

1.0 Introduction

1.1 Rye Park Windfarm

This briefing note provides Tilt Renewables with a summary of the monitoring works completed to date by Umwelt under the approved Bird and Bat Adaptive Management Plan (BBAMP; Rev 9) for the Rye Park Wind Farm (RPWF). Umwelt has been engaged by RPWF to implement the Year 1 bird and bat monitoring measures outlined in the BBAMP, with King & Co Detection undertaking the turbine carcass searches and Balance Environmental providing the expert Anabat analysis.

In line with BBAMP requirements, Year 1 bird and bat utilisation surveys (BBUS) were completed. These included general bird transects, targeted superb parrot surveys, and carcass searches. The Project has now completed its first full year of operation (Year 1), meaning the complete set of monitoring surveys was undertaken, rather than the reduced Interim Year requirements. The results of these surveys are presented in the Year 1 BBAMP Monitoring Annual Report. Mortality data used for statistical analysis includes records up to October 2025.

This report presents the outcomes of the Year 1 operational phase monitoring for the RPWF, spanning November 2024 to October 2025. It also includes data from surveys completed from June 2024 to October 2024 as this data was not included in the Interim Year reports. This was due to the construction works not having been completed by the due date of the Interim Year reporting, and the decision was made to include the remaining data in the Year 1 Annual Report. Thus, this report represents data from the seventeen months spanning June 2024 to October 2025.

This document is intended to facilitate consultation with the Conservation Programs, Heritage and Regulation (CPHR) – south-east office regarding the work completed and associated results of the Year 1 implementation of the BBAMP.

A package of GIS spatial data of the relevant surveys and key results of the BBAMP implementation to date has been supplied with this letter.

Outcomes/Key Messages

During the Year 1 combined bird surveys effort (Vantage Point Surveys, Transect Surveys, and superb parrot targeted transect surveys) as well as incidental records, seven threatened species (listed as Vulnerable under either BC Act and/or EPBC Act) were recorded. There were 41 dusky woodswallow's, 13 scarlet robins, 11 southern whiteface, one speckled warbler, 10 varied sitellas, and 20 white-fronted chats. During the superb parrot surveys a total of 12 individuals were identified. The targeted transect surveys recorded 11 superb parrot individuals from two separate transect locations in November 2024, and one individual was recorded during the Vantage Point Surveys. Additionally, 55 individual wedge-tailed eagles (WTE) occurred throughout the combined bird survey effort and incidental observations, the WTE is a non-threatened species however, is considered to be an at-risk species at RPWF.

Seven threatened bird species were recorded during Year 1 monitoring, demonstrating continued site use by these species. Despite these detections and a substantial survey effort, recorded mortality of threatened bird species remained very low, with only a single threatened bird carcass detected and managed in accordance with BBAMP trigger pathways.

Bat utilisation surveys were conducted from November 2024 to April 2025, utilising ultrasonic recording devices at hub height (119 m off the ground) and on the ground (2 m off the ground). A total of 20 bat species (13 Definite and seven as Species Groups) were recorded across the RPWF. Turbine A04 recorded 19 species/species groups at ground height and nine species/species groups at hub height. 20 species/ species groups were recorded at D06 ground and 11 at D06 hub. 19 species/species groups at G03 ground and nine at G03 hub. Three species recorded were listed as vulnerable under the Biodiversity Conservation Act 2016 (BC Act), these included *Falsistrellus tasmaniensis*, *Miniopterus orianae oceanensis* and *Saccolaimus flaviventris*.

Three threatened bat species were recorded during Year 1 monitoring program confirming their presence within the project area. Although, these species were identified across the site, no threatened bat mortalities were recorded at RPWF to date. These results provide an important early operational insight and key data for evaluating potential impacts in subsequent monitoring years.

The Year 1 carcass searches and incidental carcass findings totalled 157 carcasses (37 birds, 117 bats, and three too degraded to be identified). Of these, one threatened species carcass was recorded, being a white-throated needletail. This resulted in an Impact Trigger Report being issued to CPHR, following the required trigger pathway in accordance with the BBAMP. It was deemed that this strike did not constitute a significant impact to the local or total population of the species and no further action was required on this issue at that time.

Between June 2024 and October 2025, 65 little forest bat carcasses were found during surveys. Between October 2024 and January 2025, 10 little forest bat carcasses were found within proximity to Turbine D07. Due to this, an Impact Trigger Report was issued to CPHR, following the required trigger pathway in accordance with the BBAMP. It was deemed that this strike did not constitute a significant impact to the local or total population of the species and no further action was requested by CPHR at that time.

During the same period 16 wedge-tailed eagle carcasses were found across RPWF during the year 1 monitoring program. One injured individual was taken into the care of WIRES however, resulted in mortality. None of these finds triggered the impact threshold, although all were reported to CPHR within 24 hours of identification.

Monitoring during the reporting period was undertaken in accordance with the approved BBAMP, with all except one survey completed within the required timing. Where this minor deviation to survey scheduled occurred, it was associated with site safety constraints and was managed in accordance with BBAMP provisions. Such instances were documented, communicated to CPHR and are not considered to materially affect overall BBAMP compliance or the reliability of the monitoring data. This baseline dataset will be used for identifying future trends, assessing potential impacts and informing management decisions in subsequent monitoring years, consistent with the intent of the BBAMP.

2.0 Year 1 Implementation of the BBAMP – Surveys Completed

2.1 Reporting Timeframe

This report presents the outcomes of the Year 1 operational phase monitoring for the RPWF, spanning November 2024 to October 2025. It also includes data from surveys completed from June 2024 to October 2024 as this data was not included in the Interim Year reports. This was because the construction works were not complete by the due date of the Interim Year reporting, and the decision was made to include the remaining data in the Year 1 Annual Report. Thus, this report represents data from the seventeen months spanning June 2024 to October 2025.

2.2 Vantage Point Surveys

Umwelt has completed Year 1 Vantage Point Surveys in accordance with Section 5.2 of the BBAMP at the locations and in the months presented below in **Table 2.1**. Surveys were undertaken for one hour on two occasions per seasonal survey round, once in the late morning (i.e. between 09.30 and 12.00) and once in the early afternoon (i.e. between 12:00 and 15:30). The objective of these surveys is to collect information on flight activity and behaviour from prominent locations both at turbine locations (impact sites) and at least 500 m away from turbine locations (control sites). The nature of vantage point surveys (high vantage, focus on aerial activity) lends themselves to targeting certain threatened and non-threatened at-risk species.

Table 2.1 RPWF BBAMP Year 1 Survey – Vantage Point Surveys 2024/2025

Transect Type	Turbine	Survey (60 mins)	November 2024	February 2025	April 2025	July 2025
Control vantage points	VPC03	Morning	26/11/2024	17/02/2025	14/04/2025	09/07/2025
		Afternoon	25/11/2024	13/02/2025	11/04/2025	14/07/2025
	VPC04	Morning	27/11/2024	18/02/2025	10/04/2025	15/07/2025
		Afternoon	26/11/2024	17/02/2025	14/04/2025	14/07/2025
Impact vantage points	VPI01	Morning	25/11/2024	14/02/2025	11/04/2025	14/07/2025
		Afternoon	27/11/2024	18/02/2025	15/04/2025	15/07/2025
	VPI03	Morning	26/11/2024	17/02/2025	14/04/2025	15/07/2025
		Afternoon	25/11/2024	18/02/2025	15/04/2025	08/07/2025
	VPI04	Morning	27/11/2024	18/02/2025	09/04/2025	08/07/2025
		Afternoon	26/11/2024	17/02/2025	14/04/2025	09/07/2025

As part of the above, Umwelt completed a total of 40 hours of Vantage Point Surveys for the Year 1 survey program.

No species survey observations were completed between June and October 2024 as this was not required until commencement of Year 1. This period marked the continued expansion phase (June 2024 to October 2024) until turbine construction was completed in October 2024. Following this the commencement of RPWF Year 1 operational period began (November 2024 to October 2025).

2.3 Transect Surveys

Umwelt has completed Year 1 transect surveys in accordance with Section 5.2.2 of the BBAMP at the locations and in the months presented below in **Table 2.2**. Each survey was a standard 2 hectare 20-minute survey, conducted at 16 sites (400 m x 50 m) twice per seasonal survey round. Surveys were undertaken during the three hours after dawn (AM) and the three hours before dusk (PM). The objective of these surveys is to collect data on relative abundance and flight behaviour, of bird species across different vegetation types within the Project Area.

Table 2.2 RPWF BBAMP Year 1 Survey – All Bird Targeted Transect Survey Timing Summary

Transect type	Transect	Time of day	November 2024	February 2025	April 2025	July 2025
Control transects	TS_C01	AM	12/11/2024 & 21/11/2024	13/02/2025	11/04/2025	14/07/2025
		PM	11/11/2024 & 20/11/2024	17/02/2025	10/04/2025	07/07/2025
	TS_C02	AM	12/11/2024 & 22/11/2024	18/02/2025	11/04/2025	14/07/2025
		PM	11/11/2024 & 21/11/2024	13/02/2025	10/04/2025	07/07/2025
	TS_C03	AM	14/11/2024 & 20/11/2024	11/02/2025	08/04/2025	09/07/2025
		PM	13/11/2024 & 19/11/2024	10/02/2025	07/04/2025	11/07/2025
	TS_C04	AM	15/11/2024 & 20/11/2024	11/02/2025	08/04/2025	09/07/2025
		PM	14/11/2024 & 19/11/2024	10/02/2025	07/04/2025	11/07/2025
	TS_C05	AM	15/11/2024	13/02/2025	10/04/2025	11/07/2025
		PM	14/11/2024	12/02/2025	09/04/2025	08/07/2025
	TS_C06	AM	19/11/2024	12/02/2025	09/04/2025	08/07/2025
		PM	18/11/2024	11/02/2025	08/04/2025	09/07/2025
	TS_C07	AM	19/11/2024	12/02/2025	09/04/2025	08/07/2025
		PM	18/11/2024	11/02/2025	08/04/2025	09/07/2025
	TS_C08	AM	19/11/2024	13/02/2025	10/04/2025	11/07/2025
		PM	18/11/2024	12/02/2025	09/04/2025	08/07/2025
Impact transects	TS_I02	AM	13/11/2024 & 22/11/2024	18/02/2025	11/04/2025	14/07/2025
		PM	12/11/2024 & 21/11/2024	13/02/2025	10/04/2025	07/07/2025
	TS_I03	AM	15/11/2024 & 20/11/2024	11/02/2025	08/04/2025	09/07/2025
		PM	13/11/2024 & 19/11/2024	10/02/2025	07/04/2025	11/07/2025

Transect type	Transect	Time of day	November 2024	February 2025	April 2025	July 2025
	TS_I04	AM	15/11/2024 & 20/11/2024	11/02/2025	08/04/2025	09/07/2025
		PM	14/11/2024 & 19/11/2024	10/02/2025	07/04/2025	11/07/2025
	TS_I05	AM	15/11/2024	13/02/2025	10/04/2025	11/07/2025
		PM	14/11/2024	12/02/2025	09/04/2025	08/07/2025
	TS_I06	AM	19/11/2024	13/02/2025	10/04/2025	11/07/2025
		PM	18/11/2024	11/02/2025	09/04/2025	08/07/2025
	TS_I07	AM	19/11/2024	12/02/2025	09/04/2025	08/07/2025
		PM	18/11/2024	11/02/2025	08/04/2025	09/07/2025
	TS_I08	AM	19/11/2024	12/02/2025	09/04/2025	08/07/2025
		PM	18/11/2024	12/02/2025	08/04/2025	09/07/2025
	TS_I09	AM	13/11/2024 & 22/11/2024	17/02/2025	11/04/2025	14/07/2025
		PM	12/11/2024 & 21/11/2024	13/02/2025	10/04/2025	07/07/2025

As part of the above, Umwelt completed a total of 48 hours of bird transect surveys for the Year 1 survey program.

2.4 Superb Parrot Targeted Transects

Umwelt has completed Year 1 superb parrot targeted transect surveys in accordance with Section 5.2.3 of the BBAMP at the locations and in the month presented below in **Table 2.3**. There were four impact sites and four control sites in November 2024 that were in areas of potential superb parrot breeding habitat. As such additional surveys were completed in the month of November during the heightened seasonal activity. Further exploration of these surveys is presented in Section 2.3.

Each survey is a standard 2 hectare 20-minute survey, conducted at 15 sites twice within the highest activity season (November) for this species. Surveys were undertaken during the three hours after dawn (AM) and the three hours before dusk (PM).

