

Memo

To	Tessa Penwarden
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From	Cormac Collins
Date	5 June 2026
Subject	Yathroo Wind Farm: Autumn 2026 BBUS

Survey Methods

The Autumn 2026 BBUS at the Yathroo Wind Farm Project Area was undertaken between 18 May 2026 and 22 May 2026 and is the seventh BBUS completed at the site (following surveys in Spring 2024, Summer, Autumn, Winter and Spring 2025, and Summer 2026). Field personnel included Senior Ecologist Brittany Osborn, Senior Ecologist Tevita Koloamatangi, Ecologist Frederik Niclauss and Ecologist Mark Hutchinson.

Systematic surveys were stratified across fauna habitat types (FHTs) that had been previously defined and delineated within the Project Area (**Figure 1**). The survey work consisted of:

- 1. Paired vantage point surveys (30 minutes) and area searches (20 minutes) for birds.** Three replicates of each survey were conducted at sites representing Agriculture (six sites), Banksia Woodland (four sites), Flooded Gum Floodplain (four sites), Jarrah Marri Forest (three sites), Pine Plantation (three sites), and Wetland (one site) FHTs; totalling 21 sites, 126 surveys (63 vantage points and 63 area searches) and 3,150 survey-minutes. Two sites were unable to be accessed during this survey, a Banksia Woodland and a Flooded Gum Floodplain site, due to landholder restrictions.
- 2. Ultrasonic recordings for bats.** Autonomous recording units (ARUs) were deployed for three nights within Agriculture (three sites), Banksia Woodland (three sites), Flooded Gum Floodplain (two sites), Jarrah Marri Forest (two sites), and Wetland (two sites) FHTs; totalling 12 sites and 36 survey-nights.
- 3. Wetland surveys for waterfowl and shorebirds.** Waterbird census was undertaken at four regularly surveyed open-water wetlands and an additional three wetlands that held water (and waterbirds) at the time of survey.

Incidental/opportunistic observations, especially of conservation significant (those listed under federal or state legislation or ranked as a priority species by the Department of Biodiversity, Conservation and Attractions (DBCA), or at-risk (those most likely to pose a collision risk with wind turbines) taxa, were made continuously throughout the survey program including whilst travelling between sites.

C:\Users\Sally\My Documents\Umwelt (Australia) Pty Ltd\2026\BBUS\BBUS Map\BBUS Map 2026

