	Yes	-	-	-	-	-	No	-	Moderate Sensitivity to Potential Gain
Animal	Bird	Columbidae	Ptilinopus superbus	Superb Fruit-Dove	Yes	Yes	Yes	No	No	No	-	No	Moderate Sensitivity to Potential Gain
Animal	Bird	Meliphagidae	Anthochaera phrygia	Regent Honeyeater	Yes	-	-	-	-	-	-	-	High Sensitivity to Potential Gain
Animal	Bird	Neosittidae	Daphoenositta chrysoptera	Varied Sittella	Yes	-	-	-	No	No	No	-	Moderate Sensitivity to Potential Gain
Animal	Bird	Psittacidae	Glossopsitta pusilla	Little Lorikeet	Yes	-	-	-	No	No	-	-	High Sensitivity to Potential Gain
Animal	Bird	Psittacidae	Lathamus discolor	Swift Parrot	Yes	-	=	-	=	-	=	=	Moderate Sensitivity to Potential Gain
Animal	Bird	Rostratulidae	Rostratula australis	Australian Painted Snipe	-	-	-	-	-	-	No	-	Moderate Sensitivity to Potential Gain
Animal	Bird	Strigidae	Ninox connivens	Barking Owl	Yes	-	-	=	No	No	No	-	High Sensitivity to Potential Gain
Animal	Bird	Strigidae	Ninox strenua	Powerful Owl	Yes	Yes	Yes	No	No	No	No	No	High Sensitivity to Potential Gain
Animal	Bird	Tytonidae	Tyto novaehollandiae	Masked Owl	-	-	-	-	No	No	-	-	=
Animal	Marsupial	Dasyuridae	Dasyurus maculatus	Spotted-tailed Quoll	Yes	Yes	Yes	No	No	No	No	No	High Sensitivity to Potential Gain
Animal	Marsupial	Macropodidae	Thylogale stigmatica	Red-legged Pademelon	-	No	No	No	No	No	-	No	High Sensitivity to Potential Gain
Animal	Marsupial	Phascolarctidae	Phascolarctos cinereus	Koala	Yes	-	-	-	No	No	No	-	High Sensitivity to Potential Gain



Tweed Valley Hospital

APPENDIX F. CANDIDATE THREATENED SPECIES PRESENCE STATUS AND BIODIVERSITY RISK RATING

Plant/ Animal	Species Type	Family	Scientific Name	Common Name	Species Presence			PCT, Veg	etation Zone &	Value (Area (ha)	or Count)			Biodiversity Risk Weighting
									dentified by BAM C					weighting
						PCT 1064 Zone 1	PCT 1302 Zone 2	PCT 1302 Zone 3	PCT 1302 Zone 4	PCT 1569 Zone 5	PCT 1569 Zone 6	PCT 1235 Zone 7	PCT 1302 Zone 8	
Animal	Amphibian	Hylidae	Litoria brevipalmata	Green-thighed Frog	Yes - Assumed present	3.8	1	0.3	Excluded	Excluded	Excluded	Excluded	Excluded	1.5
Animal	Amphibian	Hylidae	Litoria olongburensis	Olongburra Frog	Yes - Assumed present	3.8	1	0.3	Excluded	Excluded	Excluded	Excluded	Excluded	1.5
Animal	Amphibian	Myobatrachidae	Crinia tinnula	Wallum Froglet	Yes - Assumed present	3.8	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	1.5
Animal	Amphibian	Myobatrachidae	Mixophyes iteratus	Giant Barred Frog	Yes - Assumed present	3.8	1	0.3	Excluded	Excluded	Excluded	Excluded	Excluded	2
Animal	Bat	Vespertilionidae	Chalinolobus dwyeri	Large-eared Pied Bat	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	3
Animal	Bat	Vespertilionidae	Miniopterus australis	Little Bentwing-bat	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	3
Animal	Bat	Vespertilionidae	Miniopterus schreibersii oceanensis	Eastern Bentwing-bat	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	3
Animal	Bat	Pteropodidae	Pteropus poliocephalus	Grey-headed Flying-fox	Yes - Assumed present	3.8	1	0.3	Excluded	0.5	0.2	Excluded	Excluded	2
Animal	Bird	Accipitridae	Haliaeetus leucogaster	White-bellied Sea-Eagle	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	2
Animal	Bird	Accipitridae	Hieraaetus morphnoides	Little Eagle	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	1.5
Animal	Bird	Accipitridae	Lophoictinia isura	Square-tailed Kite	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Exceluded	Excluded	1.5
Animal	Bird	Accipitridae	Pandion cristatus	Eastern Osprey	Yes - Assumed present	3.8	1	0.3	Excluded	0.25 Excluded	0.2 Excluded	Excluded	Excluded	1.5 2
Animal Animal	Bird Bird	Cacatuidae Meliphagidae	Calyptorhynchus lathami Anthochaera phrygia	Glossy Black-Cockatoo Regent Honeyeater	Yes - Assumed present Yes - Assumed present				Excluded			Excluded	Excluded	3
Animal	Bird	Psittacidae	Cyclopsitta diophthalma coxeni	Coxen's Fig-Parrot	Yes - Assumed present	3.8	1	0.3	Excluded Excluded	0.25 0.25	0.2	Excluded Excluded	Excluded Excluded	3
Animal	Bird	Psittacidae	Lathamus discolor	Swift Parrot	Yes - Assumed present Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	3
Animal	Bird	Strigidae	Ninox connivens	Barking Owl	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	2
Animal	Bird	Strigidae	Ninox strenua	Powerful Owl	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	2
Animal	Bird	Tytonidae	Tyto novaehollandiae	Masked Owl	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	2
Animal	Bird	Vespertilionidae	Myotis macropus	Southern Myotis	Yes - Assumed present	3.8	1	0.3	Excluded	Excluded	Excluded	Excluded	Excluded	2
Animal	Gastropod	Camaenidae	Thersites mitchellae	Mitchell's Rainforest Snail	Yes - Assumed present	3.8	1	0.3	Excluded	Excluded	Excluded	Excluded	Excluded	3
Animal	Insect	Noctuidae	Phyllodes imperialis southern subspecies	Southern Pink Underwing Moth	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	2
Animal	Insect	Nymphalidae	Argynnis hyperbius	Laced Fritillary	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	3
Animal	Insect	Petaluridae	Petalura litorea	Coastal Petaltail	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	3
Animal	Marsupial	Burramyidae	Cercartetus nanus	Eastern Pygmy-possum	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	2
Animal	Marsupial	Dasyuridae	Phascogale tapoatafa	Brush-tailed Phascogale	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	2
Animal	Marsupial	Dasyuridae	Planigale maculata	Common Planigale	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	2
Animal	Marsupial	Petauridae	Petaurus norfolcensis	Squirrel Glider	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	2
Animal	Marsupial	Phascolarctidae	Phascolarctos cinereus	Koala	Yes - Assumed present	3.8	1	0.3	Excluded	Excluded	Excluded	Excluded	Excluded	2
Animal	Reptile	Elapidae	Cacophis harriettae	White-crowned Snake	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	2
Animal	Reptile	Elapidae	Hoplocephalus bitorquatus	Pale-headed Snake	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	2
Animal	Reptile	Scincidae	Coeranoscincus reticulatus	Three-toed Snake-tooth Skink	Yes - Assumed present	3.8	1	0.3	Excluded	0.25	0.2	Excluded	Excluded	2
Animal	Tree	Meliaceae	Owenia cepiodora	Onion Cedar	No - Surveyed	-	-	-	-	-	-	-	-	3
Plant	Climber	Apocynaceae	Cynanchum elegans	White-flowered Wax Plant	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant	Climber	Apocynaceae	Marsdenia longiloba	Slender Marsdenia	Yes - Assumed present	3.8	1	0.3	Excluded	Excluded	Excluded	Excluded	Excluded	2
Plant	Climber	Menispermaceae Lindsaeaceae	Tinospora tinosporoides Lindsaea brachypoda	Arrow-head Vine Short-footed Screw Fern	No - Surveyed No - Surveyed	-	-	-	-	-	-	-	-	1.5
Plant	Fern	Lindsaeaceae	Lindsaea fraseri	Fraser's Screw Fern	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant	Fern	Marattiaceae	Angiopteris evecta	Giant Fern	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant	Fern	Polypodiaceae	Belvisia mucronata	Needle-leaf Fern	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant	Fern	Polypodiaceae	Drynaria rigidula	Basket Fern	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant	Grass	Poaceae	Arthraxon hispidus	Hairy Jointgrass	Yes - Assumed present	3.8	1	0.3	Excluded	Excluded	Excluded	Excluded	Excluded	2
Plant	Herb	Acanthaceae	Isoglossa eranthemoides	Isoglossa	Yes - Assumed present	3.8	1	0.3	Excluded	Excluded	Excluded	Excluded	Excluded	2
Plant	Herb	Doryanthaceae	Doryanthes palmeri	Giant Spear Lily	No - Habitat constraints	-	-	-	-	-	-	-		
Plant	Herb	Orobanchaceae	Centranthera cochinchinensis	Swamp Foxglove	Yes - Assumed present	3.8	1	0.3	Excluded	Excluded	Excluded	Excluded	Excluded	1
Plant	Herb	Rubiaceae	Oldenlandia galioides	Oldenlandia galioides	No - Surveyed	-	-	-	-	-	-	-	-	2

Part	Plant/ Animal	Species Type	Family	Scientific Name	Common Name	Species Presence									Biodiversity Risk Weighting
Part															
Point Orthology													PCT 1235 Zone 7	PCT 1302 Zone 8	
Part Orthold Ortholdscare	Plant	Orchid	Orchidaceae	Dendrobium melaleucaphilum	Spider orchid	Yes - Assumed present	3.8	1	0.3	Excluded	Excluded	Excluded	Excluded	Excluded	2
Part Part Orthogo	Plant	Orchid	Orchidaceae	Geodorum densiflorum	Pink Nodding Orchid	Yes - Assumed present	3.8	1	0.3	Excluded	Excluded	Excluded	Excluded	Excluded	2
Paint	Plant	Orchid	Orchidaceae	Oberonia complanata	Yellow-flowered King of the Fairies	No - Surveyed	-	-	-	-	-	-	-	-	3
Part	Plant	Orchid	Orchidaceae	Peristeranthus hillii	Brown Fairy-chain Orchid	No - Surveyed	-	-	-	-	-	-	-	-	1.5
Part Sedge Cyperacese Cyperus aquastifis Water Nutgrass No. Surveyed . . .							-	-	=	-	=	=	-	-	2
Pant Seelge Cyper accese Cyperus semiferitiis Mesionary Nutgrass No - Surveyed									1	-	-	1	-	-	3
No.	Plant	Sedge	Cyperaceae	Cyperus aquatilis	Water Nutgrass	Yes - Assumed present	3.8	1	0.3	Excluded	Excluded	Excluded	Excluded	Excluded	2
Pant	Plant	Sedge	Cyperaceae	Cyperus semifertilis	Missionary Nutgrass	No - Surveyed	-	-	-	-	-	-	-	-	3
Part Strub	Plant	Shrub	Acanthaceae	Harnieria hygrophiloides	Harnieria hygrophiloides	No - Habitat constraints	-	-	-	-	-	-	-	-	
Pant	Plant	Shrub	Asteraceae	Ozothamnus vagans	Wollumbin Dogwood	No - Surveyed	-	-	-	-	-	-	-	-	2
Pant Shrub Casabinidodea Sena accinis Rainforest Cassia No - Surveyed S. S. S. S. S. S. S. S	Plant	Shrub	Casuarinaceae	Allocasuarina defungens	Dwarf Heath Casuarina	No - Surveyed	-	-	-	-	-	-	-	-	2
Pant Shrub Fabraceae Desmodum acanthocladum Thorny Pea No - Surveyed No - Survey	Plant	Shrub		Acalypha eremorum	Acalypha	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant Shrub Faboideae Desmodium aranthocladum Thorny Pea No - Surveyed	Plant	Shrub	(Caesalpinioideae)	Senna acclinis	Rainforest Cassia	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant Shrub	Plant	Shrub		Desmodium acanthocladum	Thorny Pea	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant Shrub Phyllanthaceae Phyllanthus microcladus Brush Sauropus No - Surveyed C. C. C. C. C. C. C. C	Plant	Shrub		Sophora fraseri	Brush Sophora	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant Shrub Rhamnaceae Pomaderris notata McPherson Range Pomaderris No - Surveyed	Plant	Shrub	Myrtaceae	Gossia fragrantissima	Sweet Myrtle	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant	Plant	Shrub	Phyllanthaceae	Phyllanthus microcladus	Brush Sauropus	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant Tree	Plant		Rhamnaceae	Pomaderris notata	McPherson Range Pomaderris	No - Surveyed		-			-		-	-	2
Plant Tree Argophyllaceae Corokia whiteana Corokia No-Surveyed			Urticaceae	Dendrocnide moroides		No - Surveyed	-	-	-	-	-	-	-	-	2
Plant Tree Cunoniaceae Davidsonia jerseyana Davidson's Plum No - Surveyed							1		1		-		-	-	3
Plant Tree Cunoniaceae Davidsonia johnsonii Smooth Davidson's Plum No - Surveyed						·	-	-		-	-	-	-	-	2
Plant Tree Ebenaceae Diospyros mabacea Red-fruited Ebony No - Surveyed				· '			-	-		-	-	-	-	-	2
Plant Tree Ebenaceae Diospyros yandina Shiny-leaved Ebony No - Surveyed				· · · · · · · · · · · · · · · · · · ·		•					1		-	-	3
Plant Tree Elaeocarpaceae Elaeocarpus williamsianus Hairy Quandong No - Surveyed								-	-	-	-	-	-	-	2
Plant Tree Euphorbiaceae Fontainea australis Southern Fontainea No - Surveyed						<u>'</u>		-	-	-	-	-	-	-	3
Plant Tree Fabaceae (Caesalpinioideae) Cassia marksiana Cassia marksiana No-Surveyed						·	<u> </u>	<u> </u>		<u> </u>	 	1	<u> </u>		2
Plant Tree (Caesalpinioideae) Cassia marksiana Cassia marksiana No - Surveyed									1			1			
Plant Tree (Mimosoideae) Acacia bakeri Marbiewood No - Surveyed		-	(Caesalpinioideae)			· ·	-	-	-	-	-	-	-	-	2
Plant Tree (Mimosoideae) Archidendron hendersonii White Lace Flower No - Surveyed	Plant		(Mimosoideae)	Acacia bakeri	Marblewood	No - Surveyed	=	-	=	-	=	=	=	=	2
Plant Tree Lauraceae Cryptocarya foetida Stinking Cryptocarya Yes - Surveyed Excluded 1 Plant Excluded	Plant	Tree		Archidendron hendersonii	White Lace Flower	No - Surveyed	-	-	-	-	-	-	-	-	3
Plant Tree Lauraceae Endiandra floydii Crystal Creek Walnut No - Surveyed I I Mark Excluded E	Plant	Tree	Flacourtiaceae	Xylosma terrae-reginae	Queensland Xylosma	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant Tree Lauraceae Endiandra hayesii Rusty Rose Walnut No - Surveyed	Plant	Tree	Lauraceae	Cryptocarya foetida	Stinking Cryptocarya	Yes - Surveyed	Excluded	1 Plant	Excluded	Excluded	Excluded	Excluded	Excluded	Excluded	1.5
Plant Tree Lauraceae Endiandra muelleri subsp. bracteata Green-leaved Rose Walnut No - Surveyed	Plant	Tree	Lauraceae	Endiandra floydii	Crystal Creek Walnut	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant Tree Lauraceae Endiandra muelleri subsp. bracteata Green-leaved Rose Walnut No - Surveyed	Plant	Tree	Lauraceae	Endiandra hayesii	Rusty Rose Walnut	No - Surveyed	-	-	-	-	-	-	-	-	2
	Plant	Tree	Lauraceae	Endiandra muelleri subsp. bracteata	Green-leaved Rose Walnut	No - Surveyed	-	-	-	-	-	-	-	-	2
	Plant	Tree	Myrtaceae	Choricarpia subargentea	Giant Ironwood	No - Surveyed	-	-	-	-	-	-	-	-	2
,	Plant	Tree	Myrtaceae	Syzygium hodgkinsoniae	Red Lilly Pilly	No - Surveyed	-	-	-	-	-	-		-	2
Plant Tree Myrtaceae Syzygium moorei Durobby No - Surveyed	Plant		Myrtaceae	Syzygium moorei	1		-	-	-	-		-	-	-	2
Plant Tree Primulaceae Myrsine richmondensis Ripple-leaf Muttonwood No - Surveyed	Plant	Tree	Primulaceae	Myrsine richmondensis	Ripple-leaf Muttonwood	No - Surveyed	=	=	-	=	-	-	-	=	3
Plant Tree Proteaceae Eldothea hardeniana Nightcap Oak No - Surveyed	Plant	Tree	Proteaceae	Eidothea hardeniana	Nightcap Oak	No - Surveyed	-				_			-	3
Plant Tree Proteaceae Floydia praealta Ball Nut No - Surveyed	Plant	Tree	Proteaceae	Floydia praealta	Ball Nut	No - Surveyed	-	-	-	-	-	-	-	=	2
Plant Tree Proteaceae Grevillea hiliana White Yiel Yiel No - Surveyed						·	-	-	-	-	-	-	-	-	3
Plant Tree Proteaceae Hicksbeachia pinnatifolia Red Boppel Nut No - Surveyed						·	-	-	-	-	-	-	-	-	2
Plant Tree Proteaceae Macadamia tetraphylla Rough-shelled Bush Nut No-Surveyed	Plant	Tree	Proteaceae	Macadamia tetraphylla	Rough-shelled Bush Nut	No - Surveyed	=	-	-	-		-	-	-	2
Plant Tree Rubiaceae Randia moorei Spiny Gardenia No - Surveyed	Plant	Tree	Rubiaceae	Randia moorei	Spiny Gardenia	No - Surveyed	-	-	-	-	-	-	-	-	3

Plant/ Animal	Species Type	Family	Scientific Name	Common Name	Species Presence			Key - Shaded = I	etation Zone & V dentified by BAM Co cluded by assessor	alculator within the	vegetation zone;			Biodiversity Risk Weighting
						PCT 1064 Zone 1	PCT 1302 Zone 2	PCT 1302 Zone 3	PCT 1302 Zone 4	PCT 1569 Zone 5	PCT 1569 Zone 6	PCT 1235 Zone 7	PCT 1302 Zone 8	
Plant	Tree	Rutaceae	Acronychia littoralis	Scented Acronychia	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant	Tree	Rutaceae	Bosistoa transversa	Yellow Satinheart	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant	Tree	Rutaceae	Coatesia paniculata	Axe-Breaker	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant	Tree	Rutaceae	Melicope vitiflora	Coast Euodia	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant	Tree	Sapindaceae	Cupaniopsis serrata	Smooth Tuckeroo	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant	Tree	Sapindaceae	Diploglottis campbellii	Small-leaved Tamarind	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant	Tree	Sapindaceae	Lepiderema pulchella	Fine-leaved Tuckeroo	No - Surveyed	-	-	-	-	-	-	-	-	3
Plant	Tree	Sapotaceae	Niemeyera chartacea	Smooth-leaved Plum	No - Surveyed	=	-	=	-	=	=	-	=	2
Plant	Tree	Sapotaceae	Niemeyera whitei	Rusty Plum, Plum Boxwood	No - Surveyed	-	-	-	-	-	-	-	-	2
Plant	Tree	Symplocaceae	Symplocos baeuerlenii	Small-leaved Hazelwood	No - Surveyed	-	-	-	-	-	-	-	-	2





Tweed Valley Hospital

APPENDIX G. NSW LAND MANAGEMENT AND BIODIVERSITY CONSERVATION CORRESPONDENCE

Gina Minatel

From: Damian Licari

Sent: Monday, 10 September 2018 12:35 PM **To:** Imbc.support@environment.nsw.gov.au

Cc: Christina Maloney (Christina.Maloney@greencap.com.au)

Subject: Classification of PCT1302 as EEC in one vegetation zone and not EEC in another

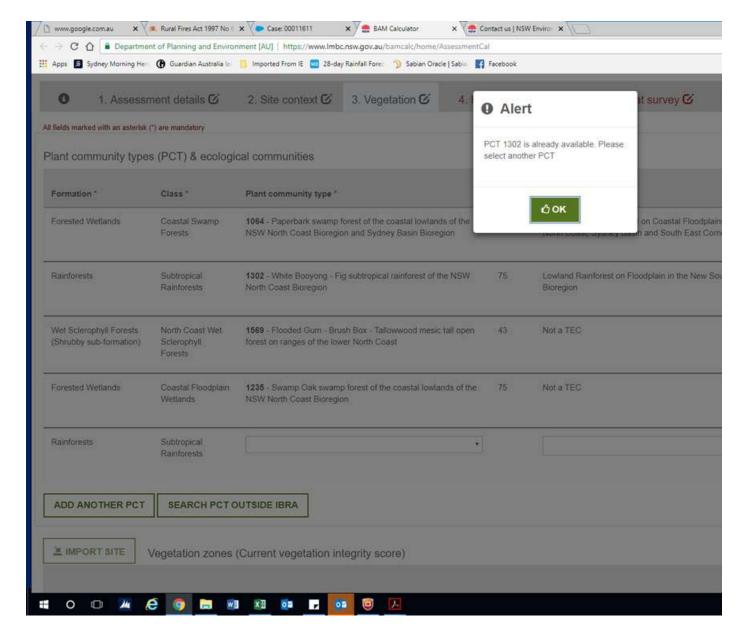
vegetation zone

Hi Support

- For an assessment that I am currently working on I have identified a remnant vegetation community as PCT1302 in one vegetation zone and have also classified this as an EEC.
- Elsewhere on the site there are a number of derived/secondary vegetation communities (i.e. windrows) in separate vegetation zones that I have made the decision the most likely PCT is also PCT1302. However, I do not agree with these windrows being classified as an EEC.
- However, the calculator does not allow me to have the same PCT being classified as an EEC and not an EEC.
- When I tried to add PCT1302 again to allow for vegetation zones that are in these windrows to be included (but not as an EEC) I get the error message below.
- Note PCT1302 can be two EECs. The same error applied.