Table 2.3 RPWF BBAMP Year 1 Survey – Superb Parrot Targeted Transect Survey Timing Summary

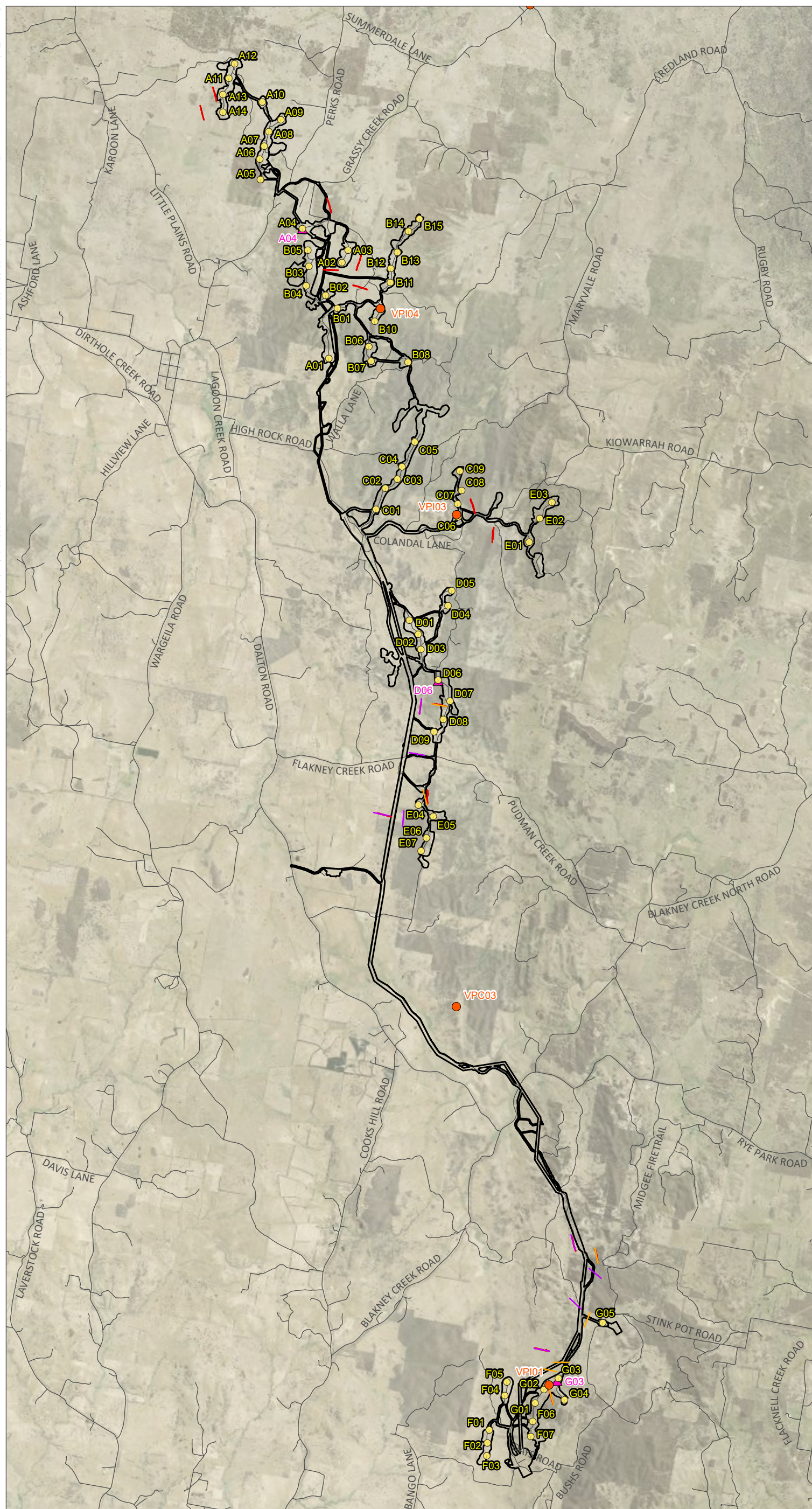
Transect type	Transect	Time of day	November 2024 #one	November 2024 #two
Control transects	TS_C01	AM	12/11/2024	21/11/2024
		PM	11/11/2024	20/11/2024
	TS_C02	AM	12/11/2024	22/11/2024
		PM	11/11/2024	21/11/2024
	TS_C03	AM	14/11/2024	20/11/2024
		PM	13/11/2024	19/11/2024
	TS_C04	AM	15/11/2024	20/11/2024
		PM	14/11/2024	19/11/2024
	TS_C09	AM	13/11/2024	22/11/2024
		PM	12/11/2024	21/11/2024
	TS_C10	AM	12/11/2024	21/11/2024
		PM	11/11/2024	20/11/2024
	TS_C11	AM	14/11/2024	20/11/2024
		PM	13/11/2024	19/11/2024
	TS_C12	AM	15/11/2024	21/11/2024
		PM	13/11/2024	23/11/2024
Impact transects	TS_I02	AM	13/11/2024	22/11/2024
		PM	12/11/2024	21/11/2024
	TS_I03	AM	15/11/2024	20/11/2024
		PM	13/11/2024	19/11/2024
	TS_I04	AM	15/11/2024	20/11/2024
		PM	14/11/2024	19/11/2024
	TS_I09	AM	13/11/2024	22/11/2024
		PM	12/11/2024	21/11/2024
	TS_I10	AM	12/11/2024	21/11/2024
		PM	11/11/2024	20/11/2024
	TS_I11	AM	13/11/2024	22/11/2024
		PM	12/11/2024	21/11/2024
	TS_I12	AM	11/11/2024	20/11/2024
		PM	11/11/2024	20/11/2024

As part of the above-mentioned surveys, Umwelt completed a total of 20 hours of superb parrot targeted transect surveys for the Year 1 survey program.

No species survey observations were completed between June and October 2024 as this was not required until commencement of Year 1. This period marked the continued expansion phase (June 2024 to October 2024) until turbine construction was completed in October 2024. Following this the commencement of RPWF Year 1 operational period began (November 2024 to October 2025).

Legend

- Turbines
- BBUS Location
- ▲ Bat Survey Location
- Road
- Bird Transect
- Superb Parrot Control Transects
- Superb Parrot Impact Transects
- ▭ Development Corridor



Kilometres

Scale 1:105,000 at A4
GDA 1994 MGA Zone 55

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2.5 Bat Utilisation

During the Year 1 monitoring of RPWF since June 2024, Umwelt completed bat utilisation surveys in accordance with Section 5.3 of the BBAMP at the locations and in the months presented below in **Table 2.4**.

Six bat detection devices (recording echolocations) were installed at the A04, D06 and G03 turbines with two per turbine. One was installed at the back of the turbine hub, approximately 120 meters above ground and the other nearby on a tree, approximately two meters off the ground.

The bat detection devices were routinely visited to replace batteries and swap SD cards to continue recording over the peak season of bat activity. The bat detection devices were active for a total of 507 nights. The data was provided to a bat call expert for analysis and results provided in **Section 3.4**.

Table 2.4 RPWF BBAMP Year 1 Survey - Bat Utilisation Survey Summary

Survey timing	A04 (Ground, 2 m)	A04 (Hub, 120 m)	D06 (Ground, 2 m)	D06 (Hub, 120 m)	G03 (Ground, 2 m)	G03 (Hub, 120 m)	Total survey nights
November 2024	25 nights	16 nights	25 nights	26 nights	22 nights	32 nights	146 nights
January 2025	11 nights	11 nights	8 nights	8 nights	11 nights	11 nights	60 nights
February 2025	20 nights	19 nights	18 nights	18 nights	27 nights	27 nights	129 nights
March 2025	24 nights	8 nights	20 nights	11 nights	12 nights	18 nights	93 nights
April 2025	14 nights	11 nights	14 nights	12 nights	14 nights	14 nights	79 nights
Total	94 nights	65 nights	85 nights	75 nights	86 nights	102 nights	507 nights

No species survey observations were completed between June and October 2024 as this was not required until commencement of Year 1. This period marked the continued expansion phase (June 2024 to October 2024) until turbine construction was completed in October 2024. Following this the commencement of RPWF Year 1 operational period began (November 2024 to October 2025).

2.6 Carcass Searches

Umwelt completed the Year 1 carcass search program at 33 turbines at the locations and in the months presented below in **Table 2.5**, as per the requirements of Section 5.4 of the BBAMP. Searches were completed by King & Co Detection with the use of conservation detection dogs for all surveys.

Table 2.5 RPWF BBAMP Year 1 Survey – Carcass Search Survey (Conservation Dog) Summary

Turbine	Jun 2024	Jul 2024	Aug 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
A02	7th	19th	16th	13th	15th	9th	10th	22nd	18th	14 th	19th	15th	3rd	7th	5th	9th
A04	11th	28th	23rd	13th	15th	9th	10th	22nd	18th	14 th	19th	17th	14th	12th	5th	9th
A06	8th	24th	16th	25th	20th	19th	10th	22nd	21st	11 th	16th	15th	3rd	13th	13th	3rd
A10	8th	24th	16th	25th	20th	19th	10th	22nd	21st	14 th	16th	15th	9th	13th	13th	3rd
A12	8th	24th	16th	25th	20th	19th	10th	22nd	21st	11 th	16th	15th	3rd	13th	13th	3rd
B01	16th	28th	11th	13th	15th	9th	10th	20th	18th	14 th	19th	17th	14th	12th	13th	7th
B07	16th	19th	11th	25th	15th	19th	9th	20th	18th	14 th	19th	17th	9th	7th	5th	7th
B08	16th	19th	11th	25th	15th	19th	9th	20th	18th	14 th	19th	17th	9th	7th	5th	7th
B09	11th	19th	23rd	13th	15th	19th	9th	22nd	18th	14 th	19th	8th	9th	7th	13th	7th
B13	7th	28th	23rd	25th	15th	9th	9th	20th	18th	11th	19th	15th	14th	12th	13th	9th
B15	7th	28th	23rd	25th	15th	9th	9th	20th	18th	11th	19th	15th	14th	12th	13th	9th
C04	19th	25th	10th	18th	14th	20th	11th	15th	19th	10th	17th	10th	6th	15th	12th	4th
C05	19th	25th	10th	18th	14th	20th	11th	15th	19th	10th	17th	10th	6th	15th	12th	4th
C06	12th	29th	14th	24th	14th	20th	11th	15th	19th	10th	17th	13th	10th	3rd	14th	5th
C09	12th	29th	14th	24th	14th	20th	11th	15th	19th	10th	17th	7th	10th	3rd	12th	5th
D02	20th	29th	21st	18th	14th	20th	18th	21st	19th	10th	17th	13th	10th	3rd	14th	4th
D05	19th	25th	10th	20th	19th	10th	18th	21st	19th	10th	17th	10th	6th	15th	14th	4th
D06	12th	23rd	22nd	24th	14th	10th	18th	21st	19th	10th	17th	13th	11th	9th	14th	4th
D07	15th	23rd	21st	24th	19th	20th	18th	21st	21st	11th	16th	13th	4th	4th	14th	8th
D09	20th	23rd	17th	20th	19th	10th	11th	21st	21st	11th	16th	13th	4th	4th	14th	8th
E01	15th	18th	21st	24th	14th	20th	11th	15th	19th	10th	17th	13th	11th	9th	14th	5th
E03	15th	18th	21st	24th	14th	20th	11th	15th	19th	10th	17th	13th	11th	9th	12th	5th
E06	20th	18th	14th	20th	19th	10th	11th	21st	22nd	11th	16th	6th	4th	4th	12th	8th
F01	18th	17th	22nd	19th	16th	24th	9th	24th	17th	13th	15th	14th	7th	16th	14th	12th
F02	18th	30th	12th	12th	16th	24th	9th	24th	17th	13th	15th	14th	7th	16th	4th	12th
F03	9th	30th	12th	12th	16th	24th	9th	24th	17th	13th	15th	14th	7th	16th	4th	12th
F04	9th	21st	12th	19th	28th	21st	20th	16th	22nd	13th	20th	11th	13th	5th	4th	14th
F05	9th	21st	12th	19th	28th	21st	20th	16th	22nd	13th	20th	11th	13th	5th	7th	14th
G01	14th	17th	22nd	19th	27th	17th	19th	17th	22nd	15th	20th	11th	13th	5th	7th	13th

Turbine	Jun 2024	Jul 2024	Aug 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025
G02	18th	17th	18th	23rd	31st	17th	19th	17th	22nd	15th	15th	14th	2nd	8th	7th	14th
G03	14th	21st	18th	12th	28th	21st	20th	17th	22nd	13th	20th	14th	7th	16th	4th	13th
G04	14th	30th	22nd	23 Sep & 24 Sep *	27th	17th	19th	16th	21st	15th	15th	14th	2nd	8th	8th	13th
G05	9th	21st	18th	24th	31st	17th	19th	17th	17th	13th	15th	14th	2nd	8th	8th	13th

*Surveys completed over 2 separate days.

Note: Due to unforeseen site safety issues, the October 2025 carcass searches were not completed. This was communicated to CPHR at that time and due to the inclusion of the earlier June 2024 to October 2024 months of survey the absence of the October 2025 carcass search results is unlikely to affect statistical analysis. Incidental carcass detections during this period were documented and have been incorporated into the annual dataset. These records have also been included in the Symbolix analytical reports to ensure comprehensive representation of observed mortality events.

2.7 Carrion Removal Program

Tilt Renewables have completed a carrion removal program at RPWF, as required by Section 7.0 of the BBAMP. The summary below has been provided by Tilt and details carrion removal efforts undertaken during the Year 1 monitoring period.

Summary

Monthly carrion searches have been conducted at RPWF from the commencement of operations. Initially, the search program was conducted between site representatives from Vestas, the Tilt asset manager for RPWF, and Tilt environmental representatives. As part of Tilt's proactive approach to reducing the impact of RPWF on wedge-tailed eagle, Tilt took full control of the carrion removal program in July 2025.

During search programs, up to three Tilt environmental representatives have searched the hardstand area and to 200 m from the base of each WTG every month. Certain turbines are unable to be fully searched due to safety issues arising from the steep topography of RPWF, in these cases, the hardstand area is searched, as well as a viewing of the areas surrounding the hardstand for accessible areas for larger carrion. If any carcasses are detected within the 200 m radius, they are removed either directly by the environmental representative to a distance of at least 500 m from the nearest WTG, or the relevant landowner is contacted to undertake the carcass removal.