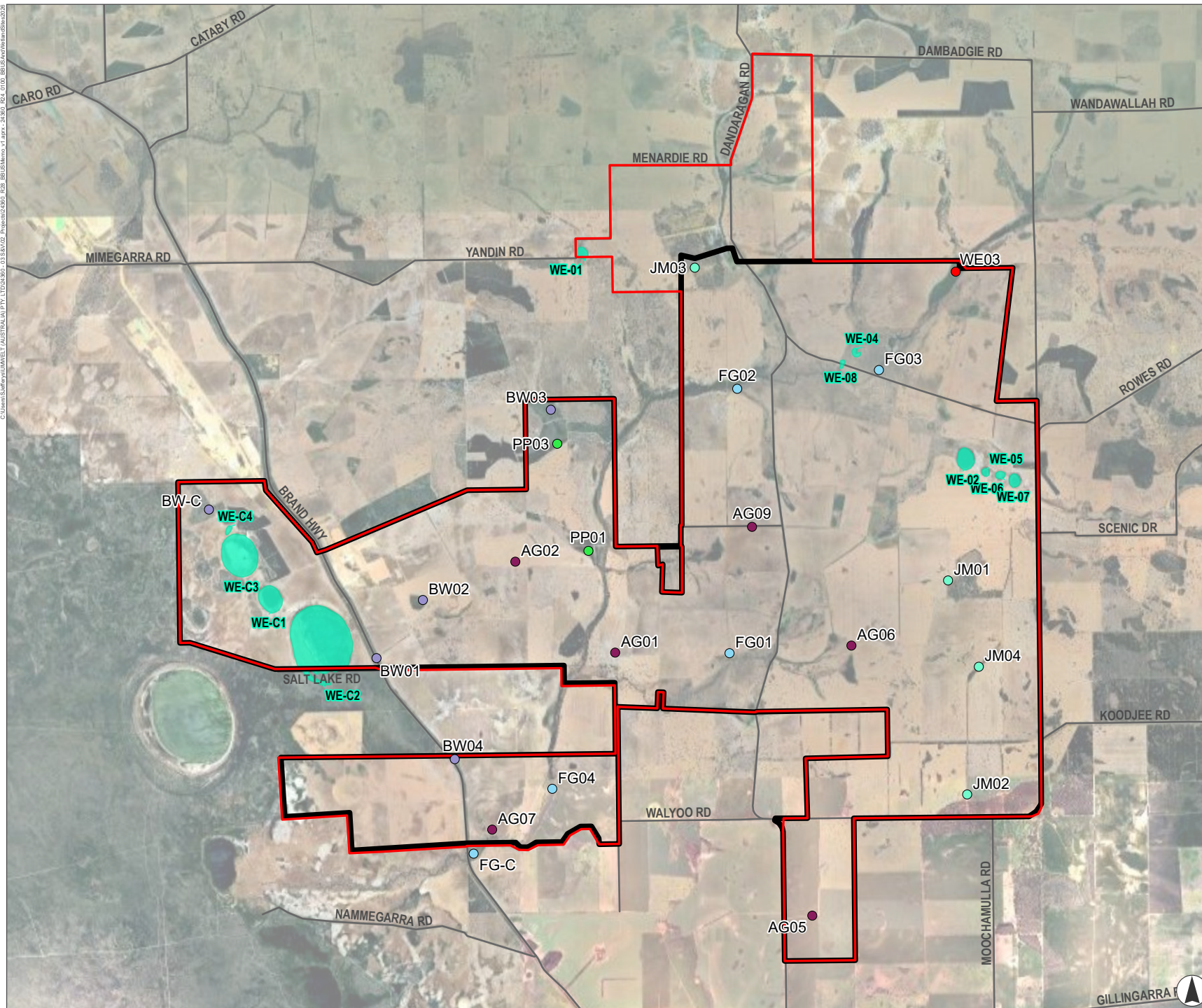


FIGURE 1

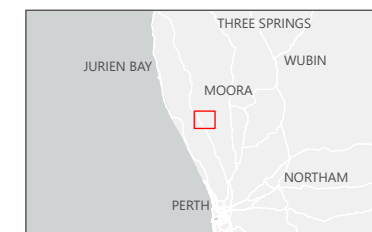
BBUS and Wetland Survey Site Locations Autumn 2026

Legend

- Road
- ▬ Project Area
- ▬ Fauna Survey Area
- Survey Wetlands

BBUS Locations

- Agriculture
- Banksia Woodland
- Flooded Gum Floodplain
- Jarrah Marri Forest
- Pine Plantation
- Wetland



0 2 4
Kilometres

Scale 1:120,000 at A4
GDA2020 MGA Zone 50



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Survey Limitations

Several exclusion zones were implemented prior to the 2026 Autumn BBUS due to restricted landholder access. As a result, vantage point BW03 (Minty property) and FG02 (Stoney property) could not be accessed during this survey.

Four wetlands (WEC4, WE05, WE06 and WE07) had dried up over the summer period and therefore were not surveyed for shorebirds and waterfowl.

Results Summary

Vantage point and area searches (birds)

- A total of 831 observations were recorded from 80 bird species, including 45 species recorded from vantage points, 43 recorded in the area searches and four recorded as incidental observations only.
- Most frequently recorded species included Australian Ringneck (*Barnardius zonarius*), Grey Fantail (*Rhipidura albiscapa*), Australian Raven (*Corvus coronoides*), Galah (*Eolophus roseicapilla*), Little Corella (*Cacatua sanguinea*), Brown Honeyeater (*Lichmera indistincta*), Western Gerygone (*Gerygone fusca*), Silvereye (*Zosterops lateralis*), Tree Martin (*Petrochelidon nigricans*), and Australian Magpie (*Gymnorhina tibicen*).
- One conservation significant species, Carnaby's Black Cockatoo (*Zanda latirostris*), was recorded. Several flocks ranging from three to 240 individuals (listed as Endangered under both the federal *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the Western Australian *Biodiversity Conservation Act 2016* (BC Act)) were observed during vantage point surveys and as incidental observations.
- Four species were observed flying within rotor swept area (RSA) (59 m above ground level), including one record of Wedge-tailed Eagle (*Aquila audax*), one record of Tree Martin (*Petrochelidon nigricans*), two records of Nankeen Kestrel (*Falco cenchroides*), and one record of Magpie-lark (*Grallina cyanoleuca*). None of these are conservation significant species.
- A complete list of all bird species recorded during the surveys is provided in **Appendix A.1**.

ARU surveys (bats)

- Data will be sent to a subconsultant for analysis. No results are available at present.

Wetland surveys

- 1309 individuals from 36 species (including 27 waterbird species) were counted across all surveyed wetlands.
- One non-migrant conservation significant species was recorded. The Blue-billed Duck (*Oxyura australis*), listed as Priority 4 under the BC Act, was recorded at WE02 (6 individuals).

Incidental records

- Ten species were recorded via incidental observations within the Project Area, including Wedge-tailed Eagle (6 records) and Carnaby's Black Cockatoo (1 record).
- Two species of raptors were recorded flying at RSA; the Wedge-tailed Eagle (3 records) and Australian Magpie (1 record).

