

Wildlife Corridor Management Plan

Residential Subdivision Lot 23, Boomerang Drive, Blueys Beach, NSW



Prepared for: W T Malouf Pty Ltd

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1.0 Wildlife Corridor Management Plan

1.1 Introduction

A residential subdivision is proposed within land known as 23 Boomerang Drive, Blueys Beach NSW. At the request of W T Malouf (the Proponent), Anderson Environment & Planning (AEP) have undertaken the necessary investigations to inform the production of a Wildlife Corridor Management Plan (WCMP) supporting the development application for a proposed residential subdivision and associated ancillary infrastructure.

The WCMP is a requirement of Mid Coast Council (Council) Development Control Plan (DCP) for Great Lakes region – S 16 Site Specific Controls - s 16.22.1.3 – "*Specific Controls for Wildlife Corridors*" which covers the Blueys Beach area, including the Development Lot 23 (the Subject Site).

Compliance of the WCMP with the DCP schedule is provided in **Appendix A**.

1.2 The Proposal

The proposed development involves land subdivision for residential purposes, which will require the clearance of approx. 2.88ha of native vegetation. The site currently contains previously grazed grassland (currently slashed) and remnant native vegetation.

Riparian and other retained lands within the Subject Site are proposed to be managed under a Biodiversity Management Plan being developed by AEP with the DA assessment.

1.3 Information Sources

Information and spatial data provided within this WCMP have been compiled from various sources including:

- Field surveys conducted within Lot 23 and wider Blueys Beach locality by AEP (2016-2022);
- State and federal survey guidelines (DEC 2004, SEWPaC 2011, DPIE 2020a and 2020b, OEH 2016, OEH 2018, OEH 2020);
- PlantNet NSW (https://plantnet.rbgsyd.nsw.gov.au/);
- Aerial Photograph Interpretation (API) of the site and surrounding locality;
- Review of regional mapping for the site (EcoLogical 2006, DPIE 2012, BoM 2021 and AEP 2021-2);
- NSW Threatened Biodiversity Profiles https://www.environment.nsw.gov.au/threatenedSpeciesApp/;
- Collective knowledge gained from previous ecological survey and assessment in the MidCoast Council area over the past 25 years;
- Anecdotal records;
- In addition, database searches were carried out, namely:
- Review of flora and fauna records held by DPIE BioNet Atlas of NSW Wildlife within a 10km search of the site (December 2021);
- Review of records held by the Commonwealth Department of Agriculture, Water and the Environment (DAWE) Protected Matters Search within a 5km radius of the site (December 2021); and
- Review of DPIE Important Area Maps (January 2022).



1.4 Subject Site Details

Table 1 – Site Particulars

Detail	Comments
Client	Addenbrooke Pty Ltd.
Address	23 Boomerang Drive, Blueys Beach NSW.
Title	Lot 23 DP 537919 (the Parent Lot).
LGA	Mid-Coast Council.
Zoning	Under the Great Lakes Local Environment Plan 2014 (the LEP), the Subject Site is zoned; B1 – Neighbourhood Centre, R2 – Low Density Residential, and C4 – Environmental Living. The Parent Lot also includes RU2 – Rural Landscape and C2 – Environmental Conservation.
Parent Lot Area	Comprises 35.08ha
Subject Site Area	Approx. 8.88ha in the east of the Parent Lot is proposed to be developed (see Figure 1).
Wildlife Corridor	The whole of the Parent Lot is mapped Wildlife Corridor Control (WCC) under the DCP. The WCC extends to the northeast of the Parent Lot across Boomerang Drive (see Figure 1).
Other Ecological	A Vegetation Management Plan (VMP) is being developed at time of writing to guide
Management Plans	rehabilitation of retained vegetation within the proposed development footprint.
Current Land Use	The Parent lot comprises 35.08ha, of which the western 34.2ha comprises mostly remnant native vegetation in varying degrees of structural health.
	The development footprint comprises approx. 8.88ha. and approx. 6.26ha of this in the
	east of the Subject Site has been historically grazed and otherwise managed.
	The western upslope area of the Subject Site includes approx. 2.62ha of disturbed native
	vegetation and a mosaic of ecotones has developed with regeneration and continued past disturbance.
	The Subject Site is currently unoccupied and contains a mosaic of improved pasture,
	derived native grassland, two constructed dams within drainage lines and remnant native vegetation ecotones in condition varying from poor to moderate quality.
Surrounding Land	The Site is bounded by residential and commercial development to the north and east,
Use	cleared land and vegetation to the south and remnant naïve vegetation to the west.

Figure 1 depicts the Subject Site within Parent Lot 23 and Council Wildlife Corridor Controls Mapping extent.

1.5 The Proposal

The proposed development involves the subdivision of the eastern portion of the Parent Lot for residential purposes (the Subject Site), which requires the clearance of approx. 8.88ha of disturbed and native vegetation and managed non-native grassland. Remnant riparian, asset protection zones and conservation land are proposed to be managed under a Vegetation Management Plan (VMP).

The proposed development plan is shown in Figure 2.





09/05/2022



2.0 Flora and Vegetation Community Impacts

2.1 Flora Assemblages

Previous vegetation datasets consulted include assessments for the Proposal by EcoLogical (2006), DPIE (2012) and DPE (2022). These datasets within the Subject Site were further developed by AEP in 2021-2022 surveys to identify constraints and opportunities.

While four (4) threatened vegetation communities (EECs) were identified within the Subject Site and would be impacted to different degrees by the proposal (see **Table 2)**, they exist in a highly disturbed state and degraded from historic grazing and management practises. One (1) specimen of the threatened flora species (*Rhodamnia rubescens*) would be impacted by the Proposal. The specimen is affected by *Austropuccinia psidii* (Myrtle Rust) to a large degree making it unlikely to be viable and unable to reproduce in the future. Proposed management actions are discussed in the VMP.

The vegetation communities mapped and their extent within the Subject Site are provided in **Table 2** and shown in **Figure 3**.

The Parent Lot has seven (7) PCTs in varying vegetation conditions from poor to moderate:

- PCT 1215 Spotted Gum Grey Ironbark open forest of the Macleay Valley lowlands;
- PCT 1235 Swamp Oak swamp forest of the coastal lowlands of the NSW North Coast Bioregion, commensurate with EEC Swamp Sclerophyll Forest on Coastal Floodplains of NSW North Coast, Sydney Basin and South East Corner Bioregions;
- PCT 1262 Tallowwood Small-fruited Grey Gum dry grassy open forest of the foothills of the NSW North Coast;
- PCT 1525 Sandpaper Fig Whalebone Tree warm temperate rainforest, commensurate with EEC Lowland Rainforest in NSW North Coast and Sydney Basin Bioregions;
- PCT 1537 Tuckeroo Yellow Tulipwood Red fruited Olive Plum Littoral Rainforest of the lower North Coast, commensurate with EEC Littoral Rainforest in NSW North Coast, Sydney Basin and South East Corner Bioregions;
- PCT 1556 Tallowwood Smooth-barked Apple Blackbutt grass tall open forest of the Central and lower North Coast, commensurate with EEC River-flat Eucalypt Forest on Coastal Floodplains of NSW North Coast, Sydney Basin and South East Corner Bioregions; and
- 1737 Typha rushland, commensurate with EEC Freshwater Wetlands on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions.

The remaining vegetation within the Parent Lot is classed as non-native grassland / cleared.

The proposed development will impact on five (5) of the PCTs. However, vegetation within the Subject Site is of lower condition than vegetation in the remainder of the Study Area.