Methodology

The methodology of the searches is as follows:

- The hardstand area is searched from inside the vehicle; this is considered sufficient as there is no vegetation present on the hardstand areas.
- In the case of one environmental representative, the full 200 m radius area is searched solo. In the case of two or three representatives, the area of the search circle is divided evenly between the searchers.
- If any carrion is detected, photos are taken, and GPS coordinates are recorded.
- If carcass removal is possible, the representative undertakes removal of the carcass by dragging it to an approximate distance of 500 m. If it is unsafe to move the carcass to over 500 m, the carcass will be moved as far as safely possible or the landowner contacted to remove the carcass.
- If multiple carcasses are detected near one another, Tilt may contact the landowner to undertake carrion removal.

Tilt records conditions relating to the vegetation, grazing usage of each area, any carrion found, as well as any WTE observed in the vicinity of the WTGs. Tilt intends to use this additional data for insight into any links between land usage and WTE strikes. Findings may be used to inform additional management actions undertaken at RPWF.

3.0 Year 1 Implementation of the BBAMP – Results

The bird and bat surveys conducted per season are to monitor the activity in the region for species of concern as per Appendix B of the BBAMP.

All incidental observations and carcass findings have been recorded and incorporated into the overall totals in the following results. These incidental finds are treated with the same level of reporting as the systematic monitoring results. During the Year 1 monitoring incidental carcass findings have been reported by Tilt Renewables, Vestas site personnel and landholders.

3.1 Vantage Point Surveys

The Year 1 Vantage Point Surveys have identified five species of concern (being those species assessed as having High risk ratings), being:

- wedge-tailed eagle (35 records)
- dusky woodswallow (seven records)
- scarlet robin (three records)
- superb parrot (one record)
- and white-fronted chat (six records).

The wedge-tailed eagle was recorded at four BBUS locations, dusky woodswallows at two BBUS locations and the scarlet robin, white-fronted chat and superb parrot at one BBUS location each. These are presented below in **Table 3.1**.

Table 3.1 RPWF BBAMP Year 1 Survey – Vantage Point Surveys – Key Species

Survey timing	Location	Species of concern observed during survey	Count of Species
November 2024 (Spring)	VPI01	Wedge-tailed eagle and superb parrot	4, 1
	VP104	White-fronted chat	6
	VPC03	Wedge-tailed eagle	5
	VPC04	Wedge-tailed eagle	2
February 2025 (Summer)	VPC03	Wedge-tailed eagle	1
	VPC04	Wedge-tailed eagle	2
	VPI03	Wedge-tailed eagle	2
April 2025 (Autumn)	VPI01	Wedge-tailed eagle and dusky woodswallow	7, 2
	VP104	Wedge-tailed eagle and dusky woodswallow	2, 5
July 2025 (Winter)	VPC03	Wedge-tailed eagle and scarlet robin	2, 1
	VPC04	Wedge-tailed eagle	2
	VPI03	Scarlet robin	2
	VPI04	Wedge-tailed eagle	6

Year 1 incidental observations included the observation of at-risk species while not undertaking a specific Vantage Point Survey.

- wedge-tailed eagle (18 records)
- dusky woodswallow (23 records)
- scarlet robin (5 records)
- southern whiteface (9 records)
- varied sittella (8 records)
- and white-fronted chat (9 records).

Table 3.2 RPWF Year 1 Survey – Incidental Observations of At-Risk Species

Survey Month	Species of concern	Count of Species
November 2024 (Spring)	Wedge-tailed eagle	3
February 2025 (Summer)	Dusky woodswallow	5
	Southern whiteface	2
	Wedge-tailed eagle	6
April 2025 (Autumn)	Dusky woodswallow	18
	Scarlet robin	3
	Southern whiteface	7
	Wedge-tailed eagle	4
July 2025 (Winter)	Scarlet robin	2
	Wedge-tailed eagle	5
	White-fronted chat	9
	Varied sitella	8

3.1.1 Flight data

The flight data collected across the Vantage Point Surveys and targeted transects surveys show that three species (wedge-tailed eagle, straw-necked ibis and whistling kite) fly within the rotor swept area (RSA). The RSA has a maximum tip height of 200 m, with the blades being 81 m long with a rotor diameter of 162 m, and a hub height of 119 m. A further eight species were found to fly within the RSA when recorded at maximum height being:

- dusky woodswallow
- sulphur crested cockatoo
- little corella
- galah
- brown falcon
- nankeen kestrel
- peregrine falcon
- little pied cormorant.

Of these, the dusky woodswallow is listed as Vulnerable under the BC Act. The full extent of the flight data can be found in **Appendix A**.

3.2 Transect Surveys

During the Year 1 general transect surveys, a total of 82 bird species were identified and **Table 3.3** provides a count of species per survey event and of those which are listed as species of concern.

During these surveys, seven species that are listed as vulnerable under the BC Act were recorded:

- southern whiteface (two records)
- dusky woodswallow (11 records)
- white-fronted chat (five records, with four occurring during superb parrot transects)
- varied sittella (two records)
- superb parrot (11 records)
- scarlet robin (five records, with two occurring during superb parrot transects)
- and speckled warbler (one record during superb parrot transects).

Two species of these (southern whiteface and superb parrot) are also listed as Vulnerable under Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Table 3.3 RPWF BBAMP Year 1 Survey – General Bird Targeted Transect Count

Transect type	Transect	Time of day	November 2024		February 2025		April 2025		July 2025	
			Total count	Species of concern count	Total count	Species of concern count	Total count	Species of concern count	Total count	Species of concern count
Control transects	TS_C01	AM	35	3	13	1	12	0	28	0
		PM	39	12	10	0	5	0	12	0
	TS_C02	AM	31	0	12	0	13	0	53	0
		PM	15	0	5	0	39	0	41	0
	TS_C03	AM	41	0	25	0	23	0	13	1
		PM	20	0	24	1	20	0	16	0
	TS_C04	AM	24	0	14	0	17	0	16	0
		PM	27	0	11	0	14	0	12	0
	TS_C05	AM	7	0	5	0	12	0	6	0
		PM	9	0	7	0	6	0	6	1
	TS_C06	AM	8	0	12	0	27	0	8	0
		PM	11	0	7	0	16	0	18	0
	TS_C07	AM	9	0	7	0	14	0	4	0
		PM	11	0	4	0	4	0	3	0
	TS_C08	AM	10	0	16	0	9	0	12	0
		PM	15	0	6	0	7	0	6	0
Impact transects	TS_I02	AM	29	2	13	1	11	0	7	0
		PM	12	0	6	0	6	1	3	0
	TS_I03	AM	30	0	11	0	22	0	5	0
		PM	22	0	5	0	5	0	4	0
	TS_I04	AM	23	0	16	0	19	0	18	0
		PM	24	0	11	0	9	0	11	0
	TS_I05	AM	13	0	11	0	25	0	4	0
		PM	7	0	16	0	13	0	9	0
	TS_I06	AM	18	0	29	0	19	0	12	0
		PM	12	0	22	0	13	0	11	1

Transect type	Transect	Time of day	November 2024		February 2025		April 2025		July 2025	
			Total count	Species of concern count	Total count	Species of concern count	Total count	Species of concern count	Total count	Species of concern count
	TS_I07	AM	13	2	13	0	19	0	8	0
		PM	13	2	47	0	34	0	23	0
	TS_I08	AM	6	0	5	0	14	0	6	0
		PM	5	0	1	0	1	0	5	0
	TS_I09	AM	28	0	16	0	13	1	11	0
		PM	17	0	10	0	6	0	14	0

3.3 Superb Parrot Targeted Transects

The Year 1 superb parrot targeted transect surveys resulted in 11 superb parrot records across three transects in November 2024. These are summarised below in **Table 3.4**. The data suggest that superb parrots remain highly active across RPWF, an indication of their continued site utilisation. Importantly, despite this level of activity across the site there have been no detections of turbine strike incidents involving this species.

Table 3.4 RPWF BBAMP Year 1 Survey – Superb Parrot Targeted Transect Results

Transect	Date	No. of Records	Flight height maximum per sighting (m)
TS_C01	11/11/2024	8	20
TS_C01	11/11/2024	1	25
TS_I01	11/11/2024	2	20

3.4 Bat Utilisation

The Year 1 bat utilisation surveys recorded 304,050 files across the six devices and of that, 9,246 sequences were able to be analysed. This suggests a high level of noise files recorded across all devices and this is likely a result of wind at hub height. Using those files, 84% were able to be confidently identified to species level (Definite identification) and the remaining 16% were able to be identified to a Probable Genus or Species Group.

The summary of number of species recorded at each location is outlined below in **Table 3.5**. Across RPWF there were thirteen species recorded as positively identified calls. There were an additional seven species recorded as unresolved species complexes across the devices. The species groups are difficult to differentiate due to the quality of the calls from noise, or the distance or direction the bat called to the device. They also represent species groups with very similar call patterns. These species groups allow for a conservative approach to the species lists identified at the location.

Table 3.5 RPWF BBAMP Year 1 Survey – Bat Utilisation Summary Results

Turbine location	Device height	Total number of species (including species identified in species groups)	Threatened species
A04	Ground (2 m)	19	Two definite <i>Falsistrellus tasmaniensis</i> and 39 definite <i>Miniopterus orianae oceanensis</i> , with both these species occurring in possible species groups.
	Hub (120 m)	9	No threatened species were positively identified at Hub height. <i>Miniopterus orianae oceanensis</i> was identified as possibly occurring in a species group in three calls.
D06	Ground (2 m)	20	Two definite <i>Falsistrellus tasmaniensis</i> , seven definite <i>Saccolaimus flaviventris</i> , 13 definite <i>Miniopterus orianae oceanensis</i> .
	Hub (120 m)	11	No threatened species were positively identified at Hub height. <i>Falsistrellus tasmaniensis</i> and <i>Miniopterus orianae oceanensis</i> were both identified as possibly occurring in species groups.
G03	Ground (2 m)	19	Four definite <i>Falsistrellus tasmaniensis</i> and 19 definite <i>Miniopterus orianae oceanensis</i> .
	Hub (120 m)	9	No threatened species were positively identified at Hub height. <i>Miniopterus orianae oceanensis</i> was identified as possibly occurring in a species group in three calls.

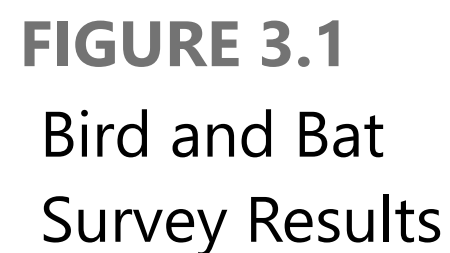
Three threatened micro-bat species have been recorded at RPWF in the Year 1 survey – with all being recorded as positively identified calls. All three are listed as Vulnerable under the BC Act and none being listed under the EPBC Act being the large bent-winged bat (*Miniopterus orianae oceanensis*), eastern false pipistrelle (*Falsistrellus tasmaniensis*) and yellow-bellied sheath-tail bat (*Saccolaimus flaviventris*). A summary of the number of nights these species were recorded across the survey period and submitted for analysis is included in **Table 3.6**.

Table 3.6 RPWF BBAMP Year 1 Survey – Threatened Bat Species Results

Threatened Species Name	Turbine location	Device height	Number of definite and probable nights recorded, including in species groups (total of 294 nights of recording)					
			Total nights recorded	November 2024	January 2025	February 2025	March 2025	April 2025
eastern false pipistrelle (<i>Falsistrellus tasmaniensis</i>)	A04	Ground (2 m)	50	2/10	0/10	2/10	0/10	1/10
		Hub (120 m)	48	0/10	0/10	0/10	0/8	0/10
	D06	Ground (2 m)	48	1/10	3/8	1/10	0/10	2/10
		Hub (120 m)	48	1/10	0/8	0/10	0/10	0/10
	G03	Ground (2 m)	50	1/10	1/10	2/10	0/10	1/10
		Hub (120 m)	50	0/10	0/10	0/10	0/10	0/10
large bent-winged bat (<i>Miniopterus orianae oceanensis</i>)	A04	Ground (2 m)	50	5/10	6/10	8/10	4/10	6/10
		Hub (120 m)	48	0/10	0/10	0/10	0/8	2/10
	D06	Ground (2 m)	48	4/10	5/8	7/10	2/10	7/10
		Hub (120 m)	48	0/10	0/8	1/10	1/10	3/10
	G03	Ground (2 m)	50	5/10	4/10	7/10	3/10	8/10
		Hub (120 m)	50	0/10	0/10	0/10	0/10	1/10
yellow-bellied sheathtail bat (<i>Saccolaimus flaviventris</i>).	D06	Ground (2 m)	48	0/10	0/8	1/10	0/10	0/10
		Hub (120 m)	48	0/10	0/18	0/10	0/8	0/10

Additionally, it is noted that each device has a varying number of nights recorded in each month, this is represented as the number of nights of threatened species recorded and backslash (/) the number of nights of analysed data. These changes are due to the availability of nights with suitable data which can be affected by extreme weather. Overall Umwelt have aimed to be consistent in the analysis across each device.

For more detailed information, see the expert report in **Appendix B**.