Conservation significant species summary

Two conservation significant species were recorded in the Autumn 2026 BBUS:

- Carnaby's Black Cockatoo (BBUS)
- Blue-billed Duck (Wetland Surveys)

None of these species were recorded flying within the RSA.

Future Surveys

The BBUS survey program is progressing as expected and, at this stage, is providing data that are deemed adequate to reasonably assess the risk to bird and bat species on site. The next BBUS is scheduled for 10 August 2026.

Appendix A

Bird Species Recorded in the Autumn 2026 BBUS

A.1 Bird species recorded in the Autumn 2026 BBUS

Family	Common Name	Taxon	EPBC Act Status	BC Act Status	Transect	Vantage	Census	Incidental
Anatidae	Black Swan	<i>Cygnus atratus</i>	-	-	-	-	X	-
	Australian Shelduck	<i>Tadorna tadornoides</i>	-	-	X	X	X	-
	Pink-eared Duck	<i>Malacorhynchus membranaceus</i>	-	-	-	-	X	-
	Maned Duck	<i>Chenonetta jubata</i>	-	-	X	-	-	X
	Australasian Shoveler	<i>Spatula rhynchotis</i>	-	-	-	-	X	-
	Pacific Black Duck	<i>Anas superciliosa</i>	-	-	X	-	X	-
	Grey Teal	<i>Anas gracilis</i>	-	-	-	-	X	-
	Chestnut Teal	<i>Anas castanea</i>	-	-	-	-	X	-
	Hardhead	<i>Aythya australis</i>	-	-	-	-	X	-
	Blue-billed Duck	<i>Oxyura australis</i>	-	P4	-	-	X	-
	Musk Duck	<i>Biziura lobata</i>	-	-	-	-	X	-
Columbidae	Common Bronzewing	<i>Phaps chalcoptera</i>	-	-	X	X	-	-
	Crested Pigeon	<i>Ocyphaps lophotes</i>	-	-	-	X	X	-
Rallidae	Eurasian Coot	<i>Fulica atra</i>	-	-	-	-	X	-
Podicipedidae	Australasian Grebe	<i>Tachybaptus novaehollandiae</i>	-	-	-	-	X	-
	Hoary-headed Grebe	<i>Poliocephalus poliocephalus</i>	-	-	-	-	X	-
Recurvirostridae	Black-winged Stilt	<i>Himantopus himantopus</i>	-	-	-	-	X	-
Charadriidae	Black-fronted Dotterel	<i>Thinornis melanops</i>	-	-	-	-	X	-
Laridae	Silver Gull	<i>Chroicocephalus novaehollandiae</i>	-	-	-	-	X	-

Family	Common Name	Taxon	EPBC Act Status	BC Act Status	Transect	Vantage	Census	Incidental
	Whiskered Tern	<i>Chlidonias hybrida</i>	-	-	-	-	X	-
Anhingidae	Australasian Darter	<i>Anhinga novaeollandiae</i>	-	-	-	-	X	-
Phalacrocoracidae	Little Pied Cormorant	<i>Microcarbo melanoleucos</i>	-	-	-	-	X	-
Threskiornithidae	Australian White Ibis	<i>Threskiornis molucca</i>	-	-	-	-	X	-
	Straw-necked Ibis	<i>Threskiornis spinicollis</i>	-	-	-	-	X	-
	Yellow-billed Spoonbill	<i>Platalea flavipes</i>	-	-	-	-	X	-
Ardeidae	White-necked Heron	<i>Ardea pacifica</i>	-	-	-	-	X	-
	Great Egret	<i>Ardea alba</i>	-	-	-	-	X	-
	White-faced Heron	<i>Egretta novaeollandiae</i>	-	-	-	-	X	-
Pelecanidae	Australian Pelican	<i>Pelecanus conspicillatus</i>	-	-	-	-	X	-
Accipitridae	Black-shouldered Kite	<i>Elanus axillaris</i>	-	-	-	-	-	X
	Wedge-tailed Eagle	<i>Aquila audax</i>	-	-	X	-	-	X
	Swamp Harrier	<i>Circus approximans</i>	-	-	-	-	X	-
	Spotted Harrier	<i>Circus assimilis</i>	-	-	-	-	-	X
	Whistling Kite	<i>Haliastur sphenurus</i>	-	-	-	-	X	X
Strigidae	Australian Boobook	<i>Ninox boobook</i>	-	-	X	-	-	-
Alcedinidae	Laughing Kookaburra	<i>Dacelo novaeguineae</i>	-	-	X	X	-	-
Falconidae	Nankeen Kestrel	<i>Falco cenchroides</i>	-	-	X	X	-	X
	Brown Falcon	<i>Falco berigora</i>	-	-	-	-	-	X
Cacatuidae	Carnaby's Black Cockatoo	<i>Zanda latirostris</i>	EN	EN	-	X	-	X
	Galah	<i>Eolophus roseicapilla</i>	-	-	X	X	-	-