Vegetation Community	Condition	Approx. area impacted by development (ha)	Remaining area in Parent Lot (ha)
PCT 1235 - Swamp Oak swamp forest of the coastal lowlands	poor	1.58	1.01
of the NSW North Coast Bioregion EEC		1.50	1.01
PCT 1262 - Tallowwood – Small-fruited Grey Gum dry grassy	poor	0.55	4 74
open forest of the foothills of the NSW North Coast		0.55	1.71
PCT1525 - Sandpaper Fig - Whalebone Tree warm temperate	poor	.0.04	0.00
rainforest EEC		<0.01	0.33
PCT 1537 - Tuckeroo - Yellow Tulipwood - Red fruited Olive	moderate	0.40	5.00
Plum EEC		0.13	5.68
PCT 1556 - Tallowwood – Smooth-barked Apple – Blackbutt	poor		
grassy tall open forest of the Central and lower North Coast		0.1	2.22
EEC			
PCT 1737 - Typha rushland EEC	moderate	0.17	0.1
Non-native grassland and cleared (Not a PCT)	poor	6.2	N/A

Table 2 – Ground-truthed Vegetation (TECs in bold)



Legend



Ground-truthed Vegetation



	1235 - Swamp Oak swamp forest of the coastal lowlands (Subject Site)
	1235 (retained lands)
\bigotimes	1235 Melaleuca-dominated (Subject Site)
	1235 dam (Subject Site)
	1262 - Tallowwood - Small-fruited Grey Gum dry grassy open forest of the foothills of NSW North Coast (Subject Site)
	1262 (retained lands)
	1525 Candranay Fig. Whalahana Tyan

1525 - Sandpaper Fig - Whalebone Tree warm temperate rainforest (Subject Site)

1525 (retained lands)





1556 - Tallowwood - Smooth-barked Apple -Blackbutt grass tall open forest of the Central and lower North Coast (Subject Site)

1556 (retained lands)

dam

1737 - Typha rushland (Subject Site)

1737 (retained lands)





Figure 3 - Ground-truthed Vegetation and Livistona locationsDate: August 2022Location: Lot 23 Boomerang Dr, Blueys BeachBOAMS: 00030048Client: Addenbrooke Pty LtdAEP ref: 2506.03



2.2 Threatened Flora Species and Communities

While the majority of the proposed development footprint is cleared land, some remnant pockets of native vegetation would be impacted by the Proposal.

Potential for presence of threatened species was recently undertaken by AEP for assessment under the BAM and full assessment provided in the BDAR (AEP 2022). A summary of the potential for impacts upon threatened flora species and corridor integrity by the Proposal is provided below in **Tables 3 - 4**.

Species	Likelihood of Impact on Wildlife Corridor
Trailing Woodruff Asperula asthenes	While albeit marginal potential habitat for the species in drainage lines would be impacted by the development, the species was not identified in assessment despite targeted survey and the Wildlife Corridor unlikely to be impacted by the proposal.
Leafless Tongue Orchid Cryptostylis hunteriana	While albeit marginal potential habitat for the species is present, the species was not identified in targeted survey, hence Wildlife Corridor unlikely to be impacted by the Proposal.
White-flowered Wax Plant Cynanchum elegans	While albeit marginal potential habitat for the species in drainage lines would be impacted by the development, the species was not identified in assessment despite targeted survey and the Wildlife Corridor is unlikely to be impacted by the Proposal.
Rough Doubletail Diuris praecox	While potential habitat for <i>D. praecox</i> would be impacted by the development, the Wildlife Corridor is unlikely to be impacted by the Proposal.
Slaty Red Gum Eucalyptus glaucina	While albeit marginal potential habitat for the species was found in the Subject Site the species was not identified in targeted survey. Better habitat in retained vegetation in Parent Lot. Habitat for <i>E. glaucina</i> will be improved within retained vegetation within Lot 23 under various management plans including the VMP, hence viability of the Wildlife Corridor unlikely to be impacted.
Noah's False Chickweed Lindernia alsinoides	While albeit marginal potential habitat for the species in drainage lines would be impacted by the development, the species was not identified in assessment despite targeted survey and the Wildlife Corridor unlikely to be impacted by the Proposal.
Maundia triglochinoides	While albeit marginal potential habitat for the species in drainage lines would be impacted by the development, the species was not identified in assessment despite targeted survey and the Wildlife Corridor unlikely to be impacted by the Proposal.
Biconvex Paperbark Melaleuca biconvexa	While albeit marginal potential habitat for the species near drainage lines would be impacted by the development, the species was not identified in targeted survey and the Wildlife Corridor unlikely to be impacted by the Proposal.
Grove's Paperbark <i>Melaleuca groveana</i>	While albeit marginal potential habitat for the species in the Subject Site would be impacted by the development, the species was not identified in targeted survey and the Wildlife Corridor unlikely to be impacted by the Proposal.
Tall Knotweed Persicaria elatior	While albeit marginal potential habitat for the species near drainage lines would be impacted by the development, the species was not identified in targeted survey and the Wildlife Corridor unlikely to be impacted by the Proposal.
Scant Pomaderris Pomaderris queenslandica	While albeit marginal potential habitat for the species near drainage lines would be impacted by the development, the species was not identified in targeted survey and the Wildlife Corridor unlikely to be impacted by the Proposal.
Eastern Australian Underground Orchid <i>Rhizanthella slateri</i>	While albeit marginal potential habitat for the species would be impacted by the development, the species was not identified in targeted survey and the Wildlife Corridor unlikely to be impacted by the Proposal.
Scrub Turpentine Rhodamnia rubescens	While albeit marginal potential habitat for the species would be impacted by the development, the species was identified in adjacent retained conservation lands. Four specimens recorded in surveys in adjoining retained lands. While one specimen severely impacted by Myrtle Rust would be removed, it is considered unlikely the Proposal would cause serious impact on the local population.
Native Guava Rhodomyrtus psidioides	While albeit marginal potential habitat for the species would be impacted by the development, the species was not identified in targeted survey and the Wildlife Corridor is considered unlikely to be impacted by the Proposal.
Rainforest Cassia Senna acclinis	While albeit marginal potential habitat for the species would be impacted by the development, the species was not identified in targeted survey and the Wildlife Corridor is considered unlikely to be impacted by the Proposal.

Table 3 – Threatened Flora



Species	Likelihood of Impact on Wildlife Corridor
Magenta Lilly Pilly Syzygium paniculatum	While albeit marginal potential habitat for the species would be impacted by the development, the species was not identified in targeted survey and the Wildlife Corridor is considered unlikely to be impacted by the Proposal.