Would it be possible to change this in the calculator quick smart? I am in the middle of some calculations for a State Significant Development that are due at the end of the week.

Regards Damian



Damian Licari

Principal Consultant - Environment | Greencap

Level 8/133 Mary Street, Brisbane, QLD 4000

T: +61 7 3514 9222 | D: +61 7 3514 9240 | M: 0439 723 529 | E: <u>damian.licari@greencap.com.au</u> | in: <u>LinkedIn</u>



Please consider the environment before printing this email.

This email and any attachments are confidential, may contain proprietary information (some or all of which may be legally privileged) and are intended only for the addressee. If you are not the addressee, please delete this email and its attachments from your computer, destroy any copies and notify the user. Greencap does not waive confidentiality or legal privilege in respect of this email or attachments. Any unauthorised use, reproduction, disclosure, distribution or reliance on the information contained in this e-mail and its attachments is prohibited and any loss or damage incurred is not the sender's or Greencap

Limited's responsibility. Any views expressed in this communication are those of the individual sender. Greencap Limited cannot guarantee that e-mail communications are secure or error free. Greencap accepts no liability for any damage caused by this email or its attachments due to viruses, interference, interception, corruption or unauthorised access. Greencap's entire liability is limited to resending this email.

Gina Minatel

From: Maria Avila <lmbc.support@environment.nsw.gov.au>

Sent: Monday, 10 September 2018 12:49 PM

To: Damian Licari

Subject: LMBC-2617 Classification of PCT1302 as EEC in one vegetation zone and not EEC in

another vegetation zone

Follow Up Flag: Follow up Flag Status: Flagged

Dear Damian Licari,

Thank you for your inquiry to the Land Management and Biodiversity Conservation (LMBC) Contact Service Centre. We have begun processing your query and will provide you with a response shortly.

Please visit our website <u>Land Management and Biodiversity Conservation</u> for information that may also assist with your inquiry.

Alternatively, please contact us at 1800 931 717 Monday to Friday from 9:00 am to 4:00 pm (excluding public holiday).

LMBC Contact Service Centre

Conservation Programs Branch

T 1800 931 717

E <u>Imbc.support@environment.nsw.gov.au</u>

W <u>www.landmanagement.nsw.gov.au</u>



LMBC Contact Service Centre, powered by JIRA Service Desk, sent you this message.

Gina Minatel

From: Damian Licari

Sent: Wednesday, 12 September 2018 3:37 PM **To:** Imbc.support@environment.nsw.gov.au

Cc: Christina Maloney (Christina.Maloney@greencap.com.au)

Subject: Ecosystem credit offset requirement for PCTs without direct impact

Attachments: BAM Calculator - 3. Vegetation tab - 12092018.pdf; CreditSummaryReport - Post

method review - 12092018.xls; PaymentReport - Post method review -

12092018.pdf

Hi Support

Case - 00011608/BAAS18006/18/00011611.

Related ticket - LMBC-2617

Please refer to the above trouble ticket as this is an overlapping issue with that ticket. Note the most significant issue in the above trouble ticket is that PCT 1302 is a TEC on part of the site. I have also assigned PCT 1302 to windrows in Zone 4 and 8 as the most likely original PCT and in my professional opinion is not a TEC. The BAM calculator does not allow

I am having difficulty with the calculator which is calculating an offset requirement for PCTs which will not be directly impacted by proposed development. I now refer to the attached screen dump from tab 3. Vegetation:

- 1. Zone 1 PCT 1064 TEC To be retained
- 2. Zone 2 PCT 1302 TEC To be retained
- 3. Zone 3 PCT 1302 TEC To be retained
- 4. Zone 4 PCT 1302 Not TEC VI = 10.6 and does not require further assessment.
 - Management zone Remove = 0.5 ha
 - o Management zone Retain = 0.1 ha
- 5. Zone 5 PCT 1569 Not TEC To be retained
- 6. Zone 6 PCT 1569 Not TEC To be retained
- 7. Zone 7 PCT 1235 Not TEC To be retained
- 8. Zone 8 PCT 1302 Not TEC VI = 16.8 and does not require further assessment
 - o Management zone Remove = 0.5 ha
 - o Management zone Retain = 0.2 ha

The attached Payment Report and Credit Summary Report both indicate a credit requirement for PCT 1064, 1302, 1235 and 1569. Also Cryptocarya foetida was recorded on site by survey in an area that is being retained. This species also indicates a credit requirement.

Of course I may have done something incorrectly! However, would you please review these reports as I am puzzled why there is a credit requirement for PCTs that will be retained.

Regards

Damian

Damian Licari

Principal Consultant - Environment | Greencap

Level 8/133 Mary Street, Brisbane, QLD 4000

T: +61 7 3514 9222 | D: +61 7 3514 9240 | M: 0439 723 529 | E: damian.licari@greencap.com.au | in: LinkedIn



Please consider the environment before printing this email.

This email and any attachments are confidential, may contain proprietary information (some or all of which may be legally privileged) and are intended only for the addressee. If you are not the addressee, please delete this email and its attachments from your computer, destroy any copies and notify the user. Greencap does not waive confidentiality or legal privilege in respect of this email or attachments. Any unauthorised use, reproduction, disclosure, distribution or reliance on the information contained in this e-mail and its attachments is prohibited and any loss or damage incurred is not the sender's or Greencap Limited's responsibility. Any views expressed in this communication are those of the individual sender. Greencap Limited cannot guarantee that e-mail communications are secure or error free. Greencap accepts no liability for any damage caused by this email or its attachments due to viruses, interference, interception, corruption or unauthorised access. Greencap's entire liability is limited to resending this email.

Gina Minatel

From: Janise Zamora < lmbc.support@environment.nsw.gov.au>

Sent: Thursday, 13 September 2018 8:49 AM

To: Damian Licari

Subject: LMBC-2655 Ecosystem credit offset requirement for PCTs without direct impact

Dear Damian Licari,

Thank you for your inquiry to the Land Management and Biodiversity Conservation (LMBC) Contact Service Centre. We have begun processing your query and will provide you with a response shortly.

Please visit our website <u>Land Management and Biodiversity Conservation</u> for information that may also assist with your inquiry.

Alternatively, please contact us at 1800 931 717 Monday to Friday from 9:00 am to 4:00 pm (excluding public holiday).

LMBC Contact Service Centre

Conservation Programs Branch

T 1800 931 717

E <u>Imbc.support@environment.nsw.gov.au</u>

W www.landmanagement.nsw.gov.au



LMBC Contact Service Centre, powered by JIRA Service Desk, sent you this message.



Tweed Valley Hospital

APPENDIX H. PRESCRIBED IMPACT ASSESSMENT

Aspect	Project phase	Potential Impact	Mitigation	Timing	Responsibility	Risk before mitigation	Residual risk
	Construction	Sediment run-off during construction. Sediment basin discharge water quality	Sediment and erosion management would be delivered in accordance with an approved Construction Environmental Management Plan (CEMP) that details safeguards and management measures in accordance with relevant guidelines for construction sites. Sediment barriers and sediment ponds will be will be constructed to control the quality of water released from the Site into the receiving environment. Erosion and sediment measures will be implemented as the construction phase Erosion and Sediment Control Plan (ESCP). Construction phase erosion and sediment control measures shall achieve water quality objectives outlined in the Tweed Shire Council Development Design Specification - D7. Two pH dependent amphibians have been identified by the BAM Calculator as candidate threatened species (i.e. Wallum froglet Crinia tinnula Wallum Froglet and Olonburra frog Utoria olongburens). The use of gypsum as a flocculant in the sediment basins may have an impact upon the above threatened amphibian species. Alternative commercially available flocculants that work effectively as a gypsum replacement that do not create the large increases in pH should be used.	Duration of construction works	Project manager, relevant contractor, construction staff and site personnel	High	Very low
Hydrology	Operation	Changes in water quality, water bodies and hydrological processes that sustain threatened species and threatened ecological communities	A stormwater drainage system will be constructed to convey stormwater runoff from the newly constructed, buildings and associated, roads, carparks and landscape areas. It will be designed to mimic natural flows to minimise future impact to the endangered ecological community in the receiving wetland. The details of the discharge characteristics will be determined at detail design stage, guided by advice from a suitably qualified ecologist. The water quality strategy for the Site will incorporate swales, enviropods, bioretention basins and extended detention basins. Ultimately the bulk of the stormwater will end up in an extended detention basin where it will settle and discharge to the receiving waters in a controlled manner. The water quality strategy for the Site will be incorporated will be constituted in the Tweed Valley Hospital Development Design Report (Bonacci 2018). In accordance with the approved CEMP, stormwater management will be incorporated in landscaping, using Water Sensitive Urban Design (WSUD) principles and the use of landscaped areas for filtering runoff, swale drains and vegetated sediment basins. New plantings within rain gardens that both treat stormwater quality and contribute to providing a range of native habitat or 'moist corridors' across the site (Turl 2018). In accordance with section 9.4.2 of the BAM, a Biodiversity Management Plan will include measures to monitor water quality in the receiving environment and will include water quality objectives which in the event of exceedances will trigger investigation and adaptive management actions. Water quality monitoring is to be undertaken before, during and after construction and periodically during operations. Water quality results shall be compared against water quality guidelines for ecosystem health as well as monitoring for change (continuous increases or decreases) over time. Any continuous changes in water quality shall trigger investigation and adaptive management actions. Construction phase stormwater quality control measure	During operations	Proponent	High	Very low
	Construction	Changes in water quality, water bodies and hydrological processes that sustain threatened species and threatened ecological communities	All works and associated activities are to be delivered in accordance with an approved CEMP and sub plans, including a Soil and Water Management Plan, in order to avoid any impacts on groundwater, particularly during piling and excavation activities.	Duration of construction works	Project manager, relevant contractor, construction staff and site personnel	Medium	Very low
Hydrogeology	Operation	Change in ground water base flow to wetland and water bodies that sustain threatened species and threatened ecological communities.	While no site specific groundwater modelling data was available to the time of writing this report, the level that groundwater encountered in the bores which sit upstope from the wetlands is at a higher elevation that the wetlands, indicating that there is potential for groundwater to influence the wetlands and provide some base flow, however the extent to which groundwater influence flows and water quality within the wetlands is unknown based on available site information. It is expected that any reduction of groundwater recharge due to the development footprint of the hospital would be mitigated through recharge that would occur through the proposed WSUD measures such as: rain gardens, swales, car park plantings to reduce impervious surfaces, managing stormwater and ground water recharge through landscaping. In accordance with section 9.4.2 of the BAM, a Biodiversity Management Plan will include measures to monitor ground water quality on the Site and will include water quality objectives which in the event of exceedances will trigger investigation and adaptive management actions.	During operations	Proponent	Medium	Very low
	Construction	Vehicle strikes	All works and associated activities are to be delivered in accordance with an approved CEMP and sub plans, including a Biodiversity Management Plan, Traffic Control Plan and Access and Movement Plan. Traffic will be restricted to the southern portion of the Site where the project footprint is which is approximately 62m from the intact remnant native vegetation. Construction traffic must maintain low vehicle speeds and operators shall take care and be aware of any wildlife that may be in the area. Should wildlife enter the construction footprint, a suitable qualified fauna handler should be notified and actions taken in accordance with the construction EMP.	Duration of construction works	Project manager, relevant contractor, construction staff and site personnel	Low	Very low
Traffic	Operation	Vehicle strikes	The proposed development will widen the access road (Cudgen Road) and traffic volumes will incrementally increase 5007 vehicles per day along Cudgen Road and Turnock Street (Bitaos 2018). There is an existing wildlife fence owned and managed by TSC that is located adjacent to 2 most. 1,2 and 6 (Figure 11). The wildlife fence is located adjacent to the koala habitat the Site (Zone 6). However, this fence is poorly maintained and would currently allow arboreal mammals such as koala Phascolarctos cinereus to cross the fence. While the fence in its current state of maintenance provides connectivity between areas of habitat, it also puts them at risk of vehicle strike. In general the wildlife fence affords good protection for small ground dwelling mammals. Turnock Street currently creates a barrier in habitat connectivity of the overall patch of native vegetation in the Site area. In order to mitigate the potential of increase in wildlife vehicle strikes it is recommended that a wildlife crossing zone is installed where the road passes trough the Paperbark swamp area along Turnock Street (between the roundabout and Cudgen road). This crossing would be triggered by car movement and would assist species to move across the road barrier (hostile gap). The following wildlife protection and traffic calming measures on the access road are recommended to reduce the risk of vehicle strike on wildlife: • Install roadside street lighting in accordance with the design standards • On the uphill and downhill and downhill approaches to the road install: o Two 60 kilometre an hour speed limit signs and two wildlife warning signs (e.g., Wildlife Pawn to Dusk's igno rismilar) or two signs that combine both messages o Two permanent radar speed signs that display vehicle speed on approach or display a warning when the vehicle speed on approach is greater than the speed limit where necessary will outline thresholds for threatened species mortality based on current literature which will trigger investigation and adaptive management	During operations	Proponent	Low	Very low

Aspect	Project phase	Potential Impact	Mitigation	Timing	Responsibility	Risk before mitigation	Residual risk
Aviation	Operation	Aircraft strike	The proposed development includes a helipad on the top of the main building which will result in low level air traffic in the vicinity of the sites. There is a risk that threatened species of birds and bats (in particular local populations of the threatened grey-headed flying-fox Pteropus policocphalus) may be flying across the Site in remnant vegetation that is located at the level of the floodplain at the time of aircraft operation. The helipad will be situated on the top of the multiple level hospital facility that is constructed on a ridge above the level of the floodplain. As such this location is considered to be above the flight path altitude of any birds or bats and will therefore not interrupt any local migration or cause death through aircraft strike. At peak operation it is expected that aircraft movements would amount to six movements per week with an estimated flight time of 2 hours per annum. The nature of aircraft operation for the site are such that the majority of aviation movements are outbound (i.e. not inbound transport of trauma patients). Consequently, most outbound patient transfers would take place during the day when clinicians are available to make transport decisions. This would therefore avoid aircraft movements in the peak periods of flying fox activity in the hours preceding dusk and dawn. As a consequence the probability of aircraft strike on flying foxes is negligible. As a mitigation measure, aviation operations for the development will be conducted in accordance with an approved Aviation Operations Manual. This manual will identify areas of bird and flying fox activity such as the Eirond Drive and Kingscliff Library flying fox camps that are located within 1km of the Site (Ecosure 2018, Greencap 2018). These details will also be incorporated into the Enroute Supplement Australia (ERSA) published by Airsrevices Australia. FSKA ja publication which contains information vital for planning a flight and for in flight operations for the aircraft pilot. The location of known flying	During operations	Proponent	Low	Very low
Removal of native vegetation	Construction	Death or injury to wildlife	All works and associated activities are to be delivered in accordance with a CEMP and sub plans, including a Biodiversity Management Plan, Traffic Control Plan and a Access and Movement Plan. To ensure the safety of any native fauna occupying trees and vegetation proposed for removal, during vegetation clearing works, a suitably qualified and experienced person shall be present as a fauna spotter-catcher to supervise the tree removal. • On the day of clearing and prior to any clearing taking place, all trees within 30 metres of those trees to be cleared are to be inspected for the presence of native fauna by an experienced fauna spotter-catcher • During tree removal and major earth works a fauna spotter-catcher needs to be used at a minimum of one operator per machine. • The fauna spotter-catcher must not be involved in the vegetation clearing works whilst responsible for identifying fauna present on the site and will remain on site during any vegetation clearing works to ensure that any tree occupied by a fauna is not accidentaged or interfered with • Any uninjured native fauna detected during the tree removal shall be rescued and relocated into an area of appropriate habitat that is nearby, but outside of the development footprint. • Any injured native fauna detected shall be rescued and transferred to a local veterinarian for treatment and/or WIRES for rehabilitation. Should koalas be found on the Site during vegetation clearing works and/or earthworks, tree clearing works and/or earthworks must be temporarily suspended within a range of 30 metres from any tree which is occupied by a koala. • Works are to be avoided in any area between the koala and the nearest areas of habitat to allow the animal to move to adjacent undisturbed areas. • Works must not resume until the koala has moved from the tree of its own volition. In order to minimise direct impacts on ground dwelling and arboreal fauna, any earthworks conducted to clear rocks and trees along the windrows (zone 4) shall have a suitably qualifi	Duration of vegetation clearing works and/or earthworks	Project manager, relevant contractor, construction staff and site personnel	Low	Very low
Habitat; established home raise and connectivity	Construction	Removal of windrow vegetation in Zone 4 and 8. Removal of wood or rocks along the windrows, particularly in Zone 4.	All works and associated activities are to be delivered in accordance with an approved CEMP and sub plans, including a Biodiversity Management Plan. In order to preserve and enhance biodiversity values, including threatened species habitat and connections for foraging and dispersal the following proposed features have been incorporated into the Tweed Valley Hospital Landscape Masterplan Report (Turf 2018): Landscape plan Zone 2 • New plantings along the northern embankment that provide stepping stone habitats at a site scale to include: • Locally indigenous native rainforest trees, shrubs and groundcovers • Inclusion of habitat features such as rocks and logs that have been salvaged from other areas of the Site (cleared windrows) that will create habitat for ground dwelling species • New plantings within rain gardens, swale drains and sediment basins that both treat stormwater quality and contribute to providing a range of native habitat across the site • Locally indigenous native trees • Water adapted ground covers (e.g. from the Cyperaceae, Juncaceae and Poaceae families) are to be planted in rain gardens. Landscape plan Zone 6 Landscape plan Zone 6 • Water adapted ground covers (e.g. from the Cyperaceae, Juncaceae and Poaceae families) are to be planted in rain gardens. Landscape plan Zone 10 • Retention and enhancement of established windrows (vegetation buffers): • Minimum 10m wide wegetated buffers: • Augment existing vegetation buffers to increase biodiversity values, including habitat connectivity • Immediate removal of High Threat Exotic weeds that have self-sown within the windrows (e.g. camphor laurel Cinnamonum comphora, small leaved privet Ligustrum siness, umbrella tree Schefflera cancinophyllo 1 • Planting the understory of windrows with locally indigenous native species In accordance with section 9.4.2 of the BAM, a Biodiversity Management Plan will incorporate a Vegetation Management Plan with measures to monitor vegetation at the Site, including objectives and thresholds whin	Duration of construction works	Project manager, relevant contractor, construction staff and site personnel	Medium	Low

