

# **Review of Gemini Project Impacts**

January 2024

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Blackdown Tablelands National Park Expedition Range (Photo: S. Gillman)

### Acknowledgements

Protect the Bush Alliance Inc. (PTBA) acknowledges the Gaangalu Nation People, the traditional custodians of the Blackdown Tablelands and surrounding landscapes, and celebrate their enduring connection to country. We pay our respects to Elders past and present and acknowledge that Aboriginal sovereignty was never ceded.

We thank Sheena Gillman, PTBA Chair, for her leadership in undertaking this project and the expertise of field survey participants: Ann Moran, Marie Tarrant, Stephen Hemming and Lily Williams.

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Attachment 1 PTBA Gemini Project Flora Survey Site Locations

Attachment 2 PTBA Gemini Project Fauna Survey Site Locations

# **Abbreviations Used**

| Acronym | Description  |
|---------|--|
| AARC    | AARC Environmental Solutions Pty Ltd                                       |
| EPBC    | Commonwealth Environment Protection and Biodiversity Conservation Act 1999 |
| MNES    | Matters of National Environmental Significance                             |
| NCA     | Queensland Nature Conservation Act 1992                                    |
| RE      | Regional Ecosystem   |

# 1. Executive Summary

Following PTBA-conducted field surveys and review of AARC Environmental Solutions Pty Ltd Terrestrial Ecology Report (AARC 2019), PTBA considers that progression of the Gemini Project (a proposed open-cut coal mine) by Magnetic South Pty Ltd will:

- Impact hydrological flows and water availability locally more broadly, including the Great Barrier Reef World Heritage Area.
- Reduce altitudinal connectivity between headwater national parks and state forests of the Mackenzie River and downstream reaches.
- Damage a significant corridor for the endangered Greater Glider.
- Adversely impact Taunton National Park (Scientific) and Wallaby Lane Nature Refuge, and other critical habitats for the endangered Bridled Nail-tailed Wallaby
- Increase mortality in local populations of the endangered Koala.
- Decrease the scenic amenity of Blackdown Tablelands National Park and surrounding landscapes, impacting local mental health and affecting tourism.

# 2. Background

Protect the Bush Alliance (PTBA) is an alliance of 20 NGOs and community groups, Nature Refuge owners and citizens, concerned at the continuing loss of biodiversity across Queensland. Our goal is to implement ways of preventing the continuing loss of areas of high conservation values to inappropriate development.

The Gemini Project, a proposed open-cut coal mine by Magnetic South Pty Ltd located west of Rockhampton and east of Blackwater, was brought to PTBA's attention by local landholders concerned regarding potential adverse impacts on their properties.

The proposed Gemini Project mine site contains and is surrounded by areas of high biological significance (Figure 1), including:

- national parks, scientific areas and state forests,
- headwaters of the Mackenzie River, a Great Barrier Reef World Heritage Area catchment,
- threatened vegetation communities,
- threatened species and their habitats.

PTBA's review of the AARC report, however, concluded that the biodiversity values of the landscape surrounding the proposed mine site, particularly roadside verges, areas of mixed woodland and vegetated riparian edges, and the connectivity these provide across the

landscape had not been fully considered. Consequently, PTBA initiated field surveys to further assess biodiversity values in the area surrounding the proposed mine.

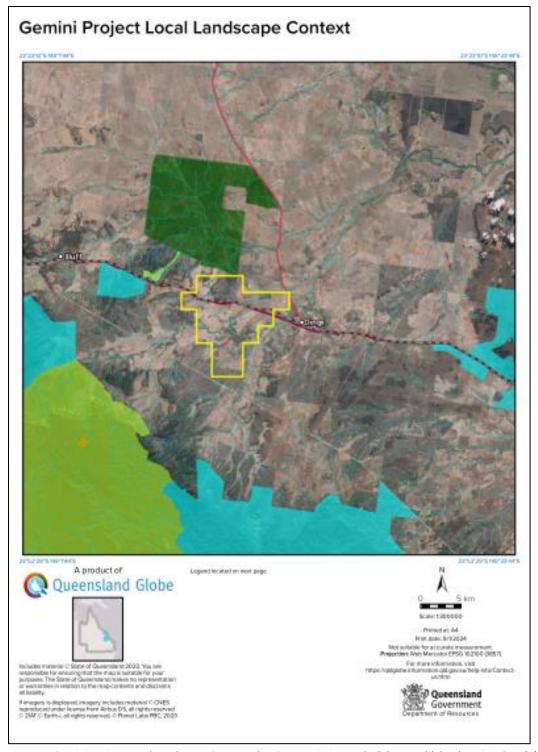


Figure 1. Gemini Project Local Landscape Context, showing proximity to Blackdown Tableland National Park (NP), Taunton NP (Scientific), Arthurs Bluff State Forest (SF), Walton SF, Dawson Range SF and Duaringa SF.

# 3. PTBA Critique of AARC Report

These matters will be assessed using:

- Vegetation Communities, including regional ecosystems and threatened ecological communities
- Connectivity, including wetlands and wildlife corridors
- Native fauna and flora, including threatened species

# 3.1. Vegetation Communities

The vegetation communities found within and around the proposed mine site area have been highly modified by agriculture through land clearing and introduction of non-native species such as *Cenchrus ciliaris* (Buffel grass).

Areas of remnant vegetation remain, however, and other areas have recovered with regrowth spreading to the surrounding areas. Vegetation communities found in Queensland are mapped by the Queensland Herbarium into regional ecosystems (REs), with a three number code allocated to indicated bioregion, land zone and vegetation community. The Gemini Project area contains six regional ecosystems according to Queensland Herbarium mapping (accessed via the Queensland Globe). All are within the Brigalow Belt (bioregion 11), however they occur on three land zones (identified below) and the vegetation is dominated by different species:

- land zone 3 (Quaternary alluvium) three regional ecosystems (11.3.1, 11.3.2 and 11.3.25)
- land zone 5 (Tertiary-early Quaternary loamy and sandy plains and plateaus) – two regional ecosystems (11.5.2 and 11.5.9b), and
- land zone 7 (Cainozoic duricrusts) one regional ecosystem (11.7.2).



Figure 2. Locally cemented duricrust

# 3.1.1. Regional ecosystems

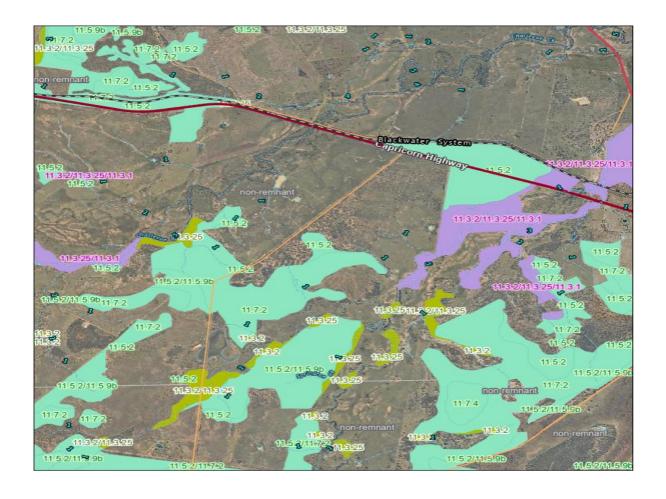
The six regional ecosystems are mapped as remnants or regrowth by the Queensland Herbarium in the Gemini Project area.

Within the remaining, predominantly cleared landscape, significant residual trees (characteristic of the preclearing regional ecosystem) remain, particularly along watercourses and roadsides, together with variable growth of regenerating native plants. These residual trees provided food, shelter and nest sites for multiple fauna, as discussed later in this document.

| Regional<br>Ecosystem | Short description   | VMA<br>Status | EPBC<br>Status |
|-----------------------|---|---------------|----------------|
| 11.3.1                | Acacia harpophylla and/or Casuarina cristata open forest on alluvial plains   | E             | E              |
| 11.3.2                | Eucalyptus populnea woodland on alluvial plains   | 0             | E              |
| 11.3.25               | Eucalyptus tereticornis or E. camaldulensis woodland fringing drainage lines  | L             |                |
| 11.5.2                | Eucalyptus crebra, Corymbia spp., with E. moluccana woodland on lower slopes of Cainozoic sand plains and/or remnant surfaces   | L             |                |
| 11.5.9b               | Eucalyptus crebra, E. tenuipes, Lysicarpus angustifolius +/- Corymbia spp. woodland. Occurs on Cainozoic sandplains formed on plateaus and broad crests of hills and ranges | L             |                |
| 11.7.2                | Acacia spp. woodland on Cainozoic lateritic duricrust. Scarp retreat zone   | L             |                |

VMA = Queensland *Vegetation Management Act 1999;* EPBC = Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* 

Status: E = Endangered; O = Of Concern; L = Least Concern





RE 11.5.2 regeneration showing signs of Eucalyptus crebra and E. populnae reaching sizes capable of supporting arboreal mammal species. Shrub layer is developing, and a well-developed native grass layer is present. -23.6457S, 149.2731E



Significant habitat tees containing multiple hollows were observed along Cooinda Road Images; Marie Tarrant

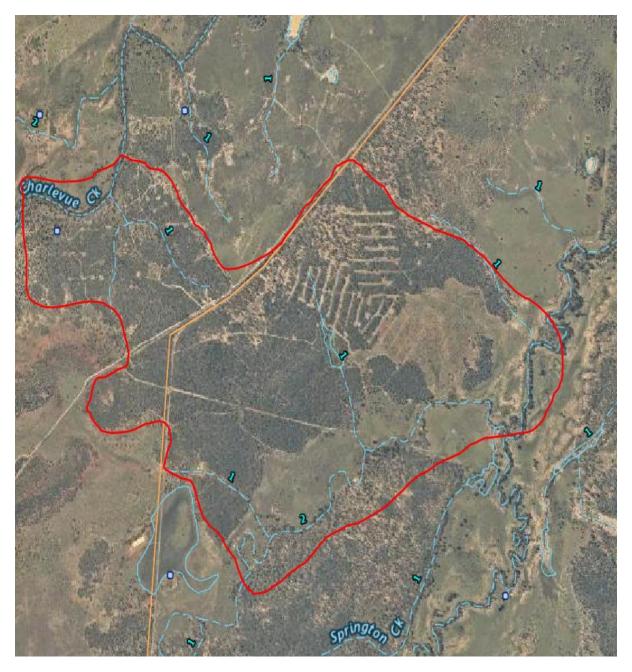


# 3.2. Connectivity and Wetlands

Due to major vegetation modification for agriculture (through clearing, burning, introduced species) habitat fragmentation poses a significant threat to the native animals of the area. The limited number of large trees with hollows present in the area combined with their high utlisation by hollow-dependent species, emphasises the need to protect those that still stand, living or dead.

The regional ecosystems, remnant and regrowth, and relictual trees present within and surrounding the Gemini Project area, provide habitat for several significant animal species, particularly, food and/or shelter for the endangered Koala (*Phascolarctos cinereus*) and Greater Glider (*Petauroides volans*), and vulnerable Glossy Black-cockatoo (*Calyptorhynchus lathami*) (applying the precautionary principle given the recent reclassification of the species).