Table 4 - Threatened Ecological Communities

Endangered Ecological Communities		
PCT 1235 - Swamp Oak swamp forest of the coastal lowlands of the NSW North Coast Bioregion	1.58ha impacted, albeit highly disturbed. Habitat for the community will be improved within retained vegetation within Lot 23 under various management plans including the VMP, hence overall viability of the Wildlife Corridor unlikely to be impacted.	
PCT 1537 - Tuckeroo - Yellow Tulipwood - Red fruited Olive Plum Littoral Rainforest of the lower North Coast	0.13ha impacted, albeit highly disturbed. Habitat for the community will be improved within retained vegetation within Lot 23 under various management plans including the VMP, hence overall viability of the Wildlife Corridor unlikely to be impacted.	
PCT1525 - Sandpaper Fig - Whalebone Tree warm temperate rainforest	Less than 0.01ha impacted. The majority of this PCT will be retained under a proposed biodiversity stewardship site.	
PCT 1556 Tallowwood – Smooth-barked Apple – Blackbutt grass tall open forest of the Central and lower North Coast	0.1ha impacted, albeit highly disturbed. Habitat for the community will be improved within retained vegetation within Lot 23 under various management plans including the VMP, hence overall viability of the Wildlife Corridor unlikely to be impacted.	
1737 - Typha rushland	0.26ha of highly disturbed and weedy community removed. Habitat for the community will be improved within retained vegetation in Lot 23 under various management plans including the VMP, hence overall viability of the Wildlife Corridor unlikely to be impacted.	
Total	2.07ha	

2.3 Non-native Flora and High Threat Weeds

Approx. 6.7ha of the Subject Site has been identified as non-native vegetation and cleared land containing previously grazed paddocks and several dams. It is almost entirely devoid of native species and is dominated by non-native grasses such as *Cenchrus clandestinus* (Kikuyu), and *Setaria* spp. (Pigeon Grass) likely introduced in the scope of pasture improvement for cattle grazing. Other non-native species present include *Senecio madagascariensis* (Fireweed), *Hypochaeris radicata* (Catsear), *Trifolium repens* (White Clover), *Paspalum spp.* and *Lysimachia arvensis* (Scarlet Pimpernel).

In cleared areas, *Cynodon dactylon* (Couch) is co-dominant with *C. clandestinus*. Although native, this species is considered non-endemic and potentially invasive in locations east of the Great Dividing Range in NSW.

The remaining 2.62ha in the Subject Site consists of patches of native ecotone consisting of immature trees, with native shrubs and trees. These patches have various numbers of non-native species including *Senna pendula* (Cassia), *Lantana camara* (Lantana), *Asparagus aethiopicus* (Ground Asparagus), *Rubus anglocandicans* (Blackberry), *Ochna serrulata* (Mickey Mouse Plant), *Sida rhombifolia* (Paddy's Lucerne), *Conyza sumatrensis* (Fleabane) and Chrysanthemoides monilifera subsp. rotundata (Bitou Bush).

C. monilifera, S. madagascariensis and *A. aethiopicus* are noted as priority weeds for the Hunter (NSW DPI). The control of these and other weeds in construction activities and rehabilitation areas is scheduled in the VMP.



3.0 Threatened Fauna Species and Populations Impacts

3.1 Habitat for Native Fauna

While the Subject Site would offer marginal habitat for some mobile threatened species, the quality thereof is impacted by residential and commercial development in adjoining lands to the east and north. The Subject Site has no hollow-bearing trees (HBTs) and few mature eucalypts.

Full assessment of impacts against threatened species is provided in the BDAR (AEP 2022).

3.2 Threatened Species and Populations

Species	Likelihood of Impact on Wildlife Corridor
Bush Stone-curlew	The species has a strong preference for habitats with extensive fallen/standing dead timber including logs of which there is little in the Subject Site.
Burhinus grallarius	While habitat would be removed by the Proposal, habitat in retained adjoining lands would be improved under the VMP.
Eastern Pygmy-possum	The species has a strong preference for habitats with extensive fallen/standing dead timber including logs of which there is little in the Subject Site.
Cercartetus nanus	While some marginal habitat would be removed by the Proposal, habitat in retained adjoining lands would be improved under the VMP.
Wallum Froglet	The species has a strong preference for habitats with extensive fallen/standing dead timber including logs of which there is little in the Subject Site.
<i>Crinia tinnula</i>	While some marginal habitat would be removed by the Proposal, habitat in retained adjoining lands would be improved under the VMP.
White-bellied Sea-Eagle	No mature trees for nesting, or foraging habitat impacted.
Haliaeetus leucogaster	Unlikely to be impacted by the Proposal.
Little Eagle	No mature trees for nesting. Marginal foraging habitat impacted. Better habitat in retained adjoining vegetation.
Hieraaetus morphnoides	Unlikely to be impacted by the Proposal.
Pale-headed Snake	No habitat impacted.
Hoplocephalus bitorquatus	Unlikely to be impacted by the Proposal.
Green and Golden Bell Frog Litoria aurea	While some marginal habitat would be removed by the Proposal, habitat in retained adjoining lands would be improved under the VMP.
Green-thighed Frog Litoria brevipalmata	While some marginal habitat would be removed by the Proposal, habitat in retained adjoining lands would be improved under the VMP.
Square-tailed Kite	No mature trees for nesting. Marginal foraging habitat impacted. Better habitat in retained adjoining vegetation.
Lophoictinia isura	Unlikely to be impacted by the Proposal.
Giant Barred Frog	No roosting / nesting habitat in Subject Site. Marginal foraging habitat impacted. Better habitat in retained adjoining vegetation.
Mixophyes iteratus	Unlikely to be seriously impacted by the Proposal.
Southern Myotis	No HBTs impacted. Foraging habitat (two dams) impacted.
Myotis macropus	Unlikely to be seriously impacted by the Proposal.
Eastern Osprey	No mature trees for nesting. Marginal foraging habitat impacted. Better habitat in retained adjoining vegetation.
Pandion cristatus	Unlikely to be impacted by the Proposal.
Giant Dragonfly	Foraging habitat (two dams) impacted.
Petalura gigantea	Unlikely to be seriously impacted by the Proposal
Squirrel Glider	No HBTs impacted. Marginal foraging habitat impacted.
Petaurus norfolcensis	Unlikely to be seriously impacted by the Proposal.

Table 5 - Threatened Fauna Considerations



Species	Likelihood of Impact on Wildlife Corridor
Brush-tailed Phascogale Phascogale tapoatafa	No HBTs impacted. Marginal foraging habitat impacted. Unlikely to be seriously impacted by the Proposal
Koala Phascolarctos cinereus	Marginal foraging habitat impacted. Development footprint adjoins residential lots, so unlikely to be seriously impacted by the Proposal.
Common Planigale Planigale maculata	Inhabit rainforest, eucalypt forest, heathland, marshland, grassland and rocky areas where there is surface cover, and usually close to water. They are active at night and during the day shelter in saucer-shaped nests built in crevices, hollow logs, beneath bark or under rocks.
Grey-headed Flying-fox Pteropus poliocephalus	Marginal foraging habitat impacted. Highly mobile, it is unlikely to be seriously impacted by the Proposal.
Red-backed Button-quail Turnix maculosus	Marginal foraging habitat impacted. It is unlikely to be seriously impacted by the Proposal.
Mahony's Toadlet <i>Uperoleia mahonyi</i>	Marginal habitat impacted. Better habitat in retained adjoining vegetation. Unlikely to be impacted by the Proposal.



4.0 Mitigation of Impacts on the Wildlife Corridor

4.1 Project Design - Avoidance Measures

The Subject Site has been mostly sited within R2 zoned land, which coincides with the lowest quality native vegetation and the majority of non-native non-native grassland in the Parent Lot. Indirect impacts may occur to the west of the development footprint and these have conservatively been included within the total Subject Site. Presence of large areas of less-disturbed remnant vegetation to the west demonstrates continued habitat connectivity that is not incompatible with the proposed development footprint at the Subject Site. The retained vegetation in the Parent Lot is also contiguous with other mapped WCC land (see **Figure 3**).

While all trees within the development footprint are likely to be removed, detailed design has largely avoided mature trees with potential for roosting and nesting habitat for arboreal fauna, which occur to the west of the Subject Site.

4.2 Biodiversity Management Plan

Avoid and minimise principles have been considered and implemented throughout the assessment and design process, and the latest iteration of the proposed development plan has sought to restrict development to R2 zoned lands, with retained drainage lines being rehabilitated under an approved VMP.