Legend

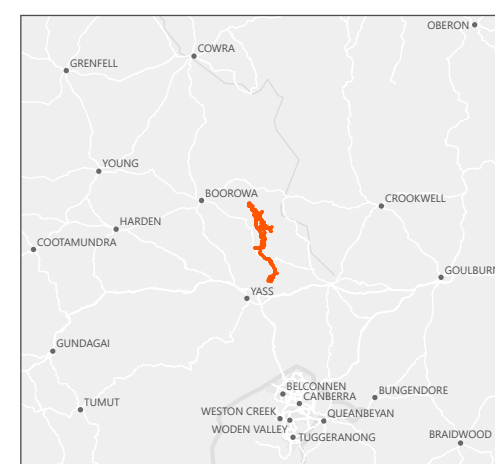
- Turbines
- BBUS Location
- Road
- Bird Transect
- Superb Parrot Control Transects
- Superb Parrot Impact Transects
- ▭ Development Corridor

Species at Risk

- ▲ Wedge-tailed Eagle (55)

Threatened Species Records

- Dusky Woodswallow (41)
- Scarlet Robin (13)
- Southern Whiteface (11)
- Speckled Warbler (1)
- Superb Parrot (12)
- Varied Sittella (10)
- White-fronted Chat (20)
- Eastern False Pipistrelle
- Large Bent-winged Bat
- Yellow-bellied Sheath-tail Bat



Kilometres

Scale 1:105,000 at A4
GDA 1994 MGA Zone 55

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3.5 Carcass Searches

King & Co Detection have found 157 carcasses (37 birds, 117 bats and three unknowns) throughout the Year 1 Carcass Search program.

There were fifteen (15) wedge-tailed eagle carcasses found as part of these surveys, plus one injured and taken into care of WIRES which resulted in a mortality. The timing of these includes:

- one each in June and July 2024
- two in August 2024
- one in September 2024
- two in October 2024
- one in November 2024
- one in February 2025
- one in May 2025
- one in July 2025
- three in August 2025 (including one injured resulting in mortality)
- one in September 2025 and
- one in October 2025.

Of these carcass finds, five were incidental finds and 11 were found during conservation dog surveys. October 2025 was not formally surveyed for carcasses due to safety concerns with the conservation dog survey team and this was reported to CPHR. Due to the inclusion of the earlier June 2024 to October 2024 months of survey the absence of the October 2025 carcass search results is unlikely to affect statistical analysis. These finds have not triggered the impact threshold for this species however all were reported to CPHR within 24 hours of identification of the carcasses/injured individuals.

Additionally, one threatened species carcass (being the white-throated needletail) was found in January 2025. This find was reported to the CPHR the next day after the find as required by the reporting requirements of the BBAMP.

Between June 2024 and September 2025 there were 65 little forest bat carcasses found during surveys. Between October 2024 and January 2025, 10 little forest bat carcasses were found within proximity to Turbine D07. Due to this, an Impact Trigger Report was issued to CPHR, following the required trigger pathway in accordance with the BBAMP.

The combination of these findings is presented below in **Table 3.7**. This table includes eight incidental finds reported to or by the RPWF Site Manager. The locations of these finds are represented in **Figure 3.2 to 3.17**.

Table 3.7 RPWF BBAMP Year 1 Survey – Total Carcass Finds per Month

Month	Species Name	Common Name	Count of Species	Turbine (count of individuals at each turbine)	Threatened species/key species
June 2024	<i>Aquila audax</i>	wedge-tailed eagle	1	G05 (1)	Yes – reported to CPHR
July 2024	<i>Anthochaera carunculata</i>	red wattlebird	1	F02(1)	No
	<i>Aquila audax</i>	wedge-tailed eagle	1	F07(1) Incidental find	Yes – reported to CPHR
	<i>Cacomantis flabelliformis</i>	fan-tailed cuckoo	1	A08(1) Incidental find	No
	<i>Platycercus elegans</i>	crimson rosella	1	E03(1)	No
August 2024	<i>Accipiter fasciatus</i>	brown goshawk	1	B01(1)	No
	<i>Aquila audax</i>	wedge-tailed eagle	2	D02(1), G01(1)	Yes – reported to CPHR
	<i>Chalinolobus gouldii</i>	Gould's wattled bat	1	E06(1)	No
	<i>Elanus axillaris</i>	black shouldered kite (featherspot)	1	B15(1)	No
September 2024	<i>Aquila audax</i>	wedge-tailed eagle	1	A07 (1)	Yes – reported to CPHR
	<i>Coturnix pectoralis</i>	stubble quail	1	A02 (1)	No
	Unknown	unknown bat - patch of fur remaining	1	D02 (1)	No
	<i>Vespadelus vulturnus</i>	little forest bat	3	A12 (1), D06 (1), G05 (1)	No
	<i>Zosterops lateralis</i>	silvereye	1	D06 (1)	No
	<i>Austronomus australis</i>	white striped freetail bat	1	A12 (1)	No
	<i>Chalinolobus gouldii</i>	Gould's wattled bat	1	A12 (1)	No
	<i>Ozimops sp.</i>	ozimops sp.	1	A10 (1)	No
	Unknown	Unknown bird	1	A06 (1)	No
	<i>Aquila audax</i>	wedge-tailed eagle	2	F03 (1), D07 (1)	Yes – reported to CPHR
October 2024	<i>Austronomus australis</i>	white striped freetail bat	2	A02 (1), A12 (1)	No
	<i>Chalinolobus gouldii</i>	Gould's wattled bat	1	E01 (1)	No
	<i>Falco berigora</i>	brown falcon	1	A12 (1)	No
	<i>Falco cenchroides</i>	Nankeen kestrel	1	G04 (1)	No
	<i>Ozimops ridei</i>	Eastern free-tail bat	1	B08 (1)	No
	<i>Ozimops sp.</i>	ozimops sp.	1	F04 (1)	No
	<i>Pardalotus punctatus</i>	spotted pardalote	1	B09 (1)	No
	<i>Rhipidura albiscapa</i>	grey fantail	1	C09 (1)	No

Month	Species Name	Common Name	Count of Species	Turbine (count of individuals at each turbine)	Threatened species/key species
	Unable to be identified	unable to be identified	2	B07 (1), B15 (1)	No
	<i>Vespadelus vulturnus</i>	little forest bat	16	A06 (1), B01 (1), C06 (1), D06 (1), D07 (1) , D09 (1), E01 (1), E03 (1) , E05 (3), E06 (1), F01 (1), F02 (1), F03 (2)	No
	<i>Zosterops lateralis</i>	silvereye	1	C09 (1)	No
November 2024	<i>Aquila audax</i>	wedge-tailed eagle	1	F02 (1)	Yes – reported to CPHR
	<i>Austronomus australis</i>	white striped freetail bat	3	A02 (1), A04 (1), E01 (1)	No
	<i>Platycercus elegans</i>	crimson rosella	2	B01 (1), D07 (1)	No
	<i>Vespadelus vulturnus</i>	little forest bat	13	A04 (2) , B07 (1), B15 (1), C05 (1), C09 (1), D06 (2), D07 (4) , F05 (1)	Yes – Reported to CPHR as Impact Trigger Reported.
December 2024	<i>Austronomus australis</i>	white striped freetail bat	4	A12 (1), C04 (1), D05 (1), D09 (1)	No
	<i>Chalinolobus gouldii</i>	Gould's wattled bat	1	G05 (1)	No
	<i>Haliastur sphenurus</i>	whistling kite	1	F04 (1)	No
	<i>Vespadelus darlingtoni</i>	large forest bat	5	C05 (1), C06 (4)	No
	<i>Vespadelus regulus</i>	southern forest bat	1	E06 (1)	No
	<i>Vespadelus vulturnus</i>	little forest bat	24	A04 (2) , A06 (1), A12 (1), B08 (3), B13 (2), C05 (1), D02 (3), D07 (3) , E03 (2) , E06 (1), F01 (1), F04 (1), G02 (2), G03 (1).	Yes – Reported to CPHR as Impact Trigger Reported.
January 2025	<i>Accipiter cirrocephala</i>	collared sparrowhawk	1	B08 (1)	No
	<i>Austronomus australis</i>	white striped freetail bat	3	D06 (2), G04 (1)	No
	<i>Chalinolobus gouldii</i>	Gould's wattled bat	2	G01 (1), F03 (1)	No
	<i>Hirundapus caudacutus</i>	white-throated needletail	1	F04 (1)	Yes – Reported to CPHR
	<i>Ozimops sp.</i>	ozimops sp.	1	D09 (1)	No
	<i>Strepera graculina</i>	pied currawong	1	F01 (1)	No
	<i>Vespadelus vulturnus</i>	little forest bat	7	A10 (2), C06 (1), D07 (2) , E01 (1), F05 (1)	No
February 2025	<i>Aquila audax</i>	wedge-tailed eagle	1	C04 (1)	Yes - reported to CPHR

Month	Species Name	Common Name	Count of Species	Turbine (count of individuals at each turbine)	Threatened species/key species
	<i>Austronomus australis</i>	white striped freetail bat	4	B08 (2), E01 (1), F05 (1)	No
	<i>Chalinolobus gouldii</i>	Gould's wattled bat	4	A06 (1), A12 (1), B08 (1), D02 (1)	No
	Unknown	unknown bat – damaged carcass	1	G01 (1)	No
	<i>Vespadelus vulturnus</i>	little forest bat	1	B08 (1)	No
March 2025	<i>Austronomus australis</i>	white striped freetail bat	3	B09 (1), G01 (1), G04 (1)	No
	<i>Chalinolobus gouldii</i>	Gould's wattled bat	1	G04 (1)	No
	<i>Falco cenchroides</i>	Nankeen kestrel	1	A07 (1) Incidental find	No
	<i>Ozimops planiceps</i>	southern freetail bat	1	F02 (1)	No
	Unknown	unknown bat – damaged carcass	1	D07 (1)	No
	Unknown	unknown bird – damaged carcass	1	A02 (1)	No
April 2025	<i>Austronomus australis</i>	white striped freetail bat	2	F02 (1), G01 (1)	No
	<i>Chalinolobus gouldii</i>	Gould's wattled bat	1	F05 (1)	No
	<i>Gymnorhina tibicen</i>	Australian magpie	1	G02 (1) Incidental find	No
	<i>Ozimops sp.</i>	ozimops sp.	1	A12 (1)	No
	Unknown	unknown bird – damaged carcass	1	C09 (1)	No
	<i>Vespadelus vulturnus</i>	little forest bat	1	F03 (1)	No
May 2025	<i>Aquila audax</i>	wedge-tailed eagle	1	C09 (1)	Yes - reported to CPHR
	<i>Chalinolobus gouldii</i>	Gould's wattled bat	1	E03 (1)	No
	<i>Gymnorhina tibicen</i>	Australian magpie	1	C05 (1)	No
	Unknown	unknown bat – damaged carcass	1	E06 (1)	No
June 2025	<i>Cracticus torquatus</i>	grey butcherbird	1	G04 (1)	No
July 2025	<i>Aquila audax</i>	wedge-tailed eagle	1	C09 (1)	Yes – reported to CPHR (featherspot)
	<i>Zosterops lateralis</i>	silveryeye	1	A06 (1)	No
August 2025	<i>Acanthiza nana</i>	yellow thornbill	1	G01 (1)	No
	<i>Aquila audax</i>	wedge-tailed eagle	3	B07 (1), B08 (2) One incident find at B08	Yes – reported to CPHR, 2 Carcass and 1 Injured individual taken to WIRES (resulted in mortality).
	<i>Falco cenchroides</i>	nankeen kestrel	1	F03 (1)	No

Month	Species Name	Common Name	Count of Species	Turbine (count of individuals at each turbine)	Threatened species/key species
September 2025	<i>Aquila audax</i>	wedge-tailed eagle	1	A04 (1) Incidental find	Yes – reported to CPHR
	<i>Chalinolobus gouldii</i>	Gould's wattled bat	1	B15 (1)	No
	<i>Platycercus elegans</i>	crimson rosella	1	C09 (1)	No
October 2025	<i>Aquila audax</i>	wedge-tailed eagle	1	A07 (1) Incidental find	Yes – reported to CPHR