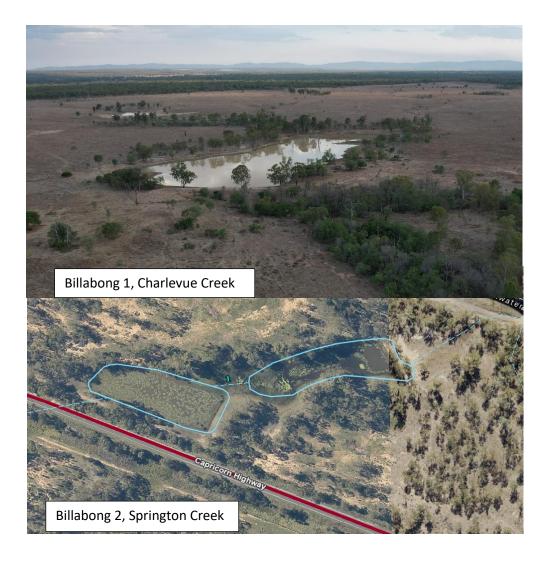
Within the Gemini Project area several sections of remnant and regenerating vegetation still have the presence or possible presence of large trees >15m and trees with large hollows. AARC recorded trees with a diameter at breast height of 30cm or more during their surveys within the Gemini Project area; trees of these size, particularly if occurring at a density of more than 10 per hectare, provide high quality habitat value. These trees and the vegetation surrounding them are acting as corridors connecting Charlevue Creek and Springton Creek upstream to Blackdown Tableland National Park, north to Taunton National Park (Scientific), downstream to more contiguous riparian areas, and east to Duaringa State Forest.



Present ecosystem connectivity allowing the dispersal of flora and fauna between the two catchment areas.

Several areas of permanent water sources were detected upon map and drone inspections within the boundaries of the mine and their supply or existence will be threatened. Although most of these permanent/ semi-permanent water sources are anthropogenic construction they still act as a supply of water during drought.

| Description   | Latitude  | Longitude |
|---|-----------|-----------|
| Large, permanent, modified billabong #1 on Charlevue Creek          | -23.6389  | 149.2673  |
| Large, permanent, modified billabong #2 on Springton Creek with     | -23.64092 | 149.31135 |
| old growth Eucalyptus tereticornis / camaldulensis and aquatic      |           |           |
| plants.   |           |           |
| Large, permanent, dam. Aquatic plants present. Pit A will           | -23.6586  | 149.26995 |
| completely remove this Dam  |           |           |
| Possible flood plain, Eucalyptus tereticornis present with possible | -23.67715 | 149.25604 |
| alluvium soils (landzone 3)   |           |           |







PTBA Review of Gemini Project Impacts, Jan 2024, <a href="www.ptba.net.au">www.ptba.net.au</a>.

### 3.3. Flora and Fauna

### 3.3.1. Flora

- 13 areas within the Gemini Project site are mapped as "high risk" in Queensland Government protected plants trigger mapping (Qld Globe) due to being within a 2km radius of a validated record of a threatened or near threatened plant and/or contain habitat highly likely to have one or more critically endangered or endangered plant species. High-risk areas are limited to natural areas, such as those mapped as remnant vegetation, regrowth vegetation, wetlands and category 'A' areas under the Vegetation Management Act 1994 (e.g. an offset area or areas subject to a restoration notice)." (Queensland Government, 2024a). Investigation of published WildNet data, identified that the following threatened flora species are recorded in the area:
  - Solanum elachophyllum (Endangered, NC Act)
  - Cerbera dumicola (Near Threatened, NC Act)

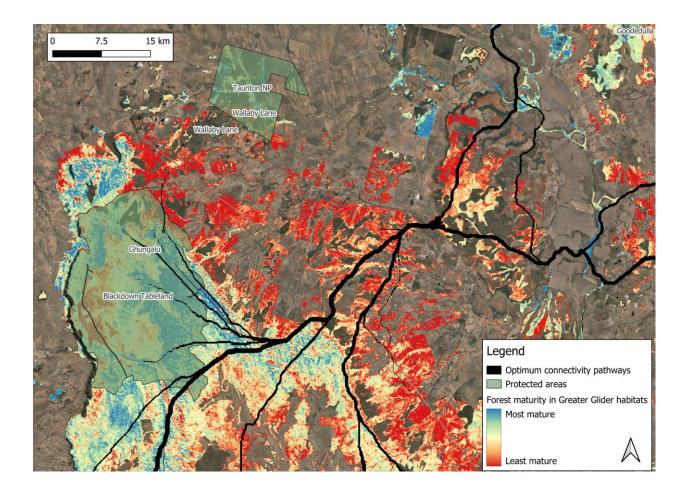
### 3.3.2. Fauna

### 3.3.2.1. Greater Glider *Petauroides volans*

The critical significance of connectivity through this landscape for the endangered Greater glider, is described in the study of 'Priority Areas for Protecting Greater Gliders in Queensland' by Norman and Mackey (2024), who state "The single most important corridor connecting two areas of habitat was found to be located connecting Blackdown Tableland National Park to Duaringa State Forest".

The southern and central Greater Glider *Petauroides volans,* is listed as endangered under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and vulnerable under the Queensland *Nature Conservation Act 1992*. The species depends upon mature native forest providing critical habitat resources including tree hollows; >30 cm diameter at breast height (DBH) are preferentially selected.

A major review of greater glider habitat in Queensland (Qld) (Eyre et al. 2022) identified 2859 described regional ecosystems in Queensland, 254 were confirmed as greater glider habitat and 124 regional ecosystems were identified as potential habitat; (b) six tree species were identified as dominant or co-dominant species to the majority of greater glider habitat (*Corymbia citriodora, Eucalyptus moluccana, E. tereticornis, E. crebra, C. intermedia and E. portuensis*).



# 3.3.2.2. Bridled Nailtail Wallaby Onychogalea fraenata

The Gemini project borders Taunton National Park (Scientific) and Wallaby Lane Nature Refuge on Pine Grove Station - areas significant for the protection of the endangered bridled nail-tail wallaby. This report in 2019 noted Bridled nailtail wallaby numbers had more than doubled in Taunton National Park in the previous five years. (Supplied: Queensland government). The Recovery Plan for bridled nailtail wallaby *Onychogalea Fraenata* 2005-2009 can be viewed here: <a href="https://www.dcceew.gov.au/sites/default/files/documents/o-fraenata.pdf">https://www.dcceew.gov.au/sites/default/files/documents/o-fraenata.pdf</a>

This species, once distributed through the acacia woodlands of semi-arid Queensland, was severely impacted by predation by feral animals and progressive alteration of its habitat. The recovery of this species to an estimated current population which may number 1000 animals, has been a resounding success. Of concern to this species is the irreplaceable loss of habitat and habitat connectivity.

The Wallaby Lane Nature Refuge Agreement is intended to protect and enhance the natural resources of the land and to provide a continuous connective vegetation corridor for known populations of BNTW in Taunton National Park and Walton State Forest. The Gemini Mine will result in the displacement of species populations and ecosystems which have for two

decades benefited from a federally funded revegetation project and enhanced management of the BNTW population.

### 3.3.2.3. Koala Phascolarctos cinereus

Habitat loss is considered the primary factor for the decline in Koalas in both Queensland and New South Wales (Department of the Environment, Water, Heritage and the Arts 2009). Research into Koala habitat preference indicates that Koalas prefer mature trees for browse and also favour particular trees (Hindell and Lee, 1987, McAlpine et al. 2023). In particular, trees with medium to large diameter at breast height (dbh) were shown to be of the greatest habitat values to Koalas, especially in disturbed and fragmented sites (McAlpine et al. 2023). This report highlights the important habitat values of the roadside vegetation, particularly the large, remnant Forest Red Gums (*Eucalyptus tereticornis*), Poplar Box (*Eucalyptus populnea*) and Narrow-leaved Red Ironbark (*Eucalyptus crebra*) located along the roadside reserves in an otherwise agriculturally modified landscape. These species contain a range of habitat hollows, not forming until Eucalypts are a minimum of 100 years old. Research indicates that up to 42% of mammals, 28% of reptiles and 17% of bird species require habitat hollows (Gibbons and Lindenmayer 1997).

Roadside reserves are a conduit for species dispersal. A wildlife corridor is defined as: A physical linkage between patches of native vegetation, such as riparian areas, patches and paddock trees, which contribute to landscape connectivity for native species and may also provide habitat (Australian Government 2012, Hilty et al. 2006, Lindenmeyer & Fischer 2006). Research shows that species restricted to habitat patches that are isolated from other patches of suitable vegetation have more chance of suffering extinction than those within connected habitats (Laurance 1991). Remnant vegetation that is connected to other areas of vegetation provide a greater representation of biodiversity, an increased value to the habitat network and are more resilient to the impacts of disturbance compared to small, isolated patches (Queensland Government 2002). Corridors provide a range of benefits to biodiversity conservation by enabling wildlife to move through altered landscapes, provide habitat, open access to presently unexploited habitat areas, improve dispersal success for species and ensure genetic diversity is maintained (Lindenmeyer & Burgman 2005). Studies have also shown that even low quality corridors provide essential connectivity for Koalas to access other habitat patches (Department of the Environment, Water, Heritage and the Arts 2009, Rus et al. 2021).

### 3.3.2.4. Glossy Black-cockatoo *Calyptorhynchus lathami*

This species is reliant on the seeds of Allocasuarina and Casuarina species for food and trees with large hollows for nest sites. Bulloak (*Allocasuarina luehmannii*) a food tree species for the northern subspecies of Glossy Black-cockatoo (*Calyptorhynchus lathami erebus*) were recorded by AARC within the Gemini Project area. Whilst Belah (*Casuarina cristata*) was not

recorded by AARC, it typically occurs in some of the mapped regional ecosystems, and is another food species for Glossy Black-cockatoo. Glossy Black-cockatoo is listed as vulnerable under the NC Act, and the eastern subspecies (*C.I.lathami*) was listed as vulnerable under the EPBC Act following the 2019-20 wildfires across much of eastern Australia. Given a recent taxonomic review by Saunders (2023) regards Glossy Black-cockatoo as monotypic, the precautionary principle should be applied to conservation of *C.I.erebus*.

AARC have not provided any evidence of conducting searches for 'orts', the food debris left by feeding Glossy Black-cockatoo, an essential component to detecting this quiet and highly mobile species.

# 4. PTBA Surveys

Five PTBA members visited the Blacktown Tablelands area from 23-27 October 2023 to assess landscape values and gather additional data to improve understanding of ecological values potentially at risk. Surveys were undertaken over four days, during which the mean average daily temperature was 36.5degrees Celsius, with a severe storm occurring on 26 October. Preliminary identification of survey sites was undertaken through desktop review of publicly available biodiversity data and land tenure prior to field surveys, followed by visual inspection after arrival in the project area to confirm survey locations.

### 1.1. Survey limitations

PTBA assessment of biodiversity values was limited by time, methods, weather, season and access. PTBA surveys were restricted to public roads and easements within and surrounding the Gemini Project area, which is owned by Magnetic South Pty Ltd.

Ideally quarterly monitoring of flora and fauna over at least three years, within and outside the Gemini Project area, would capture variations and allow for natural responses to weather patterns to be recorded; particularly, to improve understanding of how lowland corridors through connected ecosystems support wildlife movement, e.g., seasonal use of altitudinal refugia within Blacktown Tablelands, and climate change impacts on the suitability of current and potential future habitats.

# 1.2. Survey methods and results

### 1.2.1. Flora Surveys

Flora surveys were undertaken at eight locations using the core vegetation transect methodology of 100m x 10m transects. Survey results are contained in Appendix 1 and 2, with survey locations shown in Attachment 1, and summarised in the following table.

- No rare or threatened flora species were found in any of the eight survey transects.
- 85 plant species were recorded from 27 families, with Myrtaceae and Poaceae species occurring most extensively.
- 56 native plant species were each recorded at only one site.