The focus of the VMP land is to protect retained lands and manage native fauna welfare issues against construction impacts. The VMP considers:

- Weed management and habitat and corridor supplementary tree planting in retained lands (Figure 4);
- The use of locally occurring and grown native species suitable for the vegetation community being replanted; and
- Mitigation management of native fauna welfare against impacts from clearing and construction works.

The VMP details the appointment of a Project Ecologist (the PE) prior to commencement of construction. The PE will be responsible for adherence to methods scheduled in the VMP.

4.3 Clearing Works

The PE will conduct pre-clearance works to ensure the ecological structural integrity of retained lands and native fauna welfare are protected during clearing works.

Measures are fully scheduled in the VMP.

4.4 Fencing and Tracks

Temporary fencing will be utilised in construction to prevent machinery access to retained lands.

On completion of construction permanent rural-style fencing of post and rail construction will be erected to prevent machinery and limit public access but to allow for movement of fauna. Barbed wire is NOT to be used anywhere in the Subject Site.

Signage will be installed along fencing to advise residents of the need to protect retained lands

The PE will conduct survey to ensure the fully scheduled measures in the VMP are maintained during clearing works and final fencing and signage is installed.



4.5 Water Quality and Hydrology

An Erosion and Sedimentation Control Plan (ESCP) should be prepared for the Proposal following guidelines from *Landcom* (2004) and best practice measures implemented for the construction phase. Measures should be checked weekly and especially after rain events.

Under the VMP, retained riparian zones would be rehabilitated, improving quality of stormwater and runoff and providing habitat for native species.





MidCoast Hydroline

Management Zones



Note: 1. Boundaries are not sur 2. Do not scale off the pla



40 m

20

Figure 4 - Management Zones Location: Lot 23 Boomerang Dr, Blueys Beach Date: August 2022

Client: Addenbrooke Pty Ltd



5.0 Bushfire Protection in the Wildlife Corridor

5.1 Section 88 Covenants

Legal mechanisms, such as Community Title subdivision or s88B or s88E covenants/restrictions under the Conveyancing Act are to be put in place to prevent the following activities within the recognised wildlife corridors and core habitat areas. Such measures would be scheduled in the Bushfire Threat Assessment for the Proposal.

Asset Protection Zones (APZ) are to function as transitional zones and buffers between development and recognised wildlife corridors and core habitat areas. As such, APZs shall be managed to meet the APZ formation and management requirements of *Planning for Bushfire Protection (PBP 2019)*. APZs are scheduled in **Figure 5**.

Within the APZ, removal of native trees shall be minimised. Tree removal for APZ purposes shall be designed to achieve preferential retention of important trees for fauna. Prior to construction, the PE will survey and clearly mark trees for retention.

5.2 No Timber Removal

While the WCC specifies no timber is to be removed from APZs, PBP 2019 requires the reduction of combustible material in the ground layer. As such, fallen timber would be relocated into adjacent, upslope conservation lands to facilitate habitat for terrestrial fauna.

5.3 Retention of Valuable Habitat Trees in APZs

Within the APZ, removal of native trees shall be minimised. Tree removal for APZ purposes shall be designed to achieve preferential retention of the more important habitat tree species and features (such as Koala food trees, Glossy-black Cockatoo food trees, HBTs, old-growth trees and nectar trees).

5.4 Groundcover Management

Regular reduction and suppression of groundcover vegetation in the APZ shall be conducted in a manner that protects retained tree cover while keeping understorey species <100mm height.

Other measures to protect the integrity of the Wildlife Corridor within APZs include:

- Rubbish is not to be allowed to accumulate;
- No stockpiling nor storage of any materials;
- Removal of soil or rocks;
- Introduction of foreign materials; and
- Clearing of native vegetation except to meet APZ standards in PBP 2019.

5.5 Define Limits of APZ

Fencing between limits of APZ and Conservation Lands will be installed and APZ limits shall be clearly identified on the land and maintained in accordance with the PBP 2019 for the life of the development.



Watercourse Development Area Subject Land Cadastre C2 / C4 Zone Boundary Forest

Rainforest Asset Protection Zone (APZ) Asset Protection Zone - 9m

C4 APZ **Ecological Constraints** 2506 Rhodamnia EXCLUSION ZONE 2506 Rhodamnia Asset Protection Zone - 20m



Coordinate System: GDA 1994 MGA Zone 56 Imagery: © Nearmap

Figure 5: Asset Protection Zone (APZ)

expert consulting services

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FPA AUSTRALIA (NO.BPAD18882) BPAD LEVEL 3 ACCREDITED PRACTITIONER • ABN 28 607 444 833



6.0 Conclusion

The Subject Site has no hollow-bearing trees, caves, rocky outcrops, or flyways, and the non-native grassland with small patches of native vegetation would provide little to no habitat for native flora and fauna. It has been determined suitable for the Subject Site to be developed.

The proposal will require the total removal of vegetation within the development footprint. Required offsets under the BC Act have been determined and scheduled in the BDAR (AEP, 2022).

In Asset Protection Zones, habitat trees for threatened fauna would be preferentially retained. Retained vegetation areas within the development will be rehabilitated under the Biodiversity Management Plan for the Proposal and will provide improved habitat for native flora and fauna.

Detail design of the development has limited impacts to the Wildlife Corridor to the more disturbed and less connected eastern side of the Subject Site and mitigation against native fauna issues during clearing has been addressed in the Biodiversity Management Plan.

The above demonstrates the minimisation and mitigation of impacts upon the Wildlife Corridor has been suitably addressed.



7.0 References

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Appendix A – Compliance with Mid Coast Council Controls for Wildlife Corridors