Family	Common Name	Taxon	EPBC Act Status	BC Act Status	Transect	Vantage	Census	Incidental
	Western Corella	<i>Cacatua pastinator derbyi</i>	-	-	X	X	X	-
	Little Corella	<i>Cacatua sanguinea</i>	-	-	X	X	-	-
Psittaculidae	Red-capped Parrot	<i>Purpureicephalus spurius</i>	-	-	-	X	-	X
	Australian Ringneck	<i>Barnardius zonarius</i>	-	-	X	X	-	-
Maluridae	Purple-backed Fairywren	<i>Malurus assimilis assimilis</i>	-	-	X	-	-	-
	Splendid Fairywren	<i>Malurus splendens</i>	-	-	X	X	X	-
	White-winged Fairywren	<i>Malurus leucopterus leuconotus</i>	-	-	X	X	-	-
Meliphagidae	Crimson Chat	<i>Epthianura tricolor</i>	-	-	X	-	-	-
	White-fronted Chat	<i>Epthianura albifrons</i>	-	-	X	X	-	-
	New Holland Honeyeater	<i>Phylidonyris novaehollandiae</i>	-	-	-	X	-	-
	Brown Honeyeater	<i>Lichmera indistincta</i>	-	-	X	X	-	-
	Singing Honeyeater	<i>Gavicalis virescens</i>	-	-	X	X	-	-
	Red Wattlebird	<i>Anthochaera carunculata</i>	-	-	X	X	-	-
Pardalotidae	Spotted Pardalote	<i>Pardalotus punctatus</i>	-	-	X	X	-	-
	Striated Pardalote	<i>Pardalotus striatus</i>	-	-	X	X	-	-
Acanthizidae	Weebill	<i>Smicrornis brevirostris</i>	-	-	X	X	-	-
	Rufous Fieldwren	<i>Calamanthus campestris rubiginosus</i>	-	-	X	X	-	-
	Western Gerygone	<i>Gerygone fusca</i>	-	-	X	X	-	-
	Inland Thornbill	<i>Acanthiza apicalis</i>	-	-	X	X	-	-
	Western Thornbill	<i>Acanthiza inornata</i>	-	-	X	X	-	-

Family	Common Name	Taxon	EPBC Act Status	BC Act Status	Transect	Vantage	Census	Incidental
	Yellow-rumped Thornbill	<i>Acanthiza chrysorrhoa</i>	-	-	X	X	-	-
Artamidae	Black-faced Woodswallow	<i>Artamus cinereus</i>	-	-	-	X	-	-
	Australian Magpie	<i>Gymnorhina tibicen</i>	-	-	X	X	-	X
	Grey Butcherbird	<i>Cracticus torquatus</i>	-	-	X	X	-	-
	Pied Butcherbird	<i>Cracticus nigrogularis</i>	-	-	X	X	X	-
Campephagidae	Black-faced Cuckooshrike	<i>Coracina novaehollandiae</i>	-	-	X	X	-	-
Neosittidae	Varied Sittella	<i>Daphoenositta chrysoptera</i>	-	-	-	X	-	-
Pachycephalidae	Australian Golden Whistler	<i>Pachycephala pectoralis</i>	-	-	-	X	-	-
	Rufous Whistler	<i>Pachycephala rufiventris</i>	-	-	X	X	-	-
	Grey Shrikethrush	<i>Colluricincla harmonica</i>	-	-	-	X	-	-
Rhipiduridae	Willie Wagtail	<i>Rhipidura leucophrys</i>	-	-	X	X	X	-
	Grey Fantail	<i>Rhipidura albiscapa</i>	-	-	X	X	-	-
Monarchidae	Magpie-lark	<i>Grallina cyanoleuca</i>	-	-	X	X	-	-
Corvidae	Australian Raven	<i>Corvus coronoides</i>	-	-	X	X	-	-
Petroicidae	Scarlet Robin	<i>Petroica boodang</i>	-	-	X	X	-	-
	Red-capped Robin	<i>Petroica goodenovii</i>	-	-	X	X	-	-
Hirundinidae	Welcome Swallow	<i>Hirundo neoxena</i>	-	-	X	X	X	-
	Tree Martin	<i>Petrochelidon nigricans</i>	-	-	X	X	X	-
Zosteropidae	Silvereye	<i>Zosterops lateralis</i>	-	-	X	X	-	-
Motacillidae	Australian Pipit	<i>Anthus australis</i>	-	-	X	X	-	-



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