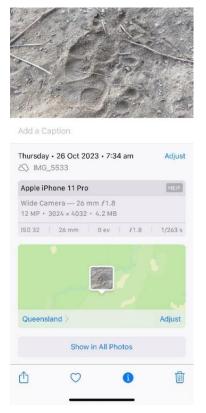
# 1.2.2. Fauna Surveys

Fauna surveys were undertaken at 11 locations with a gps reference recording the centre of the site. Survey results are contained in Appendix 3 and 4, with survey locations shown in Attachment 2, and summarised below.

### PTBA surveys detected:

- 5 mammal species, including the endangered Koala
- 9 reptile species
- 73 bird species

As shown in images, Koala footprints were detected at: -23.7259295, 149.2501966.









# Summary of Flora Survey Sites

| Site Name | Location                            | Lot/Plan  | Site Description                     | Altitude<br>(m) | Latitude  | Longitude | Regional Ecosystem/s      | Status                   |
|-----------|-------------------------------------|-----------|--------------------------------------|-----------------|-----------|-----------|---------------------------|--------------------------|
| Site 1    | Capricorn Highway                   | 47H406    | Open Woodland Floodplain             | 110             | -23.64228 | 149.31491 | 11.3.2 / 11.3.25 / 11.3.1 | Non-rem                  |
| Site 2    | Cooinda Rd off<br>Capricorn Highway | 2HT138    | Tall Open Forest Floodplain          | 110             | -23.71863 | 149.24651 | 11.3.2 / 11.3.25 / 11.3.1 | Remnant<br>E-subdom      |
| Site 3    | Cooinda Rd off<br>Capricorn Highway | 2HT138    | Mixed forest Floodplain Mixed forest | 130             | -23.67891 | 149.25591 | 11.3.2 / 11.3.25          | Remnant<br>O-dom         |
| Site 4    | Walton State<br>Forest              | 179FTY965 | Floodplain                           | 160             | -23.60587 | 149.13014 | 11.7.2                    | Remnant<br>Least Concern |
| Site 5    |                                     | 2HT388    | Mixed forest Floodplain              | 140             | -23.67706 | 149.18811 | 11.3.2 / 11.3.25          | Non-rem                  |
| Site 6    | Cooinda Rd                          | 2HT138    | Floodplain                           | 130             | -23.67689 | 149.25533 | 11.3.2 / 11.3.25          | Remnant<br>O-dom         |
| Site 7    | Cooinda Rd                          | 4HT393    | Floodplain                           | 135             | -23.72641 | 149.25063 | 11.5.2                    | Non-rem                  |
| Site 8    |                                     | 1H408     | Growth on ecotone Bull-oak           | 170             | -23.58269 | 149.08811 | 11.7.2                    | Remnant<br>Least Concern |

### 5. Conclusion

- The Gemini Project area is in the headwater catchments of the Mackenzie River, which flows to the Fitzroy River and then to the Great Barrier Reef World Heritage Area. There is considerable potential for the Project to affect the quantity, quality and seasonality of environmental flows, particularly through excavation of the mine pit and the installation and use of bores. These will lower the water table causing changed local soil moisture and affecting broader groundwater hydrology, as well as reducing water availability for native species throughout the region.
- Environmentally Sensitive Areas (ESA's) surround and are within the Gemini Project
  area, including habitat for threatened species and endangered ecological
  communities. The Gemini Project, if it proceeds, will sever remaining hydrological
  and habitat connectivity between ESAs, increasing their isolation in the landscape
  and compromising their ecological values and ecosystem services, e.g., downstream
  water availability.
- The northern boundary of the proposed Gemini Mine includes 2.5ha of Taunton
  National Park (Scientific) (Category A ESA). This reserve was created for the primary
  purpose of protecting the endangered Bridled Nailtail Wallaby; it provides provides
  criticial refugia and habitat for the species is considered to occur with the Gemini
  Project area (AARC 2019).
- Several records of endangered Greater Glider occur within the Gemini Project area, and habitats within Wallaby Lane Nature Refuge (Category C ESA) and the area east to Duaringa, are considered critical habitat for Greater Glider. The protection of mature forest patches and movement corridors is necessary for the recovery of the Greater Glider.
- Several tree species favoured by Koala occur within the Gemini Project Area, a species known for its mobility across ground in landscapes with reduced tree canopy or scattered trees. This mobility combined with increasing traffic associated with the Gemini Project will likely lead to increased stress and mortality, through disease and vehicle strike.
- The potential use of the Gemini Project area by Glossy Black-cockatoo has not been fully investigated.
- Increased heavy vehicle activity, noise, light and air pollution, blasting and associated industry activity are likely to impact the security of the protected area estate and impact habitat values, leading to decline of fauna and flora species abundance and distribution.
- Also to the ability of the Protected Area Estate to contribute to the tourism industry in Queensland.

• Conservation interventions, using a whole-of landscape approach, are needed to protect core habitat and corridors from inappropriate land use.

### 6. References

- AARC (2019), Gemini Project Terrestrial Ecology Assessment. Prepared for Magnetic South Pty Ltd.
- Norman P and Mackey B (2024), Priority areas for conserving greater gliders in Queensland, Australia. *Pacific Conservation Biology* **30**, PC23018. doi:10.1071/PC23018.
- Queensland Government (2024, Jan 10). Protected plants flora survey trigger map. https://apps.des.qld.gov.au/map-request/flora-survey-trigger
- Saunders D (2023), A review of the taxonomy and distribution of Australia's endemic Calyptorhynchinae black cockatoos. *Australian Zoologist* **43**(2)

# Appendix 1. PTBA Flora Data Summary

\*indicates introduced species. No species listed as threatened under the EPBC or NC Act were recorded.

| Family          | Status | Genus Species                            | Common Name                               | Form    |
|-----------------|--------|--|---|---------|
| Amaranthaceae   |        | Achyranthes aspera                       | chaff flower                              | Shrub   |
| Apocynaceae     |        | Alstonia constricta                      | bitter bark or quinine tree               | Tree    |
| Apocynaceae     |        | Carissa ovata now Carissa spinarum       | currant bush, blackberry, kunkerberry     | Shrub   |
| Asteraceae      |        | Pterocaulon redolens                     | fruit salad plant                         | Herb    |
| Caesalpiniaceae |        | Bauhinia hookeri                         | Hooker's bauhina, pegunny, white bauhinia | Tree    |
| Caesalpiniaceae |        | Cassia brewsteri                         | Brewster's cassia                         | Tree    |
| Caesalpiniaceae |        | Cassia tomentella                        | velvet cassia                             | Tree    |
| Capparaceae     |        | Capparis lasiantha                       | nipan, bush orange                        | Vine    |
| Caryophyllaceae |        | Scleranthus birchii                      | Scleranthus                               | Herb    |
| Chenopodiaceae  |        | Enchylaena tomentosa var tomentosa       | ruby saltbush                             | Herb    |
| Chenopodiaceae  |        | Maireana microphylla                     | small-leaved or eastern cottonbush        | Shrub   |
| Chenopodiaceae  |        | Salsola kali                             | prickly roly poly                         | Shrub   |
| Cyperaceae      |        | Cyperus javanicus                        | sedge                                     | Sedge   |
| Erythroxylaceae |        | Erythroxylum australe                    | cocaine tree                              | Tree    |
| Euphorbiaceae   |        | Euphorbia drummondii                     | mat spurge, caustic weed                  | Herb    |
| Euphorbiaceae   |        | Mallotus philippensis                    | red kamala                                | Tree    |
| Fabaceae        |        | Erythrina vespertilio                    | bat-winged coral tree/bean tree           | Tree    |
| Fabaceae        | *      | Stylosanthes humilis                     | Townsville stylo                          | Creeper |
| _axmanniaceae   |        | Eustrephus latifolius                    | wombat berry                              | Vine    |
| axmanniaceae    |        | Lomandra confertifolia ssp confertifolia | cushion mat-rush                          | Herb    |

| amily        | Status | Genus Species                        | Common Name                                     | Form  |
|--------------|--------|--------------------------------------|---|-------|
| axmanniaceae |        | Lomandra filiformis ssp filiformis   | wattle mat-rush                                 | Herb  |
| axmanniaceae |        | Lomandra longifolia                  | spiny headed, long-leaf mat-rush                | Herb  |
| Malvaceae    |        | Abutilon oxycarpum                   | flannel weed, lantern bush                      | Shrub |
| Malvaceae    | *      | Malvastrum americanum var americanum | spiked malvastrum                               | Herb  |
| Malvaceae    |        | Sida filiformis                      | fine sida, ngau-ngau                            | Herb  |
| Malvaceae    |        | Sida hackettiana                     | Queensland hemp, golden sida, spiked sida       | Shrub |
| Лeliaceae    |        | Melia azedarach                      | white cedar                                     | Tree  |
| Лeliaceae    |        | Owenia acidula                       | emu apple, sour plum                            | Tree  |
| Mimosaceae   |        | Acacia excelsa ssp angusta           | ironwood wattle, wallowa,gap axe,bunkerman      | Tree  |
| Mimosaceae   |        | Acacia harpophylla                   | brigalow  | Tree  |
| Mimosaceae   |        | Acacia julifera ssp julifera         | catkin wattle                                   | Tree  |
| Mimosaceae   |        | Acacia leiocalyx ssp leiocalyx       | early-flowering wattle                          | Tree  |
| Mimosaceae   |        | Acacia melleodora                    | waxy wattle                                     | Tree  |
| Mimosaceae   |        | Acacia rhodophloia                   | western red mulga, red-bark wattle              | Shrub |
| Mimosaceae   |        | Acacia rhodoxylon                    | ringy rosewood, brown spearwood                 | Tree  |
| Mimosaceae   |        | Acacia salicina                      | sally wattle, cooba                             | Tree  |
| Mimosaceae   |        | Acacia shirleyi                      | lancewood                                       | Tree  |
| /limosaceae  |        | Archidendropsis basaltica            | dead finish, red lancewood, eastern dead finish | Tree  |
| Moraceae     |        | Ficus opposita                       | sweet sandpaper fig                             | Tree  |
| Лyrtaceae    |        | Angophora leiocarpa                  | smooth-barked apple                             | Tree  |
| Лyrtaceae    |        | Corymbia clarksoniana                | Clarkson's inland bloodwood                     | Tree  |
| Лyrtaceae    |        | Corymbia dallachiana                 | Dallachy's or ghost gum                         | Tree  |
| Лyrtaceae    |        | Corymbia tessellaris                 | Moreton Bay ash                                 | Tree  |
| Myrtaceae    |        | Eucalyptus cambageana                | Dawson river gum, coowarra box,                 | Tree  |