Appendix B – Flora Species List Compiled from AEP Surveys 2021-2022



Family	Scientific Name	Common Name
Acanthaceae	Pseuderanthemum variabile	Pastel Flower
Acanthaceae	Brunoniella australis	Blue Trumpet
Adiantaceae	Adiantum hispidulum	Rough Maidenhair
Amaranthaceae	Alternanthera denticulata	Lesser Joyweed
Apiaceae	Centella asiatica	Swamp Pennywort
Apiaceae	Hydrocotyle bonariensis*	Kurnell Curse / Pennywort
Apiaceae	Hydrocotyle tripartita	Pennywort
Apocynaceae	Gomphocarpus fruiticosus*	Narrow Leaf Cotton Bush
Apocynaceae	Parsonsia straminea	Common Silkpod
Araceae	Gymnostachys anceps	Settlers Flax
Araliaceae	Polyscias sambucifolia	Elderberry Panax
Araliaceae	Astrotricha latifolia	Broad-leaf Star-hair
Araliaceae	Polyscias elegans	Celery Wood
Araliaceae	Heptapleurum actinophyllum*	Umbrella Tree
Araucariaceae	Araucaria heterophylla	Norfolk Island Pine
	Livistona australis	Cabbage Tree Palm
Arecaceae		
Arecaceae	Archontophoenix cunninghamiana	Bangalow Palm
Asparagaceae	Asparagus aethiopicus*	Asparagus Fern
Asparagaceae	Liriope sp.*	
Asteraceae	Hypochaeris radicata*	Flatweed
Asteraceae	Conyza sp.*	A Fleabane
Asteraceae	Senecio madagascariensis*	Fireweed
Asteraceae	Ageratina adenophora*	Crofton Weed
Asteraceae	Bidens pilosa*	Cobbler's Pegs
Asteraceae	Chrysanthemoides monilifera subsp. rotundata*	Bitou Bush
Asteraceae	Euchiton sp.	A Cudweed
Asteraceae	Sonchus oleraceus*	Common Sow-thistle
Asteraceae	Taraxacum officinale*	Dandelion
Asteraceae	Euchiton sphaericus	
Asteraceae	Sigesbeckia orientalis subsp. orientalis	Indian Weed
Asteraceae	Ageratum houstonianum*	Blue Billy Goat Weed
Asteraceae	Conyza sumatrensis*	Tall Fleabane
Asteraceae	Cyanthillium cinereum var. cinereum*	Purple Fleabane
Bignoniaceae	Pandorea pandorana	Wonga Vine
Blechnaceae	Doodia aspera	Prickly Rasp Fern
Blechnaceae	Blechnum sp.	
	· · ·	Cureme Oals
Casuarinaceae	Casuarina glauca	Swamp Oak
Commelinaceae	Commelina cyanea	Scurvy Weed, Native Wandering Jew
Commelinaceae	Pollia crispata	Pollia
Convolvulaceae	Dichondra repens	Kidney Weed
Convolvulaceae	Polymeria calycina	Bindweed
Cunoniaceae	Ceratopetalum gummiferum	NSW Christmas Bush
Cyperaceae	Gahnia clarkei	Tall Saw-sedge
Cyperaceae	Gahnia aspera	Saw Sedge
Cyperaceae	Cyperus sesquiflorus*	
Cyperaceae	Cyperus polystachyos	
Cyperaceae	Lepidosperma laterale	Variable Sword-sedge
Cyperaceae	Eleocharis sphacelata	Tall Spike-rush
Cyperaceae	Schoenoplectiella mucronata	River Clubrush
Cyperaceae	Fimbristylis dichotoma	Common Fringe-rush
Cyperaceae	Carex appressa	Tall Sedge
Cyperaceae	Gahnia melanocarpa	Black-fruit Saw-sedge
Dennstaedtiaceae	Pteridium esculentum	Bracken
Dennstaedtiaceae	Histiopteris incisa	Bat's Wing Fern
Dennstaedtiaceae	Hypolepis muelleri	Harsh Ground Fern
Dilleniaceae	Hibbertia scandens	Climbing Guinea Flower
Dilleniaceae	Hibbertia dentata	Twining Guinea Flower
Dioscoreaceae	Dioscorea transversa	Native Yam
Elaeocarpaceae	Elaeocarpus reticulatus	Blueberry Ash



Family	Scientific Name	Common Name
Euphorbiaceae	Breynia oblongifolia	Coffee Bush
Euphorbiaceae	Homalanthus populifolius	Bleeding Heart
Fabaceae	Senna pendula var. glabrata*	
Fabaceae	Acacia longifolia	
Fabaceae	Trifolium repens*	White Clover
Fabaceae	Acacia elongata	Swamp Wattle
Fabaceae	Grona varians	Slender Tick-trefoil
Fabaceae	Kennedia rubicunda	Dusky Coral Pea
Fabaceae	Glycine tabacina	Twining Glycine
Fabaceae	Acacia longifolia var. longifolia	Sydney Golden Wattle
Fabaceae	Glycine clandestina	Twining Glycine
Fabaceae	Hardenbergia violacea	False Sarsparilla
Fabaceae	Desmodium brachypodum	Large Tick-trefoil
Fabaceae	Acacia longifolia var. sophorae	Coastal Wattle
Flacourtiaceae	Scolopia braunii	Flintwood
Goodeniaceae	Goodenia stelligera	Spiked Goodenia
Haloragaceae	Gonocarpus teucrioides	Raspwort
Iridaceae	Sisyrinchium iridifolium*	Blue Pigroot
Juncaceae	Juncus bufonius	Toad Rush
Juncaceae	Juncus usitatus	Common Rush
Juncaceae	Juncus planifolius	Broad Rush
Lamiaceae	Clerodendrum tomentosum	Hairy Clerodendrum
Lamiaceae	Plectranthus parviflorus	Cockspur Flower
Lauraceae	Neolitsea australiensis	Green Bolly Gum
Lauraceae	Neolitsea dealbata	White Bolly Gum, Hairy-leaved Bolly Gum
Lobeliaceae	Lobelia purpurascens	Whiteroot
Lomandraceae	Lomandra longifolia	Spiky-headed Mat-rush
Lomandraceae	Lomandra multiflora subsp. multiflora	Many-flowered Mat-rush
Loranthaceae	Dendrophthoe vitellina	Mistletoe
Luzuriagaceae	Geitonoplesium cymosum	Scrambling Lily
Luzuriagaceae	Eustrephus latifolius	Wombat Berry
Lycopodiaceae	Lycopodium sp.	Wombat Berry
Malaceae	Rhaphiolepis indica*	Indian Hawthorn
Malvaceae	Sida rhombifolia*	Paddy's Lucerne
Meliaceae	Synoum glandulosum subsp. glandulosum	Scentless Rosewood
Menispermaceae	Stephania japonica	Snake vine
Menispermaceae	Sarcopetalum harveyanum	Pearl Vine
Menyanthaceae	Nymphaea caerulea subsp. zanzibarensis*	Cape Waterlily
Monimiaceae	Wilkiea huegeliana	Wilkiea, Veiny Wilkiea
Monimiaceae	Daphnandra apatela	
Moraceae	Streblus brunonianus	Whalebone Tree
Moraceae	Ficus coronata	Sandpaper Fig
	Ficus fraseri	Sandpaper Fig
Moraceae Moraceae	Ficus riasen Ficus microcarpa*	Hill's Weeping Fig
Moraceae	Ficus microcarpa Ficus obligua	
		Small-leaved Fig
Moraceae	Ficus sp.*	Muttonwood
Myrsinaceae	Myrsine variabilis	Muttonwood Plue lillyeilly
Myrtaceae	Syzygium oleosum	Blue lillypilly
Myrtaceae	Eucalyptus pilularis	Blackbutt
Myrtaceae	Angophora costata	Smooth-barked Apple
Myrtaceae	Eucalyptus siderophloia	Northern Grey Ironbark
Myrtaceae	Rhodamnia rubescens	Scrub Turpentine
Myrtaceae	Lophostemon confertus	Brush Box
Myrtaceae	Melaleuca quinquenervia	Broad-leaved Paperbark
Myrtaceae	Callistemon salignus	Willow Bottlebrush
Myrtaceae	Melaleuca ericifolia	Swamp Paperbark
Myrtaceae	Eucalyptus tereticornis	Forest Red Gum
Myrtaceae	Eucalyptus canaliculata	Large Fruited Grey Gum
Myrtaceae	Eucalyptus propinqua	Small Fruited Grey Gum