Aspect	Project phase	Potential Impact	Mitigation	Timing	Responsibility	Risk before mitigation	Residual risk
	Operation	Decrease in biodiversity values including connectivity and movement of threatened species that maintains their lifecycle	All works and associated activities are to be delivered in accordance with an approved CEMP and sub plans, including a Biodiversity Management Plan. Weed removal shall be undertaken to preserve and enhance the current biodiversity values in the remnant native vegetation areas at the Site, in particular areas of remnant White Booyong - Fig subtropical rainforest, Paperbark swamp and Flooded Gum forest. Weed removal will include: Removal of an exotic grassland monoculture composed of barneer grass Pennisteum purpureum located amongst derived and remnant native vegetation in the northern section of the Site (Zone 9) and revegetation with appropriate native rainforest species Currently there is a Salvinia molestar infestation in the dam located in the central northern section of the Site. This dam would likely overflow during high intensity rainfall events and it is likely that this would pose a risk to the spread of this High Threat Exotic into downstream freshwater bodies. Decommissioning of the dam has been recommended Removal of weeds including alexandra palms Archontophoenix alexandrae, morning glory lpomea caerica and Singapore daisy Sphagneticola trillobata in the remnant native vegetation. In accordance with section 9.4.2 of the BAM, a Biodiversity Management Plan will set out provisions for the ecological restoration, rehabilitation and/or ongoing maintenance of native vegetation habitat on or adjacent to the development Site. Actions will be undertaken in both construction (see above) and operations phases.	During operations	Proponent	Medium	Low
Fire	Operation	Risk of increased fire regime on fire-sensitive sub-tropical rainforest and Paperbark swamp vegetation	Landscaping within Landscape Zone 2 (Turf 2018) largely coincides with the mandatory 62m Asset Protection Zone (AP2) for the development. Consequently, all plantings will be designed and maintained in accordance with current published guidelines (RFS 2006, 2007) and in consultation with the NSW Rural Fire Services, as detailed in the Tweed Valley Hospital Landscape Masterplan Report (Turf 2018).	During operations	Proponent	Medium	Low



Tweed Valley Hospital

APPENDIX I. INDIRECT IMPACT ASSESSMENT

Aspect	Project phase	Potential Impact	Mitigation	Timing	Responsibility	Risk before Mitigation	Risk After Mitigation
Noise	Construction	Noise during construction due to construction works and construction traffic. Potential disruption of threatened species or reduced viability of adjacent habitat	All works and associated activities are to be delivered in accordance with an approved Construction Environmental Management Plan (CEMP) and sub plans, including a Noise Mitigation Plan. Noise during construction will be mitigated by applying appropriate safeguards and management measures before works commence including daily timing of construction activities and such as avoiding night works as much as possible in accordance with the Interim Noise Guidelines (2009). Furthermore, construction will be restricted to the southern portion of the Site where the project footprint is at least 62 m (the wide of the proposed Asset Protection Zone for bushfire protection) from the remnant native vegetation.	Duration of construction works	Project manager, relevant contractor, construction staff and site personnel	Low	Very low
Noise	Operation	Noise during operations including traffic. Potential disruption of threatened species or reduced viability of adjacent habitat	Noise levels during operations would be delivered in accordance with an approved Operational Environmental Management Plan (OEMP) that details safeguards and management measures in accordance with the POEO (Noise Control) Regulation 2017 or any other relevant Tweed Shire Council noise regulation.	During operations	Proponent	Low	Very low
Vibration	Vibration duri to constru constru Construction Potential disru species or re adjac		All works and associated activities are to be delivered in accordance with an approved CEMP and sub plans, including a Vibration Mitigation Plan. Vibration during construction will be mitigated by applying appropriate safeguards and management measures before works commence including daily timing of construction activities and such as avoiding night works as much as possible in accordance. Furthermore, construction will be restricted to the southern portion of the Site where the project footprint is at least 62 m (the wide of the proposed Asset Protection Zone for bushfire protection) from the remnant native vegetation.	Duration of construction works	Project manager, relevant contractor, construction staff and site personnel	Low	Very low
VISITATION	Operation	Vibration during operations including traffic. Potential disruption of threatened species or reduced viability of adjacent habitat	Vibration levels (if any) during operations would be managed in accordance with an approved OEMP that details safeguards and management measures in accordance with relevant standards and guidelines.	During operations	Proponent	Low	Very low
Light spill	Construction	Light spill during construction due to construction lighting and construction traffic. Potential disruption of threatened species or reduced viability of adjacent habitat	Light sensitive species are presumed unlikely to be present at the Site. Construction will be restricted to the southern portion of the Site where the project footprint is at least 62 m (the wide of the proposed Asset Protection Zone for bushfire protection) from the remnant native vegetation. All works and associated activities would be delivered in accordance with an approved CEMP that details applicable safeguards and management measures before works commence including daily timing of construction activities such as avoiding night works as much as possible and directing lights away from remnant vegetation.	Duration of construction works	Project manager, relevant contractor, construction staff and site personnel	Low	Very low
	Operation	Light spill during operations Potential disruption of threatened species or reduced viability of adjacent habitat	The Site does not contain habitat for threatened species that are drawn to light (i.e. turtles) that could be adversely impacted by light spill. The deevlopment will be loacted at least 62m (the width of the APZ) from vegetation (Zones 1,2,3). Provision of lighting would be delivered in accordance with an approved CEMP and any relevant standards and guidelines, in particular local hospitals.	During operations	Proponent	Low	Very low
Visual Amenity	Construction	Rubbish and waste retained onsite attracting native fauna.	Activities on the Site will be managed in accordance with the approved CEMP, and designed to limit the amount of rubbish and waste onsite through good housekeeping practices.	Duration of construction works	Project manager, relevant contractor, construction staff and site personnel	Low	Very low
,	Operation	Rubbish and waste retained onsite attracting native fauna.	Activities on the Site will be managed in accordance with the approved OEMP, and designed to limit the amount of rubbish and waste onsite through good housekeeping practices.	During operations	Proponent	Low	Very low
Duct	Construction	Inadvertent impacts of dust deposition on native vegetation or threatened species Potential disruption of threatened species or reduced viability of adjacent habitat	Dust levels during operations would be managed in accordance with an approved CEMP that details safeguards and management measures in accordance with relevant guidelines for construction sites, including: • Daily monitoring of dust generated by construction activities. • Dust suppression measures (setting maximum speed limits and application of dust suppressants) will be implemented during construction works to limit dust on site • Commence revegetation as soon as practicable to minimise areas likely to create dust	Duration of construction works	Project manager, relevant contractor, construction staff and site personnel	Low	Very low
Dust	Operation	Inadvertent impacts of dust deposition on native vegetation or threatened species Potential disruption of threatened species or reduced viability of adjacent habitat	Adaptive dust monitoring programs to control air quality, in accordance with the approved OEMP.	During operations	Proponent	Low	Very low

Aspect	Project phase	Potential Impact	Mitigation	Timing	Responsibility	Risk before Mitigation	Risk After Mitigation
Retained native vegetation	Construction	Damage or removal of retained native vegetation Unplanned loss of habitat	Management Plan. All existing trees and areas of native vegetation not identified for removal on approved plans of the proposed development shall be protected from damage during works. This protection shall consist of:		Project manager, relevant contractor, construction staff and site personnel	Low	Very low
Non-native vegetation	Operation	Introduction of weeds to the Site	In order to avoid the introduction or spread of weeds on the Site, weed hygiene practices in accordance with an approved CEMP and sub plans, including a Biodiversity Management Plan: • Mulch generated from exotic trees and/or other weed species that have been cleared shall not be used on site. The mulch shall be removed from the site and disposed of in accordance with legislative requirements.	Duration of construction works	Project manager, relevant contractor, construction staff and site personnel	Low	Very low
Bushfire / Changing - Fire Regimes	Construction	Changes to existing fire regime and / or increased prevalence of	Bushfire impacts will be identified and managed through bushfire impact assessment and associated management plans.	Duration of construction works	Project manager, relevant contractor, construction staff and site personnel	Low	Very low
	Operation	fire	Dustinite imputes with the interiorised and managed arrough additioned impate assessment and associated management plans.	Duration of construction works	Project manager, relevant contractor, construction staff and site personnel	Low	Very low



Tweed Valley Hospital

APPENDIX J. RISK MATRIX

			Probability								
		Α	В	С	D	E					
Maximum reasonable consequence	1	CR	CR	HR	HR	MR					
	2	CR	HR	HR	MR	LR					
	3	HR	HR	MR	LR	LR					
	4	HR	MR	LR	LR	LR					
M	5	MR	LR	LR	LR	LR					

CRITICAL	CR
HIGH RISK	HR
MODERATE RISK	MR
LOW RISK	LR

Consequence criteria: Impacts on threatened species and/or threatened species habitat

1 CRITICAL

- Impact Severe; Spatial scale Widespread; Time scale Long-term.
- Requires consideration of whether impacts may result in a Serious and Irreversible Impact that may lead to local extinction.

2. MAJOR

- Impact Moderate; Spatial scale Moderate to widespread; Time scale Mid- to long-term.
- May result in temporary or long-term damage.

3. MODERATE

- Impact Moderate; Spatial scale Local to moderate; Time scale Short- to mid-term.
- May result in a moderate, temporary impact. However, it may be difficult to rehabilitate impact and may have negative implications on the ecosystem.

4. MINOR

- Impact Minor; Spatial scale Local; Time scale Short-term.
- May result in minor impacts that are relatively easily rehabilitated. Not likely to have negative implications
 on the ecosystem.

5. NEGLIGIBLE

- Impact Minor; Time scale Short-term with no lasting effect.
- May result in negligible impacts that can be categorised as temporary, local and reversible.

Likelihood criteria

A. ALMOST CERTAIN

Very high or certain probability that impact will occur or event is of a continuous nature.

B. LIKELY

• Likely probability that impact will occur or event is frequent (frequency 1-5 years).

C. MODERATE

Moderate probability that impact will occur or event is infrequent (frequency 5-20 years).

D. UNLIKELY

• Low probability that impact will occur or event is very infrequent (frequency 100 years).

E. REMOTE

Very low probability that impact will occur or may occur under extenuating circumstances. Event is very rare
of stochastic in nature (frequency 1000 years)



Tweed Valley Hospital

APPENDIX K. CREDIT SUMMARY REPORT



Proposal Details

Assessment Id Proposal Name BAM data last updated *

00011608/BAAS18006/18/00011611 Tweed Valley Hospital

24/02/2018

Assessor Name Report Created BAM Data version *

Damian Licari 12/09/2018

Assessor Number BAAS18006

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with

Ecosystem credits for plant communities types (PCT), ecological communities & threatened species habitat

Zone	Vegetation zone	Vegetation	Area (ha)	Constant	Species sensitivity to gain class (for BRW)	Biodiversity risk	Candidate SAII	Ecosystem credits
Floode	d Gum - Brush Box	- Tallowwood me	sic tall open	forest on r	anges of the lower North Coast			
Ţ.	1569_Z5_Derived	0.0	0.5	0.25		1.00		1
6	1569_Z6_Derived	3.0	0.2	0.25		1.00		1
							Subtotal	2
Paperb	ark swamp forest o	of the coastal low	ands of the	NSW North	Coast Bioregion and Sydney Basin Biore	gion		
1	1064_Z1_Moderat	0.1	3.8	0.25	High Sensitivity to Potential Gain	2.00	TRUE	1
							Subtotal	1



7 1235_Z7_Derived	0.0	0.1	0.25	Moderate Sensitivity to Potential Gain	1.75		
						Subtotal	
ite Booyong - Fig subtropica	rainforest of tl	ne NSW No	rth Coas	t Bioregion			
2 1302_Z2_Moderat	0.0	1.0	0.25	High Sensitivity to Potential Gain	2.00	TRUE	
3 1302_Z3_Low	0.0	0.3	0.25	High Sensitivity to Potential Gain	2.00	TRUE	
4 1302_Z4_Derived	8.8	0.6	0.25		1.50	TRUE	
8 1302_Z8_Derived	12.0	0.7	0.25		1.50	TRUE	
						Subtotal	
						Total	

Species credits for threatened species

Vegetation zone name	Habitat condition (HC)	Area (ha) / individual (HL)	Constant	Biodiversity risk weighting	Candidate SAII	Species credits
Anthochaera phrygia /	Regent Honeyeater (Fauna)				
1064_Z1_Moderate	0.1	3.8	0.25	3	True	0
1302_Z2_Moderate	0.0	1	0.25	3	True	0
1302_Z3_Low	0.0	0.3	0.25	3	True	0
1569_Z5_Derived	0.0	0.25	0.25	3	True	0
1569_Z6_Derived	3.0	0.2	0.25	3	True	0
					Subtotal	0



Argynnis hyperbius / Laced Fritil	llary (Fauna)				
1064_Z1_Moderate	0.1	3.8	0.25	3 True	(
1302_Z2_Moderate	0.0	1	0.25	3 True	(
1302_Z3_Low	0.0	0.3	0.25	3 True	C
1569_Z5_Derived	0.0	0.25	0.25	3 True	C
1569_Z6_Derived	3.0	0.2	0.25	3 True	C
				Subtotal	C
Arthraxon hispidus / Hairy Joint	grass (Flora)				
1064_Z1_Moderate	0.1	3.8	0.25	2 False	C
1302_Z2_Moderate	0.0	1	0.25	2 False	C
1302_Z3_Low	0.0	0.3	0.25	2 False	C
				Subtotal	C
Cacophis harriettae / White-crov	wned Snake (Fauna)				
1064_Z1_Moderate	0.1	3.8	0.25	2 False	C
1302_Z2_Moderate	0.0	1	0.25	2 False	C
1302_Z3_Low	0.0	0.3	0.25	2 False	C
1569_Z5_Derived	0.0	0.25	0.25	2 False	C
1569_Z6_Derived	3.0	0.2	0.25	2 False	C
				Subtotal	



1064_Z1_Moderate	0.1	3.8	0.25	2	N/A	0
1302_Z2_Moderate	0.0	1	0.25	2	N/A	0
1302_Z3_Low	0.0	0.3	0.25	2	N/A	0
					Subtotal	0
Centranthera cochinchinensis /	Swamp Foxglove (Flora)					
1064_Z1_Moderate	0.1	3.8	0.25	1	N/A	0
1302_Z2_Moderate	0.0	1	0.25	1	N/A	0
1302_Z3_Low	0.0	0.3	0.25	1	N/A	0
					Subtotal	0
Cercartetus nanus / Eastern Pyg	my-possum (Fauna)					
1064_Z1_Moderate	0.1	3.8	0.25	2	False	0
1302_Z2_Moderate	0.0	1	0.25	2	False	0
1302_Z3_Low	0.0	0.3	0.25	2	False	0
1569_Z5_Derived	0.0	0.25	0.25	2	False	0
1569_Z6_Derived	3.0	0.2	0.25	2	False	0
					Subtotal	0
Chalinolobus dwyeri / Large-ea	red Pied Bat (Fauna)					
1064_Z1_Moderate	0.1	3.8	0.25	3	True	0
1302_Z2_Moderate	0.0	1	0.25	3	True	0
1302_Z3_Low	0.0	0.3	0.25	3	True	0



1569_Z5_Derived	0.0	0.25	0.25	3	True	0
1569_Z6_Derived	3.0	0.2	0.25	3	True	0
					Subtotal	0
Coeranoscincus retici	ılatus / Three-toed Snake-tootl	h Skink (Fauna)				
1064_Z1_Moderate	0.1	3.8	0.25	2	False	0
1302_Z2_Moderate	0.0	1	0.25	2	False	0
1302_Z3_Low	0.0	0.3	0.25	2	False	0
1569_Z5_Derived	0.0	0.25	0.25	2	False	0
1569_Z6_Derived	3.0	0.2	0.25	2	False	0
					Subtotal	0
Crinia tinnula / Wall	um Froglet (Fauna)					
1064_Z1_Moderate	0.1	3.8	0.25	1.5	False	0
					Subtotal	0
Cryptocarya foetida /	/ Stinking Cryptocarya (Flora)					
1302_Z2_Moderate	N/A	1	0.25	1.5	False	2
					Subtotal	2
Cyclopsitta diophtha	lma coxeni / Coxen's Fig-Parro	t (Fauna)				
1064_Z1_Moderate	0.1	3.8	0.25	3	True	0
1302_Z2_Moderate	0.0	1	0.25	3	True	0
1302_Z3_Low	0.0	0.3	0.25	3	True	0



1569_Z5_Derived	0.0	0.25	0.25	3 True	(
1569_Z6_Derived	3.0	0.2	0.25	3 True	(
				Subtotal	C
Cyperus aquatilis / Water Nutgi	rass (Flora)				
1064_Z1_Moderate	0.1	3.8	0.25	2 False	(
1302_Z2_Moderate	0.0	1	0.25	2 False	(
1302_Z3_Low	0.0	0.3	0.25	2 False	(
				Subtotal	C
Dendrobium melaleucaphilum /	Spider orchid (Flora)				
1064_Z1_Moderate	0.1	3.8	0.25	2 False	C
1302_Z2_Moderate	0.0	1	0.25	2 False	C
1302_Z3_Low	0.0	0.3	0.25	2 False	C
				Subtotal	C
Geodorum densiflorum / Pink N	odding Orchid (Flora)				
1064_Z1_Moderate	0.1	3.8	0.25	2 False	C
1302_Z2_Moderate	0.0	1	0.25	2 False	C
1302_Z3_Low	0.0	0.3	0.25	2 False	C
				Subtotal	0
Haliaeetus leucogaster / White-	bellied Sea-Eagle (Fauna)				
1064_Z1_Moderate	0.1	3.8	0.25	2 N/A	C



Isoglossa eranthemoides / Isoglo					Subtotal	
1569_Z6_Derived	3.0	0.2	0.25	2	False	(
1569_Z5_Derived	0.0	0.25	0.25		False	(
1302_Z3_Low	0.0	0.3	0.25	2	False	
1302_Z2_Moderate	0.0	1	0.25	2	False	(
1064_Z1_Moderate	0.1	3.8	0.25	2	False	(
Hoplocephalus bitorquatus / Pa	le-headed Snake (Fauna)					
					Subtotal	(
1569_Z6_Derived	3.0	0.2	0.25	1.5	N/A	(
1569_Z5_Derived	0.0	0.25	0.25	1.5	N/A	(
1302_Z3_Low	0.0	0.3	0.25	1.5	N/A	(
1302_Z2_Moderate	0.0	1	0.25	1.5	N/A	(
1064_Z1_Moderate	0.1	3.8	0.25	1.5	N/A	
Hieraaetus morphnoides / Little	Eagle (Fauna)					
					Subtotal	(
1569_Z6_Derived	3.0	0.2	0.25	2	N/A	(
1569_Z5_Derived	0.0	0.25	0.25	2	N/A	(
1302_Z3_Low	0.0	0.3	0.25	2	N/A	(
1302_Z2_Moderate	0.0	1	0.25	2	N/A	(



1064_Z1_Moderate	0.1	3.8	0.25	2	False	0
1302_Z2_Moderate	0.0	1	0.25		False	0
1302_Z3_Low	0.0	0.3	0.25		False	0
					Subtotal	0
Lathamus discolor / Swift Parro	t (Fauna)					
1064_Z1_Moderate	0.1	3.8	0.25	3	True	0
1302_Z2_Moderate	0.0	1	0.25	3	True	0
1302_Z3_Low	0.0	0.3	0.25	3	True	0
1569_Z5_Derived	0.0	0.25	0.25	3	True	0
1569_Z6_Derived	3.0	0.2	0.25	3	True	0
					Subtotal	0
Litoria brevipalmata / Green-th	ighed Frog (Fauna)					
1064_Z1_Moderate	0.1	3.8	0.25	1.5	False	0
1302_Z2_Moderate	0.0	1	0.25	1.5	False	0
1302_Z3_Low	0.0	0.3	0.25	1.5	False	0
					Subtotal	0
Litoria olongburensis / Olongbu	rra Frog (Fauna)					
1064_Z1_Moderate	0.1	3.8	0.25	1.5	False	0
1302_Z2_Moderate	0.0	1	0.25	1.5	False	0
1302_Z3_Low	0.0	0.3	0.25	1.5	False	0