FIGURE 3.2

Carcass Searches

Results

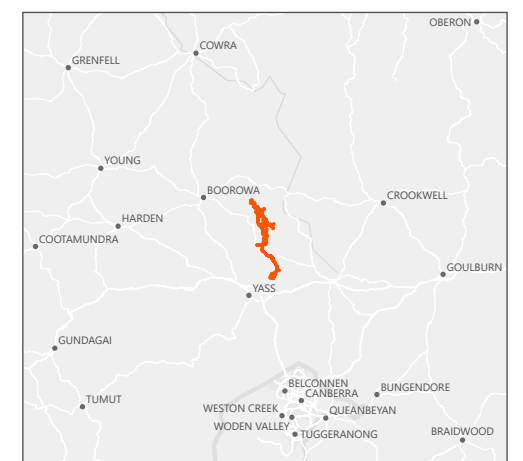
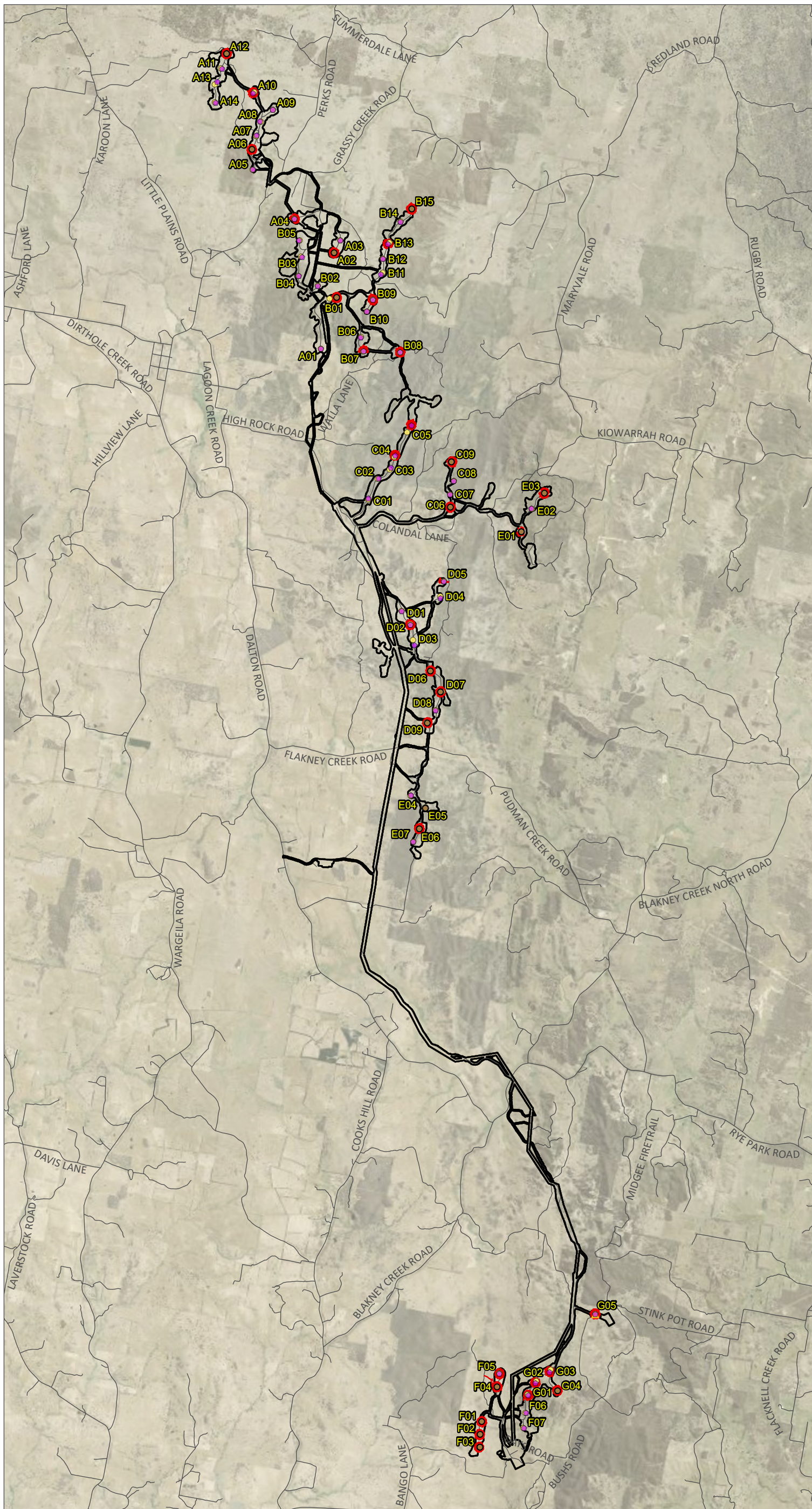
June 2024

Legend

- Turbines
- Carcass survey locations
- Road
- Carcass Transects - June 2024
- ▭ Development Corridor

Carcass Finds

- ▲ Wedge-tailed Eagle (1)



Kilometres

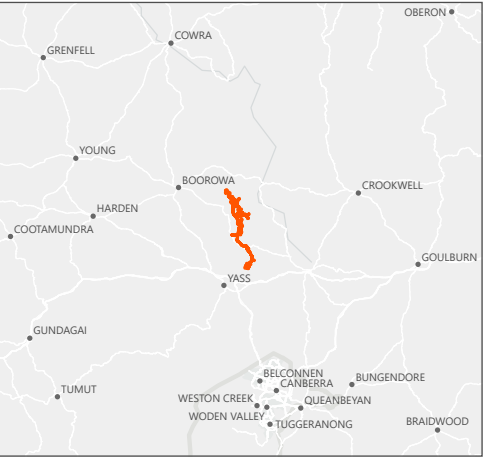
Scale 1:105,000 at A4
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FIGURE 3.3
Carcass Searches
Results
July 2024

- Legend**
- Turbines
 - Carcass survey locations
 - Road
 - Carcass Transects - July 2024
 - ▭ Development Corridor
- Carcass Finds**
- ▲ Crimson Rosella (1)
 - ▲ Fan-tailed Cuckoo (1)
 - ▲ Red Wattlebird (1)
 - ▲ Wedge-tailed eagle (1)



0 2.5 5
Kilometres

Scale 1:105,000 at A4
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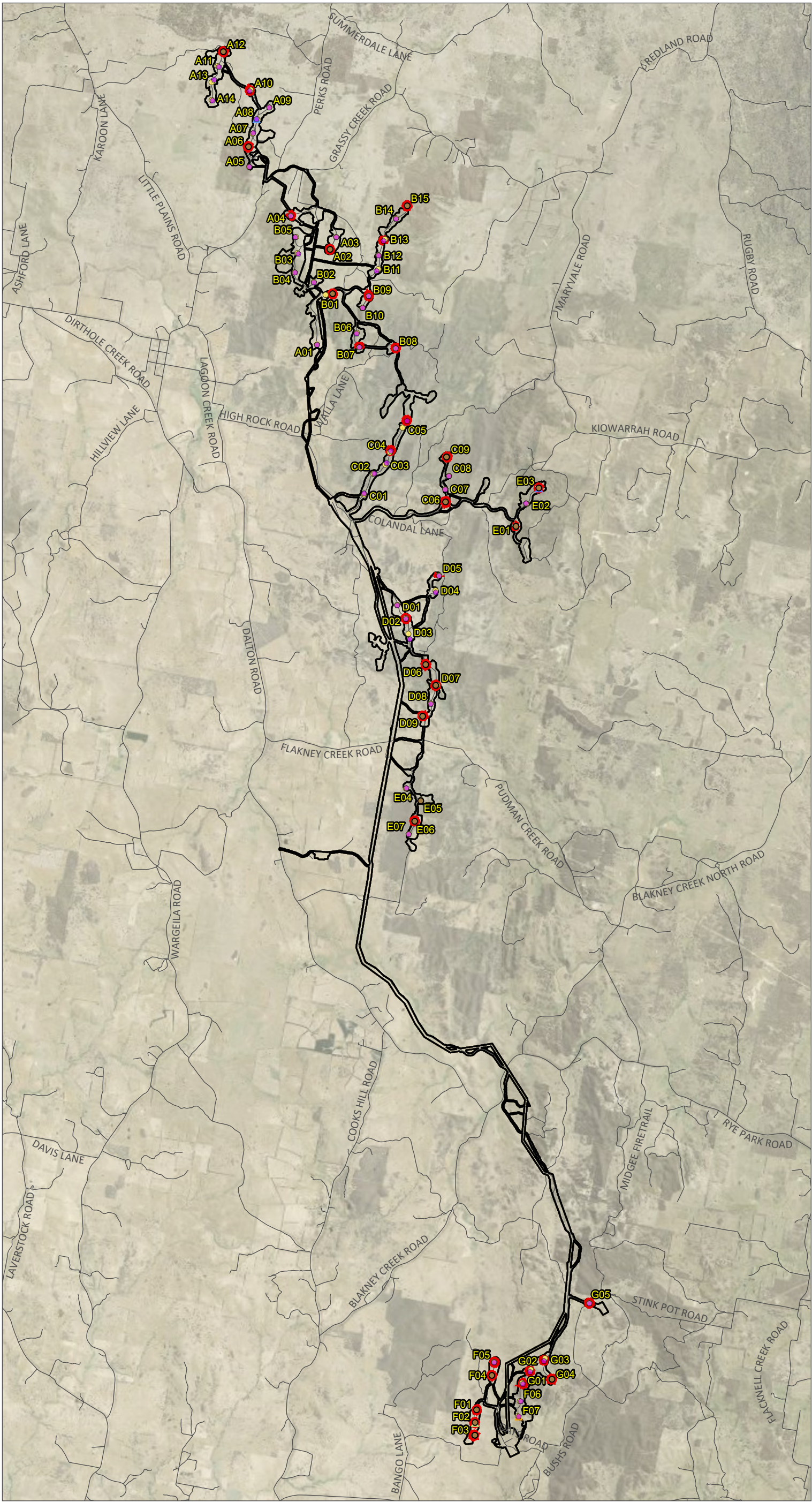


FIGURE 3.4

Carcass Searches Results

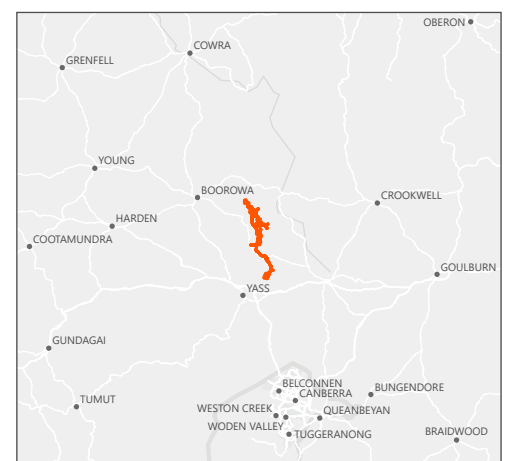
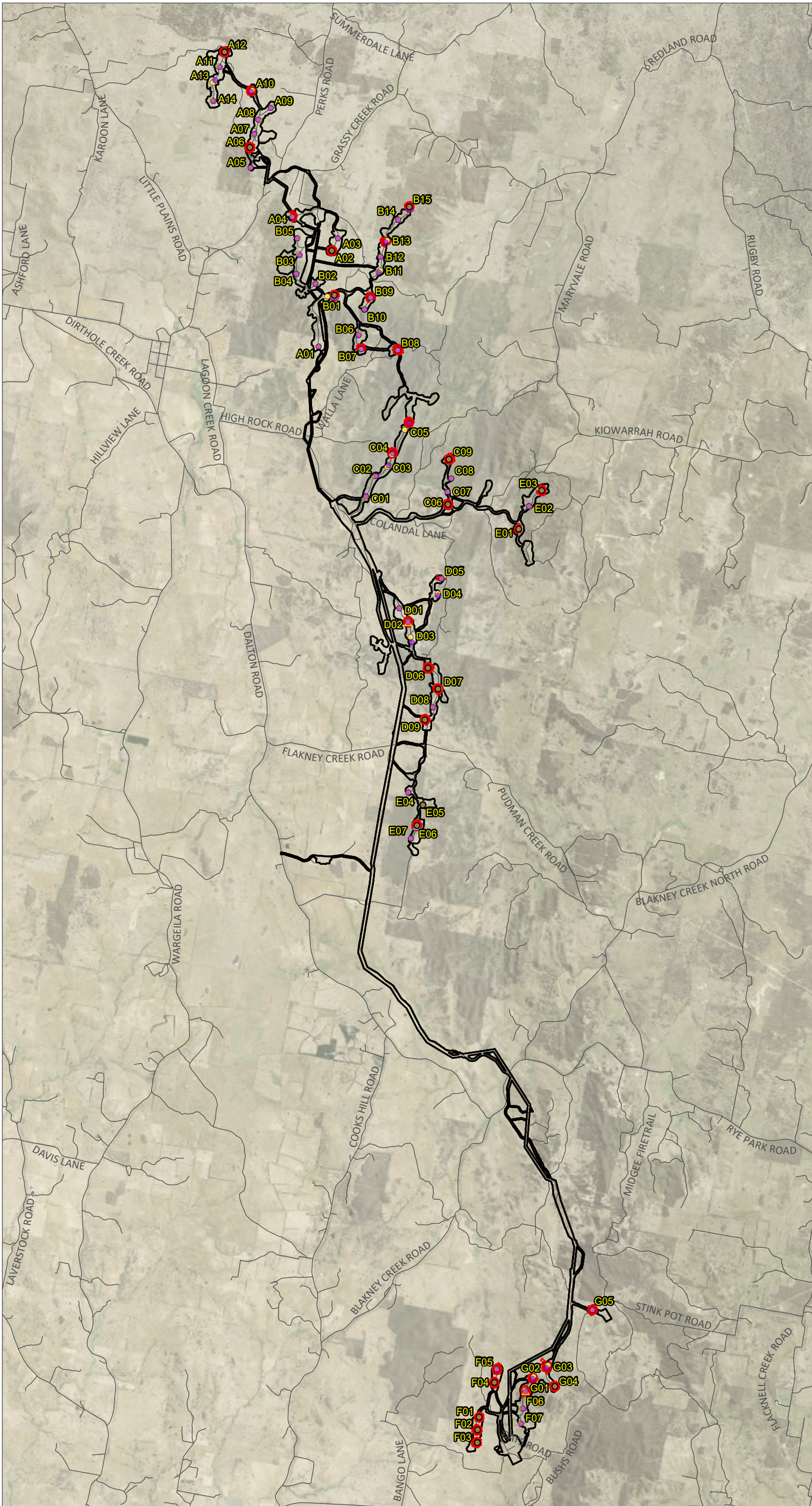
August 2024

Legend

- Turbines
- Carcass survey locations
- Road
- Carcass Transects - August 2024
- ▭ Development Corridor

Carcass Finds

- ▲ Black Shouldered Kite (1)
- ▲ Brown Goshawk (1)
- ▲ Gould's Wattled Bat (1)
- ▲ Wedge-tailed Eagle (2)