| amily          | Status | Genus Species                            | Common Name   | Form  |
|----------------|--------|--|---|-------|
| Nyrtaceae      |        | Eucalyptus coolabah                      | coolibah  | Tree  |
| Nyrtaceae      |        | Eucalyptus crebra                        | narrow-leaved ironbark  | Tree  |
| Лyrtaceae      |        | Eucalyptus exserta                       | Queensland peppermint, yellow messmate, mountain box                      | Tree  |
| Nyrtaceae      |        | Eucalyptus fibrosa ssp fibrosa           | broad-leaved red ironbark   | Tree  |
| Nyrtaceae      |        | Eucalyptus fibrosa ssp nubilis           | dusky-leaved or blue-top ironbark   | Tree  |
| lyrtaceae      |        | Eucalyptus populnea                      | bimble box  | Tree  |
| lyrtaceae      |        | Eucalyptus tereticornis ssp tereticornis | Queensland blue gum, forest red gum                                       | Tree  |
| /lyrtaceae     |        | Lophostemon grandiflorus                 | swamp box tree  | Tree  |
| 1yrtaceae      |        | Lophostemon suaveolens                   | coastal swamp box   | Tree  |
| lyrtaceae      |        | Melaleuca nervosa ssp nervosa            | fibrebark   | Tree  |
| yctaginaceae   |        | Boerhavia dominii                        | common spiderling   | Herb  |
| icrodendraceae |        | Petalostigma pubescens                   | hairy or native quinine, strychnine tree                                  | Tree  |
| ittosporaceae  |        | Bursaria spinosa ssp spinosa             | prickly blackthorn/box  | Shrub |
| ittosporaceae  |        | Pittosporum angustifolium                | weeping pittosporum, native apricot, cattle bush, butterbush, Cumby Cumby | Tree  |
| oaceae         |        | Aristida benthamii var benthamii         | bentham's wiregrass   | Grass |
| oaceae         |        | Aristida calycina var calycina           | dark wiregrass  | Grass |
| oaceae         |        | Aristida caput-medusae                   | many headed wiregrass   | Grass |
| oaceae         |        | Aristida queenslandica var queenslandica | wiregrass   | Grass |
| oaceae         |        | Aristida ramosa var ramosa               | purple or cane wiregrass/spear grass                                      | Grass |
| oaceae         |        | Bothriochloa decipiens var decipiens     | pitted bluegrass  | Grass |
| oaceae         |        | Bothriochloa ewartiana                   | desert or forest bluegrass  | Grass |
| oaceae         | *      | Cenchrus ciliaris                        | buffel grass  | Grass |
| oaceae         |        | Enneapogon polyphyllus                   | woolly oat-grass, limestone bottle washer, leafy nineawn                  |       |

| Family          | Status | Genus Species                      | Common Name  | Form  |
|-----------------|--------|------------------------------------|--|-------|
| Poaceae         |        | Eragrostis sororia                 | love grass   | Grass |
| Poaceae         |        | Eragrostis sp                      | love grass   | Grass |
| Poaceae         |        | Heteropogon contortus              | bunch speargrass, black speargrass                     | Grass |
| Poaceae         | *      | Megathyrsus maximus var maximus    | guinea grass   | Grass |
| Poaceae         |        | Sporobolus caroli                  | fairy grass  | Grass |
| Poaceae         |        | Themeda triandra                   | kangaroo grass   | Grass |
| Poaceae         |        | Tripogonella loliiformis           | five-minute grass, rye beetle grass, eight day grass   | Grass |
| Proteaceae      |        | Grevillea striata                  | beefwood, silver honeysuckle                           | Tree  |
| Proteaceae      |        | Hakea lorea ssp lorea              | corkwood, bootlace oak                                 | Shrub |
| Rhamnaceae      |        | Alphitonia excelsa                 | red or soapy ash                                       | Tree  |
| Rubiaceae       |        | Coelospermum reticulatum           | medicine bush, corkwood                                | Shrub |
| Rubiaceae       |        | Everistia vaccinifolia var nervosa | small-leaved canthium                                  | Tree  |
| Rubiaceae       |        | Psydrax oleifolia                  | myrtle tree, wild lemon                                | Tree  |
| Rutaceae        |        | Citrus glauca                      | inland lime  | Tree  |
| Sapindaceae     |        | Atalaya hemiglauca                 | cattle bush, whitewood                                 | Tree  |
| Sapindaceae     |        | Dodonaea viscosa ssp spatulata     | sticky hop bush  | Shrub |
| Sparrmanniaceae |        | Grewia retusifolia                 | emu berry, shrub turkey bush; emu-berries; dog's Balls | Herb  |

# Appendix 2. PTBA Flora Data by Sites

Flora species recorded by Ann Moran between 24-26 October from each survey site 100m x 10m transect are documented in the following tables.

In these, Status abbreviations are as follows; if no status is provided, the species is considered of least concern:

- EPBC: Commonwealth Environment Protection and Biodiversity Conservation Act 1999
- NC: Queensland Nature Conservation Act 1992
- C: Critically Endangered; E: Endangered; V: Vulnerable; NT: Near Threatened; M: Marine
- \*weed/garden escapee

### Plant occurrence is categorised as follows:

| Legend | Category                  | Plants per plot 100mx10m |
|--------|---------------------------|--------------------------|
| D      | Dominant                  | >100                     |
| Α      | Abundant                  | 50 - 100                 |
| С      | Common                    | 20 - 50                  |
| 0      | Occasional                | 10 - 20                  |
| Р      | Present                   | 5 - 10                   |
| U      | Uncommon                  | 3 - 5                    |
| R      | Rare (in numbers only)    | 1 - 3                    |
| E      | Edge not inside community | 1 - 10                   |

| Site Name       |        | Description                              | Regional Ecosystem/s                     | Latitude  | Longitude  |
|-----------------|--------|--|--|-----------|------------|
| Site 1          |        | Open Woodland Floodplain                 | 11.3.2, 11,3.25, 11.3.1                  | -23.64228 | 149.31491  |
| Family          | Status | Genus Species                            | Common Name                              | Form      | Occurrence |
| Amaranthaceae   |        | Achyranthes aspera                       | chaff flower                             | Shrub     | Uncommon   |
| Caesalpiniaceae |        | Cassia tomentella                        | velvet cassia                            | Tree      | Uncommon   |
| Capparaceae     |        | Capparis lasiantha                       | nipan, bush orange                       | Vine      | Common     |
| Chenopodiaceae  |        | Enchylaena tomentosa var tomentosa       | ruby saltbush                            | Herb      | Occasional |
| Fabaceae        |        | Erythrina vespertilio                    | bat-winged coral tree/bean tree          | Tree      | Edge       |
| Malvaceae       |        | Abutilon oxycarpum                       | flannel weed, lantern bush               | Shrub     | Uncommon   |
| Mimosaceae      |        | Acacia melleodora                        | waxy wattle                              | Tree      | Edge       |
| Mimosaceae      |        | Acacia salicina                          | sally wattle, cooba                      | Tree      | Uncommon   |
| Myrtaceae       |        | Eucalyptus cambageana                    | Dawson river gum, coowarra box,          | Tree      | Edge       |
| Myrtaceae       |        | Eucalyptus populnea                      | bimble box                               | Tree      | Common     |
| Myrtaceae       |        | Eucalyptus tereticornis ssp tereticornis | Queensland blue gum, forest red gum      | Tree      | Edge       |
| Myrtaceae       |        | Lophostemon grandiflorus                 | swamp box tree                           | Tree      | Edge       |
| Myrtaceae       |        | Lophostemon suaveolens                   | coastal swamp box                        | Tree      | Edge       |
| Picrodendraceae |        | Petalostigma pubescens                   | hairy or native quinine, strychnine tree | Tree      | Edge       |
| Poaceae         |        | Aristida benthamii var benthamii         | bentham's wiregrass                      | Grass     | Uncommon   |
| Poaceae         |        | Bothriochloa decipiens var decipiens     | pitted bluegrass                         | Grass     | Uncommon   |
| Poaceae         |        | Bothriochloa ewartiana                   | desert or forest bluegrass               | Grass     | Uncommon   |
| Poaceae         |        | Eragrostis sp                            | love grass                               | Grass     | Uncommon   |
| Poaceae         |        | Heteropogon contortus                    | bunch speargrass, black speargrass       | Grass     | Uncommon   |
| Rutaceae        |        | Citrus glauca                            | inland lime                              | Tree      | Uncommon   |

| Site Name       |        | Description                        | Regional Ecosystem/s                            | Latitude  | Longitude  |
|-----------------|--------|------------------------------------|---|-----------|------------|
| Site 2          |        | Tall Open Forest Floodplain        | 11.3.2, 11,3.25, 11.3.1                         | -23.71863 | 149.24651  |
| Family          | Status | Genus Species                      | Common Name                                     | Form      | Occurrence |
| Apocynaceae     |        | Carissa ovata now Carissa spinarum | currant bush, blackberry, kunkerberry           | Shrub     | Occasional |
| Caesalpiniaceae |        | Cassia brewsteri                   | brewster's cassia                               | Tree      | Rare       |
| Malvaceae       |        | Sida hackettiana                   | Queensland hemp, golden sida, spiked sida       | Shrub     | Occasional |
| Mimosaceae      |        | Archidendropsis basaltica          | dead finish, red lancewood, eastern dead finish | Tree      | Common     |
| Myrtaceae       |        | Corymbia clarksoniana              | Clarkson's inland bloodwood                     | Tree      | Occasional |
| Myrtaceae       |        | Corymbia tessellaris               | Moreton Bay ash                                 | Tree      | Abundant   |
| Poaceae         |        | Aristida benthamii var benthamii   | bentham's wiregrass                             | Grass     | Uncommon   |
| Poaceae         |        | Aristida calycina var calycina     | dark wiregrass                                  | Grass     | Uncommon   |
| Poaceae         |        | Heteropogon contortus              | bunch speargrass, black speargrass              | Grass     | Occasional |
| Proteaceae      |        | Grevillea striata                  | beefwood, silver honeysuckle                    | Tree      | Rare       |
| Rubiaceae       |        | Psydrax oleifolia                  | myrtle tree, wild lemon                         | Tree      | Common     |
| Sapindaceae     |        | Atalaya hemiglauca                 | cattle bush, whitewood                          | Tree      | Occasional |

| Site Name       |        | Description                      | Regional Ecosystem/s                                 | Latitude   | Longitude   |
|-----------------|--------|----------------------------------|--|------------|-------------|
| Site 3          |        | Mixed forest Floodplain          | 11.3.2, 11.3.25, 11.3.1                              | -23. 67891 | 149.24651   |
| Family          | Status | Genus Species                    | Common Name  | Form       | Occurrence  |
| Apocynaceae     |        | Alstonia constricta              | bitter bark or quinine tree                          | Tree       | Uncommon    |
| Erythroxylaceae |        | Erythroxylum australe            | cocaine tree   | Tree       | Rare        |
| Euphorbiaceae   |        | Euphorbia drummondii             | mat spurge, caustic weed                             | Herb       | Uncommon    |
| Mimosaceae      |        | Acacia excelsa ssp excelsa       | ironwood wallowa, bunkerman                          | Tree       | Uncommon    |
| Mimosaceae      |        | Acacia harpophylla               | brigalow   | Tree       | Occasional  |
| Mimosaceae      |        | Acacia melleodora                | waxy wattle  | Tree       | Common      |
| Mimosaceae      |        | Acacia rhodoxylon                | ringy rosewood, brown spearwood                      | Tree       | Common      |
| Myrtaceae       |        | Angophora leiocarpa              | smooth-barked apple                                  | Tree       | Occasional  |
| Myrtaceae       |        | Corymbia clarksoniana            | Clarkson's inland bloodwood                          | Tree       | Occasional  |
| Myrtaceae       |        | Corymbia dallachiana             | Dallachy's or ghost gum                              | Tree       | Occasional  |
| Myrtaceae       |        | Eucalyptus fibrosa ssp nubilis   | dusky-leaved or blue-top ironbark                    | Tree       | Occasional  |
| Myrtaceae       |        | Eucalyptus populnea              | bimble box   | Tree       | Occasional  |
| Myrtaceae       |        | Melaleuca nervosa ssp nervosa    | fibrebark  | Tree       | Occasional  |
| Poaceae         |        | Aristida benthamii var benthamii | bentham's wiregrass                                  | Grass      | Uncommon    |
| Poaceae         |        | Eragrostis sororia               | love grass   | Grass      | Uncommon    |
| Poaceae         |        | Heteropogon contortus            | bunch speargrass, black speargrass                   | Grass      | Uncommon    |
| Poaceae         |        | Tripogonella loliiformis         | five-minute grass, rye beetle grass, eight day grass | Grass      | Uncommon    |
| Proteaceae      |        | Grevillea striata                | beefwood, silver honeysuckle                         | Tree       | Uncommon    |
| Proteaceae      |        | Hakea lorea ssp lorea            | corkwood, bootlace oak                               | Shrub      | Rare        |
| Rhamnaceae      |        | Alphitonia excelsa               | red or soapy ash                                     | Tree       | Unspecified |
| Rubiaceae       |        | Coelospermum reticulatum         | medicine bush, corkwood                              | Shrub      | Unspecified |