					Subtotal	0
Lophoictinia isura / Square-taile	ed Kite (Fauna)					
1064_Z1_Moderate	0.1	3.8	0.25	1.5	N/A	0
1302_Z2_Moderate	0.0	1	0.25	1.5	N/A	0
1302_Z3_Low	0.0	0.3	0.25	1.5	N/A	0
1569_Z5_Derived	0.0	0.25	0.25	1.5	N/A	0
1569_Z6_Derived	3.0	0.2	0.25	1.5	N/A	0
					Subtotal	0
Marsdenia longiloba / Slender M	larsdenia (Flora)					
1064_Z1_Moderate	0.1	3.8	0.25	2	? False	0
1302_Z2_Moderate	0.0	1	0.25	2	? False	0
1302_Z3_Low	0.0	0.3	0.25	2	? False	0
					Subtotal	0
Miniopterus australis / Little Ber	ntwing-bat (Fauna)					
1064_Z1_Moderate	0.1	3.8	0.25	3	True	0
1302_Z2_Moderate	0.0	1	0.25	3	True	0
1302_Z3_Low	0.0	0.3	0.25	3	True	0
1569_Z5_Derived	0.0	0.25	0.25	3	True	0
1569_Z6_Derived	3.0	0.2	0.25	3	True	0
					Subtotal	0



Miniopterus schreibersii oceanen	sis / Eastern Bentwing-bat (Fo	una)			
1064_Z1_Moderate	0.1	3.8	0.25	3 True	C
1302_Z2_Moderate	0.0	1	0.25	3 True	C
1302_Z3_Low	0.0	0.3	0.25	3 True	C
1569_Z5_Derived	0.0	0.25	0.25	3 True	0
1569_Z6_Derived	3.0	0.2	0.25	3 True	0
				Subtotal	0
Mixophyes iteratus / Giant Barre	ed Frog (Fauna)				
1064_Z1_Moderate	0.1	3.8	0.25	2 False	0
1302_Z2_Moderate	0.0	1	0.25	2 False	0
1302_Z3_Low	0.0	0.3	0.25	2 False	0
				Subtotal	0
Myotis macropus / Southern Myo	otis (Fauna)				
1064_Z1_Moderate	0.1	3.8	0.25	2 False	0
1302_Z2_Moderate	0.0	1	0.25	2 False	0
1302_Z3_Low	0.0	0.3	0.25	2 False	0
				Subtotal	0
Ninox connivens / Barking Owl (Fauna)				
1064_Z1_Moderate	0.1	3.8	0.25	2 N/A	0
1302_Z2_Moderate	0.0	1	0.25	2 N/A	0



1302_Z3_Low	0.0	0.3	0.25	2	N/A	(
1569_Z5_Derived	0.0	0.25	0.25	2	N/A	(
1569_Z6_Derived	3.0	0.2	0.25	2	N/A	(
					Subtotal	0
Ninox strenua / Powerful Owl (Fauna)					
1064_Z1_Moderate	0.1	3.8	0.25	2	N/A	C
1302_Z2_Moderate	0.0	1	0.25	2	N/A	C
1302_Z3_Low	0.0	0.3	0.25	2	N/A	0
1569_Z5_Derived	0.0	0.25	0.25	2	N/A	0
1569_Z6_Derived	3.0	0.2	0.25	2	N/A	0
					Subtotal	0
Pandion cristatus / Eastern Ospr	rey (Fauna)					
1064_Z1_Moderate	0.1	3.8	0.25	1.5	N/A	0
1302_Z2_Moderate	0.0	1	0.25	1.5	N/A	0
1302_Z3_Low	0.0	0.3	0.25	1.5	N/A	0
1569_Z5_Derived	0.0	0.25	0.25	1.5	N/A	0
1569_Z6_Derived	3.0	0.2	0.25	1.5	N/A	0
					Subtotal	0
Petalura litorea / Coastal Petalt	ail (Fauna)					
1064_Z1_Moderate	0.1	3.8	0.25	3	True	0



Phascolarctos cinereus / Koala (Subtotal	(
1569_Z6_Derived	3.0	0.2	0.25	2 False	(
1569_Z5_Derived	0.0	0.25	0.25	2 False	(
1302_Z3_Low	0.0	0.3	0.25	2 False	(
1302_Z2_Moderate	0.0	1	0.25	2 False	(
1064_Z1_Moderate	0.1	3.8	0.25	2 False	(
Phascogale tapoatafa / Brush-to	ailed Phascogale (Fauna)				
				Subtotal	(
1569_Z6_Derived	3.0	0.2	0.25	2 False	(
1569_Z5_Derived	0.0	0.25	0.25	2 False	(
1302_Z3_Low	0.0	0.3	0.25	2 False	(
L302_Z2_Moderate	0.0	1	0.25	2 False	(
1064_Z1_Moderate	0.1	3.8	0.25	2 False	
Petaurus norfolcensis / Squirrel	Glider (Fauna)				
				Subtotal	(
1569_Z6_Derived	3.0	0.2	0.25	3 True	(
1569_Z5_Derived	0.0	0.25	0.25	3 True	(
1302_Z3_Low	0.0	0.3	0.25	3 True	
L302_Z2_Moderate	0.0	1	0.25	3 True	(



1064_Z1_Moderate	0.1	3.8	0.25	2	N/A	C
1302_Z2_Moderate	0.0	1	0.25	2	N/A	C
1302_Z3_Low	0.0	0.3	0.25	2	N/A	C
					Subtotal	0
Phyllodes imperialis southern s	ubspecies / Southern Pink Ui	nderwing Moth (Fauna)				
1064_Z1_Moderate	0.1	3.8	0.25	2	False	0
1302_Z2_Moderate	0.0	1	0.25	2	False	0
1302_Z3_Low	0.0	0.3	0.25	2	False	0
1569_Z5_Derived	0.0	0.25	0.25	2	False	0
1569_Z6_Derived	3.0	0.2	0.25	2	False	0
					Subtotal	0
Planigale maculata / Common	Planigale (Fauna)					
1064_Z1_Moderate	0.1	3.8	0.25	2	False	0
1302_Z2_Moderate	0.0	1	0.25	2	False	0
1302_Z3_Low	0.0	0.3	0.25	2	False	0
1569_Z5_Derived	0.0	0.25	0.25	2	False	0
1569_Z6_Derived	3.0	0.2	0.25	2	False	0
					Subtotal	0
Pteropus poliocephalus / Grey-l	neaded Flying-fox (Fauna)					
1064_Z1_Moderate	0.1	3.8	0.25	2	N/A	0



				Subtotal	0
1569_Z6_Derived	3.0	0.2	0.25	2 N/A	0
1569_Z5_Derived	0.0	0.25	0.25	2 N/A	0
1302_Z3_Low	0.0	0.3	0.25	2 N/A	0
1302_Z2_Moderate	0.0	1	0.25	2 N/A	0
1064_Z1_Moderate	0.1	3.8	0.25	2 N/A	0
Tyto novaehollandiae / Masked	Owl (Fauna)				
				Subtotal	0
1302_Z3_Low	0.0	0.3	0.25	3 True	0
1302_Z2_Moderate	0.0	1	0.25	3 True	0
1064_Z1_Moderate	0.1	3.8	0.25	3 True	0
Thersites mitchellae / Mitchell's	Rainforest Snail (Fauna)				
				Subtotal	0
1569_Z6_Derived	3.0	0.2	0.25	2 N/A	0
1569_Z5_Derived	0.0	0.5	0.25	2 N/A	0
1302_Z3_Low	0.0	0.3	0.25	2 N/A	0
1302_Z2_Moderate	0.0	1	0.25	2 N/A	0



Tweed Valley Hospital

APPENDIX L. BIODIVERSITY CREDIT REPORT



Proposal Details

Assessment Id

00011608/BAAS18006/18/00011611

Assessor Name

Damian Licari

Proponent Names

Candidate Serious and Irreversible Impacts

Nil

Nil

Additional Information for Approval

PCTs With Customized Benchmarks

No Changes

Predicted Threatened Species Not On Site

Proposal Name BAM data last updated *

Tweed Valley Hospital 24/02/2018

Assessor Number BAM Data version *

BAAS18006 3

Report Created * Disclaimer: BAM data last updated may indicate either

12/09/2018 complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.



Name
Thylogale stigmatica / Red-legged Pademelon
Tyto novaehollandiae / Masked Owl
Rostratula australis / Australian Painted Snipe

Ecosystem Credit Summary

PCT	TEC	Area	Credits
1064-Paperbark swamp forest of the coastal lowlands of the NSW North Coast Bioregion and Sydney Basin Bioregion	Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	3.8	1.00
1302-White Booyong - Fig subtropical rainforest of the NSW North Coast Bioregion	Lowland Rainforest on Floodplain in the New South Wales North Coast Bioregion	2.6	5.00
1569-Flooded Gum - Brush Box - Tallowwood mesic tall open forest on ranges of the lower North Coast	Not a TEC	0.7	2.00
1235-Swamp Oak swamp forest of the coastal lowlands of the NSW North Coast Bioregion	Not a TEC	0.1	1.00

Credit classes for	Like-for-like options				
1064	Any PCT with the below TEC	Containing HBT	In the below IBRA subregions		



						•
	Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions (including PCT's 837, 839, 971, 1064, 1092, 1227, 1230, 1231, 1232, 1235, 1649, 1715, 1716, 1717, 1718, 1719, 1721, 1722, 1723, 1724, 1725, 1730, 1795, 1798)		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.			
Credit classes for 1235	Like-for-like options Any PCT in the below Class	low trading	Containing HBT	In the bel	low IBRA subregions	
	Coastal Floodplain Wetlands (including PCT's 780, 828, 835, 1234, 1235, 1386, 1651, 1720, 1728)	groups Coastal Floodplain Wetlands - ≥ 70% - <90% cleared group (including Tier 4 or higher).		No	Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Credit classes for	Like-for-like options Any PCT with the below TEC	Containing HBT	In the below IP	RA subregions		



Credit classes for 1569

Any PCT in the below Class	And in any of below trading	Containing HBT	In the below IBRA subregions	
This is a second class	groups		an the select is to such egions	
North Coast Wet Sclerophyll Forests (including PCT's 487, 613, 661, 684, 686, 692, 693, 694, 695, 699, 747, 748, 752, 812, 1073, 1208, 1217, 1222, 1237, 1244, 1245, 1257, 1259, 1260, 1261, 1265, 1266, 1282, 1284, 1285, 1504, 1561, 1562, 1563, 1566, 1567, 1568, 1569, 1572, 1573, 1575, 1579, 1841, 1843, 1915)	North Coast Wet Sclerophyll Forests - < 50% cleared group (including Tier 7 or higher).	Yes	Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	



Species Credit Summary

Species	Area	Credits
Anthochaera phrygia / Regent Honeyeater	5.6	0.00
Argynnis hyperbius / Laced Fritillary	5.6	0.00
Arthraxon hispidus / Hairy Jointgrass	5.1	0.00
Cacophis harriettae / White-crowned Snake	5.6	0.00
Calyptorhynchus lathami / Glossy Black-Cockatoo	5.1	0.00
Centranthera cochinchinensis / Swamp Foxglove	5.1	0.00
Cercartetus nanus / Eastern Pygmy-possum	5.6	0.00
Chalinolobus dwyeri / Large-eared Pied Bat	5.6	0.00
Coeranoscincus reticulatus / Three-toed Snake-tooth Skink	5.6	0.00
Crinia tinnula / Wallum Froglet	3.8	0.00
Cryptocarya foetida / Stinking Cryptocarya	1.0	2.00
Cyclopsitta diophthalma coxeni / Coxen's Fig-Parrot	5.6	0.00
Cyperus aquatilis / Water Nutgrass	5.1	0.00
Dendrobium melaleucaphilum / Spider orchid	5.1	0.00
Geodorum densiflorum / Pink Nodding Orchid	5.1	0.00
Haliaeetus leucogaster / White-bellied Sea-Eagle	5.6	0.00
Hieraaetus morphnoides / Little Eagle	5.6	0.00
Hoplocephalus bitorquatus / Pale-headed Snake	5.6	0.00



Isoglossa eranthemoides / Isoglossa	5.1	0.00
Lathamus discolor / Swift Parrot	5.6	0.00
Litoria brevipalmata / Green-thighed Frog	5.1	0.00
Litoria olongburensis / Olongburra Frog	5.1	0.00
Lophoictinia isura / Square-tailed Kite	5.6	0.00
Marsdenia longiloba / Slender Marsdenia	5.1	0.00
Miniopterus australis / Little Bentwing-bat	5.6	0.00
Miniopterus schreibersii oceanensis / Eastern Bentwing-bat	5.6	0.00
Mixophyes iteratus / Giant Barred Frog	5.1	0.00
Myotis macropus / Southern Myotis	5.1	0.00
Ninox connivens / Barking Owl	5.6	0.00
Ninox strenua / Powerful Owl	5.6	0.00
Pandion cristatus / Eastern Osprey	5.6	0.00
Petalura litorea / Coastal Petaltail	5.6	0.00
Petaurus norfolcensis / Squirrel Glider	5.6	0.00
Phascogale tapoatafa / Brush-tailed Phascogale	5.6	0.00
Phascolarctos cinereus / Koala	5.1	0.00
Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth	5.6	0.00
Planigale maculata / Common Planigale	5.6	0.00
Pteropus poliocephalus / Grey-headed Flying-fox	5.8	0.00



Thersites mitchellae / Mitchell's Rainforest Snail	5.1	0.00
Tyto novaehollandiae / Masked Owl	5.6	0.00

Anthochaera phrygia/		Like-for-like options	
Regent Honeyeater 1302_		Only the below Spp	In the below IBRA subregions
		Anthochaera phrygia/Regent Honeyeater	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Anthochaera phrygia/Regent Honeyeater	Any in NSW
13	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Anthochaera phrygia/Regent Honeyeater	Any in NSW
	1569_Z5_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Anthochaera phrygia/Regent Honeyeater	Any in NSW
	1569_Z6_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Anthochaera phrygia/Regent Honeyeater	Any in NSW



Laced Fritillary	1064_Z1_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Argynnis hyperbius/Laced Fritillary	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Argynnis hyperbius/Laced Fritillary	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Argynnis hyperbius/Laced Fritillary	Any in NSW
	1569_Z5_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
	I		

Page 8 of 55



		Argynnis hyperbius/Laced Fritillary	Any in NSW
	1569_Z6_Derived	Like-for-like options	
	Only the below Spp	In the below IBRA subregions	
	Argynnis hyperbius/Laced Fritillary	Any in NSW	
Arthraxon hispidus/	1064_Z1_Moderate	Like-for-like options	
Hairy Jointgrass		Only the below Spp	In the below IBRA subregions
		Arthraxon hispidus/Hairy Jointgrass	Any in NSW
1302_Z2_Modera	1202 72 14 1	Like-for-like options	
	1302_Z2_Moderate		
	1302_22_Moderate	Only the below Spp	In the below IBRA subregions



Arthraxon hispidus/ Hairy Jointgrass 1302_Z2_Moderate			
130	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Arthraxon hispidus/Hairy Jointgrass	Any in NSW
Cacophis harriettae/	1064_Z1_Moderate	Like-for-like options	
White-crowned Snake		Only the below Spp	In the below IBRA subregions
		Cacophis harriettae/White-crowned Snake	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Cacophis harriettae/White-crowned Snake	Any in NSW



Cacophis harriettae/	1302_Z3_Low	Like-for-like options	
White-crowned Snake 1569_Z5_Derive		Only the below Spp	In the below IBRA subregions
		Cacophis harriettae/White-crowned Snake	Any in NSW
	1569_Z5_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Cacophis harriettae/White-crowned Snake	Any in NSW
	1569_Z6_Derived	Like-for-like options	
	1303_20_5611464	Only the below Spp	In the below IBRA subregions
		Cacophis harriettae/White-crowned Snake	Any in NSW
Calyptorhynchus	1064_Z1_Moderate	Like-for-like options	
lathami/ Glossy Black-Cockatoo		Only the below Spp	In the below IBRA subregions

Page 11 of 55



		Calyptorhynchus lathami/Glossy Black-Cockatoo	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Calyptorhynchus lathami/Glossy Black-Cockatoo	Any in NSW
	1302_Z3_Low	Like-for-like options Only the below Spp	In the below IBRA subregions
		Calyptorhynchus lathami/Glossy Black-Cockatoo	Any in NSW
Centranthera	1064_Z1_Moderate	Like-for-like options	
		O l th l l C	
cochinchinensis/ Swamp Foxglove		Only the below Spp	In the below IBRA subregions



Centranthera 1064_Z1_Moderate cochinchinensis/ Swamp Foxglove 1302_Z2_Moderate			
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Centranthera cochinchinensis/Swamp Foxglove	Any in NSW
1302_Z3_Low	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Centranthera cochinchinensis/Swamp Foxglove	Any in NSW
Cercartetus nanus/	1064_Z1_Moderate	Like-for-like options	
Eastern Pygmy-possum		Only the below Spp	In the below IBRA subregions
		Cercartetus nanus/Eastern Pygmy-possum	Any in NSW



Cercartetus nanus/ Eastern Pygmy-possum	1302_Z2_Moderate	oderate Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Cercartetus nanus/Eastern Pygmy-possum	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Cercartetus nanus/Eastern Pygmy-possum	Any in NSW
	1569_Z5_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Cercartetus nanus/Eastern Pygmy-possum	Any in NSW
	1569_Z6_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions

Page 14 of 55



		Cercartetus nanus/Eastern Pygmy-possum	Any in NSW
	1064_Z1_Moderate	Like-for-like options	
Large-eared Pied Bat		Only the below Spp	In the below IBRA subregions
		Chalinolobus dwyeri/Large-eared Pied Bat	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Chalinolobus dwyeri/Large-eared Pied Bat	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Chalinolobus dwyeri/Large-eared Pied Bat	Any in NSW



569_Z5_Derived	Like-for-like options Only the below Spp	
	Only the helow Spn	
	only the below 3pp	In the below IBRA subregions
	Chalinolobus dwyeri/Large-eared Pied Bat	Any in NSW
569_Z6_Derived	Like-for-like options	
	Only the below Spp	In the below IBRA subregions
	Chalinolobus dwyeri/Large-eared Pied Bat	Any in NSW
064_Z1_Moderate	Like-for-like options	
	Only the below Spp	In the below IBRA subregions
	Coeranoscincus reticulatus/Three-toed Snake-tooth Skink	Any in NSW
		Like-for-like options Only the below Spp Chalinolobus dwyeri/Large-eared Pied Bat Discrete Chalinolobus dwyeri/Large-eared Pied Bat

Page 16 of 55



Coeranoscincus	1302_Z2_Moderate	Like-for-like options	
reticulatus/ Three-toed Snake-tooth		Only the below Spp	In the below IBRA subregions
Skink		Coeranoscincus reticulatus/Three-toed Snake-tooth Skink	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Coeranoscincus reticulatus/Three-toed Snake-tooth Skink	Any in NSW
	1569_Z5_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Coeranoscincus reticulatus/Three-toed Snake-tooth Skink	Any in NSW
	1569_Z6_Derived	Like-for-like options	



		Only the below Spp	In the below IBRA subregions
		Coeranoscincus reticulatus/Three-toed Snake-tooth Skink	Any in NSW
Crinia tinnula/	1064_Z1_Moderate	Like-for-like options	
Wallum Froglet		Only the below Spp	In the below IBRA subregions
		Crinia tinnula/Wallum Froglet	Any in NSW
Cryptocarya foetida/	1302_Z2_Moderate	Like-for-like options	
Cryptocarya foetida/	1302_Z2_Moderate	Like-for-like options	
Stinking Cryptocarya		Only the below Spp	In the below IBRA subregions
		Cryptocarya foetida/Stinking Cryptocarya	Any in NSW
Cyclopsitta	1064_Z1_Moderate	Like-for-like options	
diophthalma coxeni/ Coxen's Fig-Parrot		Only the below Spp	In the below IBRA subregions