Kilometres

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FIGURE 3.5

Carcass Searches Results

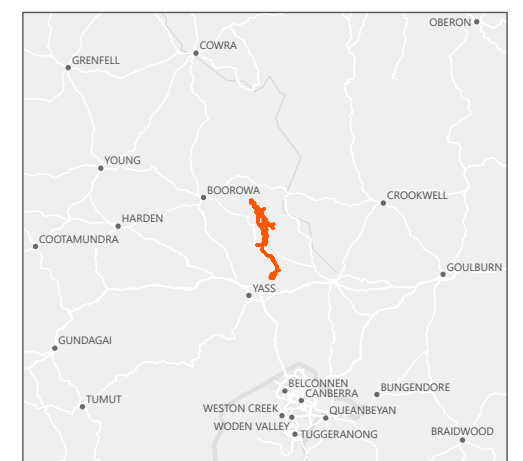
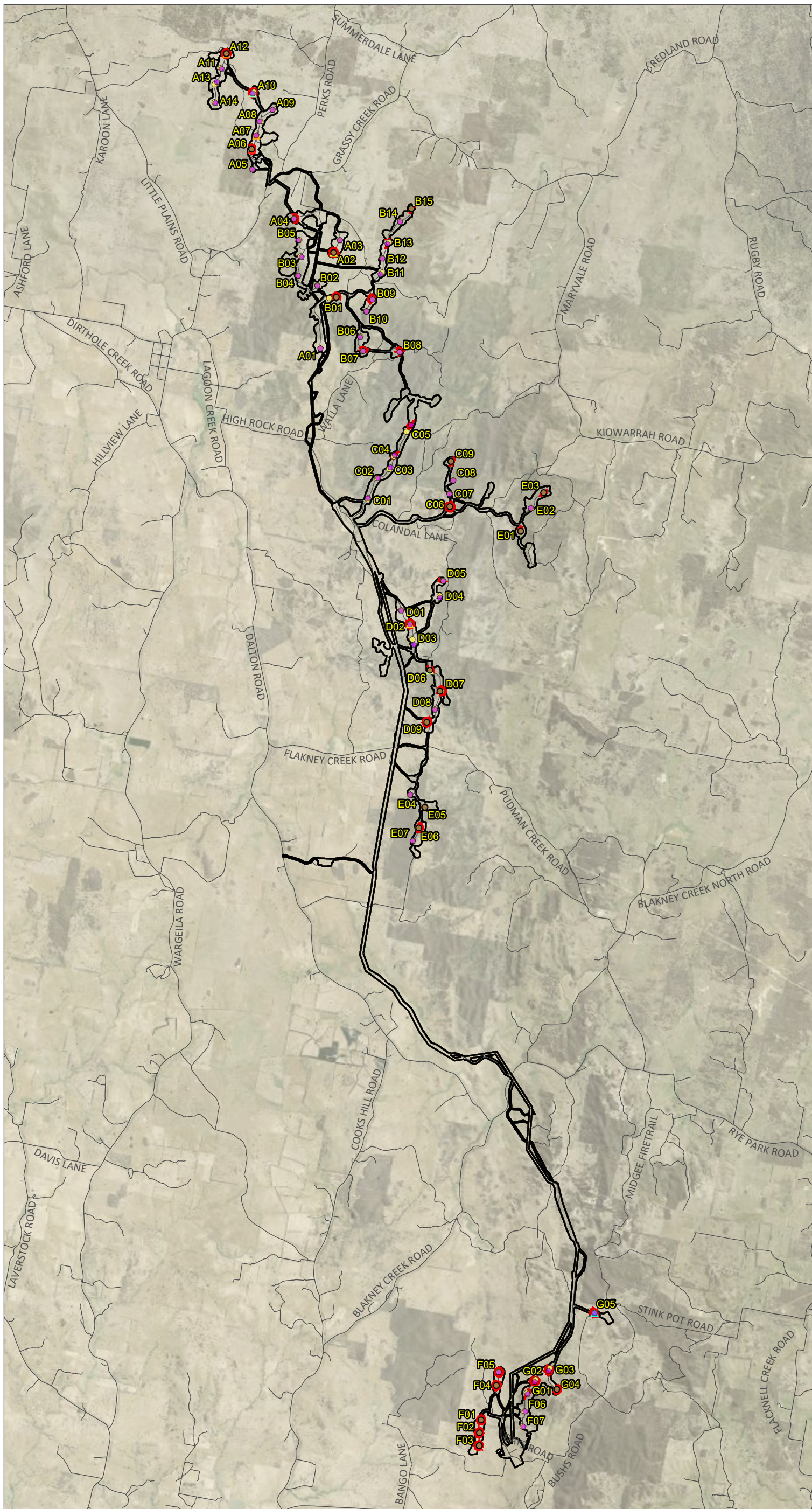
September 2024

Legend

- Turbines
- Carcass survey locations
- Road
- Carcass Transects - September 2024
- Development Corridor

Carcass Finds

- Gould's Wattled Bat (1)
- Little Forest Bat (3)
- Ozimops sp. (1)
- Silvereye (1)
- Stubble Quail (1)
- Unknown Bat (1)
- Wedge-tailed eagle (1)
- White Striped Freetail Bat (1)
- unknown bird (1)



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FIGURE 3.6

Carcass Searches Results

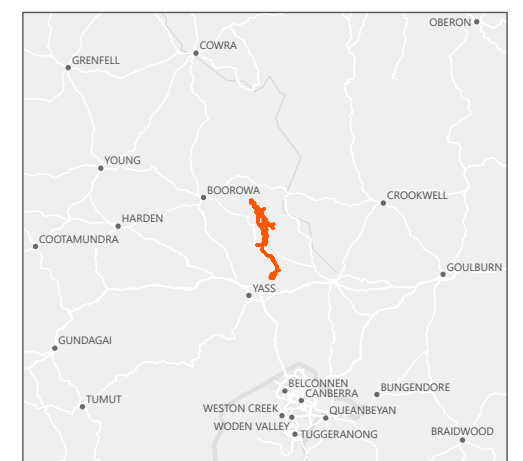
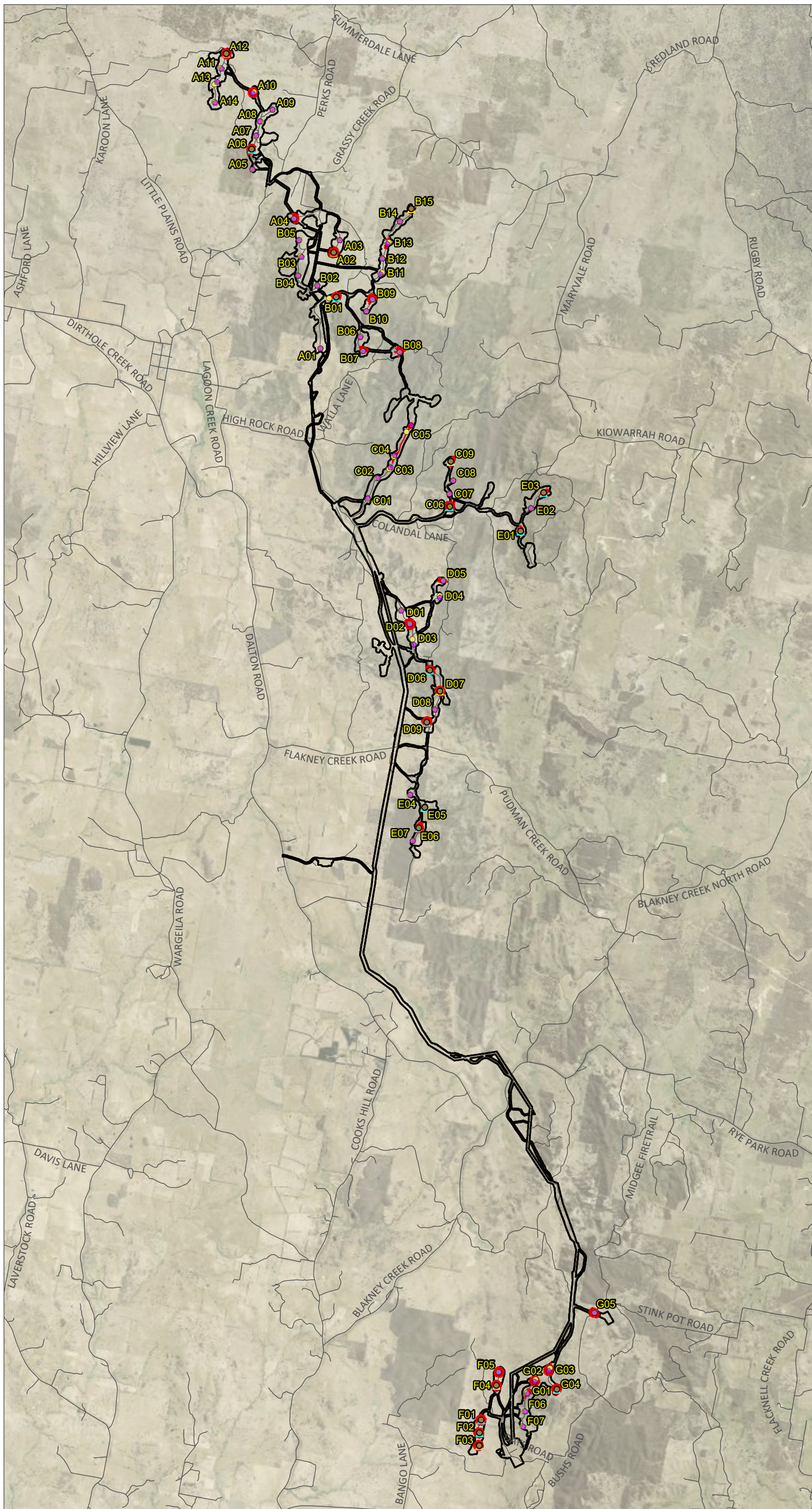
October 2024

Legend

- Turbines
- Carcass survey locations
- Road
- Carcass Transects - October 2024
- Development Corridor

Carcass Finds

- Brown Falcon (1)
- Gould's Wattled Bat (1)
- Grey Fantail (1)
- Little Forest Bat (16)
- Nankeen Kestrel (1)
- Ozimops sp. (1)
- Silvereye (1)
- Unknown (1)
- Wedge-tailed Eagle (2)
- White Striped Freetail Bat (2)



0 2.5 5

Kilometres

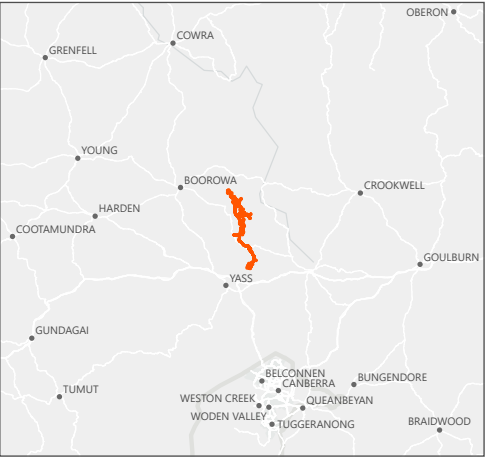
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FIGURE 3.7
Carcass Searches
Results
November 2024

- Legend**
- Turbines
 - Carcass survey locations
 - Road
 - Carcass Transects - November 2024
 - Development Corridor
- Carcass Finds**
- Crimson Rosella (2)
 - Little Forest Bat (13)
 - Wedge-tailed eagle (1)
 - White Striped Freetail Bat (3)



0 2.5 5
Kilometres

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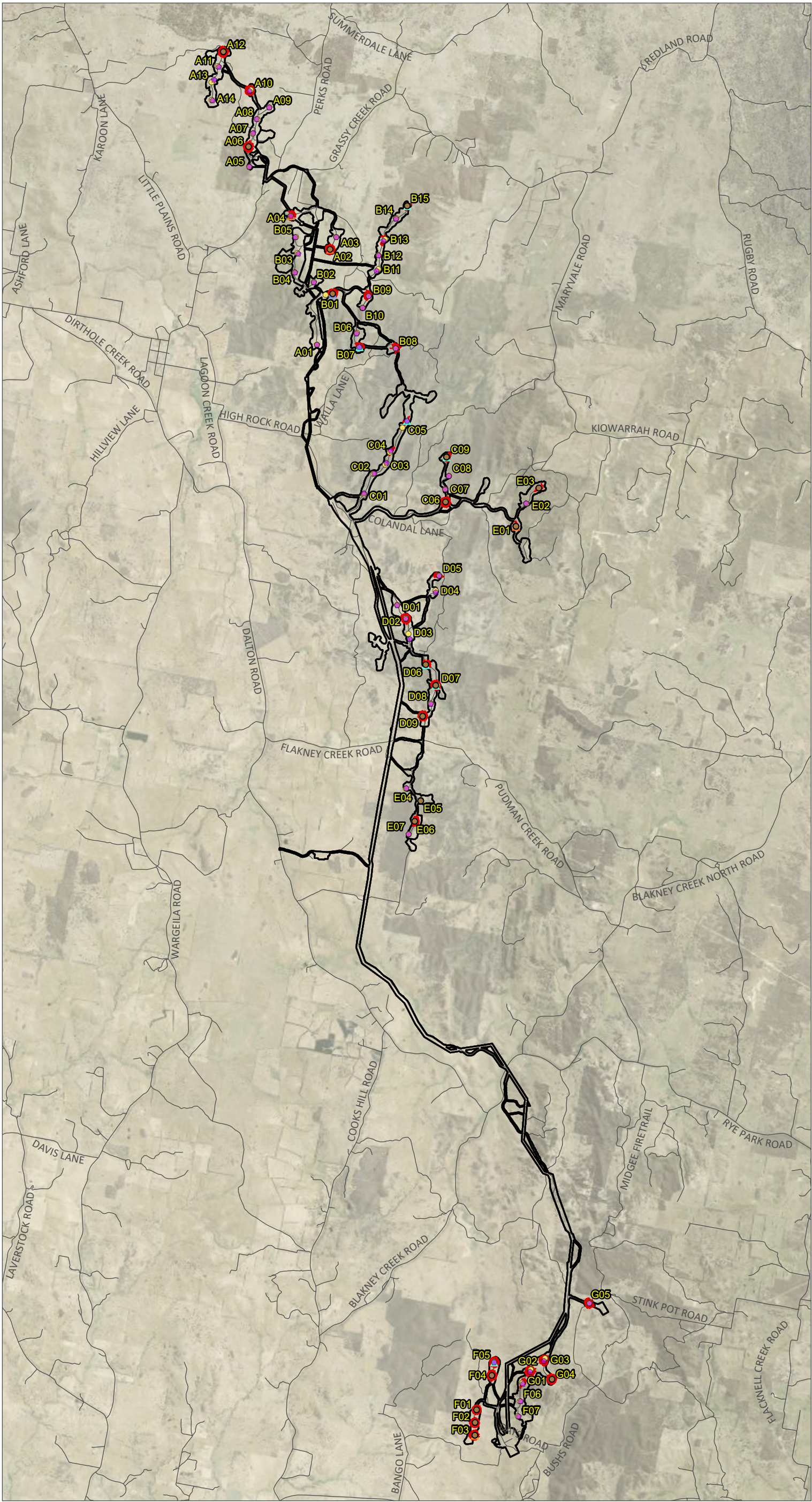