| Site Name |        | Description                        | Regional Ecosystem/s    | Latitude   | Longitude  |
|-----------|--------|------------------------------------|-------------------------|------------|------------|
| Site 3    |        | Mixed forest Floodplain            | 11.3.2, 11.3.25, 11.3.1 | -23. 67891 | 149.24651  |
| Family    | Status | Genus Species                      | Common Name             | Form       | Occurrence |
| Rubiaceae |        | Everistia vaccinifolia var nervosa | small-leaved canthium   | Tree       | Uncommon   |

| Site Name       |        | Description                              | Regional Ecosystem/s                  | Latitude  | Longitude  |
|-----------------|--------|--|---------------------------------------|-----------|------------|
| Site 4          |        | Floodplain                               |                                       | -23.60587 | 149. 13014 |
| Family          | Status | Genus Species                            | Common Name                           | Form      | Occurrence |
| Apocynaceae     |        | Carissa ovata now Carissa spinarum       | currant bush, blackberry, kunkerberry | Shrub     | Occasional |
| Caesalpiniaceae |        | Cassia brewsteri                         | Brewster's cassia                     | Tree      | Common     |
| Caryophyllaceae |        | Scleranthus birchii                      | Scleranthus                           | Herb      | Common     |
| Chenopodiaceae  |        | Enchylaena tomentosa var tomentosa       | ruby saltbush                         | Herb      | Uncommon   |
| Chenopodiaceae  |        | Salsola kali                             | prickly roly poly                     | Shrub     | Uncommon   |
| Erythroxylaceae |        | Erythroxylum australe                    | cocaine tree                          | Tree      | Present    |
| Laxmanniaceae   |        | Lomandra confertifolia ssp confertifolia | cushion mat-rush                      | Herb      | Present    |
| Laxmanniaceae   |        | Lomandra filiformis ssp filiformis       | wattle mat-rush                       | Herb      | Present    |
| Malvaceae       |        | Sida filiformis                          | fine sida, ngau-ngau                  | Herb      | Uncommon   |
| Mimosaceae      |        | Acacia rhodophloia                       | western red mulga, red-bark wattle    | Shrub     | Abundant   |
| Myrtaceae       |        | Eucalyptus crebra                        | narrow-leaved ironbark                | Tree      | Uncommon   |

| PoaceaeAristida queenslandica var queenslandicawiregrassGrassCommonPoaceaeEnneapogon polyphylluswoolly oat-grass, limestone bottle washer, leafy nineawnPoaceaeThemeda triandrakangaroo grassGrassEdgeRubiaceaeCoelospermum reticulatummedicine bush, corkwoodShrubRareSapindaceaeDodonaea viscosa ssp spatulatasticky hop bushShrubRare | Poaceae     | Aristida caput-medusae                   | many headed wiregrass   | Grass | Occasional |
|--|-------------|--|-------------------------|-------|------------|
| Poaceae Themeda triandra kangaroo grass Grass Edge Rubiaceae Coelospermum reticulatum medicine bush, corkwood Shrub Rare   | Poaceae     | Aristida queenslandica var queenslandica | wiregrass               | Grass | Common     |
| Rubiaceae Coelospermum reticulatum medicine bush, corkwood Shrub Rare  | Poaceae     | Enneapogon polyphyllus                   | , , ,                   |       |            |
| ·  | Poaceae     | Themeda triandra                         | kangaroo grass          | Grass | Edge       |
| Sapindaceae Dodonaea viscosa ssp spatulata sticky hop bush Shrub Rare  | Rubiaceae   | Coelospermum reticulatum                 | medicine bush, corkwood | Shrub | Rare       |
|  | Sapindaceae | Dodonaea viscosa ssp spatulata           | sticky hop bush         | Shrub | Rare       |

| Site Name       |        | Description                          | Regional Ecosystem/s                      | Latitude  | Longitude  |
|-----------------|--------|--------------------------------------|---|-----------|------------|
| Site 5          |        | Mixed forest Floodplain              |   | -23.67706 | 149.18811  |
| Family          | Status | Genus Species                        | Common Name                               | Form      | Occurrence |
| Apocynaceae     |        | Carissa ovata now Carissa spinarum   | currant bush, blackberry, kunkerberry     | Shrub     | Occasional |
| Caesalpiniaceae |        | Bauhinia hookeri                     | Hooker's bauhina, pegunny, white bauhinia | Tree      | Common     |
| Euphorbiaceae   |        | Mallotus philippensis                | red kamala                                | Tree      | Rare       |
| Fabaceae        |        | Erythrina vespertilio                | bat-winged coral tree/bean tree           | Tree      | Edge       |
| Fabaceae        | *      | Stylosanthes humilis                 | Townsville stylo                          | Creeper   | Present    |
| Laxmanniaceae   |        | Eustrephus latifolius                | wombat berry                              | Vine      | Uncommon   |
| Laxmanniaceae   |        | Lomandra longifolia                  | spiny headed, long-leaf mat-rush          | Herb      | Common     |
| Malvaceae       | *      | Malvastrum americanum var americanum | spiked malvastrum                         | Herb      | Present    |
| Meliaceae       |        | Melia azedarach                      | white cedar                               | Tree      | Edge       |
| Meliaceae       |        | Owenia acidula                       | emu apple, sour plum                      | Tree      | Rare       |
| Moraceae        |        | Ficus opposita                       | sweet sandpaper fig                       | Tree      | Occasional |

| Site Name      |        | Description                              | Regional Ecosystem/s                | Latitude  | Longitude  |
|----------------|--------|--|-------------------------------------|-----------|------------|
| Site 5         |        | Mixed forest Floodplain                  |                                     | -23.67706 | 149.18811  |
| Family         | Status | Genus Species                            | Common Name                         | Form      | Occurrence |
| Myrtaceae      |        | Corymbia clarksoniana                    | Clarkson's inland bloodwood         | Tree      | Uncommon   |
| Myrtaceae      |        | Eucalyptus coolabah                      | coolibah                            | Tree      | Common     |
| Myrtaceae      |        | Eucalyptus tereticornis ssp tereticornis | Queensland blue gum, forest red gum | Tree      | Common     |
| Pittosporaceae |        | Bursaria spinosa ssp spinosa             | prickly blackthorn/box              | Shrub     | Rare       |
| Poaceae        | *      | Cenchrus ciliaris                        | buffel grass                        | Grass     | Common     |
| Poaceae        | *      | Megathyrsus maximus var maximus          | guinea grass                        | Grass     | Present    |
| Sapindaceae    |        | Atalaya hemiglauca                       | cattle bush, whitewood              | Tree      | Common     |

| Site Name        | Description                | Regional Ecosystem/s       | Latitude  | Longitude  |
|------------------|----------------------------|----------------------------|-----------|------------|
| Gemini Mine Site | e 6 Floodplain             |                            | -23.67689 | 149.25533  |
| Family           | Status Genus Species       | Common Name                | Form      | Occurrence |
| Asteraceae       | Pterocaulon redolens       | fruit salad plant          | Herb      | Rare       |
| Cyperaceae       | Cyperus javanicus          | sedge                      | Sedge     | Occasional |
| Malvaceae        | Sida filiformis            | fine sida, ngau-ngau       | Herb      | Present    |
| Mimosaceae       | Acacia excelsa ssp excelsa | ironwood wallowa,bunkerman | Tree      | Uncommon   |
| Mimosaceae       | Acacia melleodora          | waxy wattle                | Tree      | Common     |

| Myrtaceae       | Corymbia clarksoniana                    | Clarkson's inland bloodwood                            | Tree  | Uncommon   |
|-----------------|--|--|-------|------------|
| Myrtaceae       | Corymbia dallachiana                     | Dallachy's or ghost gum                                | Tree  | Uncommon   |
| Myrtaceae       | Eucalyptus coolabah                      | coolibah   | Tree  | Common     |
| Myrtaceae       | Eucalyptus fibrosa ssp fibrosa           | broad-leaved red ironbark                              | Tree  | Occasional |
| Myrtaceae       | Eucalyptus tereticornis ssp tereticornis | Queensland blue gum, forest red gum                    | Tree  | Occasional |
| Myrtaceae       | Melaleuca nervosa ssp nervosa            | fibrebark  | Tree  | Occasional |
| Poaceae         | Heteropogon contortus                    | bunch speargrass, black speargrass                     | Grass | Uncommon   |
| Poaceae         | Tripogonella loliiformis                 | five-minute grass, rye beetle grass, eight day grass   | Grass | Common     |
| Rhamnaceae      | Alphitonia excelsa                       | red or soapy ash                                       | Tree  | Common     |
| Rubiaceae       | Coelospermum reticulatum                 | medicine bush, corkwood                                | Shrub | Occasional |
| Sparrmanniaceae | Grewia retusifolia                       | emu berry, shrub turkey bush; emu-berries; dog's Balls | Herb  | Uncommon   |
|                 |  |  |       |            |

| Site Name      |        | Description                        | Regional Ecosystem/s                      | Latitude  | Longitude  |
|----------------|--------|------------------------------------|---|-----------|------------|
| Site 7         |        | Floodplain                         |   | -23.72641 | 149.25063  |
| Family         | Status | Genus Species                      | Common Name                               | Form      | Occurrence |
| Apocynaceae    |        | Carissa ovata now Carissa spinarum | currant bush, blackberry, kunkerberry     | Shrub     | Uncommon   |
| Chenopodiaceae |        | Maireana microphylla               | small-leaved or eastern cottonbush        | Shrub     | Rare       |
| Malvaceae      |        | Sida hackettiana                   | Queensland hemp, golden sida, spiked sida | Shrub     | Common     |
| Moraceae       |        | Ficus opposita                     | sweet sandpaper fig                       | Tree      | Occasional |
| Myrtaceae      |        | Corymbia clarksoniana              | Clarkson's inland bloodwood               | Tree      | Uncommon   |

| Site Name   |        | Description                      | Regional Ecosystem/s                                 | Latitude  | Longitude  |
|-------------|--------|----------------------------------|--|-----------|------------|
| Site 7      |        | Floodplain                       |  | -23.72641 | 149.25063  |
| Family      | Status | Genus Species                    | Common Name  | Form      | Occurrence |
| Myrtaceae   |        | Eucalyptus cambageana            | Dawson river gum, coowarra box,                      | Tree      | Rare       |
| Myrtaceae   |        | Eucalyptus crebra                | narrow-leaved ironbark                               | Tree      | Uncommon   |
| Myrtaceae   |        | Eucalyptus exserta               | Queensland peppermint, yellow messmate, mountain box | Tree      | Common     |
| Myrtaceae   |        | Eucalyptus fibrosa ssp nubilis   | dusky-leaved or blue-top ironbark                    | Tree      | Uncommon   |
| Poaceae     |        | Aristida benthamii var benthamii | bentham's wiregrass                                  | Grass     | Uncommon   |
| Poaceae     |        | Aristida ramosa var ramosa       | purple or cane wiregrass/spear grass                 | Grass     | Uncommon   |
| Poaceae     |        | Sporobolus caroli                | fairy grass  | Grass     | Common     |
| Poaceae     |        | Themeda triandra                 | kangaroo grass                                       | Grass     | Occasional |
| Poaceae     |        | Tripogonella loliiformis         | five-minute grass, rye beetle grass, eight day grass | Grass     | Uncommon   |
| Sapindaceae |        | Atalaya hemiglauca               | cattle bush, whitewood                               | Tree      | Occasional |