Page 18 of 55



		Cyclopsitta diophthalma coxeni/Coxen's Fig-Parrot	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Cyclopsitta diophthalma coxeni/Coxen's Fig-Parrot	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Cyclopsitta diophthalma coxeni/Coxen's Fig-Parrot	Any in NSW
	1569_Z5_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Cyclopsitta diophthalma coxeni/Coxen's Fig-Parrot	Any in NSW
	1569_Z6_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Cyclopsitta diophthalma coxeni/Coxen's Fig-Parrot	Any in NSW
Cyperus aquatilis/	1064_Z1_Moderate	Like-for-like options	
Water Nutgrass		Only the below Spp	In the below IBRA subregions
		Cyperus aquatilis/Water Nutgrass	Any in NSW



Cyperus aquatilis/	1302_Z2_Moderate	Like-for-like options	
Water Nutgrass		Only the below Spp	In the below IBRA subregions
		Cyperus aquatilis/Water Nutgrass	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Cyperus aquatilis/Water Nutgrass	Any in NSW
Dendrobium	1064_Z1_Moderate	Like-for-like options	
melaleucaphilum/ Spider orchid		Only the below Spp	In the below IBRA subregions
		Dendrobium melaleucaphilum/Spider orchid	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
	I		



		Dendrobium melaleucaphilum/Spider orchid	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Dendrobium melaleucaphilum/Spider orchid	Any in NSW
Geodorum densiflorum/	1064_Z1_Moderate	Like-for-like options	
Pink Nodding Orchid		Only the below Spp	In the below IBRA subregions
		Geodorum densiflorum/Pink Nodding Orchid	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Only the below Spp	In the below ibit (subregions



Geodorum densiflorum/ Pink Nodding Orchid	1302_Z2_Moderate		
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Geodorum densiflorum/Pink Nodding Orchid	Any in NSW
Haliaeetus leucogaster/	1064_Z1_Moderate	Like-for-like options	
White-bellied Sea-Eagle		Only the below Spp	In the below IBRA subregions
		Haliaeetus leucogaster/White-bellied Sea-Eagle	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Haliaeetus leucogaster/White-bellied Sea-Eagle	Any in NSW



Haliaeetus leucogaster/		Like-for-like options	
White-bellied Sea-Eagle		Only the below Spp	In the below IBRA subregions
		Haliaeetus leucogaster/White-bellied Sea-Eagle	Any in NSW
	1569_Z5_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Haliaeetus leucogaster/White-bellied Sea-Eagle	Any in NSW
	1569_Z6_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Haliaeetus leucogaster/White-bellied Sea-Eagle	Any in NSW
Hieraaetus	1064_Z1_Moderate	Like-for-like options	
morphnoides/ Little Eagle		Only the below Spp	In the below IBRA subregions



	Hieraaetus morphnoides/Little Eagle	Any in NSW
1302_Z2_Moderate	Like-for-like options	
	Only the below Spp	In the below IBRA subregions
	Hieraaetus morphnoides/Little Eagle	Any in NSW
1302_Z3_Low	Like-for-like options	1 1 1 1 1004 1
1302_Z3_Low	Only the below Spp	In the below IBRA subregions
1302_Z3_Low	•	In the below IBRA subregions Any in NSW
1302_Z3_Low 1569_Z5_Derived	Only the below Spp	
	Only the below Spp Hieraaetus morphnoides/Little Eagle	

Page 24 of 55



	1569_Z6_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Hieraaetus morphnoides/Little Eagle	Any in NSW
	1004 71 N4		
Hoplocephalus pitorquatus/	1064_Z1_Moderate	Like-for-like options	In the helevy IDDA subveniens
Pale-headed Snake		Only the below Spp	In the below IBRA subregions
		Hoplocephalus bitorquatus/Pale-headed Snake	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Hoplocephalus bitorquatus/Pale-headed Snake	Any in NSW



Hoplocephalus	1302_Z3_Low	Like-for-like options	
bitorquatus/ Pale-headed Snake		Only the below Spp	In the below IBRA subregions
Tale Headed Charle		Hoplocephalus bitorquatus/Pale-headed Snake	Any in NSW
	1569_Z5_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Hoplocephalus bitorquatus/Pale-headed Snake	Any in NSW
	1569_Z6_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Hoplocephalus bitorquatus/Pale-headed Snake	Any in NSW
Isoglossa	1064_Z1_Moderate	Like-for-like options	
eranthemoides/ Isoglossa		Only the below Spp	In the below IBRA subregions

Page 26 of 55



		Isoglossa eranthemoides/Isoglossa	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Isoglossa eranthemoides/Isoglossa	Any in NSW
	1302_Z3_Low	ike-for-like options	
		Only the below Spp	In the below IBRA subregions
		Only the below Spp Isoglossa eranthemoides/Isoglossa	In the below IBRA subregions Any in NSW
			•
athamus discolor/	1064_Z1_Moderate		•
athamus discolor/ wift Parrot	1064_Z1_Moderate	Isoglossa eranthemoides/Isoglossa	•



Lathamus discolor/ Swift Parrot	1064_Z1_Moderate		
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Lathamus discolor/Swift Parrot	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Lathamus discolor/Swift Parrot	Any in NSW
	1569_Z5_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Lathamus discolor/Swift Parrot	Any in NSW



Lathamus discolor/	1569_Z6_Derived	Like-for-like options	
Swift Parrot		Only the below Spp	In the below IBRA subregions
		Lathamus discolor/Swift Parrot	Any in NSW
Litoria brevipalmata/	1064_Z1_Moderate	Like-for-like options	
Green-thighed Frog		Only the below Spp	In the below IBRA subregions
		Litoria brevipalmata/Green-thighed Frog	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Litoria brevipalmata/Green-thighed Frog	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions



		Litoria brevipalmata/Green-thighed Frog	Any in NSW
Litoria olongburensis/	1064_Z1_Moderate	Like-for-like options	
Olongburra Frog		Only the below Spp	In the below IBRA subregions
		Litoria olongburensis/Olongburra Frog	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Litoria olongburensis/Olongburra Frog	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Litoria olongburensis/Olongburra Frog	Any in NSW
			'



Litoria olongburensis / Olongburra Frog	1302_Z3_Low		
Lophoictinia isura/	1064_Z1_Moderate	Like-for-like options	
Square-tailed Kite		Only the below Spp	In the below IBRA subregions
		Lophoictinia isura/Square-tailed Kite	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Lophoictinia isura/Square-tailed Kite	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Lophoictinia isura/Square-tailed Kite	Any in NSW



Lophoictinia isura/	1569_Z5_Derived	Like-for-like options	
Square-tailed Kite		Only the below Spp	In the below IBRA subregions
		Lophoictinia isura/Square-tailed Kite	Any in NSW
	1569_Z6_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Lophoictinia isura/Square-tailed Kite	Any in NSW
Marsdenia longiloba/	1064_Z1_Moderate	Like-for-like options	
Slender Marsdenia		Only the below Spp	In the below IBRA subregions
		Marsdenia longiloba/Slender Marsdenia	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions

Page 32 of 55



		Marsdenia longiloba/Slender Marsdenia	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Marsdenia longiloba/Slender Marsdenia	Any in NSW
Miniantowe acatualis/	1064 71 Madavata	Like for like outions	
Miniopterus australis/ Little Bentwing-bat	1064_Z1_Moderate	Like-for-like options	
ind Bontwing but		Only the below Spp	In the below IBRA subregions
		Miniopterus australis/Little Bentwing-bat	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Miniopterus australis/Little Bentwing-bat	Any in NSW
			·



Miniopterus australis/ Little Bentwing-bat	1302_Z2_Moderate		
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Miniopterus australis/Little Bentwing-bat	Any in NSW
	1569_Z5_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Miniopterus australis/Little Bentwing-bat	Any in NSW
	1569_Z6_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Miniopterus australis/Little Bentwing-bat	Any in NSW



Miniopterus schreibersii oceanensis/ Eastern Bentwing-bat	1064_Z1_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Miniopterus schreibersii oceanensis/Eastern Bentwing-bat	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Miniopterus schreibersii oceanensis/Eastern Bentwing-bat	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Miniopterus schreibersii oceanensis/Eastern Bentwing-bat	Any in NSW



Miniopterus schreibersii oceanensis/	1302_Z3_Low		
Eastern Bentwing-bat	1569_Z5_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Miniopterus schreibersii oceanensis/Eastern Bentwing-bat	Any in NSW
	1569_Z6_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Miniopterus schreibersii oceanensis/Eastern Bentwing-bat	Any in NSW
Mixophyes iteratus/	1064_Z1_Moderate	Like-for-like options	
Giant Barred Frog		Only the below Spp	In the below IBRA subregions
		Mixophyes iteratus/Giant Barred Frog	Any in NSW
			1



1064_Z1_Moderate		
1302_Z2_Moderate	Like-for-like options	
	Only the below Spp	In the below IBRA subregions
	Mixophyes iteratus/Giant Barred Frog	Any in NSW
1302_Z3_Low	Like-for-like options	
	Only the below Spp	In the below IBRA subregions
	Mixophyes iteratus/Giant Barred Frog	Any in NSW
1064_Z1_Moderate	Like-for-like options	
	Only the below Spp	In the below IBRA subregions
	Myotis macropus/Southern Myotis	Any in NSW
	1302_Z2_Moderate 1302_Z3_Low	1302_Z2_Moderate Like-for-like options Only the below Spp Mixophyes iteratus/Giant Barred Frog Like-for-like options Only the below Spp Mixophyes iteratus/Giant Barred Frog Mixophyes iteratus/Giant Barred Frog Like-for-like options Only the below Spp Only the below Spp



Myotis macropus/		Like-for-like options	
Southern Myotis		Only the below Spp	In the below IBRA subregions
		Myotis macropus/Southern Myotis	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Myotis macropus/Southern Myotis	Any in NSW
Ninox connivens/	1064_Z1_Moderate	Like-for-like options	
Barking Owl		Only the below Spp	In the below IBRA subregions
		Ninox connivens/Barking Owl	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions

Page 38 of 55



	Ninox connivens/Barking Owl	Any in NSW
1302_Z3_Low	Like-for-like options	
	Only the below Spp	In the below IBRA subregions
	Ninox connivens/Barking Owl	Any in NSW
1569_Z5_Derived	Conly the below Spp Ninox connivens/Barking Owl	In the below IBRA subregions Any in NSW
1569_Z6_Derived	Like-for-like options	
1569_Z6_Derived	Only the below Spp Ninox connivens/Barking Owl	In the below IBRA subregions Any in NSW



Ninox strenua/Powerful Owl Any in NSW Like-for-like options Only the below Spp In the below IBRA subregions In the below IBRA subregions Any in NSW Like-for-like options Ninox strenua/Powerful Owl Any in NSW Like-for-like options Only the below Spp In the below IBRA subregions In the below IBRA subregions	Ninox strenua/ Powerful Owl	1064_Z1_Moderate	Like-for-like options	
1302_Z2_Moderate Like-for-like options Only the below Spp In the below IBRA subregions Ninox strenua/Powerful Owl Any in NSW Like-for-like options Only the below Spp In the below IBRA subregions			Only the below Spp	In the below IBRA subregions
Only the below Spp Ninox strenua/Powerful Owl Any in NSW Like-for-like options Only the below Spp In the below IBRA subregions In the below IBRA subregions			Ninox strenua/Powerful Owl	Any in NSW
Only the below Spp Ninox strenua/Powerful Owl Any in NSW Like-for-like options Only the below Spp In the below IBRA subregions In the below IBRA subregions				
Only the below Spp Ninox strenua/Powerful Owl Any in NSW Like-for-like options Only the below Spp In the below IBRA subregions In the below IBRA subregions		1302 72 Moderate	Like for like enting	
1302_Z3_Low Like-for-like options Only the below Spp In the below IBRA subregions			•	In the below IBRA subregions
Only the below Spp In the below IBRA subregions			Ninox strenua/Powerful Owl	Any in NSW
Only the below Spp In the below IBRA subregions				
Only the below Spp In the below IBRA subregions				
		1302_Z3_Low	Like-for-like options	
Ninox strenua/Powerful Owl Any in NSW			Only the below Spp	In the below IBRA subregions
·			Ninox strenua/Powerful Owl	Any in NSW



Ninox strenua/ Powerful Owl	1569_Z5_Derived	Like-for-like options		
		Only the below Spp	In the below IBRA subregions	
		Ninox strenua/Powerful Owl	Any in NSW	
	1569_Z6_Derived	Like-for-like options		
	1303_20_Denved	Only the below Spp	In the below IBRA subregions	
		Ninox strenua/Powerful Owl	Any in NSW	
Pandion cristatus/	1064_Z1_Moderate	Like-for-like options		
Eastern Osprey		Only the below Spp	In the below IBRA subregions	
		Pandion cristatus/Eastern Osprey	Any in NSW	
	1302_Z2_Moderate	Like-for-like options		
		Only the below Spp	In the below IBRA subregions	
	I			



	Pandion cristatus/Eastern Osprey	Any in NSW
1302_Z3_Low	Like-for-like options	
	Only the below Spp	In the below IBRA subregions
	Pandion cristatus/Eastern Osprey	Any in NSW
1569_Z5_Derived	Only the below Spp Pandion cristatus/Eastern Osprey	In the below IBRA subregions Any in NSW
		In the below IBRA subregions
1569_Z6_Derived	Like-for-like options	
1569_Z6_Derived		In the below IBRA subregions



Petalura litorea/ Coastal Petaltail	1064_Z1_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Petalura litorea/Coastal Petaltail	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Petalura litorea/Coastal Petaltail	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Petalura litorea/Coastal Petaltail	Any in NSW



Petalura litorea/ Coastal Petaltail	1569_Z5_Derived	Like-for-like options		
		Only the below Spp	In the below IBRA subregions	
		Petalura litorea/Coastal Petaltail	Any in NSW	
	1569_Z6_Derived	Like-for-like options		
		Only the below Spp	In the below IBRA subregions	
		Petalura litorea/Coastal Petaltail	Any in NSW	
Petaurus norfolcensis/	1064_Z1_Moderate	Like-for-like options		
Squirrel Glider		Only the below Spp	In the below IBRA subregions	
		Petaurus norfolcensis/Squirrel Glider	Any in NSW	
	1302_Z2_Moderate	Like-for-like options		
		Only the below Spp	In the below IBRA subregions	



	Petaurus norfolcensis/Squirrel Glider	Any in NSW
1302_Z3_Low	Like-for-like options	
	Only the below Spp	In the below IBRA subregions
	Petaurus norfolcensis/Squirrel Glider	Any in NSW
1569_Z5_Derived	Like-for-like options	
1569_Z5_Derived	Like-for-like options Only the below Spp	In the below IBRA subregions
1569_Z5_Derived	-	In the below IBRA subregions Any in NSW
1569_Z5_Derived 1569_Z6_Derived	Only the below Spp	
	Only the below Spp Petaurus norfolcensis/Squirrel Glider	



Phascogale tapoatafa/	1064_Z1_Moderate	Like-for-like options	
Brush-tailed Phascogale		Only the below Spp In the below IBRA subregions	In the below IBRA subregions
		Phascogale tapoatafa/Brush-tailed Phascogale	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Phascogale tapoatafa/Brush-tailed Phascogale	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Phascogale tapoatafa/Brush-tailed Phascogale	Any in NSW



	Like-for-like options		
	Only the below Spp	In the below IBRA subregions	
	Phascogale tapoatafa/Brush-tailed Phascogale	Any in NSW	
69_Z6_Derived	Like-for-like options		
	Only the below Spp	In the below IBRA subregions	
	Phascogale tapoatafa/Brush-tailed Phascogale	Any in NSW	
64_Z1_Moderate	Like-for-like options		
	Only the below Spp	In the below IBRA subregions	
	Phascolarctos cinereus/Koala	Any in NSW	
02_Z2_Moderate	Like-for-like options		
	Only the below Spp	In the below IBRA subregions	
6	4_Z1_Moderate	Phascogale tapoatafa/Brush-tailed Phascogale 9_Z6_Derived Like-for-like options Only the below Spp Phascogale tapoatafa/Brush-tailed Phascogale 4_Z1_Moderate Like-for-like options Only the below Spp Phascolarctos cinereus/Koala Like-for-like options Like-for-like options	

Page 47 of 55



		Phascolarctos cinereus/Koala	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Phascolarctos cinereus/Koala	Any in NSW
Phyllodes imperialis	1064_Z1_Moderate	Like-for-like options	
southern subspecies/ Southern Pink Underwing		Only the below Spp	In the below IBRA subregions
Moth		Phyllodes imperialis southern subspecies /Southern Pink Underwing Moth	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Phyllodes imperialis southern subspecies /Southern Pink Underwing Moth	Any in NSW



Phyllodes imperialis southern subspecies/ Southern Pink Underwing	1302_Z2_Moderate			
Moth	1302_Z3_Low	Like-for-like options		
		Only the below Spp	In the below IBRA subregions	
		Phyllodes imperialis southern subspecies/Southern Pink Underwing Moth	Any in NSW	
	1569_Z5_Derived	Like-for-like options		
		Only the below Spp	In the below IBRA subregions	
		Phyllodes imperialis southern subspecies/Southern Pink Underwing Moth	Any in NSW	
	1569_Z6_Derived	Like-for-like options		
		Only the below Spp	In the below IBRA subregions	
		Phyllodes imperialis southern subspecies/Southern Pink Underwing Moth	Any in NSW	



Phyllodes imperialis southern subspecies/ Southern Pink Underwing Moth	1569_Z6_Derived		
Planigale maculata/	1064_Z1_Moderate	Like-for-like options	
Common Planigale		Only the below Spp	In the below IBRA subregions
		Planigale maculata/Common Planigale	Any in NSW
	1302_Z2_Moderate	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Planigale maculata/Common Planigale	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Planigale maculata/Common Planigale	Any in NSW



Planigale maculata/ Common Planigale	1302_Z3_Low		
	1569_Z5_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Planigale maculata/Common Planigale	Any in NSW
	1569_Z6_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Planigale maculata/Common Planigale	Any in NSW
Pteropus poliocephalus,	/ 1064_Z1_Moderate	Like-for-like options	
Grey-headed Flying-fox		Only the below Spp	In the below IBRA subregions
		Pteropus poliocephalus/Grey-headed Flying-fox	Any in NSW



Pteropus poliocephalus/	1302_Z2_Moderate	Like-for-like options	
Grey-headed Flying-fox		Only the below Spp	In the below IBRA subregions
		Pteropus poliocephalus/Grey-headed Flying-fox	Any in NSW
	1302_Z3_Low	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Pteropus poliocephalus/Grey-headed Flying-fox	Any in NSW
	1569_Z5_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Pteropus poliocephalus/Grey-headed Flying-fox	Any in NSW
	1569_Z6_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
	I		

Page 52 of 55



		Pteropus poliocephalus/Grey-headed Flying-fox	Any in NSW	
Thersites mitchellae/	1064_Z1_Moderate	Like-for-like options		
Mitchell's Rainforest Snail		Only the below Spp	In the below IBRA subregions	
		Thersites mitchellae/Mitchell's Rainforest Snail	Any in NSW	
	1302_Z2_Moderate	Like-for-like options		
		Only the below Spp	In the below IBRA subregions	
		Thersites mitchellae/Mitchell's Rainforest Snail	Any in NSW	
	1302_Z3_Low	Like-for-like options		
		Only the below Spp	In the below IBRA subregions	
		Thersites mitchellae/Mitchell's Rainforest Snail	Any in NSW	
			'	



Thersites mitchellae/ Mitchell's Rainforest Snail	1302_Z3_Low			
Tyto novaehollandiae/	1064_Z1_Moderate	Like-for-like options		
Masked Owl		Only the below Spp	In the below IBRA subregions	
		Tyto novaehollandiae/Masked Owl	Any in NSW	
	1302_Z2_Moderate	Like-for-like options		
		Only the below Spp	In the below IBRA subregions	
		Tyto novaehollandiae/Masked Owl	Any in NSW	
	1202 72 1			
	1302_Z3_Low	Like-for-like options		
		Only the below Spp	In the below IBRA subregions	
		Tyto novaehollandiae/Masked Owl	Any in NSW	



Tyto novaehollandiae/ Masked Owl	1569_Z5_Derived		
		Only the below Spp	In the below IBRA subregions
		Tyto novaehollandiae/Masked Owl	Any in NSW
	1569_Z6_Derived	Like-for-like options	
		Only the below Spp	In the below IBRA subregions
		Tyto novaehollandiae/Masked Owl	Any in NSW
			'



Proposal Details

Assessment Id

00011608/BAAS18006/18/00011611

Assessor Name

Damian Licari

Proponent Name(s)

Candidate Serious and Irreversible Impacts

Nil

Nil

Additional Information for Approval

PCTs With Customized Benchmarks
No Changes

Predicted Threatened Species Not On Site

Proposal Name BAM data last updated *

Tweed Valley Hospital 24/02/2018

Assessor Number BAM Data version *

BAAS18006

Report Created * Disclaimer: BAM data last updated may indicate either 12/09/2018 complete or partial update of the BAM calculator database. BAM

calculator database may not be completely aligned with Bionet.