Family	Scientific Name	Common Name
Myrtaceae	Baloghia inophylla	Brush Bloodwood
Myrtaceae	Eucalyptus microcorys	Tallowwood
Myrtaceae	Austromyrtus dulcis	Midgen Berry
Myrtaceae	Callistemon linearis	Narrow-leaved Bottlebrush
Ochnaceae	Ochna serrulata*	Mickey Mouse Plant
Oleaceae	Notelaea longifolia	Mock Olive, Large Mock-olive
Oleaceae	Notelaea ovata	Mock Olive
Oleaceae	Notelaea sp.	
Orchidaceae	Cymbidium suave	Snake Orchid
Orchidaceae	Epidendrum sp.*	
Orchidaceae	Spiranthes australis	Ladies' Tresses
Oxalidaceae	Oxalis perrenans	Yellow-flowered Wood Sorrel
Passifloraceae	Passiflora caerulea*	Passionfruit
Passifloraceae	Passiflora herbertiana	Native Passionfruit
Philydraceae	Philydrum lanuginosum	Woolly Frogmouth
Phormiaceae	Dianella caerulea var. producta	Blue Flax Lily
Phyllanthaceae	Glochidion ferdinandi var. ferdinandi	Cheese Tree
Phyllanthaceae	Glochidion ferdinandii	Cheese Tree
Phyllanthaceae	Phyllanthus hirtellus	Thyme Spurge
Phyllanthaceae	Poranthera microphylla	Small Poranthera
Pittosporaceae	Pittosporum multiflorum	Orange Thorn
Pittosporaceae	Pittosporum revolutum	Yellow Pittosporum
Pittosporaceae	Pittosporum undulatum	Sweet Pittosporum
Pittosporaceae	Billardiera scandens	Hairy Appleberry
Plantaginaceae	Veronica plebeia	Creeping Speedwell
Plantaginaceae	Plantago lanceolata*	Ribwort
Poaceae	Oplismenus aemulus	Basket Grass
Poaceae	Cynodon dactylon	Common Couch
Poaceae	Cenchrus clandestinum*	Kikuyu
Poaceae	Setaria sp.*	
Poaceae	Echinopogon caespitosus	Bushy Hedgehog-grass
Poaceae	Imperata cylindrica	Blady Grass
Poaceae	Entolasia stricta	Wiry Panic
		Bordered Panic
Poaceae	Entolasia marginata	
Poaceae	Oplismenus imbecillis	
Poaceae	Paspalum mandiocanum*	Broadleaf Paspalum
Poaceae	Digitaria sanguinalis*	Crab Grass
Poaceae	Echinopogon ovatus	Forest Hedgehog Grass
Poaceae	Microlaena stipoides	Weeping Grass
Poaceae	Digitaria sp.*	A Finger Grass
Poaceae	Paspalum orbiculare	Ditch Millet
Poaceae	Themeda triandra	Kangaroo Grass
Poaceae	Briza maxima*	Quaking Grass
Poaceae	Dichelachne micrantha	Short-hair Plume Grass
Poaceae	Ehrharta erecta*	Panic Veldtgrass
Poaceae	Echinopogon caespitosus var. caespitosus	Tufted Hedgehog Grass
Poaceae	Setaria sphacelata*	South African Pigeon Grass
Poaceae	Chloris gayana*	Rhodes Grass
Poaceae	Eragrostis sp.*	Lovegrass
Poaceae	Poa labillardierei subsp. nervosa	
Poaceae	Poa labillardierei var. labillardierei	Tussock Grass
Poaceae	Rytidosperma sp.	
Poaceae	Chloris sp.*	
		Parbuiro Crass
Poaceae	Cymbopogon refractus	Barbwire Grass
Poaceae	Stenotaphrum secundatum*	Buffalo Grass
	Rumex crispus*	Curled Dock
Polygonaceae Polygonaceae Polygonaceae	Persicaria decipiens Persicaria subsessilis	Slender Knotweed Hairy Knotweed



Family	Scientific Name	Common Name
Portulacaceae	Portulaca oleracea	Purslane
Primulaceae	Lysimachia arvensis*	Scarlet Pimpernel
Primulaceae	Lysimachia arvensis var. caerulea*	Blue Pimpernel
Proteaceae	Banksia integrifolia	Coast Banksia
Pteridaceae	Cheilanthes sieberi	Rock Fern
Putranjivaceae	Drypetes deplanchei	Yellow Tulipwood
Ranunculaceae	Clematis aristata	Old Man's Beard
Ranunculaceae	Ranunculus productus	
Ranunculaceae	Ranunculus inundatus	River Buttercup
Rhamnaceae	Pomaderris ferruginea	Rusty Pomaderris
Rosaceae	Rubus rosifolius	Forest Bramble
Rosaceae	Rubus moluccanus	Broad-leaf Bramble
Rosaceae	Rubus anglocandicans*	Blackberry
Rubiaceae	Gynochthodes jasminoides	Sweet Morinda
Rubiaceae	Coprosma repens*	New Zealand Laurel
Rubiaceae	Richardia humistrata*	
Rubiaceae	Pomax umbellata	Pomax
Rubiaceae	Opercularia diphylla	
Rubiaceae	Psychotria Ioniceroides	Hairy Psychotria
Rutaceae	Melicope micrococca	White Euodia, Hairy-leaved Doughwood
Santalaceae	Exocarpos sp.	
Sapindaceae	Cupaniopsis anacardioides	Tuckeroo
Sapindaceae	Diploglottis australis	Native Tamarind
Sapindaceae	Guioa semiglauca	Guioa
Sapindaceae	Alectryon subcinereus	Native Quince
Sapotaceae	Planchonella australis	Black Apple
Smilacaceae	Smilax australis	Lawyer Vine
Smilacaceae	Ripogonum album	White Supplejack
Smilacaceae	Smilax glyciphylla	Sarsaparilla
Solanaceae	Solanum chenopodioides*	Whitetip Nightshade
Solanaceae	Solanum mauritianum*	Wild Tobacco
Sterculiaceae	Commersonia fraseri	Brush Kurrajong
Thymelaeaceae	Pimelea linifolia	Slender Rice Flower
Typhaceae	Typha orientalis	Cumbungi
Verbenaceae	Lantana camara*	Lantana
Verbenaceae	Verbena sp.*	
Verbenaceae	Verbena officinalis*	Common Verbena
Verbenaceae	Verbena x brasiliensis*	Gin Case
Verbenaceae	Verbena incompta*	
Violaceae	Viola sp.	
Violaceae	Viola sp. Viola banksii	
Violaceae	Viola barrissi Viola hederacea	Ivy-leaved Violet
Vitaceae	Cissus hypoglauca	Water Vine
Vitaceae	Cissus antarctica	Kangaroo Vine
Vitaceae	Cayratia clematidea	Native Grape
Zamiaceae	Macrozamia communis	
Zingiberaceae	Alpinia caerulea	Burrawang Native Ginger

* Denotes non-native species

Threatened species in bold.



Appendix C – Expected Fauna Species



EXPECTED FAUNA SPECIES LIST

The following list includes fauna species that could be reasonably expected to occur on or over the Study Area at some point, given site attributes and location.

Observations are denoted by the method of observation following the BioNet Atlas convention of recording, Survey: Observed (O), Heard (W), Scat (P), Miscellaneous (M), Track/scratchings (F), Nest (E), Burrow (FB)

Bat Records - Observed (O), Definitely (D) Possible or within Species Group (P) Likely (L)

Remote Equipment - Anabat (A), Songmeter (SM), Camera Trap (CT), Nest (N)* - Introduced species

? - Unconfirmed record, anecdotal records, etc.

A - NSW Atlas of Wildlife record of threatened species for the site.

Additional notes are included as to whether equipment was used to obtain the observation.

Threatened species listed under the *Biodiversity Conservation Act 2016* (BC Act) or the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) are indicated in **bold font**.