| Site Name     |        | Description                | Regional Ecosystem/s   | Latitude  | Longitude  |
|---------------|--------|----------------------------|------------------------|-----------|------------|
| Site 8        |        | Growth on ecotone Bull-oak | 11.5.2, 11.7. 2/11.5.2 | -23.58269 | 149.08811  |
| Family        | Status | Genus Species              | Common Name            | Form      | Occurrence |
| Amaranthaceae |        | Alternanthera nodiflora    | common joyweed         | Herb      | Edge       |

| Site Name       | Description                        | Regional Ecosystem/s  | Latitude  | Longitude            |
|-----------------|------------------------------------|---|-----------|----------------------|
| Site 8          | Growth on ecotone Bull-oak         | 11.5.2, 11.7. 2/11.5.2  | -23.58269 | 149.08811            |
| Family Stat     | us Genus Species                   | Common Name   | Form      | Occurrence           |
| Apocynaceae     | Carissa ovata now Carissa spinarum | currant bush, blackberry, kunkerberry                                     | Shrub     | Uncommon             |
| Erythroxylaceae | Erythroxylum australe              | cocaine tree  | Tree      | Uncommon             |
| Mimosaceae      | Acacia excelsa ssp angusta         | ironwood wattle, wallowa,gap axe,bunkerman                                | Tree      | Rare                 |
| Mimosaceae      | Acacia julifera ssp julifera       | catkin wattle   | Tree      | Edge                 |
| Mimosaceae      | Acacia leiocalyx ssp leiocalyx     | early-flowering wattle  | Tree      | Occasional           |
| Mimosaceae      | Acacia shirleyi                    | lancewood   | Tree      | Abundant             |
| Myrtaceae       | Corymbia tessellaris               | Moreton Bay ash   | Tree      | Edge                 |
| Myrtaceae       | Melaleuca nervosa ssp nervosa      | fibrebark   | Tree      | Occasional           |
| Nyctaginaceae   | Boerhavia dominii                  | common spiderling   | Herb      | Uncommon             |
| Picrodendraceae | Petalostigma pubescens             | hairy or native quinine, strychnine tree                                  | Tree      | Abundant             |
| Pittosporaceae  | Pittosporum angustifolium          | weeping pittosporum, native apricot, cattle bush, butterbush, Cumby Cumby | Tree      | Rare population size |
| Rubiaceae       | Coelospermum reticulatum           | medicine bush, corkwood   | Shrub     | Uncommon             |

# **Historical Collection Walton Forest**

| DATES     | YEAR | IDENTIFIED BY | ld_MP                           | CANOPY | MID   | SHRUB | GROUND |
|-----------|------|---------------|---------------------------------|--------|-------|-------|--------|
| 01-May-85 | 1985 | Moran, A      | Acacia caroleae                 | FALSE  | FALSE | TRUE  | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Acacia leiocalyx ssp leiocalyx  | FALSE  | FALSE | TRUE  | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Acacia shirleyi                 | FALSE  | TRUE  | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Allocasuarina luehmannii        | FALSE  | TRUE  | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Alphitonia excelsa              | FALSE  | FALSE | TRUE  | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Alstonia constricta             | FALSE  | FALSE | TRUE  | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Angophora leiocarpa             | TRUE   | FALSE | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Aristida caput-medusae          | FALSE  | FALSE | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Callitris glaucophylla          | FALSE  | TRUE  | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Calotis cuneifolia              | FALSE  | FALSE | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Cassia brewsteri                | FALSE  | FALSE | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Cenchrus ciliaris               | FALSE  | FALSE | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Cheilanthes sieberi ssp sieberi | FALSE  | FALSE | FALSE | TRUE   |
| 01-May-85 | 1985 | Moran, A      | Chrysopogon fallax              | FALSE  | FALSE | FALSE | TRUE   |
| 01-May-85 | 1985 | Moran, A      | Coelospermum reticulatum        | FALSE  | FALSE | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Corymbia clarksoniana           | TRUE   | FALSE | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Corymbia intermedia             | TRUE   | FALSE | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Corymbia tessellaris            | TRUE   | FALSE | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Enneapogon eremophilus          | FALSE  | FALSE | FALSE | TRUE   |
| 01-May-85 | 1985 | Moran, A      | Enneapogon lindleyanus          | FALSE  | FALSE | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Entolasia stricta               | FALSE  | FALSE | FALSE | TRUE   |
| 01-May-85 | 1985 | Moran, A      | Erythroxylum australe           | FALSE  | FALSE | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Eucalyptus chloroclada          | TRUE   | FALSE | FALSE | FALSE  |
| 01-May-85 | 1985 | Moran, A      | Eucalyptus crebra               | FALSE  | FALSE | FALSE | FALSE  |

|           |      | 1        |                                    |       |       |       |       |
|-----------|------|----------|------------------------------------|-------|-------|-------|-------|
| 01-May-85 | 1985 | Moran, A | Eucalyptus exserta                 | FALSE | FALSE | FALSE | FALSE |
| 01-May-85 | 1985 | Moran, A | Evolvulus alsinoides var decumbens | FALSE | FALSE | FALSE | TRUE  |
| 01-May-85 | 1985 | Moran, A | Jacksonia scoparia                 | FALSE | FALSE | TRUE  | FALSE |
| 01-May-85 | 1985 | Moran, A | Laxmannia gracilis                 | FALSE | FALSE | FALSE | TRUE  |
| 01-May-85 | 1985 | Moran, A | Lomandra confertifolia ssp pallida | FALSE | FALSE | FALSE | TRUE  |
| 01-May-85 | 1985 | Moran, A | Lysicarpus angustifolius           | FALSE | FALSE | FALSE | FALSE |
| 01-May-85 | 1985 | Moran, A | Marsdenia microlepis               | FALSE | FALSE | FALSE | FALSE |
| 01-May-85 | 1985 | Moran, A | Melinis minutiflora                | FALSE | FALSE | FALSE | FALSE |
| 01-May-85 | 1985 | Moran, A | Oldenlandia galioides              | FALSE | FALSE | FALSE | TRUE  |
| 01-May-85 | 1985 | Moran, A | Panicum effusum                    | FALSE | FALSE | FALSE | TRUE  |
| 01-May-85 | 1985 | Moran, A | Petalostigma pubescens             | FALSE | TRUE  | FALSE | FALSE |
| 01-May-85 | 1985 | Moran, A | Philotheca difformis ssp difformis | FALSE | FALSE | TRUE  | FALSE |
| 01-Jan-99 | 1999 | Moran, A | Setaria surgens                    | FALSE | FALSE | FALSE | TRUE  |
| 01-May-85 | 1985 | Moran, A | Sida aprica var aprica             | FALSE | FALSE | FALSE | TRUE  |
| 01-May-85 | 1985 | Moran, A | Themeda triandra                   | FALSE | FALSE | FALSE | TRUE  |

## Appendix 3. PTBA Fauna Data Summary

The following table is a compiled list of all fauna recorded during PTBA surveys. Status abbreviations used are as follows; if no status is provided, the species is considered of least concern:

- EPBC: Commonwealth Environment Protection and Biodiversity Conservation Act 1999
- NC: Queensland Nature Conservation Act 1992
- C: Critically Endangered; E: Endangered; V: Vulnerable; NT: Near Threatened; M: Marine
- \*exotic/feral

| Scientific Name                        | Common Name                  | EPBC<br>Status | NC<br>Status |
|--|------------------------------|----------------|--------------|
| Mammals - all Sites                    |                              |                |              |
| Trichosurus vulpecula                  | Common Brush-tail Possum     |                |              |
| Acrobates pygmaeus                     | Feather-tailed Glider        |                |              |
| Macropus giganteus                     | Eastern Grey Kangaroo        |                |              |
| Notamacropus dorsalis                  | Black-striped Wallaby        |                |              |
| Sus scrofa                             | Feral Pig                    |                | *            |
| Geckos, Skinks and Lizards - all Sites |                              |                |              |
| Diporiphora australis                  | Tommy Roundhead              |                |              |
| Varanus varius                         | Lace Monitor                 |                |              |
| Nephrusus asper                        | Knob-tailed Gecko            |                |              |
| Heteronotia binoei                     | Prickly Gecko                |                |              |
| Diplodactylus vittatus                 | Eastern Stone Gecko          |                |              |
| Gehyra dubia                           | Dubious Dtella               |                |              |
| Carlia pectoralis                      | Open-litter Rainbow Skink    |                |              |
| Morethria boulengeri                   | Boulenger's Snake-eyed Skink |                |              |
| Cryptoblepharus pulcher                | Elegant Snake-eyed Skink     |                |              |
| Morethia taeniopleura                  | Eastern Fire-tailed Skink    |                |              |
| Birds - all Sites                      |                              |                |              |
| Aegotheles cristatus                   | Australian Owlet Nightjar    |                |              |
| Anas gracilis                          | Grey Teal                    |                |              |
| Anas superciliosa                      | Black Duck                   |                |              |
| Anhinga novaehollandiae                | Australasian Darter          |                |              |
| Anseranas semipalmata                  | Magpie Goose                 |                |              |
| Aprosmictus erythropterus              | Red-winged Parrot            |                |              |
| Aquila audax                           | Wedge-tailed Eagle           |                |              |
| Ardea intermedia                       | Intermediate Heron           |                |              |
| Ardeotis australis                     | Australian Bustard           |                |              |

| Scientific Name          | Common Name                | EPBC<br>Status | NC<br>Status |
|--------------------------|----------------------------|----------------|--------------|
| Artamus leucorynchus     | White-breasted Woodswallow |                |              |
| Aviceda subcristata      | Pacific Baza               |                |              |
| Aythya australis         | Hardhead                   |                |              |
| Centropus phasianinus    | Pheasant Coucal            |                |              |
| Colluricincia harmonica  | Grey Shrike Thrush         |                |              |
| Coracina novaehollandiae | Black-faced Cuckoo-shrike  |                |              |
| Corvus coronoides        | Australian Raven           |                |              |
| Corvus orru              | Torresian Crow             |                |              |
| Coturnix ypsilophora     | Brown Quail                |                |              |
| Cracticus nigrogularis   | Pied Butcherbird           |                |              |
| Cracticus tibicen        | Australian Magpie          |                |              |
| Cracticus torquatus      | Grey Butcherbird           |                |              |
| Dacelo leachii           | Blue-winged Kookaburra     |                |              |
| Dacelo novaeguineae      | Laughing Kookaburra        |                |              |
| Egretta novaehollandiae  | White-faced Heron          |                |              |
| Entomyzon cyanotis       | Blue-faced Honeyeater      |                |              |
| Erythrogonys malanops    | Black-fronted Dotterel     |                |              |
| Eudynamis orientalis     | Koel                       |                |              |
| Eurystomus orientalis    | Dollarbird                 |                |              |
| Falco cenchroides        | Kestrel                    |                |              |
| Falco subniger           | Brown Falcon               |                |              |
| Geopelia humeralis       | Bar-shouldered Dove        |                |              |
| Geopelia placida         | Peaceful Dove              |                |              |
| Geophaps scripta         | Squatter Pigeon            | V              | V            |
| Gerygone olivacea        | White-throated Gerygone    |                |              |
| Grallina cyanoleuca      | Magpie Lark                |                |              |
| Grus rubicunda           | Brolga                     |                |              |
| Haliastur sphenurus      | Whistling Kite             |                |              |
| Hirundo neoxena          | Welcome Swallow            |                |              |
| Irediparra gallinacea    | Comb-crested Jacana        |                |              |
| Lichmera indistincta     | Brown Honeyeater           |                |              |
| Malurus melanocephalus   | Red-backed Fairywren       |                |              |
| Manorina flavigula       | Yellow-throated Miner      |                |              |
| Manorina melanocephala   | Noisy Miner                |                |              |
| Melithreptus albogularis | White-throated Honeyeater  |                |              |
| Merops ornatus           | Rainbow Bee-eater          | M              |              |
| Microeca fascinans       | Jacky Winter               |                |              |
| Milvus migrans           | Black Kite                 |                |              |
| Myiagra inquieta         | Restless Flycatcher        |                |              |