Name

Thylogale stigmatica / Red-legged Pademelon

Tyto novaehollandiae / Masked Owl

Rostratula australis / Australian Painted Snipe

Ecosystem Credit Summary

PCT	TEC	Area	Credits
1064-Paperbark swamp forest of the coastal lowlands of the NSW North Coast Bioregion and Sydney Basin Bioregion	Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	3.8	1.00
1235-Swamp Oak swamp forest of the coastal lowlands of the NSW North Coast Bioregion	Not a TEC	0.1	1.00
1302-White Booyong - Fig subtropical rainforest of the NSW North Coast Bioregion	Lowland Rainforest on Floodplain in the New South Wales North Coast Bioregion	2.6	5.00
1569-Flooded Gum - Brush Box - Tallowwood mesic tall open forest on ranges of the lower North Coast	Not a TEC	0.7	2.00

Credit classes for	Like-for-like options	Like-for-like options			
1064	Any PCT with the below TEC Containing HBT In the below IBRA subregions				



	Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions (including PCT's 837, 839, 971, 1064, 1092, 1227, 1230, 1231, 1232, 1235, 1649, 1715, 1716, 1717, 1718, 1719, 1721, 1722, 1723, 1724, 1725, 1730, 1795, 1798)	Yes	Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.			
	Variation options					
	Any PCT in the below Formation	And in any of bel	ow trading	Containing HBT	In the bel	ow IBRA regions/subregions
	Forested Wetlands	Tier 3 or higher		Yes (including artificial)	IBRA Region: South Eastern Queensland, or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Credit classes for	Like-for-like options	<u>'</u> ' ' '				
1235	Any PCT in the below Class	And in any of bel groups	ow trading	Containing HBT	In the bel	ow IBRA subregions
	Coastal Floodplain Wetlands (including PCT's 780, 828, 835, 1234, 1235, 1386, 1651, 1720, 1728)	Coastal Floodplai 70% - <90% clea (including Tier 4	red group	No	and Sunsl	ar-Conondale Ranges,Scenic Rim hine Coast-Gold Coast Lowlands. or subregion that is within 100 as of the outer edge of the site.

Page 3 of 112



Credit classes for	Variation options					
1235	Any PCT in the below Formation	And in any of below trading groups		Containing HBT	In the bel	ow IBRA regions/subregions
	Forested Wetlands Tier 4 or higher			No	Any IBRA	on: South Eastern Queensland, or subregion that is within 100 s of the outer edge of the site.
Credit classes for	Like-for-like options					
1302	Any PCT with the below TEC	Containing HBT	In the below IB	RA subregions		
	Lowland Rainforest on Floodplain in the New South Wales North Coast Bioregion (including PCT's 669, 670, 1068, 1106, 1142, 1275, 1302, 1525, 1530, 1534, 1541)	Yes	Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.			
	Variation options					
	Any PCT in the below Formation	And in any of below trading groups		Containing HBT	In the below IBRA regions/subregions	
	Rainforests	Tier 3 or higher		Yes (including artificial)	IBRA Region: South Eastern Queensland, or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	

Page 4 of 112



Credit classes for 1569	Like-for-like options	Like-for-like options						
	Any PCT in the below Class	And in any of below trading groups	Containing HBT	In the below IBRA subregions				
	North Coast Wet Sclerophyll Forests (including PCT's 487, 613, 661, 684, 686, 692, 693, 694, 695, 699, 747, 748, 752, 812, 1073, 1208, 1217, 1222, 1237, 1244, 1245, 1257, 1259, 1260, 1261, 1265, 1266, 1282, 1284, 1285, 1504, 1561, 1562, 1563, 1566, 1567, 1568, 1569, 1572, 1573, 1575, 1579, 1841, 1843, 1915)	North Coast Wet Sclerophyll Forests - < 50% cleared group (including Tier 7 or higher).	Yes	Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.				
	Variation options							
	Any PCT in the below Formation	And in any of below trading groups	Containing HBT	In the below IBRA regions/subregions				
	Wet Sclerophyll Forests (Shrubby sub- formation)	Tier 7 or higher	Yes (including artificial)	IBRA Region: South Eastern Queensland, or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.				

Species Credit Summary

Species	Area	Credits	
Anthochaera phrygia / Regent Honeyeater	5.6		0.00

Page 5 of 112



Argynnis hyperbius / Laced Fritillary	5.6	0.00
Arthraxon hispidus / Hairy Jointgrass	5.1	0.00
Cacophis harriettae / White-crowned Snake	5.6	0.00
Calyptorhynchus lathami / Glossy Black-Cockatoo	5.1	0.00
Centranthera cochinchinensis / Swamp Foxglove	5.1	0.00
Cercartetus nanus / Eastern Pygmy-possum	5.6	0.00
Chalinolobus dwyeri / Large-eared Pied Bat	5.6	0.00
Coeranoscincus reticulatus / Three-toed Snake-tooth Skink	5.6	0.00
Crinia tinnula / Wallum Froglet	3.8	0.00
Cryptocarya foetida / Stinking Cryptocarya	1.0	2.00
Cyclopsitta diophthalma coxeni / Coxen's Fig-Parrot	5.6	0.00
Cyperus aquatilis / Water Nutgrass	5.1	0.00
Dendrobium melaleucaphilum / Spider orchid	5.1	0.00
Geodorum densiflorum / Pink Nodding Orchid	5.1	0.00
Haliaeetus leucogaster / White-bellied Sea-Eagle	5.6	0.00
Hieraaetus morphnoides / Little Eagle	5.6	0.00
Hoplocephalus bitorquatus / Pale-headed Snake	5.6	0.00
Isoglossa eranthemoides / Isoglossa	5.1	0.00
Lathamus discolor / Swift Parrot	5.6	0.00
Litoria brevipalmata / Green-thighed Frog	5.1	0.00



Lophoictinia isura / Square-tailed Kite 5.6 0.00 Marsdenia longiloba / Slender Marsdenia 5.1 0.00 Miniopterus australis / Little Bentwing-bat 5.6 0.00 Miniopterus schreibersii oceanensis / Eastern Bentwing-bat 5.6 0.00 Mixophyes iteratus / Giant Barred Frog 5.1 0.00 Myotis macropus / Southern Myotis 5.1 0.00 Ninox connivens / Barking Owl 5.6 0.00 Ninox strenua / Powerful Owl 5.6 0.00 Pandion cristatus / Eastern Osprey 5.6 0.00 Petalura litorea / Coastal Petaltail 5.6 0.00 Petaurus norfolcensis / Squirrel Glider 5.6 0.00 Phascogale tapoatafa / Brush-tailed Phascogale 5.6 0.00 Phascolarctos cinereus / Koala 5.1 0.00 Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth 5.6 0.00 Planigale maculata / Common Planigale 5.6 0.00 Pteropus poliocephalus / Grey-headed Flying-fox 5.8 0.00 Thersites mitchellae / Mitchell's Rainforest Snail 5.1 0.00 <th></th> <th></th> <th></th>			
Marsdenia longiloba / Slender Marsdenia 5.1 0.00 Miniopterus australis / Little Bentwing-bat 5.6 0.00 Miniopterus schreibersii oceanensis / Eastern Bentwing-bat 5.6 0.00 Mixophyes iteratus / Giant Barred Frog 5.1 0.00 Myotis macropus / Southern Myotis 5.1 0.00 Ninox connivens / Barking Owl 5.6 0.00 Ninox strenua / Powerful Owl 5.6 0.00 Pandion cristatus / Eastern Osprey 5.6 0.00 Petalura litorea / Coastal Petaltail 5.6 0.00 Petaurus norfolcensis / Squirrel Glider 5.6 0.00 Phascogale tapoatafa / Brush-tailed Phascogale 5.6 0.00 Phascolarctos cinereus / Koala 5.1 0.00 Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth 5.6 0.00 Planigale maculata / Common Planigale 5.6 0.00 Pteropus poliocephalus / Grey-headed Flying-fox 5.8 0.00 Thersites mitchellae / Mitchell's Rainforest Snail 5.1 0.00	Litoria olongburensis / Olongburra Frog	5.1	0.00
Miniopterus australis / Little Bentwing-bat 5.6 0.00 Miniopterus schreibersii oceanensis / Eastern Bentwing-bat 5.6 0.00 Mixophyes iteratus / Giant Barred Frog 5.1 0.00 Myotis macropus / Southern Myotis 5.1 0.00 Ninox connivens / Barking Owl 5.6 0.00 Ninox strenua / Powerful Owl 5.6 0.00 Pandion cristatus / Eastern Osprey 5.6 0.00 Petalura litorea / Coastal Petaltail 5.6 0.00 Petarus norfolcensis / Squirrel Glider 5.6 0.00 Phascogale tapoatafa / Brush-tailed Phascogale 5.6 0.00 Phascolarctos cinereus / Koala 5.1 0.00 Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth 5.6 0.00 Planigale maculata / Common Planigale 5.6 0.00 Pteropus poliocephalus / Grey-headed Flying-fox 5.8 0.00 Thersites mitchellae / Mitchell's Rainforest Snail 5.1 0.00	Lophoictinia isura / Square-tailed Kite	5.6	0.00
Miniopterus schreibersii oceanensis / Eastern Bentwing-bat 5.6 0.00 Mixophyes iteratus / Giant Barred Frog 5.1 0.00 Myotis macropus / Southern Myotis 5.1 0.00 Ninox connivens / Barking Owl 5.6 0.00 Ninox strenua / Powerful Owl 5.6 0.00 Pandion cristatus / Eastern Osprey 5.6 0.00 Petalura litorea / Coastal Petaltail 5.6 0.00 Petaurus norfolcensis / Squirrel Glider 5.6 0.00 Phascogale tapoatafa / Brush-tailed Phascogale 5.6 0.00 Phascolarctos cinereus / Koala 5.1 0.00 Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth 5.6 0.00 Planigale maculata / Common Planigale 5.6 0.00 Pteropus poliocephalus / Grey-headed Flying-fox 5.8 0.00 Thersites mitchellae / Mitchell's Rainforest Snail 5.1 0.00	Marsdenia longiloba / Slender Marsdenia	5.1	0.00
Mixophyes iteratus / Giant Barred Frog 5.1 0.00 Myotis macropus / Southern Myotis 5.1 0.00 Ninox connivens / Barking Owl 5.6 0.00 Ninox strenua / Powerful Owl 5.6 0.00 Pandion cristatus / Eastern Osprey 5.6 0.00 Petalura litorea / Coastal Petaltail 5.6 0.00 Petaurus norfolcensis / Squirrel Glider 5.6 0.00 Phascogale tapoatafa / Brush-tailed Phascogale 5.6 0.00 Phascolarctos cinereus / Koala 5.1 0.00 Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth 5.6 0.00 Planigale maculata / Common Planigale 5.6 0.00 Pteropus poliocephalus / Grey-headed Flying-fox 5.8 0.00 Thersites mitchellae / Mitchell's Rainforest Snail 5.1 0.00	Miniopterus australis / Little Bentwing-bat	5.6	0.00
Myotis macropus / Southern Myotis Signature of Southern Myotis Ninox connivens / Barking Owl Ninox strenua / Powerful Owl Pandion cristatus / Eastern Osprey Signature of Southern Myotis Petalura litorea / Coastal Petaltail Signature of Southern Southern Southern Southern Southern Pink Underwing Moth Phascogale tapoatafa / Brush-tailed Phascogale Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth Planigale maculata / Common Planigale Pteropus poliocephalus / Grey-headed Flying-fox Thersites mitchellae / Mitchell's Rainforest Snail	Miniopterus schreibersii oceanensis / Eastern Bentwing-bat	5.6	0.00
Ninox connivens / Barking Owl Ninox strenua / Powerful Owl Pandion cristatus / Eastern Osprey 5.6 0.00 Petalura litorea / Coastal Petaltail 5.6 0.00 Petaurus norfolcensis / Squirrel Glider Fhascogale tapoatafa / Brush-tailed Phascogale Phascogale tapoatafa / Brush-tailed Phascogale Phascolarctos cinereus / Koala Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth Planigale maculata / Common Planigale Pteropus poliocephalus / Grey-headed Flying-fox Thersites mitchellae / Mitchell's Rainforest Snail	Mixophyes iteratus / Giant Barred Frog	5.1	0.00
Ninox strenua / Powerful Owl Pandion cristatus / Eastern Osprey 5.6 0.00 Petalura litorea / Coastal Petaltail 5.6 0.00 Petaurus norfolcensis / Squirrel Glider Fhascogale tapoatafa / Brush-tailed Phascogale Phascolarctos cinereus / Koala Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth Flanigale maculata / Common Planigale Pteropus poliocephalus / Grey-headed Flying-fox Thersites mitchellae / Mitchell's Rainforest Snail 5.6 0.00 Thersites mitchellae / Mitchell's Rainforest Snail	Myotis macropus / Southern Myotis	5.1	0.00
Pandion cristatus / Eastern Osprey5.60.00Petalura litorea / Coastal Petaltail5.60.00Petaurus norfolcensis / Squirrel Glider5.60.00Phascogale tapoatafa / Brush-tailed Phascogale5.60.00Phascolarctos cinereus / Koala5.10.00Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth5.60.00Planigale maculata / Common Planigale5.60.00Pteropus poliocephalus / Grey-headed Flying-fox5.80.00Thersites mitchellae / Mitchell's Rainforest Snail5.10.00	Ninox connivens / Barking Owl	5.6	0.00
Petalura litorea / Coastal Petaltail5.60.00Petaurus norfolcensis / Squirrel Glider5.60.00Phascogale tapoatafa / Brush-tailed Phascogale5.60.00Phascolarctos cinereus / Koala5.10.00Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth5.60.00Planigale maculata / Common Planigale5.60.00Pteropus poliocephalus / Grey-headed Flying-fox5.80.00Thersites mitchellae / Mitchell's Rainforest Snail5.10.00	Ninox strenua / Powerful Owl	5.6	0.00
Petaurus norfolcensis / Squirrel Glider5.60.00Phascogale tapoatafa / Brush-tailed Phascogale5.60.00Phascolarctos cinereus / Koala5.10.00Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth5.60.00Planigale maculata / Common Planigale5.60.00Pteropus poliocephalus / Grey-headed Flying-fox5.80.00Thersites mitchellae / Mitchell's Rainforest Snail5.10.00	Pandion cristatus / Eastern Osprey	5.6	0.00
Phascogale tapoatafa / Brush-tailed Phascogale5.60.00Phascolarctos cinereus / Koala5.10.00Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth5.60.00Planigale maculata / Common Planigale5.60.00Pteropus poliocephalus / Grey-headed Flying-fox5.80.00Thersites mitchellae / Mitchell's Rainforest Snail5.10.00	Petalura litorea / Coastal Petaltail	5.6	0.00
Phascolarctos cinereus / Koala Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth Flanigale maculata / Common Planigale Pteropus poliocephalus / Grey-headed Flying-fox Thersites mitchellae / Mitchell's Rainforest Snail 5.1 0.00 5.2 0.00 5.3 0.00 5.4 0.00	Petaurus norfolcensis / Squirrel Glider	5.6	0.00
Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth5.60.00Planigale maculata / Common Planigale5.60.00Pteropus poliocephalus / Grey-headed Flying-fox5.80.00Thersites mitchellae / Mitchell's Rainforest Snail5.10.00	Phascogale tapoatafa / Brush-tailed Phascogale	5.6	0.00
Planigale maculata / Common Planigale5.60.00Pteropus poliocephalus / Grey-headed Flying-fox5.80.00Thersites mitchellae / Mitchell's Rainforest Snail5.10.00	Phascolarctos cinereus / Koala	5.1	0.00
Pteropus poliocephalus / Grey-headed Flying-fox 5.8 0.00 Thersites mitchellae / Mitchell's Rainforest Snail 5.1 0.00	Phyllodes imperialis southern subspecies / Southern Pink Underwing Moth	5.6	0.00
Thersites mitchellae / Mitchell's Rainforest Snail 5.1 0.00	Planigale maculata / Common Planigale	5.6	0.00
	Pteropus poliocephalus / Grey-headed Flying-fox	5.8	0.00
Tyte poveobellandiae / Masked Owl	Thersites mitchellae / Mitchell's Rainforest Snail	5.1	0.00
1 yto novaenonandae / masked Owi	Tyto novaehollandiae / Masked Owl	5.6	0.00



Anthochaera phrygia/	1064_Z1_Moderate	Like-for-like options		
Regent Honeyeater		Only the below Spp	In the below IBRA subregions	
		Anthochaera phrygia/Regent Honeyeater	Any in NSW	
	1302_Z2_Moderate	Like-for-like options	·	
		Only the below Spp	In the below IBRA subregions	
		Anthochaera phrygia/Regent Honeyeater	Any in NSW	
	1302_Z3_Low	Like-for-like options	·	
		Only the below Spp	In the below IBRA subregions	
		Anthochaera phrygia/Regent Honeyeater	Any in NSW	
	1569_Z5_Derived	Like-for-like options		
		Only the below Spp	In the below IBRA subregions	
		Anthochaera phrygia/Regent Honeyeater	Any in NSW	
	1569_Z6_Derived	Like-for-like options		
		Only the below Spp	In the below IBRA subregions	
		Anthochaera phrygia/Regent Honeyeater	Any in NSW	
Argynnis hyperbius/	1064_Z1_Moderate	Like-for-like options	·	
Laced Fritillary	Only the below Spp		In the below IBRA subregions	
		Argynnis hyperbius/Laced Fritillary	Any in NSW	



Argynnis hyperbius/ Laced Fritillary	1064_Z1_Moderate	Variation options					
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		
		Fauna	Endangered		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
	1302_Z2_Moderate	Like-for-like options					
		Only the below Spp		In the below	In the below IBRA subregions		
		Argynnis hyperbius/Laced Fritillary	ry Any in NSW				
		Variation options					
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		

Page 9 of 112



		Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
13	302_Z3_Low	Like-for-like options				
		Only the below Spp		In the below II	BRA subregions	
		Argynnis hyperbius/Laced Fritillary	Any in NSW			
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
15	569_Z5_Derived	Like-for-like options	ı			
		Only the below Spp		In the below II	BRA subregions	

Page 10 of 112



	Argynnis hyperbius/Laced Fritillary Any in NSW				
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	
	Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	
	Argynnis hyperbius/Laced Fritillary	,	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	

Page 11 of 112



		Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Arthraxon hispidus/	1064_Z1_Moderate	Like-for-like options				
Hairy Jointgrass		Only the below Spp		In the below	IBRA subregions	
		Arthraxon hispidus/Hairy Jointgrass		Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Flora	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z2_Moderate	Like-for-like options	,			
		Only the below Spp		In the below	IBRA subregions	

Page 12 of 112



	Arthraxon hispidus/Hairy Jointgras	S	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	
	Flora	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	
	Arthraxon hispidus/Hairy Jointgras	SS	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	