Scientific Name	Common Name	Surveyed Observations	Survey Equipment
	Amphibia		
Adelotus brevis	Tusked Frog		
Crinia signifera	Common Eastern Froglet	O, W	
Limnodynastes dumerilii	Eastern Banjo Frog		
Limnodynastes peronii	Brown-striped Frog	O, W	
Limnodynastes tasmaniensis	Spotted Grass Frog	O, W	
Litoria caerulea	Green Tree Frog		
Litoria dentata	Bleating Tree Frog		
Litoria fallax	Eastern Dwarf Tree Frog	O, W	
Litoria freycineti	Freycinet's Frog		
Litoria gracilenta	Dainty Green Tree Frog		
Litoria jervisiensis	Jervis Bay Tree Frog		
Litoria latopalmata	Broad-palmed Frog		
Litoria peronii	Peron's Tree Frog		
Litoria revelata	Revealed Frog		
Litoria tyleri	Tyler's Tree Frog		
Platyplectrum ornatum	Ornate Burrowing Frog		
Pseudophryne coriacea	Red-backed Toadlet		
Uperoleia fusca	Dusky Toadlet		
, Uperoleia laevigata	Smooth Toadlet		
	Aves		
Acanthiza lineata	Striated Thornbill		
Acanthiza nana	Yellow Thornbill		
Acanthiza pusilla	Brown Thornbill		
Acanthiza reguloides	Buff-rumped Thornbill		
Acanthorhynchus tenuirostris	Eastern Spinebill	0	
Accipiter cirrocephalus	Collared Sparrowhawk		
Accipiter fasciatus	Brown Goshawk		
Accipiter novaehollandiae	Grey Goshawk		
Acridotheres tristis*	Common Myna		
Acrocephalus australis	Australian Reed-Warbler		
Aegotheles cristatus	Australian Owlet-nightjar		
Ailuroedus crassirostris	Green Catbird		
Alectura lathami	Australian Brush-turkey	0	СТ
Alisterus scapularis	Australian King-Parrot		
Anas castanea	Chestnut Teal		
Anas gracilis	Grey Teal		
Anas platyrhynchos*	Mallard		
Anas superciliosa	Pacific Black Duck		
Anhinga novaehollandiae	Australasian Darter		
Anthochaera carunculata	Red Wattlebird	O, W	CT, SM
Anthochaera chrysoptera	Little Wattlebird	O, W	SM
Aquila audax	Wedge-tailed Eagle	0	
Ardea intermedia	Intermediate Egret	0	
Ardea pacifica	White-necked Heron		
Artamus leucoryn	White-breasted Woodswallow		
Aviceda subcristata	Pacific Baza		
Aythya australis	Hardhead		
Bubulcus ibis	Cattle Egret		
Butorides striata	Striated Heron		
Cacatua galerita	Sulphur-crested Cockatoo		
Cacatua sanguinea	Little Corella		
Cacomantis flabelliformis	Fan-tailed Cuckoo	0	
Cacomantis variolosus	Brush Cuckoo	Ť	
Calidris melanotos	Pectoral Sandpiper		
			L



Scientific Name	Common Name	Surveyed Observations	Survey Equipment
Caligavis chrysops	Yellow-faced Honeyeater	0	
Casmerodius modesta	Eastern Great Egret		
Centropus phasianinus	Pheasant Coucal	O, W	CT, SM
Ceyx azureus	Azure Kingfisher	0	
Chalcites basalis	Horsfield's Bronze-Cuckoo		
Chalcites lucidus	Shining Bronze-Cuckoo		
Chalcophaps indica	Emerald Dove		
Charadrius bicinctus	Double-banded Plover		
Charadrius ruficapillus	Red-capped Plover		
Chelodina longicollis	Eastern Snake-necked Turtle		
Chenonetta jubata	Australian Wood Duck		
Cincloramphus timoriensis	Tawny Grassbird		
Circus approximans	Swamp Harrier		
Cisticola exilis	Golden-headed Cisticola		
Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)		
Colluricincla harmonica	Grey Shrike-thrush		
Columba leucomela	White-headed Pigeon	0	
Columba livia*	Rock Dove	<u> </u>	
Coracina novaehollandiae	Black-faced Cuckoo-shrike	0	
Coracina papuensis	White-bellied Cuckoo-shrike	0	
Corcorax melanorhamphos	White-winged Chough		
Corrobates leucophaea	White-throated Treecreeper		
Corrus coronoides	Australian Raven	0.11/	07.014
		O, W	CT, SM
Corvus orru	Torresian Crow Forest Raven		
Corvus tasmanicus			
Cracticus nigrogularis	Pied Butcherbird	O, W	CT, SM
Cracticus torquatus	Grey Butcherbird	W	SM
Dacelo novaeguineae	Laughing Kookaburra	0, W	CT, SM
Dicaeum hirundinaceum	Mistletoebird		
Dicrurus bracteatus	Spangled Drongo	0	
Edolisoma tenuirostris	Cicadabird		
Egretta garzetta	Little Egret		
Egretta novaehollandiae	White-faced Heron		
Egretta sacra	Eastern Reef Egret		
Elanus axillaris	Black-shouldered Kite		
Entomyzon cyanotis	Blue-faced Honeyeater	0	
Eolophus roseicapilla	Galah	W	SM
Eopsaltria australis	Eastern Yellow Robin	0	СТ
Ephippiorhynchus asiaticus	Black-necked Stork		
Eudynamys orientalis	Eastern Koel	O, W	SM
Eurostopodus mystacalis	White-throated Nightjar		
Eurystomus orientalis	Dollarbird	0	
Falco berigora	Brown Falcon		
Falco cenchroides cenchroides	Nankeen Kestrel		
Falco longipennis	Australian Hobby		
Falco peregrinus	Peregrine Falcon		
Falcunculus frontatus frontatus	Eastern Shrike-tit		
Gallinula tenebrosa	Dusky Moorhen		
Geopelia humeralis	Bar-shouldered Dove		
Gerygone mouki	Brown Gerygone		
Gerygone olivacea	White-throated Gerygone		
Gliciphila melanops	Tawny-crowned Honeyeater		
Glossopsitta pusilla	Little Lorikeet	0	
Grallina cyanoleuca	Magpie-lark	0	
Gymnorhina tibicen	Australian Magpie		CT SM
	, astralian mayple	O, W	CT, SM



Scientific Name	Common Name	Surveyed Observations	Survey Equipment
Haliaeetus leucogaster	White-bellied Sea-Eagle	0	
Haliastur indus	Brahminy Kite		
Haliastur sphenurus	Whistling Kite		
Heteroscenes pallidus	Pallid Cuckoo		
Hieraaetus morphnoides	Little Eagle		
Hirundapus caudacutus	White-throated Needletail	0	
Hirundo neoxena	Welcome Swallow	0	
Hypotaenidia philippensis	Buff-banded Rail		
Leucosarcia melanoleuca	Wonga Pigeon	0	
Lophoictinia isura	Square-tailed Kite		
Lopholaimus antarcticus	Topknot Pigeon		
Macropygia phasianella	Brown Cuckoo-Dove		
Malurus cyaneus	Superb Fairy-wren	0	
Malurus lamberti	Variegated Fairy-wren		
Manorina melanocephala	Noisy Miner	O, W	SM
Meliphaga lewinii	Lewin's Honeyeater	0	СТ
Melithreptus lunatus	White-naped Honeyeater		
Merops ornatus	Rainbow Bee-eater		
Microeca fascinans	Jacky Winter		
Monarcha melanopsis	Black-faced Monarch		
Morus serrator	Australasian Gannet		
Myiagra cyanoleuca	Satin Flycatcher		
Myiagra rubecula	Leaden Flycatcher		
Myzomela sanguinolenta	Scarlet Honeyeater		
Neochmia temporalis	Red-browed Finch	0	СТ
Neosericornis citreogularis	Yellow-throated Scrubwren	0	СТ
Ninox novaeseelandiae	Southern Boobook	0	
Nycticorax caledonicus	Nankeen Night Heron		
Ocyphaps lophotes	Crested Pigeon	0	СТ
Oriolus sagittatus	Olive-backed Oriole	0	
Pachycephala pectoralis	Golden Whistler	0	
Pachycephala rufiventris	Rufous Whistler	0	
Pandion cristatus	Eastern Osprey		
Pardalotus punctatus	Spotted Pardalote		
Pelecanus conspicillatus	Australian Pelican		
Petrochelidon nigricans	Tree Martin		
Petroica boodang	Scarlet Robin		
Petroica rosea	Rose Robin		
	Little Friarbird		
Philemon citreogularis Philemon corniculatus	Noisy Friarbird	0	
		0	
Phylidonyris niger Phylidonyris novaehollandiae	White-cheeked Honeyeater New Holland Honeyeater	0	
Platalea regia	Royal Spoonbill Crimson Rosella		
Platycercus elegans			
Platycercus eximius	Eastern Rosella	0	
Podargus strigoides	Tawny Frogmouth		
Porphyrio porphyrio	Purple Swamphen		
Psophodes olivaceus	Eastern Whipbird	0	СТ
Ptilinopus magnificus	Wompoo Fruit-Dove		
Ptilinopus superbus	Superb Fruit-Dove		
Ptilonorhynchus violaceus	Satin Bowerbird	0	СТ
Ptilotula fusca	Fuscous Honeyeater		
Rhipidura albiscapa	Grey Fantail	0	
Rhipidura leucophrys	Willie Wagtail	0	
Rhipidura rufifrons	Rufous Fantail		
Scythrops novaehollandiae	Channel-billed Cuckoo		