FIGURE 3.8

Carcass Searches Results

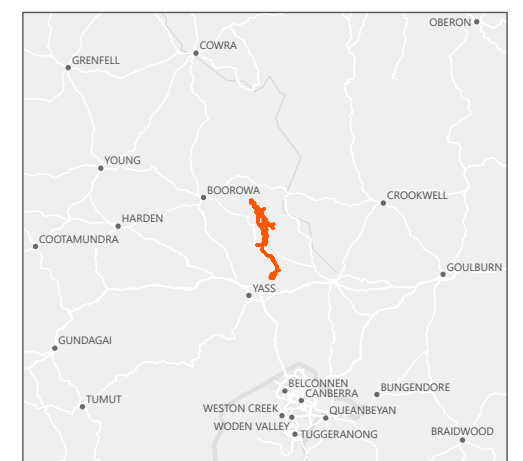
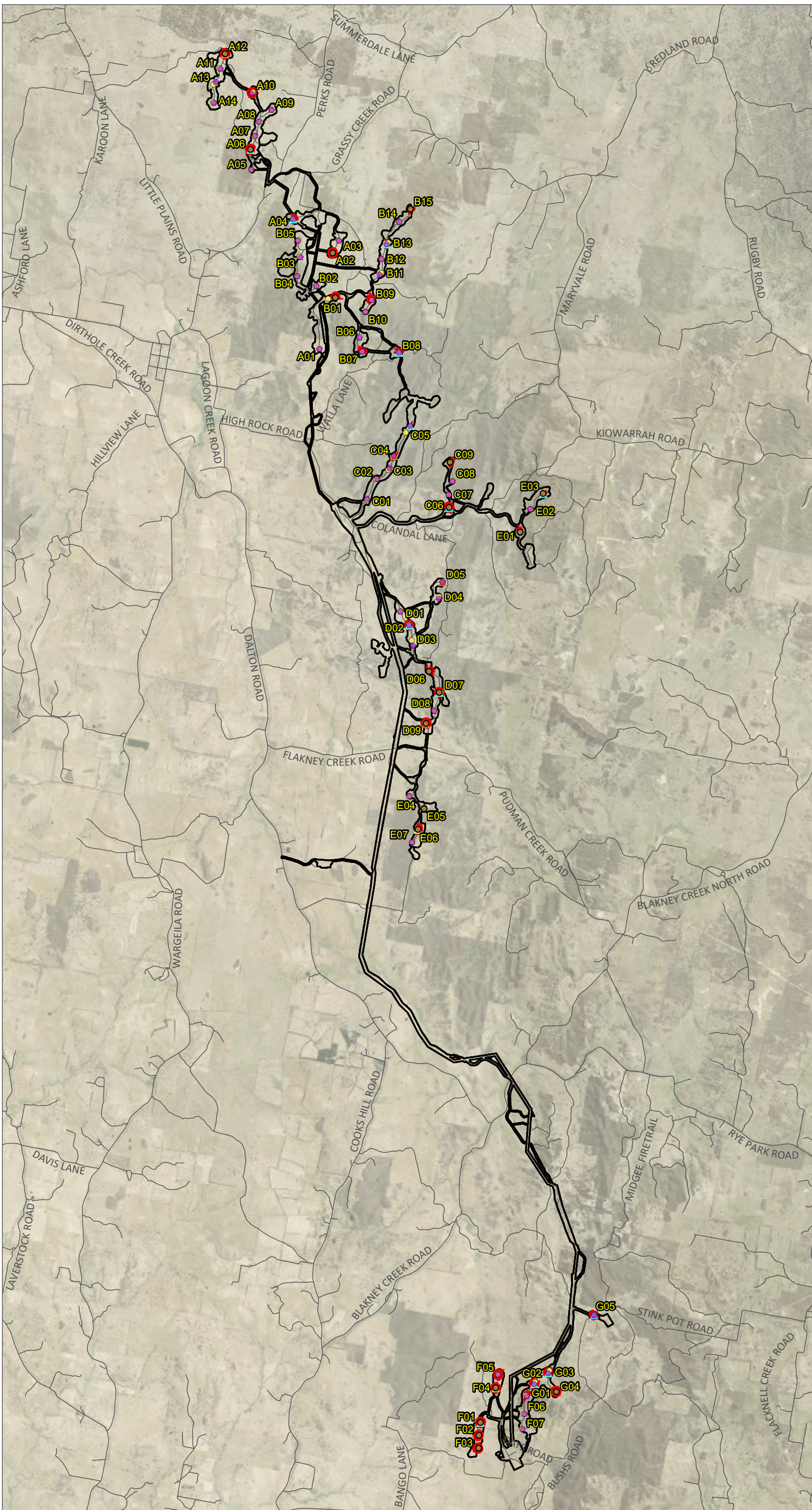
December 2024

Legend

- Turbines
- Carcass survey locations
- Road
- Carcass Transects - December 2024
- ▭ Development Corridor

Carcass Finds

- ▲ Gould's Wattled Bat (1)
- ▲ Large Forest Bat (5)
- ▲ Little Forest Bat (24)
- ▲ Southern Forest Bat (1)
- ▲ Whistling Kite (1)
- ▲ White Striped Freetail Bat (4)



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FIGURE 3.9

Carcass Searches Results

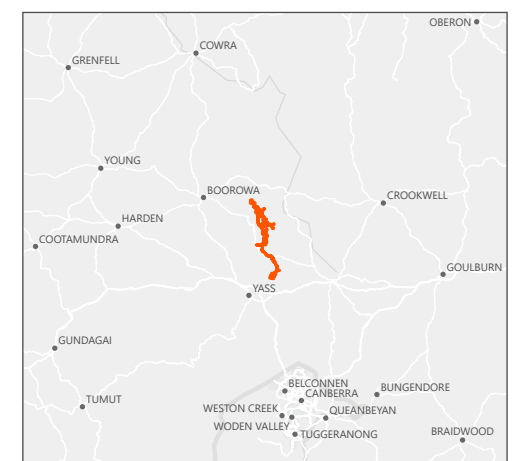
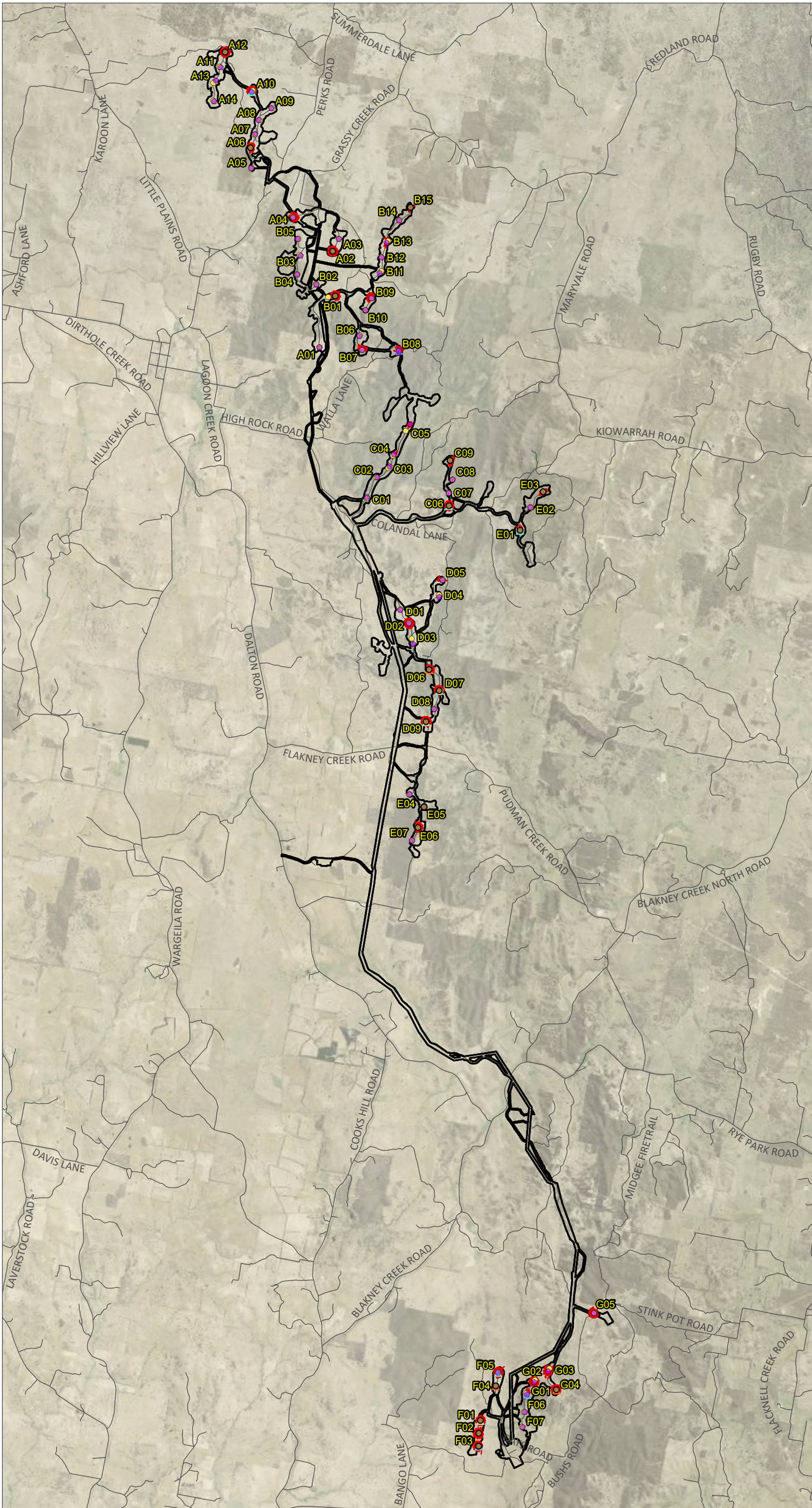
January 2025

Legend

- Turbines
- Carcass survey locations
- Road
- Carcass Transects - January 2025
- Development Corridor

Carcass Finds

- Collared Sparrowhawk (1)
- Gould's Wattled Bat (2)
- Little Forest Bat (7)
- Ozimops sp. (1)
- Pied Currawong (1)
- White Striped Freetail Bat (3)
- White-throated Needletail (1)



0 2.5 5

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FIGURE 3.10

Carcass Searches Results

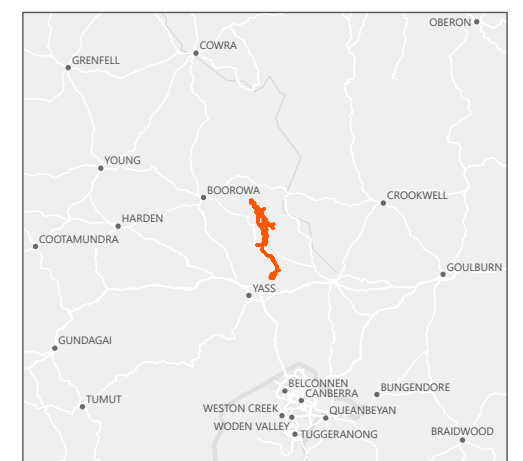
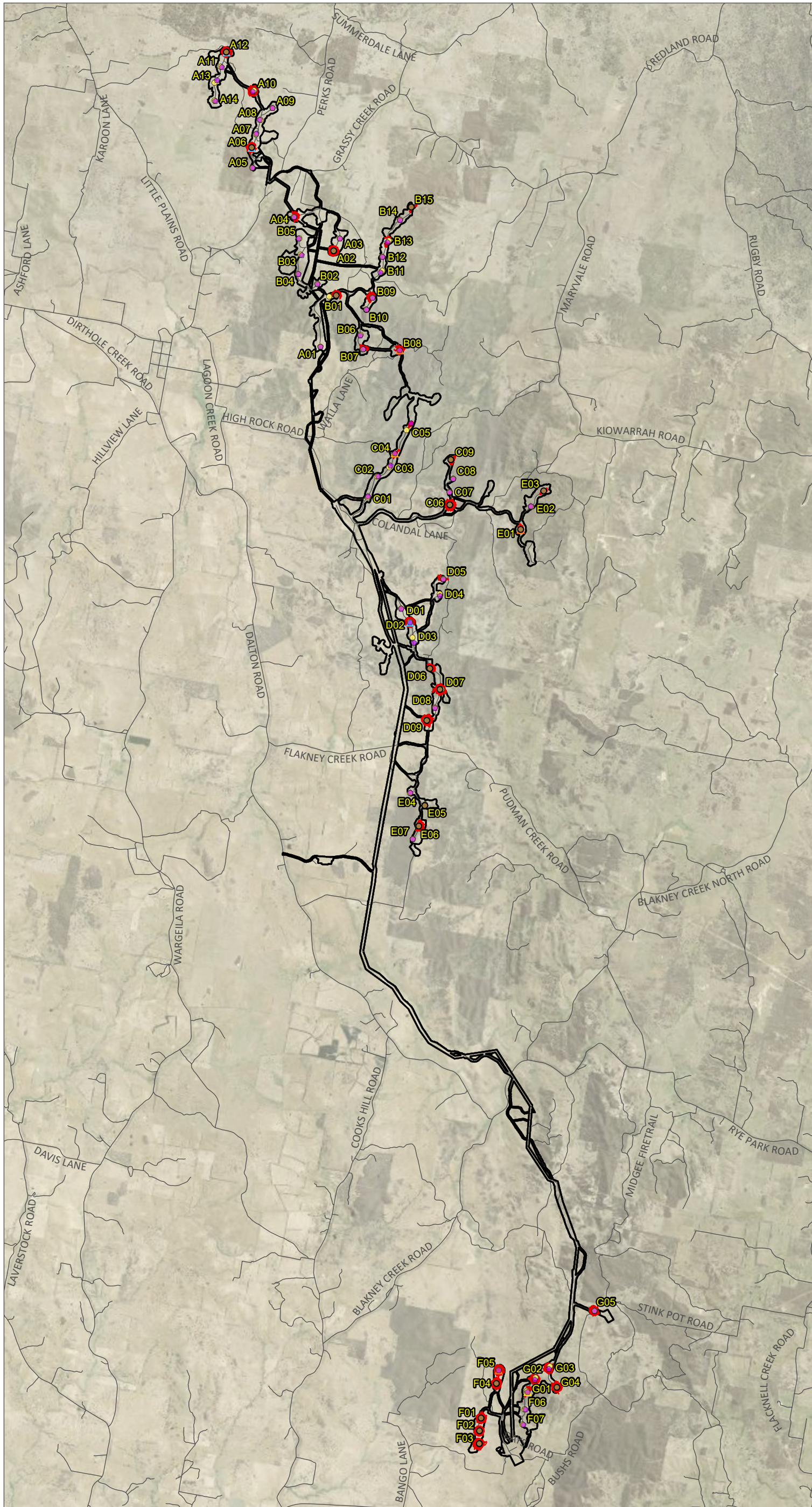
February 2025