Page 13 of 112



		Flora	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Cacophis harriettae/	1064_Z1_Moderate	Like-for-like options				
White-crowned Snake		Only the below Spp		In the below	IBRA subregions	
		Cacophis harriettae/White-crowned	Snake	Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z2_Moderate	Like-for-like options			•	
		Only the below Spp		In the below	IBRA subregions	

Page 14 of 112



	Cacophis harriettae/White-crowned Snake Any in NSW				
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below Vulnerable		In the below IBRA subregions	
	Fauna			Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options				
	Only the below Spp	Only the below Spp		In the below IBRA subregions	
	Cacophis harriettae/White-crowned	Cacophis harriettae/White-crowned Snake Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 c showb below	ry of listing	In the below IBRA subregions	

Page 15 of 112



	Fauna	Vulnerable		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z5_Derived	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	
	Cacophis harriettae/White-crowned	d Snake	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ory of listing of teh BC Act	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options			impacted site.	
	Only the below Spp		In the below	IBRA subregions	

Page 16 of 112



		Cacophis harriettae/White-crowned	l Snake	Any in NSW			
		Variation options					
		Any Spp in the below Kingdom		ith same or ry of listing of teh BC Act	In the below IBRA subregions		
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
Calyptorhynchus	1064_Z1_Moderate	Like-for-like options					
lathami/ Glossy Black-Cockatoo		Only the below Spp		In the below IBRA subregions			
Clossy Black Cockatoo		Calyptorhynchus lathami/Glossy Black-Cockatoo Any in NSV		Any in NSW			
		Variation options					
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		

Page 17 of 112



		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z2_Moderate	Like-for-like options				
		Only the below Spp		In the below I	BRA subregions	
		Calyptorhynchus lathami/Glossy Black	c-Cockatoo Any in NSW			
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z3_Low	Like-for-like options			impacted site.	
		Only the below Spp		In the below I	BRA subregions	

Page 18 of 112



		Calyptorhynchus lathami/Glossy Black-Cockatoo Any in NSW						
		Variation options	Variation options					
		Any Spp in the below Kingdom	Any species w higher catego under Part 4 c showb below	ry of listing	In the below IBRA subregions			
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.			
Centranthera	1064_Z1_Moderate	Like-for-like options						
cochinchinensis/ Swamp Foxglove		Only the below Spp		In the below IBRA subregions				
owamp i oxglove		Centranthera cochinchinensis/Swamp Foxglove An		Any in NSW	NSW			
		Variation options						
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions			

Page 19 of 112



		Flora	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z2_Moderate	Like-for-like options				
		Only the below Spp		In the below I	BRA subregions	
		Centranthera cochinchinensis/Swamp	Foxglove Any in NSW			
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Flora	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z3_Low	Like-for-like options				
		Only the below Spp		In the below I	BRA subregions	

Page 20 of 112



	Centranthera cochinchinensis/Swamp Foxglove		Any in NSW	
	Variation options			
	Any Spp in the below Kingdom	higher catego	ry of listing	In the below IBRA subregions
	Flora	Endangered		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.
Cercartetus nanus/ Eastern Pygmy-possum	Like-for-like options			
	Only the below Spp		In the below IBRA subregions	
	Cercartetus nanus/Eastern Pygmy-possum		Any in NSW	
	Variation options			
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions
	1064_Z1_Moderate	Variation options Any Spp in the below Kingdom Flora Like-for-like options Only the below Spp Cercartetus nanus/Eastern Pygmy-lyariation options	Any Spp in the below Kingdom Any species whigher catego under Part 4 of showb below Flora Like-for-like options Only the below Spp Cercartetus nanus/Eastern Pygmy-possum Variation options Any Spp in the below Kingdom Any species whigher catego under Part 4 of showb below Any species whigher catego under Part 4 of showb below Any species whigher catego under Part 4 of showb below Any species whigher catego under Part 4 of showb below Any species whigher catego under Part 4 of showb below Any species whigher catego under Part 4 of showb below Any species whigher catego under Part 4 of showb below Any species whigher catego under Part 4 of showb below	Variation options Any Spp in the below Kingdom Any species with same or higher category of listing under Part 4 of teh BC Act showb below Flora Endangered Like-for-like options Only the below Spp Cercartetus nanus/Eastern Pygmy-possum Any in NSW Variation options Any Spp in the below Kingdom Any species with same or higher category of listing under Part 4 of teh BC Act

Page 21 of 112



	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	Like-for-like options				
	Only the below Spp In the below I		IBRA subregions		
	Cercartetus nanus/Eastern Pygmy-	possum	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 c showb below	ry of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options	'		· ·	
	Only the below Spp		In the below	IBRA subregions	

Page 22 of 112



	Cercartetus nanus/Eastern Pygmy-possum Any in NSW				
1569_Z5_Derived	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	y of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	Like-for-like options				
	Only the below Spp		In the below IBRA subregions		
	Cercartetus nanus/Eastern Pygmy-possum Any in NSV		Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	y of listing	In the below IBRA subregions	

Page 23 of 112



		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1569_Z6_Derived	Like-for-like options				
		Only the below Spp	below Spp In the below I		IBRA subregions	
		Cercartetus nanus/Eastern Pygmy-	possum	Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species whigher categorial under Part 4 showb below	ory of listing of teh BC Act	In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Chalinolobus dwyeri/	1064_Z1_Moderate	Like-for-like options	'		_ ' ·	
Large-eared Pied Bat		Only the below Spp		In the below	IBRA subregions	

Page 24 of 112



	Chalinolobus dwyeri/Large-eared Pied Bat Any		Any in NSW	any in NSW	
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	Like-for-like options				
	Only the below Spp		In the below I	e below IBRA subregions	
	Chalinolobus dwyeri/Large-eared F	Chalinolobus dwyeri/Large-eared Pied Bat Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	

Page 25 of 112



		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
130	02_Z3_Low	Like-for-like options				
		Only the below Spp In the below		In the below IE	IBRA subregions	
		Chalinolobus dwyeri/Large-eared Pied B	d Bat Any in NSW			
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
156	69_Z5_Derived	Like-for-like options				
		Only the below Spp		In the below IE	RA subregions	

Page 26 of 112



	Chalinolobus dwyeri/Large-eared F	Pied Bat	Any in NSW		
	Variation options	Variation options			
	Any Spp in the below Kingdom	Any species winder category under Part 4 of showb below	ry of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options				
	Only the below Spp		In the below IBRA subregions		
	Chalinolobus dwyeri/Large-eared Pied Bat Any in NSW		Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species with higher categoriunder Part 4 of showb below	ry of listing	In the below IBRA subregions	

Page 27 of 112



Coeranoscincus reticulatus/ Three-toed Snake-tooth Skink Like-for-like options Only the below Spp In the below IBRA subregions Coeranoscincus reticulatus/Three-toed Snake-tooth Skink Variation options Any Spp in the below Kingdom Any species with same or In the below IBRA subregions		Fauna	Vulnerable		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Three-toed Snake-tooth Skink Coeranoscincus reticulatus/Three-toed Snake-tooth Skink Variation options Any Spp in the below Kingdom Any species with same or In the below IBRA subregions	1064_Z1_Moderate	Like-for-like options				
Skink Coeranoscincus reticulatus/Three-toed Snake-tooth Skink Variation options Any in NSW Note: Any Spp in the below Kingdom Any species with same or In the below IBRA subregions		Only the below Spp		IBRA subregions		
Any Spp in the below Kingdom Any species with same or In the below IBRA subregions			d Snake-tooth Any in NSW			
		Variation options				
higher category of listing under Part 4 of teh BC Act showb below		Any Spp in the below Kingdom	higher category of listing under Part 4 of teh BC Act		In the below IBRA subregions	
Rim and Sunshine Coast-Gold Coa Lowlands. or Any IBRA subregion that is within		Fauna	Rir Lo An kile		or Any IBRA subregion that is within 100 kilometers of the outer edge of the	
1302_Z2_Moderate Like-for-like options	1302_Z2_Moderate	Like-for-like options				

Page 28 of 112



	Only the below Spp	Only the below Spp		BRA subregions	
		Coeranoscincus reticulatus/Three-toed Snake-tooth Skink			
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 c showb below	ry of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options				
	Only the below Spp			IBRA subregions	
	Coeranoscincus reticulatus/Three-Skink			Any in NSW	
	Variation options	Variation options			
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 29 of 112



				or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z5_Derived	Like-for-like options				
	Only the below Spp		In the below I	BRA subregions	
	Coeranoscincus reticulatus /Three-toed Snake-tooth Skink		Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 c showb below	ry of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options				

Page 30 of 112



		Only the below Spp		In the below	IBRA subregions	
		Coeranoscincus reticulatus/Three-toed Snake-tooth Skink		Any in NSW		
		Variation options				
Crinia tinnula/ 1064_Z1_Moderate	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
	1064_Z1_Moderate	Like-for-like options				
Wallum Froglet	Vallum Froglet	Only the below Spp		In the below	n the below IBRA subregions	
		Crinia tinnula/Wallum Froglet		Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 31 of 112



		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
Cryptocarya foetida/ Stinking Cryptocarya	1302_Z2_Moderate	Like-for-like options					
		Only the below Spp In the be		In the below I	w IBRA subregions		
		Cryptocarya foetida/Stinking Cryptoca	arya Any in NSW				
		Variation options					
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		
		Flora	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		



Cyclopsitta	1064_Z1_Moderate	Like-for-like options				
diophthalma coxeni/ Coxen's Fig-Parrot		Only the below Spp	In the below IBRA subregions			
general ignamet		Cyclopsitta diophthalma coxeni/Coxen's Fig-Parrot	Any in NSW			
	1302_Z2_Moderate	Like-for-like options				
		Only the below Spp	In the below IBRA subregions			
		Cyclopsitta diophthalma coxeni/Coxen's Fig-Parrot	Any in NSW			
	1302_Z3_Low	Like-for-like options				
		Only the below Spp	In the below IBRA subregions			
		Cyclopsitta diophthalma coxeni/Coxen's Fig-Parrot	Any in NSW			
	1569_Z5_Derived	Like-for-like options				
		Only the below Spp	In the below IBRA subregions			
		Cyclopsitta diophthalma coxeni/Coxen's Fig-Parrot	Any in NSW			
	1569_Z6_Derived	Like-for-like options				
		Only the below Spp	In the below IBRA subregions			
		Cyclopsitta diophthalma coxeni/Coxen's Fig-Parrot	Any in NSW			
Cyperus aquatilis/	1064_Z1_Moderate	Like-for-like options				
Water Nutgrass		Only the below Spp	In the below IBRA subregions			
		Cyperus aquatilis/Water Nutgrass	Any in NSW			



Cyperus aquatilis/ Water Nutgrass	1064_Z1_Moderate	Variation options					
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		
		Flora	Endangered		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
	1302_Z2_Moderate	Like-for-like options					
		Only the below Spp		In the below	ne below IBRA subregions		
		Cyperus aquatilis/Water Nutgrass	perus aquatilis/Water Nutgrass Any in NSW				
		Variation options					
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		

Page 34 of 112



	Flora			Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
1302_Z3_Low	Like-for-like options					
	Only the below Spp		In the below IBRA subregions			
	Cyperus aquatilis/Water Nutgrass	Any in NSW				
	Variation options					
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		
	Flora	Endangered				Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.



Dendrobium	1064_Z1_Moderate	Like-for-like options				
melaleucaphilum/ Spider orchid		Only the below Spp		In the below I	BRA subregions	
Opider oronia		Dendrobium melaleucaphilum/Spide	er orchid	Any in NSW		
		Variation options				
	1302_Z2_Moderate	Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ry of listing	In the below IBRA subregions	
		Flora	Endangered		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
		Like-for-like options	'			
		Only the below Spp	Only the below Spp		In the below IBRA subregions	
		Dendrobium melaleucaphilum/Spide	er orchid	Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species w higher categor under Part 4 of showb below	ry of listing	In the below IBRA subregions	

Page 36 of 112



		Flora	Endangered		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
	1302_Z3_Low	Like-for-like options					
		Only the below Spp	In the below I		BRA subregions		
		Dendrobium melaleucaphilum/Spider	orchid Any in NSW				
		Variation options					
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		
		Flora	Endangered		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
Geodorum densiflorum/	1064_Z1_Moderate	Like-for-like options					
Pink Nodding Orchid							

Page 37 of 112



	Only the below Spp		In the below	IBRA subregions	
	Geodorum densiflorum/Pink Nodd	ling Orchid	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species whigher categorial under Part 4 showb below	ory of listing of teh BC Act	In the below IBRA subregions	
	Flora	Endangered		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	Like-for-like options				
	Only the below Spp		In the below	In the below IBRA subregions	
	Geodorum densiflorum/Pink Nodding Orchid Any in NSW		Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species whigher categorial under Part 4 showb below	ory of listing of teh BC Act	In the below IBRA subregions	

Page 38 of 112



		Flora	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z3_Low	Like-for-like options				
		Only the below Spp	In the below I		BRA subregions	
		Geodorum densiflorum/Pink Nodding	Orchid Any in NSW			
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Flora	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Haliaeetus leucogaster/	1064_Z1_Moderate	Like-for-like options				
White-bellied Sea-Eagle		Only the below Spp		In the below I	BRA subregions	

Page 39 of 112



	Haliaeetus leucogaster/White-bellied Sea-Eagle Any in NSW				
	Variation options		·		
	Any Spp in the below Kingdom	Any species whigher catego under Part 4 cashowb below	ry of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	Like-for-like options				
	Only the below Spp In the belo		In the below	IBRA subregions	
	Haliaeetus leucogaster/White-bellie	pellied Sea-Eagle Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 c showb below	ry of listing	In the below IBRA subregions	

Page 40 of 112



		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1	302_Z3_Low	Like-for-like options				
		Only the below Spp		In the below I	BRA subregions	
		Haliaeetus leucogaster/White-bellied Se	ied Sea-Eagle Any in NSW			
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1	569_Z5_Derived	Like-for-like options			'	
		Only the below Spp		In the below I	BRA subregions	

Page 41 of 112



	Haliaeetus leucogaster/White-bellied Sea-Eagle Any in NSW				
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ry of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options				
	Only the below Spp In the below		In the below	v IBRA subregions	
	Haliaeetus leucogaster/White-bellie	s leucogaster/White-bellied Sea-Eagle Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ry of listing	In the below IBRA subregions	

Page 42 of 112



		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Hieraaetus	1064_Z1_Moderate	Like-for-like options				
morphnoides/ Little Eagle		Only the below Spp		In the below	IBRA subregions	
		Hieraaetus morphnoides/Little Eag	le	Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species whigher categorunder Part 4 cashowb below	ory of listing	In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z2_Moderate	Like-for-like options	'			
		Only the below Spp		In the below	IBRA subregions	

Page 43 of 112



	Hieraaetus morphnoides/Little Eag	Hieraaetus morphnoides/Little Eagle Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	
	Hieraaetus morphnoides/Little Eag	gle	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 44 of 112



	Fauna	Vulnerable		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z5_Derived	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	
	Hieraaetus morphnoides/Little Eag	gle	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 c showb below	ry of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options			passaa sita	
	Only the below Spp		In the below	IBRA subregions	

Page 45 of 112



		Hieraaetus morphnoides/Little Eag	ıle	Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ry of listing	In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
loplocephalus	1064_Z1_Moderate	Like-for-like options				
oitorquatus/ Pale-headed Snake		Only the below Spp		In the below	the below IBRA subregions	
ale ricaded Griane		Hoplocephalus bitorquatus/Pale-headed Snake Any in NS		Any in NSW	1	
		Variation options				
		Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ry of listing	In the below IBRA subregions	

Page 46 of 112



	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
1302_Z2_Modera	-					
	Only the below Spp		In the below	IBRA subregions		
	Hoplocephalus bitorquatus/Pale-h	neaded Snake	Any in NSW	SW		
	Variation options	Variation options				
	Any Spp in the below Kingdom	higher categ	with same or ory of listing of teh BC Act v	In the below IBRA subregions		
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
1302_Z3_Low	Like-for-like options	· · · · · · · · · · · · · · · · · · ·		'		
	Only the below Spp		In the below	IBRA subregions		

Page 47 of 112



	Hoplocephalus bitorquatus/Pale-headed Snake Any in NSW				
	Variation options		'		
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ory of listing of teh BC Act	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z5_Derived	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	
	Hoplocephalus bitorquatus/Pale-h	neaded Snake	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species whigher category under Part 4 constructions shown below	ory of listing of teh BC Act	In the below IBRA subregions	

Page 48 of 112



	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options				
	Only the below Spp		In the below IBRA subregions		
	Hoplocephalus bitorquatus/Pale-heade	uatus/Pale-headed Snake Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	



Isoglossa	1064_Z1_Moderate	Like-for-like options				
eranthemoides/ Isoglossa		Only the below Spp		In the below I	BRA subregions	
130910334		Isoglossa eranthemoides/Isoglossa		Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Flora	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z2_Moderate	Like-for-like options				
		Only the below Spp		In the below IBRA subregions		
		Isoglossa eranthemoides/Isoglossa		Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species with higher categoriunder Part 4 of showb below	y of listing	In the below IBRA subregions	

Page 50 of 112



		Flora	Endangered		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z3_Low	Like-for-like options				
		Only the below Spp		In the below II	BRA subregions	
		Isoglossa eranthemoides/Isoglossa		Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Flora	Endangered		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Lathamus discolor/	1064_Z1_Moderate	Like-for-like options				
Swift Parrot						

Page 51 of 112



	Only the below Spp		In the below	IBRA subregions	
	Lathamus discolor/Swift Parrot		Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
	Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	
	Lathamus discolor/Swift Parrot		Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 52 of 112



		Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
130	02_Z3_Low	Like-for-like options				
		Only the below Spp		In the below IE	BRA subregions	
		Lathamus discolor/Swift Parrot	Any in		N	
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
150	669_Z5_Derived	Like-for-like options				
		Only the below Spp		In the below IE	BRA subregions	

Page 53 of 112



	Lathamus discolor/Swift Parrot		Any in NSW	
	Variation options			
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions
	Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.
1569_Z6_Derived	Like-for-like options			
	Only the below Spp		In the below	IBRA subregions
	Lathamus discolor/Swift Parrot		Any in NSW	
	Variation options			
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions

Page 54 of 112



		Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.
Litoria brevipalmata/	1064_Z1_Moderate	Like-for-like options			
Green-thighed Frog		Only the below Spp		In the below	IBRA subregions
		Litoria brevipalmata/Green-thighed	d Frog	Any in NSW	
		Variation options			
		Any Spp in the below Kingdom	Any species v higher catego under Part 4 showb below	ory of listing of teh BC Act	In the below IBRA subregions
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.
	1302_Z2_Moderate	Like-for-like options	'		' ·
		Only the below Spp		In the below	IBRA subregions

Page 55 of 112



	Litoria brevipalmata/Green-thighed	Litoria brevipalmata/Green-thighed Frog Any in NSW		
	Variation options			
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ry of listing	In the below IBRA subregions
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.
1302_Z3_Low	Like-for-like options			
	Only the below Spp		In the below	IBRA subregions
	Litoria brevipalmata/Green-thighed	d Frog	Any in NSW	
	Variation options			
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ry of listing	In the below IBRA subregions

Page 56 of 112



		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Litoria olongburensis/	1064_Z1_Moderate	Like-for-like options				
Olongburra Frog		Only the below Spp		In the below I	BRA subregions	
		Litoria olongburensis/Olongburra Frog	Any in NSW			
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z2_Moderate	Like-for-like options	'			
		Only the below Spp		In the below I	BRA subregions	

Page 57 of 112



	Litoria olongburensis/Olongburra F	Frog	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options				
	Only the below Spp	In the below		IBRA subregions	
	Litoria olongburensis/Olongburra F	rog Any in NSW			
	Variation options				
Any Spp in the below Kingdom		Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 58 of 112



		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Lophoictinia isura/ Square-tailed Kite	1064_Z1_Moderate	Like-for-like options				
		Only the below Spp In the below		IBRA subregions		
		Lophoictinia isura/Square-tailed Kite	Any in NSW			
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z2_Moderate	Like-for-like options	'			
		Only the below Spp		In the below I	BRA subregions	