Scientific Name	Common Name	Surveyed Observations	Survey Equipment
Sericornis frontalis	White-browed Scrubwren	0	СТ
Sericornis magnirostra	Large-billed Scrubwren		
Sericulus chrysocephalus	Regent Bowerbird		
Sphecotheres vieilloti	Australasian Figbird	0	
Spilopelia chinensis*	Spotted Turtle-Dove		
Stipiturus malachurus	Southern Emu-wren		
Stizoptera bichenovii	Double-barred Finch		
Strepera graculina	Pied Currawong	O, W	SM
Sturnus vulgaris*	Common Starling		
Synoicus ypsilophora	Brown Quail		
Tachybaptus novaehollandiae	Australasian Grebe		
Taeniopygia guttata	Zebra Finch		
Threskiornis moluccus	Australian White Ibis		
Threskiornis spinicollis	Straw-necked Ibis		
Todiramphus macleayii	Forest Kingfisher		
Todiramphus sanctus	Sacred Kingfisher		
Trichoglossus chlorolepidotus	Scaly-breasted Lorikeet	W	SM
Trichoglossus haematodus	Rainbow Lorikeet	0	
Tyto javanica	Eastern Barn Owl		
Vanellus miles	Masked Lapwing	O,W	SM
Zanda funereus	Yellow-tailed Black-Cockatoo	W	
Zosterops lateralis	Silvereye		
	Mammalia	- 1	ł
Acrobates pygmaeus	Feathertail Glider		
Antechinus flavipes	Yellow-footed Antechinus		
Antechinus mimetes	Mainland Dusky Antechinus		
Antechinus stuartii	Brown Antechinus	0	СТ
Austronomus australis	White-striped Freetail-bat	0	
Bos taurus*	European cattle		
Canis familiaris*	Dog		
Canis lupus dingo	Dingo		
Cervus timorensis*	Rusa Deer		
Chalinolobus gouldii	Gould's Wattled Bat	0	٨
Chalinolobus morio	Chocolate Wattled Bat	0	A
Dasyurus maculatus	Spotted-tailed Quoll	0	A
Equus caballus*	Horse		
Falsistrellus tasmaniensis	Eastern False Pipistrelle	0	٨
Felis catus*	Cat	0	A
Isoodon macrourus	Northern Brown Bandicoot		07
Lepus capensis occidentalis*	Hare	0	СТ
Macropus giganteus			
Macropus giganieus Melomys burtoni	Eastern Grey Kangaroo Grassland Melomys	0	
Micronomus norfolkensis	Eastern Coastal Free-tailed Bat		•
Micronomus norioikensis Miniopterus australis	Little Bent-winged Bat	0	A
•	<u> </u>	0	A
Miniopterus orianae oceanensis	Large Bent-winged Bat	-	
Myotis macropus	Large-footed Myotis	Р	
Mus musculus*	House Mouse		
Notamacropus rufogriseus	Red-necked Wallaby	0	
Nyctophilus geoffroyi	Lesser Long-eared Bat	P	
Nyctophilus gouldi	Gould's Long-eared Bat	Р	
Ozimops ridei	Eastern Free-tailed Bat	L	
Perameles nasuta	Long-nosed Bandicoot	0	СТ
Petauroides volans	Greater Glider		
Petaurus australis	Yellow-bellied Glider		
Petaurus breviceps	Sugar Glider		
Pseudocheirus peregrinus	Common Ringtail Possum		



Scientific Name	Common Name	Surveyed Observations	Survey Equipment
Pseudomys gracilicaudatus	Eastern Chestnut Mouse		
Pteropus poliocephalus	Grey-headed Flying-fox	0	
Rattus fuscipes	Bush Rat		
Rattus lutreolus	Swamp Rat		
Rattus rattus*	Black Rat	0	СТ
Rhinolophus megaphyllus	Eastern Horseshoe-bat		
Scoteanax rueppellii	Greater Broad-nosed Bat	0	А
Scotorepens orion	Eastern Broad-nosed Bat	Р	
Scotorepens sp 1	Central-eastern Broad-nosed Bat		
Sminthopsis murina	Common Dunnart		
Tachyglossus aculeatus	Short-beaked Echidna		
Thylogale thetis	Red-necked Pademelon		
Trichosurus caninus	Short-eared Possum		
Trichosurus vulpecula	Common Brushtail Possum	0	СТ
Vespadelus darlingtoni	Large Forest Bat	-	
Vespadelus pumilus	Eastern Forest Bat	0	А
Vespadelus troughtoni	Eastern Cave Bat	P	
Vespadelus vulturnus	Little Forest Bat	P	
Vombatus ursinus	Bare-nosed Wombat		
Vulpes vulpes*	Fox		
Wallabia bicolor	Swamp Wallaby	0	
	Reptilia		1
Acanthophis antarcticus	Common Death Adder		
Amphibolurus muricatus	Jacky Lizard		
Bellatorias major	Land Mullet		
Cacophis krefftii	Southern Dwarf Crowned Snake		
Cacophis squamulosus	Golden-crowned Snake		
Cryptophis nigrescens	Eastern Small-eyed Snake		
Cyclodomorphus gerrardii	Pink-tongued Lizard		
Demansia psammophis	Yellow-faced Whip Snake		
Dendrelaphis punctulatus	Common Tree Snake	0	
Hemiaspis signata	Black-bellied Swamp Snake	-	
Hoplocephalus stephensii	Stephens' Banded Snake	Bionet Record	
Intellagama lesueurii	Eastern Water Dragon		
Lampropholis delicata	Dark-flecked Garden Sunskink	0	
Lampropholis guichenoti	Pale-flecked Garden Sunskink		
Morelia spilota spilota	Diamond Python	0	
Pogona barbata	Bearded Dragon		
Pseudechis porphyriacus	Red-bellied Black Snake	0	
Pseudonaja textilis	Eastern Brown Snake		
Pygopus lepidopodus	Common Scaly-foot		
Saiphos equalis	Three-toed Skink		
Tiliqua scincoides	Eastern Blue-tongue		
Varanus varius	Lace Monitor	0	СТ
Vermicella annulata	Bandy-bandy		