| Scientific Name             | Common Name           | EPBC   | NC     |
|-----------------------------|-----------------------|--------|--------|
| Scientific Name             |                       | Status | Status |
| Myiagra rubecula            | Leaden Flycatcher     |        |        |
| Myzomela sanguinolenta      | Scarlet Honeyeater    |        |        |
| Pachycephala rufiventris    | Rufous Whistler       |        |        |
| Pardalotus striatus         | Striated Pardalote    |        |        |
| Petrochelidon nigricans     | Tree Martin           |        |        |
| Philemon citreogularis      | Little Friarbird      |        |        |
| Platycercus adscitus        | Pale-headed Rosella   |        |        |
| Plectorhyncha lanceolata    | Striped Honeyeater    |        |        |
| Pomatostomus temporalis     | Grey-crowned Babbler  |        |        |
| Ptilotula fusca             | Fuscous Honeyeater    |        |        |
| Rhipidura leucophrys        | Willie Wagtail        |        |        |
| Scythrops novaehollandiae   | Channel-billed Cuckoo |        |        |
| Smicronis brevirostris      | Weebill               |        |        |
| Specotheres vieilloti       | Australasian Figbird  |        |        |
| Specotheres vieilloti       | Olive-backed Oriole   |        |        |
| Struthidea cinerea          | Apostlebird           |        |        |
| Struthidea cinerea          | Mistletoebird         |        |        |
| Tachybaptus novaehollandiae | Australian Grebe      |        |        |
| Taeniopygia bichenovii      | Double-barred Finch   |        |        |
| Todiramphus macleayii       | Forest Kingfisher     |        |        |
| Todirampus pyrrhopygius     | Red-backed Kingfisher |        |        |
| Trichoglossus moluccanus    | Rainbow Lorikeet      |        |        |
| Turnix varius               | Painted Buttonquail   |        |        |
| Tyto delicatula             | Eastern Barn Owl      |        |        |
| Vanellus miles              | Masked Lapwing        |        |        |

# Appendix 4. PTBA Fauna Data by Sites

| Start Date            | Location                    | Latitude        | Longitude  |
|-----------------------|-----------------------------|-----------------|------------|
| 23/10/2023            | Red Rock Bush Camp (Site A) | -23.616305      | 149.211939 |
| Species               | Common Name                 | Number observed |            |
| Aegotheles cristatus  | Australian Owlet Nightjar   | 2               |            |
| Tyto delicatula       | Eastern Barn Owl            | 1               |            |
| Nephrurus asper       | Spiny Knob-tailed Gecko     | 1               |            |
| Trichosurus vulpecula | Common Brush-tail Possum    | 2               | 1          |

| Start Date                  | Location                                   | Latitude        | Longitude |
|-----------------------------|--|-----------------|-----------|
| 24/10/2023                  | Billabong near Springton Creek<br>(Site B) | -23.6411        | 149.3104  |
| Species                     | Common Name                                | Number observed |           |
| Anas gracilis               | Grey Teal                                  | 12              |           |
| Anas superciliosa           | Black Duck                                 |                 | 2         |
| Anhinga novaehollandiae     | Australasian Darter                        |                 | 2         |
| Anseranas semipalmata       | Magpie Goose                               | -               | LO        |
| Ardea intermedia            | Intermediate Heron                         |                 | 2         |
| Aythya australis            | Hardhead                                   |                 | 2         |
| Dacelo leachii              | Blue-winged Kookaburra - Nesting           |                 | 2         |
| Egretta novaehollandiae     | White-faced Heron                          |                 | 1         |
| Erythrogonys malanops       | Black-fronted Dotterel                     |                 | 5         |
| Eurystomus orientalis       | Dollarbird                                 | 2               |           |
| Geophaps scripta            | Squatter Pigeon <i>Vulnerable</i>          | 1               |           |
| Grallina cyanoleuca         | Magpie Lark                                |                 | 2         |
| Grus rubicunda              | Brolga                                     |                 | 2         |
| Haliastur sphenurus         | Whistling Kite - Nesting                   |                 | 1         |
| Irediparra gallinacea       | Comb-crested Jacana                        |                 | 2         |
| Melithreptus albogularis    | White-throated Honeyeater                  | -               | LO        |
| Milvus migrans              | Black Kite                                 |                 | 1         |
| Myiagra inquieta            | Restless Flycatcher                        |                 | 1         |
| Rhipidura leucophrys        | Willie Wagtail                             | 2               |           |
| Scythrops novaehollandiae   | Channel-billed Cuckoo                      |                 | 2         |
| Tachybaptus novaehollandiae | Australian Grebe                           |                 | 3         |
| Taeniopygia bichenovii      | Double-barred Finch                        |                 | 20        |
| Todiramphus macleayii       | Forest Kingfisher                          |                 | 2         |

| Start Date            | Location                                | Latitude        | Longitude |
|-----------------------|---|-----------------|-----------|
| 24/10/2023            | Billabong near Springton Creek (Site B) | -23.6411        | 149.3104  |
| Species               | Common Name                             | Number observed |           |
| Vanellus miles        | Masked Lapwing                          | 2               |           |
| Acrobates pygmaeus    | Feather-tailed Glider                   | 1               |           |
| Macropus giganteus    | Eastern Grey Kangaroo                   | 2               |           |
| Trichosurus vulpecula | Common Brush-tail Possum                | 1               |           |

| Start Date      | Location                   | Latitude        | Longitude |
|-----------------|----------------------------|-----------------|-----------|
| 24/10/2023      | Pine Grove/Capricorn H/Way |                 |           |
| Species         | Common Name                | Number observed |           |
| Tyto delicatula | Eastern Barn Owl           | 1 - Inci        | dental    |

| Start Date               | Location                  | Latitude        | Longitude |
|--------------------------|---------------------------|-----------------|-----------|
| 24/10/2023               | Springton Creek (Site C)  | -23.6427        | 149.3142  |
| Species                  | Common Name               | Number observed |           |
| Coracina novaehollandiae | Black-faced Cuckoo-shrike | 2               |           |
| Corvus orru              | Torresian Crow            | 2               |           |
| Cracticus nigrogularis   | Pied Butcherbird          | 2               |           |
| Cracticus tibicen        | Australian Magpie         | 5               |           |
| Dacelo novaeguineae      | Laughing Kookaburra       | 1               |           |
| Eurystomus orientalis    | Dollarbird                | 4               |           |
| Falco subniger           | Brown Falcon              | 1               |           |
| Gerygone olivacea        | White-throated Gerygone   | 4               |           |
| Lichmera indistincta     | Brown Honeyeater          | 5               |           |
| Malurus melanocephalus   | Red-backed Fairywren      | 4               |           |
| Manorina flavigula       | Yellow-throated Miner     | 4               |           |
| Melithreptus albogularis | White-throated Honeyeater | 8               |           |
| Merops ornatus           | Rainbow Bee-eater         | 4               |           |
| Myiagra inquieta         | Restless Flycatcher       | 1               |           |
| Pardalotus striatus      | Striated Pardalote        | 4               |           |
| Philemon citreogularis   | Little Friarbird          | 2               |           |
| Philemon corniculatus    | Noisy Friarbird           | 2               |           |
| Specotheres vieilloti    | Australasian Figbird      | 4               | •         |
| Taeniopygia bichenovii   | Double-barred Finch       | 8               |           |

| Start Date | Location                 | Latitude | Longitude |
|------------|--------------------------|----------|-----------|
| 24/10/2023 | Springton Creek (Site C) | -23.6427 | 149.3142  |
| C          | 0 N                      |          |           |
| Species    | Common Name              | Number o | observed  |

| Date                     | Location  | Latitude        | Longitude |
|--------------------------|---|-----------------|-----------|
| 24/10/2023               | Springton Creek – Perennial<br>Waterhole (Site D) | -23.6451        | 149.3112  |
| Species                  | Common Name                                       | Number observed |           |
| Artamus leucorynchus     | White-breasted Woodswallow                        | -               | 1         |
| Aviceda subcristata      | Pacific Baza                                      | 1               |           |
| Corvus orru              | Torresian Crow                                    | 2               |           |
| Dacelo leachii           | Blue-winged Kookaburra                            | 1               |           |
| Eudynamis orientalis     | Koel  | 1               |           |
| Geopelia placida         | Peaceful Dove                                     | 2               | 2         |
| Myiagra rubecula         | Leaden Flycatcher - At nest                       | -               | L         |
| Myzomela sanguinolenta   | Scarlet Honeyeater                                | 2               | 2         |
| Pardalotus striatus      | Striated Pardalote                                | 2               |           |
| Smicronis brevirostris   | Weebill   | 7               |           |
| Todiramphus macleayii    | Forest Kingfisher - Displaying pair               | 2               |           |
| Trichoglossus moluccanus | Rainbow Lorikeet                                  | 4               | 1         |

| Date                     | Location  | Latitude        | Longitude |
|--------------------------|---|-----------------|-----------|
| 24/10/2023               | Cooinda Road - Site of old<br>Weeping Bloodwood with 7<br>hollows (habitat tree) (Site E) | -23.7193        | 149.247   |
| Species                  | Common Name   | Number observed |           |
| Coracina novaehollandiae | Black-faced Cuckoo-shrike   | 2               |           |
| Corvus orru              | Torresian Crow  | 6               |           |
| Cracticus tibicen        | Australia Magpie  | 3               |           |
| Entomyzon cyanotis       | Blue-faced Honeyeater   | heard           |           |
| Falco cenchroides        | Kestrel   | 1               |           |
| Gerygone olivacea        | White-throated Gerygone   | 1               |           |
| Grallina cyanoleuca      | Magpie Lark   | 2               |           |
| Lichmera indistincta     | Brown Honeyeater  | 1               |           |
| Malurus melanocephalus   | Red-backed Fairywren - 2 groups   | (               | 5         |

| Date                      | Location  | Latitude        | Longitude |
|---------------------------|---|-----------------|-----------|
| 24/10/2023                | Cooinda Road - Site of old<br>Weeping Bloodwood with 7<br>hollows (habitat tree) (Site E) | -23.7193        | 149.247   |
| Species                   | Common Name   | Number observed |           |
| Manorina flavigula        | Yellow-throated Miner   | 10              |           |
| Melithreptus albogularis  | White-throated Honeyeater   | heard           |           |
| Merops ornatus            | Rainbow Bee-eater   | 4               |           |
| Petrochelidon nigricans   | Tree Martins - Habitat Tree, using dead tree for nest hollows                             | 10              |           |
| Rhipidura leucophrys      | Willie Wagtail  | 2               |           |
| Scythrops novaehollandiae | Channel-billed Cuckoo   | 2               |           |
| Todiramphus macleayii     | Forest Kingfisher   | 2               |           |