Page 59 of 112



	Lophoictinia isura/Square-tailed Ki	te	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options				
	Only the below Spp	Only the below Spp		low IBRA subregions	
	Lophoictinia isura/Square-tailed Ki	te Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	

Page 60 of 112



	Fauna	Vulnerable		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z5_Derived	Like-for-like options				
	Only the below Spp		In the below IBRA subregions		
	Lophoictinia isura/Square-tailed Kit	e	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 c showb below	ry of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options			-	
	Only the below Spp		In the below	IBRA subregions	

Page 61 of 112



		Lophoictinia isura/Square-tailed Kite Any in NSW				
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Marsdenia longiloba/	1064_Z1_Moderate	Like-for-like options				
Slender Marsdenia		Only the below Spp		In the below IBRA subregions		
		Marsdenia longiloba/Slender Marsdenia Any in NSV		Any in NSW	ı	
		Variation options				
		Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ry of listing	In the below IBRA subregions	

Page 62 of 112



	Flora	Endangered		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	Like-for-like options				
	Only the below Spp In the below		IBRA subregions		
	Marsdenia longiloba/Slender Mars	sdenia	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 c showb below	ry of listing	In the below IBRA subregions	
	Flora	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options	'			
	Only the below Spp		In the below	IBRA subregions	

Page 63 of 112



		Marsdenia longiloba/Slender Marsdenia Any in NSW					
		Variation options					
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		
	Flora	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.			
Miniopterus australis/	1064_Z1_Moderate	Like-for-like options					
Little Bentwing-bat		Only the below Spp		In the below IBRA subregions			
		Miniopterus australis/Little Bentwing-bat Any in NS		Any in NSW	V		
		Variation options					
		Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ry of listing	In the below IBRA subregions		

Page 64 of 112



	Fauna Vulnerable			Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	Like-for-like options				
	Only the below Spp	e below Spp In the below		IBRA subregions	
	Miniopterus australis/Little Bentwi	ng-bat	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species whigher categorial under Part 4 showb below	ory of listing of teh BC Act	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options	'			
	Only the below Spp		In the below	IBRA subregions	

Page 65 of 112



	Miniopterus australis/Little Bentwir	entwing-bat Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species winder category under Part 4 of showb below	y of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z5_Derived	Like-for-like options				
	Only the below Spp		In the below	n the below IBRA subregions	
	Miniopterus australis/Little Bentwing-bat Any in NSW				
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	

Page 66 of 112



		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1569_Z6_Derived	Like-for-like options				
		Only the below Spp		In the below IBRA subregions		
		Miniopterus australis/Little Bentwing-ba	Any in NSW			
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	



Miniopterus schreibersii	1064_Z1_Moderate	Like-for-like options				
oceanensis/ Eastern Bentwing-bat		Only the below Spp		In the below I	BRA subregions	
		Miniopterus schreibersii oceanensis/Ea Bentwing-bat	astern	Any in NSW		
		Variation options				
	1302_Z2_Moderate	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
		Like-for-like options				
		Only the below Spp		In the below IBRA subregions		
		Miniopterus schreibersii oceanensis/Es Bentwing-bat	astern	Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species wi higher categor		In the below IBRA subregions	

Page 68 of 112



Fauna Vulnerable Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site. 1302_Z3_Low Like-for-like options Only the below Spp In the below IBRA subregions Miniopterus schreibersii oceanensis/Eastern Bentwing-bat Variation options Any Spp in the below Kingdom Any species with same or higher category of listing under Part 4 of teh BC Act showb below In the below IBRA subregions In the below IBRA subregions				under Part 4 of teh BC Act showb below			
Only the below Spp In the below IBRA subregions Miniopterus schreibersii oceanensis/Eastern Bentwing-bat Variation options Any Spp in the below Kingdom Any species with same or higher category of listing under Part 4 of teh BC Act In the below IBRA subregions Any in NSW In the below IBRA subregions			Fauna			Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the	
Miniopterus schreibersii oceanensis/Eastern Bentwing-bat Variation options Any Spp in the below Kingdom Any species with same or higher category of listing under Part 4 of teh BC Act		1302_Z3_Low	Like-for-like options				
Variation options Any Spp in the below Kingdom Any species with same or higher category of listing under Part 4 of teh BC Act			Only the below Spp		In the below IB	BRA subregions	
Any Spp in the below Kingdom Any species with same or higher category of listing under Part 4 of teh BC Act In the below IBRA subregions					Any in NSW		
higher category of listing under Part 4 of teh BC Act			Variation options				
			Any Spp in the below Kingdom	higher category of listing under Part 4 of teh BC Act		In the below IBRA subregions	

Page 69 of 112



	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z5_Derived	Like-for-like options				
	Only the below Spp		In the below	BRA subregions	
	Miniopterus schreibersii oceanens Bentwing-bat	is/Eastern Any in NSW		J	
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 c showb below	ry of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options				

Page 70 of 112



		Only the below Spp		In the below	IBRA subregions		
		Miniopterus schreibersii oceanensis/Eastern Bentwing-bat		Any in NSW			
		Variation options					
		Any Spp in the below Kingdom	higher cate	s with same or gory of listing 4 of teh BC Act ow	In the below IBRA subregions		
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
Mixophyes iteratus/ 1064_Z1_Moder	1064_Z1_Moderate	Like-for-like options					
Giant Barred Frog		Only the below Spp		In the below	In the below IBRA subregions		
		Mixophyes iteratus/Giant Barred F	rog	Any in NSW	12M		
		Variation options					
		Any Spp in the below Kingdom	higher cate	s with same or gory of listing 4 of teh BC Act	In the below IBRA subregions		

Page 71 of 112



	Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	
	Mixophyes iteratus/Giant Barred F	rog	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 c showb below	ry of listing	In the below IBRA subregions	
	Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options	'			
	Only the below Spp		In the below	IBRA subregions	

Page 72 of 112



		Mixophyes iteratus/Giant Barred Frog Any in NSW					
		Variation options					
		Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ry of listing	In the below IBRA subregions		
		Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
Myotis macropus/	1064_Z1_Moderate	e Like-for-like options					
Southern Myotis		Only the below Spp		In the below IBRA subregions			
		Myotis macropus/Southern Myotis Any in		Any in NSW	W		
		Variation options					
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		

Page 73 of 112



	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	
	Myotis macropus/Southern Myotis Any in		Any in NSW	1SW	
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	

Page 74 of 112



		Myotis macropus/Southern Myotis	yotis macropus/Southern Myotis Any in NS		J	
		Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	ry of listing	In the below IBRA subregions		
		Fauna	Vulnerable		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Ninox connivens/	1064_Z1_Moderate	Like-for-like options				
Barking Owl		Only the below Spp		In the below IBRA subregions		
		Ninox connivens/Barking Owl		Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 75 of 112



	Fauna	Vulnerable		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	-				
	Only the below Spp		In the below	IBRA subregions	
	Ninox connivens/Barking Owl		Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species v higher catego under Part 4 showb below	ory of listing of teh BC Act	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	

Page 76 of 112



	Ninox connivens/Barking Owl Any in NS		Any in NSW	SW	
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z5_Derived	Like-for-like options				
	Only the below Spp	Only the below Spp		the below IBRA subregions	
	Ninox connivens/Barking Owl		Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 77 of 112



		Fauna Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.			
	1569_Z6_Derived	Like-for-like options	·		·		
		Only the below Spp		In the below	IBRA subregions		
		Ninox connivens/Barking Owl		Any in NSW			
		Variation options					
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.			
Ninox strenua/	1064_Z1_Moderate	Like-for-like options	· · · · · · · · · · · · · · · · · · ·				
Powerful Owl		Only the below Spp		In the below	IBRA subregions		

Page 78 of 112



	Ninox strenua/Powerful Owl Any in NSW		Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below Vulnerable		In the below IBRA subregions	
	Fauna			Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	Like-for-like options				
	Only the below Spp		In the below	below IBRA subregions	
	Ninox strenua/Powerful Owl Any in		Any in NSW	sw	
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 79 of 112



		Fauna Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
13	302_Z3_Low	Like-for-like options				
		Only the below Spp		In the below II	BRA subregions	
		Ninox strenua/Powerful Owl	Any in NS		1	
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
15	669_Z5_Derived	Like-for-like options				
		Only the below Spp		In the below II	BRA subregions	

Page 80 of 112



	Ninox strenua/Powerful Owl	Ninox strenua/Powerful Owl Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below Vulnerable		In the below IBRA subregions	
	Fauna			Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options				
	Only the below Spp		In the below IBRA subregions		
	Ninox strenua/Powerful Owl	Ninox strenua/Powerful Owl Any in		W	
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 81 of 112



		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Pandion cristatus/	1064_Z1_Moderate	Like-for-like options				
Eastern Osprey		Only the below Spp		In the below	IBRA subregions	
		Pandion cristatus/Eastern Osprey		Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z2_Moderate	Like-for-like options	1			
		Only the below Spp		In the below	IBRA subregions	

Page 82 of 112



	Pandion cristatus/Eastern Osprey	Pandion cristatus/Eastern Osprey Any		Any in NSW	
	Variation options	Variation options			
	Any Spp in the below Kingdom	Any species winder category under Part 4 of showb below	y of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options				
	Only the below Spp		In the below	below IBRA subregions	
	Pandion cristatus/Eastern Osprey	Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 83 of 112



	Fauna	Vulnerable		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z5_Derived	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	
	Pandion cristatus/Eastern Osprey		Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ry of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options			1	
	Only the below Spp		In the below	IBRA subregions	

Page 84 of 112



		Pandion cristatus/Eastern Osprey Any in NSW				
		Variation options				
	Any Spp in the below Kingdom	Any species w higher categor under Part 4 of showb below	ry of listing	In the below IBRA subregions		
		Fauna	Vulnerable		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
etalura litorea/	1064_Z1_Moderate	Like-for-like options				
Coastal Petaltail		Only the below Spp		In the below IBRA subregions		
		Petalura litorea/Coastal Petaltail	Any in NSW			
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 85 of 112



	Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	-				
	Only the below Spp		In the below	IBRA subregions	
	Petalura litorea/Coastal Petaltail	Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species whigher categorunder Part 4 catego	ory of listing	In the below IBRA subregions	
	Fauna	Endangered		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options	· · · · · · · · · · · · · · · · · · ·		· ·	
	Only the below Spp		In the below	IBRA subregions	

Page 86 of 112



	Petalura litorea/Coastal Petaltail		Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	
	Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z5_Derived	Like-for-like options				
	Only the below Spp		In the below IBRA subregions		
	Petalura litorea/Coastal Petaltail	astal Petaltail Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 87 of 112



		Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1569_Z6_Derived	Like-for-like options				
		Only the below Spp	Only the below Spp In the below I		IBRA subregions	
		Petalura litorea/Coastal Petaltail		Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species whigher categorunder Part 4 cashowb below	ory of listing	In the below IBRA subregions	
	Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
Petaurus norfolcensis/	1064_Z1_Moderate	Like-for-like options	'		· ·	
Squirrel Glider		Only the below Spp		In the below	IBRA subregions	

Page 88 of 112



	Petaurus norfolcensis/Squirrel Glider Any in NSW				
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	Like-for-like options				
	Only the below Spp		In the below IBRA subregions		
	Petaurus norfolcensis/Squirrel Glide	Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	

Page 89 of 112



		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
13	302_Z3_Low	Like-for-like options				
		Only the below Spp		In the below I	BRA subregions	
		Petaurus norfolcensis/Squirrel Glider	Any in NSW			
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
15	669_Z5_Derived	Like-for-like options				
		Only the below Spp		In the below I	BRA subregions	

Page 90 of 112



	Petaurus norfolcensis/Squirrel Glid	Petaurus norfolcensis/Squirrel Glider Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options				
	Only the below Spp		In the below IBRA subregions		
	Petaurus norfolcensis/Squirrel Glid	er Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions	

Page 91 of 112



		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Phascogale tapoatafa/ Brush-tailed Phascogale	1064_Z1_Moderate	Like-for-like options				
		Only the below Spp		In the below I	BRA subregions	
		Phascogale tapoatafa/Brush-tailed Pha	ascogale Any in NSW			
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z2_Moderate	Like-for-like options	'			
		Only the below Spp		In the below I	BRA subregions	

Page 92 of 112



	Phascogale tapoatafa/Brush-tailed	Phascogale tapoatafa/Brush-tailed Phascogale Any in NSW			
	Variation options	Variation options			
	Any Spp in the below Kingdom	Any species v higher catego under Part 4 showb below	ory of listing of teh BC Act	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options				
	Only the below Spp		In the below	ow IBRA subregions	
	Phascogale tapoatafa/Brush-tailed Phascogale Any in NSW				
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 93 of 112



	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z5_Derived	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	
	Phascogale tapoatafa/Brush-tailed	Phascogale	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species whigher categorunder Part 4 of showb below	ory of listing of teh BC Act	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	

Page 94 of 112



		Di di Girani (c'ilad Disassasia		A ' NICIAI			
		Phascogale tapoatata/Brush-tailed	Phascogale tapoatafa/Brush-tailed Phascogale Any in NSW				
		Variation options					
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions			
	Fauna	Vulnerable		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.			
Phascolarctos cinereus/	1064_Z1_Moderate	Like-for-like options					
Koala		Only the below Spp		In the below IBRA subregions			
		Phascolarctos cinereus/Koala Any		Any in NSW	Any in NSW		
		Variation options					
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		

Page 95 of 112



	Fauna			Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	Like-for-like options				
	Only the below Spp		In the below I	BRA subregions	
	Phascolarctos cinereus/Koala	Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options				
	Only the below Spp		In the below I	BRA subregions	

Page 96 of 112



		Phascolarctos cinereus/Koala Any in NSV		Any in NSW	NSW		
		Variation options					
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
Phyllodes imperialis	1064_Z1_Moderate	Like-for-like options					
southern subspecies/ Southern Pink Underwing		Only the below Spp		In the below I	w IBRA subregions		
Moth		Phyllodes imperialis southern subspecies /Southern Any in Neink Underwing Moth		Any in NSW	W		
		Variation options					
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		

Page 97 of 112



	Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	Like-for-like options				
	Only the below Spp		In the below I	BRA subregions	
	Phyllodes imperialis southern subspec Pink Underwing Moth	pecies/Southern Any in NSW		1	
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
	Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options				
I					

Page 98 of 112



	Only the below Spp		In the below I	BRA subregions	
	Phyllodes imperialis southern subspecies /Southern Pink Underwing Moth		Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below Endangered		In the below IBRA subregions	
	Fauna			Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z5_Derived	Like-for-like options				
	Only the below Spp		In the below I	/ IBRA subregions	
	Phyllodes imperialis southern subspecies/Southern Pink Underwing Moth		Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 99 of 112



	Fauna	Endangered		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options				
	Only the below Spp In the below		In the below I	w IBRA subregions	
	Phyllodes imperialis southern subs Pink Underwing Moth	pecies/Southern Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species whigher categorunder Part 4 cashowb below	ry of listing	In the below IBRA subregions	
	Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	



Planigale maculata/		Like-for-like options				
Common Planigale		Only the below Spp		In the below I	BRA subregions	
		Planigale maculata/Common Planiga	ale	Any in NSW		
		Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 c showb below	ry of listing	In the below IBRA subregions		
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
	1302_Z2_Moderate	Like-for-like options				
		Only the below Spp		In the below IBRA subregions		
		Planigale maculata/Common Planiga	ale	Any in NSW		
		Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 c showb below	ry of listing	In the below IBRA subregions		

Page 101 of 112



	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100	
				kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	
	Planigale maculata/Common Plani	ale Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 c showb below	ry of listing	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z5_Derived	Like-for-like options				

Page 102 of 112



	Only the below Spp		In the below	BRA subregions	
	Planigale maculata/Common Planig	gale	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom		th same or y of listing f teh BC Act	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options	<u>'</u>			
	Only the below Spp		In the below IBRA subregions		
	Planigale maculata/Common Planig	gale	Any in NSW	in NSW	
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 103 of 112



		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
Pteropus poliocephalus/ 1064_Z1_Moderate	Like-for-like options						
Grey-headed Flying-fox		Only the below Spp		In the below	IBRA subregions		
		Pteropus poliocephalus/Grey-headed Flying-fo		ng-fox Any in NSW			
		Variation options					
		Any Spp in the below Kingdom	Any species v higher catego under Part 4 showb below	ory of listing of teh BC Act	In the below IBRA subregions		
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
	1302_Z2_Moderate	Like-for-like options			· ·		
		Only the below Spp		In the below	IBRA subregions		

Page 104 of 112



	Pteropus poliocephalus/Grey-head	ded Flying-fox	Any in NSW		
	Variation options	Variation options			
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options				
	Only the below Spp		In the below	v IBRA subregions	
	Pteropus poliocephalus/Grey-head	Pteropus poliocephalus/Grey-headed Flying-fox Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	

Page 105 of 112



	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z5_Derived	Like-for-like options				
	Only the below Spp		In the below	In the below IBRA subregions	
	Pteropus poliocephalus/Grey-head	ded Flying-fox	Any in NSW		
	Variation options				
	Any Spp in the below Kingdom	Any species v higher catego under Part 4 showb below	ory of listing of teh BC Act	In the below IBRA subregions	
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1569_Z6_Derived	Like-for-like options				
	Only the below Spp		In the below	IBRA subregions	

Page 106 of 112



		Pteropus poliocephalus/Grey-headed Flying-fox Any in NSW		Any in NSW	V		
		Variation options					
		Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ory of listing	In the below IBRA subregions		
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
Thersites mitchellae/	1064_Z1_Moderate	Like-for-like options					
Mitchell's Rainforest Snail		Only the below Spp In the bel		In the below	w IBRA subregions		
		Thersites mitchellae/Mitchell's Rainforest Snail Any in NSW		Any in NSW			
		Variation options					
		Any Spp in the below Kingdom	Any species w higher catego under Part 4 of showb below	ory of listing	In the below IBRA subregions		

Page 107 of 112



	Fauna	Endangered		Burringbar-Conondale Ranges, Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z2_Moderate	Like-for-like options			<u>'</u>	
	Only the below Spp		In the below	In the below IBRA subregions	
	Thersites mitchellae/Mitchell's Rain	ainforest Snail Any in NSW			
	Variation options				
	Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ry of listing	In the below IBRA subregions	
	Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
1302_Z3_Low	Like-for-like options			<u> </u>	
	Only the below Spp	Only the below Spp In the below		IBRA subregions	

Page 108 of 112



	Thersites mitchellae/Mitchell's Rainforest Snail Any in N		Any in NSW	NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ry of listing	In the below IBRA subregions	
		Fauna	Endangered		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
Tyto novaehollandiae/	1064_Z1_Moderate	Like-for-like options				
Masked Owl		Only the below Spp		In the below IBRA subregions		
		Tyto novaehollandiae/Masked Owl Any in NSW		Any in NSW		
		Variation options				
		Any Spp in the below Kingdom	Any species w higher catego under Part 4 o showb below	ry of listing	In the below IBRA subregions	

Page 109 of 112



		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z2_Moderate	Like-for-like options				
		Only the below Spp		In the below IBRA subregions		
		Tyto novaehollandiae/Masked Owl	Any in NSW			
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1302_Z3_Low	Like-for-like options				
		Only the below Spp		In the below I	BRA subregions	

Page 110 of 112



	Tyto novaehollandiae/Masked Owl Any		Any in NSW	ny in NSW		
	Variation options	Variation options				
	Any Spp in the below Kingdom	Any species wi higher categor under Part 4 o showb below	y of listing	In the below IBRA subregions		
	Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.		
1569_Z5_Derived	Like-for-like options					
	Only the below Spp		In the below	IBRA subregions		
	Tyto novaehollandiae/Masked Owl	I	Any in NSW			
	Variation options					
	Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions		

Page 111 of 112



		Fauna			Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	
	1569_Z6_Derived	Like-for-like options				
		Only the below Spp		In the below IBRA subregions		
		Tyto novaehollandiae/Masked Owl	Any in NSW			
		Variation options				
		Any Spp in the below Kingdom	Any species with same or higher category of listing under Part 4 of teh BC Act showb below		In the below IBRA subregions	
		Fauna	Vulnerable		Burringbar-Conondale Ranges,Scenic Rim and Sunshine Coast-Gold Coast Lowlands. or Any IBRA subregion that is within 100 kilometers of the outer edge of the impacted site.	