| Start Date               | Location                  | Latitude | Longitude |
|--------------------------|---------------------------|----------|-----------|
| 24/10/2023               | Cooinda Road (Site F)     | -23.6796 | 149.256   |
| Species                  | Common Name               | Number   | observed  |
| Coracina novaehollandiae | Black-faced Cuckoo-shrike |          | 1         |
| Corvus orru              | Torresian Crow            |          | 3         |
| Cracticus tibicen        | Australian Magpie         | 1        |           |
| Grallina cyanoleuca      | Magpie Lark               |          | 1         |
| Merops ornatus           | Rainbow Bee-eater         | 2        |           |
| Philemon citreogularis   | Little Friarbird          | 2        |           |
| Platycercus adscitus     | Pale-headed Rosella       | 1        |           |
| Pomatostomus temporalis  | Grey-crowned Babbler      | 8        |           |
| Rhipidura leucophrys     | Willie Wagtail            |          | 1         |

| Start Date                | Location                       | Latitude        | Longitude |
|---------------------------|--------------------------------|-----------------|-----------|
| 25/10/2023                | Pine Grove Road Bluff (Site G) | -23.607         | 149.1886  |
| Species                   | Common Name                    | Number observed |           |
| Aprosmictus erythropterus | Red-winged Parrot              |                 | 3         |
| Aviceda subcristata       | Pacific Baza                   | 1               |           |
| Colluricincia harmonica   | Grey Shrike Thrush             | 2               |           |
| Coracina novaehollandiae  | Black-faced Cuckoo-shrike      | 1               |           |
| Corvus coronoides         | Australian Raven               | 2               |           |
| Corvus orru               | Torresian Crow                 | 3               |           |
| Cracticus nigrogularis    | Pied Butcherbird               |                 | 2         |

| Start Date                | Location                       | Latitude        | Longitude |
|---------------------------|--------------------------------|-----------------|-----------|
| 25/10/2023                | Pine Grove Road Bluff (Site G) | -23.607         | 149.1886  |
| Species                   | Common Name                    | Number observed |           |
| Entomyzon cyanotis        | Blue-faced Honeyeater          |                 | 2         |
| Eurystomus orientalis     | Dollarbird                     |                 | 1         |
| Geopelia humeralis        | Bar-shouldered Dove            |                 | 3         |
| Geopelia placida          | Peaceful Dove                  |                 | 12        |
| Haliastur sphenurus       | Whistling Kite                 |                 | 1         |
| Hirundo neoxena           | Welcome Swallow                |                 | 2         |
| Malurus melanocephalus    | Red-backed Fairywren           | 3               |           |
| Myiagra rubecula          | Leaden Flycatcher              | 1               |           |
| Philemon corniculatus     | Noisy Friarbird                |                 | 2         |
| Platycercus adscitus      | Pale-headed Rosella            |                 | 2         |
| Pomatostomus temporalis   | Grey-crowned Babbler           |                 | 6         |
| Scythrops novaehollandiae | Channel-billed Cuckoo          | 2               |           |
| Taeniopygia bichenovii    | Double-barred Finch            | 25              |           |
| Todirampus pyrrhopygius   | Red-backed Kingfisher          | 1               |           |
| Trichoglossus moluccanus  | Rainbow Lorikeet               | 2               |           |
| Macropus giganteus        | Eastern Grey Kangaroo          | 1               |           |

| Start Date                | Location                | Latitude | Longitude |
|---------------------------|-------------------------|----------|-----------|
| 25/10/2023                | Charlevue Road (Site H) | -23.5877 | 149.2091  |
| Species                   | Common Name             | Number   | observed  |
| Cracticus torquatus       | Grey Butcherbird        | 2        | 2         |
| Dacelo novaeguineae       | Laughing Kookaburra     | 3        | L         |
| Entomyzon cyanotis        | Blue-faced Honeyeater   | 2        | 2         |
| Falco subniger            | Brown Falcon            | 1        | L         |
| Gerygone olivacea         | White-throated Gerygone | 1        | L         |
| Haliastur sphenurus       | Whistling Kite          | 1        | L         |
| Manorina flavigula        | Yellow-throated Miner   | 6        | 5         |
| Philemon corniculatus     | Noisy Friarbird         | 1        | L         |
| Pomatostomus temporalis   | Grey-crowned Babbler    | 3        |           |
| Scythrops novaehollandiae | Channel-billed Cuckoo   | 2        |           |
| Struthidea cinerea        | Apostlebird             | 2        | 0         |
| Trichoglossus moluccanus  | Rainbow Lorikeet        | (        | 5         |

| Start Date               | Location                                   | Latitude | Longitude |
|--------------------------|--|----------|-----------|
| 25/10/2023               | Cooinda Road                               | -23.6769 | 149.2559  |
| Species                  | Common Name                                | Number   | observed  |
| Aquila audax             | Wedge-tailed Eagle                         |          | 1         |
| Colluricincia harmonica  | Grey Shrike Thrush                         |          | 3         |
| Coracina novaehollandiae | Black-faced Cuckoo-shrike                  |          | 2         |
| Corvus orru              | Torresian Crow                             |          | 2         |
| Cracticus tibicen        | Australian Magpie                          |          | 1         |
| Cracticus torquatus      | Grey Butcherbird                           |          | 1         |
| Entomyzon cyanotis       | Blue-faced Honeyeater - 2 very young birds |          | 8         |
| Falco cenchroides        | Kestrel                                    |          | 1         |
| Gerygone olivacea        | White-throated Gerygone                    |          | 1         |
| Manorina melanocephala   | Noisy Miner                                |          | 8         |
| Merops ornatus           | Rainbow Bee-eater                          |          | 8         |
| Myiagra inquieta         | Restless Flycatcher                        |          | 5         |
| Pachycephala rufiventris | Rufous Whistler                            |          | 4         |
| Pardalotus striatus      | Striated Pardalote                         |          | 2         |
| Philemon corniculatus    | Noisy Friarbird                            |          | 1         |
| Platycercus adscitus     | Pale-headed Rosella                        |          | 2         |
| Plectorhyncha lanceolata | Striped Honeyeater                         |          | 1         |
| Pomatostomus temporalis  | Grey-crowned Babbler                       |          | 5         |
| Ptilotula fusca          | Fuscous Honeyeater                         |          | 16        |
| Rhipidura leucophrys     | Willie Wagtail                             |          | 5         |
| Smicronis brevirostris   | Weebill                                    |          | 2         |
| Taeniopygia bichenovii   | Double-barred Finch                        |          | 6         |
| Todiramphus macleayii    | Forest Kingfisher                          |          | 1         |
| Trichoglossus moluccanus | Rainbow Lorikeet                           |          | 6         |
| Turnix varius            | Painted Buttonquail                        |          | 8         |

| Start Date                | Location                  | Latitude        | Longitude |
|---------------------------|---------------------------|-----------------|-----------|
|                           |                           |                 | . 0       |
| 26/10/2023                | Cooinda Road (Site I)     | -23.7267        | 149.2509  |
| Species                   | Common Name               | Number observed |           |
| Aprosmictus erythropterus | Red-winged Parrot         |                 | 5         |
| Ardeotis australis        | Australian Bustard        | 2               |           |
| Coracina novaehollandiae  | Black-faced Cuckoo-shrike | 2               |           |
| Corvus orru               | Torresian Crow            | 2               |           |
| Coturnix ypsilophora      | Brown Quail               | 3               |           |

| Start Date                | Location   | Latitude | Longitude |
|---------------------------|--|----------|-----------|
| 26/10/2023                | Cooinda Road (Site I)                                | -23.7267 | 149.2509  |
| Species                   | Common Name  | Number   | observed  |
| Cracticus nigrogularis    | Pied Butcherbird                                     |          | 2         |
| Cracticus tibicen         | Australian Magpie                                    |          | 4         |
| Cracticus torquatus       | Grey Butcherbird                                     |          | 1         |
| Entomyzon cyanotis        | Blue-faced Honeyeater                                |          | 2         |
| Eudynamis orientalis      | Koel   |          | 1         |
| Geophaps scripta          | Squatter Pigeon Vulnerable -<br>Incidental road side |          | 4         |
| Haliastur sphenurus       | Whistling Kite                                       |          | 1         |
| Malurus melanocephalus    | Red-backed Fairywren                                 |          | 2         |
| Manorina melanocephala    | Noisy Miner  |          | 8         |
| Pardalotus striatus       | Striated Pardalote                                   |          | 2         |
| Platycercus adscitus      | Pale-headed Rosella                                  |          | 2         |
| Pomatostomus temporalis   | Grey-crowned Babbler                                 |          | 4         |
| Rhipidura leucophrys      | Willie Wagtail                                       |          | 2         |
| Scythrops novaehollandiae | Channel-billed Cuckoo                                |          | 2         |
| Specotheres vieilloti     | Olive-backed Oriole                                  |          | 1         |
| Macropus giganteus        | Eastern Grey Kangaroo                                |          | 7         |

| Start Date               | Location                         | Latitude | Longitude |
|--------------------------|----------------------------------|----------|-----------|
| 26/10/2023               | Cooinda Road (Site J)            | -23.6516 | 149.2666  |
| Species                  | Common Name                      | Number   | observed  |
| Colluricincia harmonica  | Double-barred Finch (heard only) |          | 1         |
| Coracina novaehollandiae | Black-faced Cuckoo-shrike        |          | 2         |
| Cracticus nigrogularis   | Pied Butcherbird                 |          | 1         |
| Cracticus tibicen        | Australian Magpie                |          | 2         |
| Cracticus torquatus      | Grey Butcherbird                 |          | 1         |
| Dacelo novaeguineae      | Laughing Kookaburra              |          | 1         |
| Haliastur sphenurus      | Whistling Kite                   |          | 1         |
| Lichmera indistincta     | Brown Honeyeater                 |          | 1         |
| Melithreptus albogularis | White-throated Honeyeater        | (        | 6         |
| Microeca fascinans       | Jacky Winter                     |          | 1         |
| Milvus migrans           | Black Kite                       |          | 1         |
| Myiagra rubecula         | Leaden Flycatcher                |          | 4         |
| Pachycephala rufiventris | Rufous Whistler                  |          | 1         |
| Rhipidura leucophrys     | Willie Wagtail                   | :        | 2         |

| Start Date             | Location              | Latitude        | Longitude |
|------------------------|-----------------------|-----------------|-----------|
| 26/10/2023             | Cooinda Road (Site J) | -23.6516        | 149.2666  |
| Species                | Common Name           | Number observed |           |
| Smicronis brevirostris | Weebill               | 14              |           |
| Struthidea cinerea     | Apostlebird           | 12              |           |

| Start Date               | Location                     | Latitude | Longitude |
|--------------------------|------------------------------|----------|-----------|
| 26/10/2023               | Red Hill Road Dingo (Site K) | -23.6245 | 149.2603  |
| Species                  | Common Name                  | Numbe    | observed  |
| Centropus phasianinus    | Pheasant Coucal              |          | 1         |
| Geophaps scripta         | Squatter Pigeon (Vulnerable) |          | 5         |
| Gerygone olivacea        | White-throated Gerygone      | 2        |           |
| Melithreptus albogularis | White-throated Honeyeater    |          | 4         |
| Merops ornatus           | Rainbow Bee-eater            |          | 1         |
| Milvus migrans           | Black Kite                   |          | 2         |
| Myiagra rubecula         | Leaden Flycatcher            | 1        |           |
| Pachycephala rufiventris | Rufous Whistler              |          | 1         |
| Pomatostomus temporalis  | Grey-crowned Babbler         | 4        |           |
| Struthidea cinerea       | Mistletoebird                | 1        |           |
| Notamacropus dorsalis    | Black-striped Wallaby        |          | 3         |
| Diporiphora australis    | Tommy Roundhead              |          | 2         |