Legend

- Turbines
- Carcass survey locations
- Road
- Carcass Transects - February 2025
- ▭ Development Corridor

Carcass Finds

- ▲ Gould's Wattled Bat (4)
- ▲ Little Forest Bat (1)
- ▲ Unknown (1)
- ▲ Wedge-tailed eagle (1)
- ▲ White Striped Freetail Bat (4)



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FIGURE 3.11

Carcass Searches Results

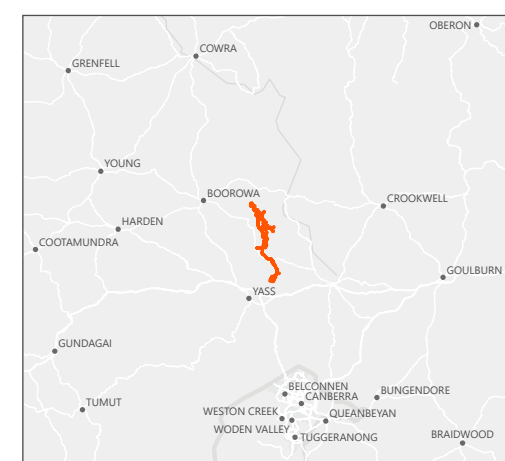
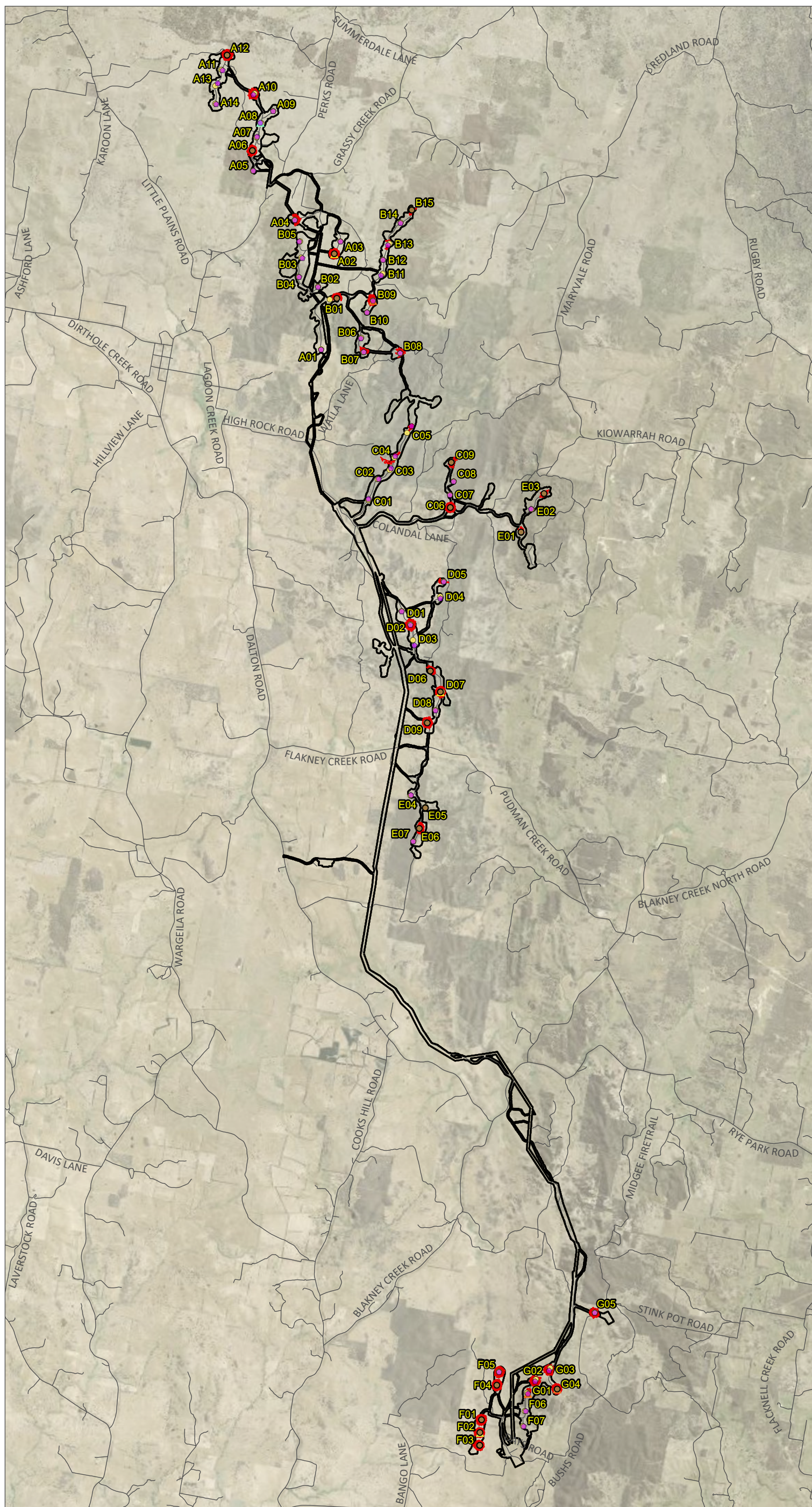
March 2025

Legend

- Turbines
- Carcass survey locations
- Road
- Carcass Transects - March 2025
- ▭ Development Corridor

Carcass Finds

- ▲ Gould's Wattled Bat (1)
- ▲ Nankeen Kestrel (1)
- ▲ Southern Freetail Bat (1)
- ▲ Unknown (2)
- ▲ White Striped Freetail Bat (3)



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FIGURE 3.12

Carcass Searches Results

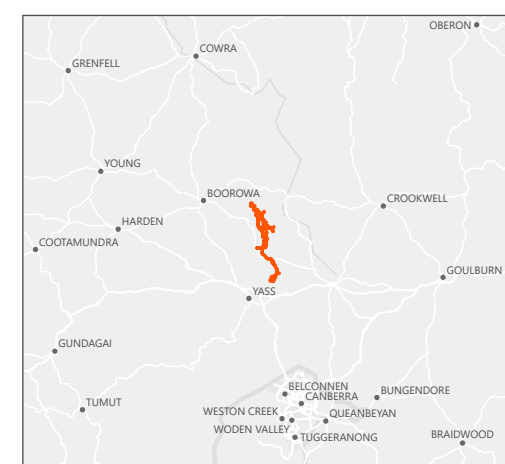
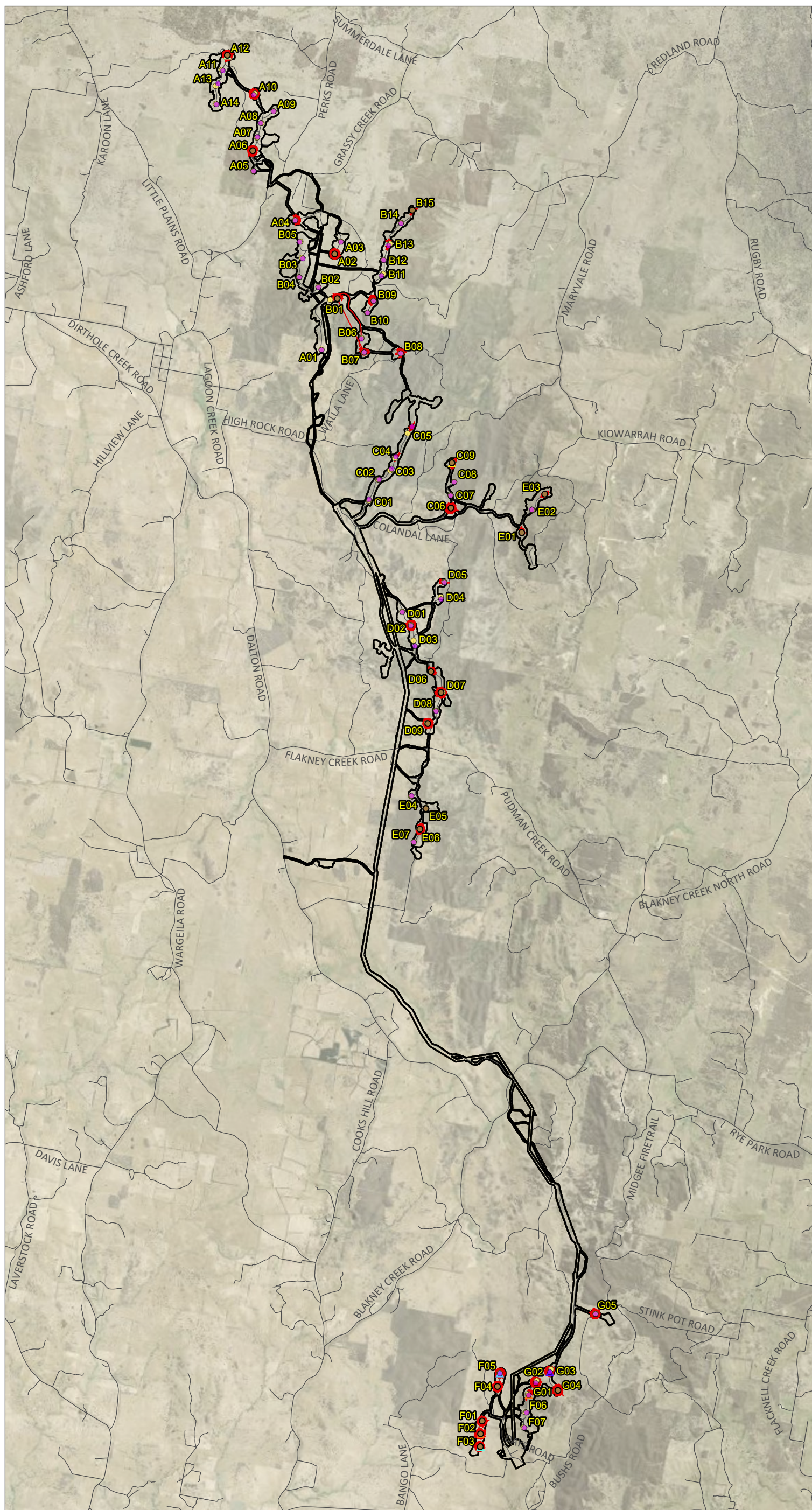
April 2025

Legend

- Turbines
- Carcass survey locations
- Road
- Carcass Transects - April 2025
- Development Corridor

Carcass Finds

- Australian Magpie (1)
- Gould's Wattled Bat (1)
- Little Forest Bat (1)
- Ozimops sp. (1)
- Unknown (1)
- White Striped Freetail Bat (2)



Kilometres

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FIGURE 3.13

Carcass Searches Results

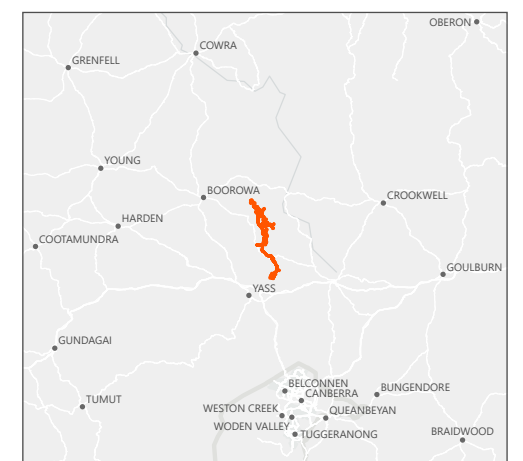
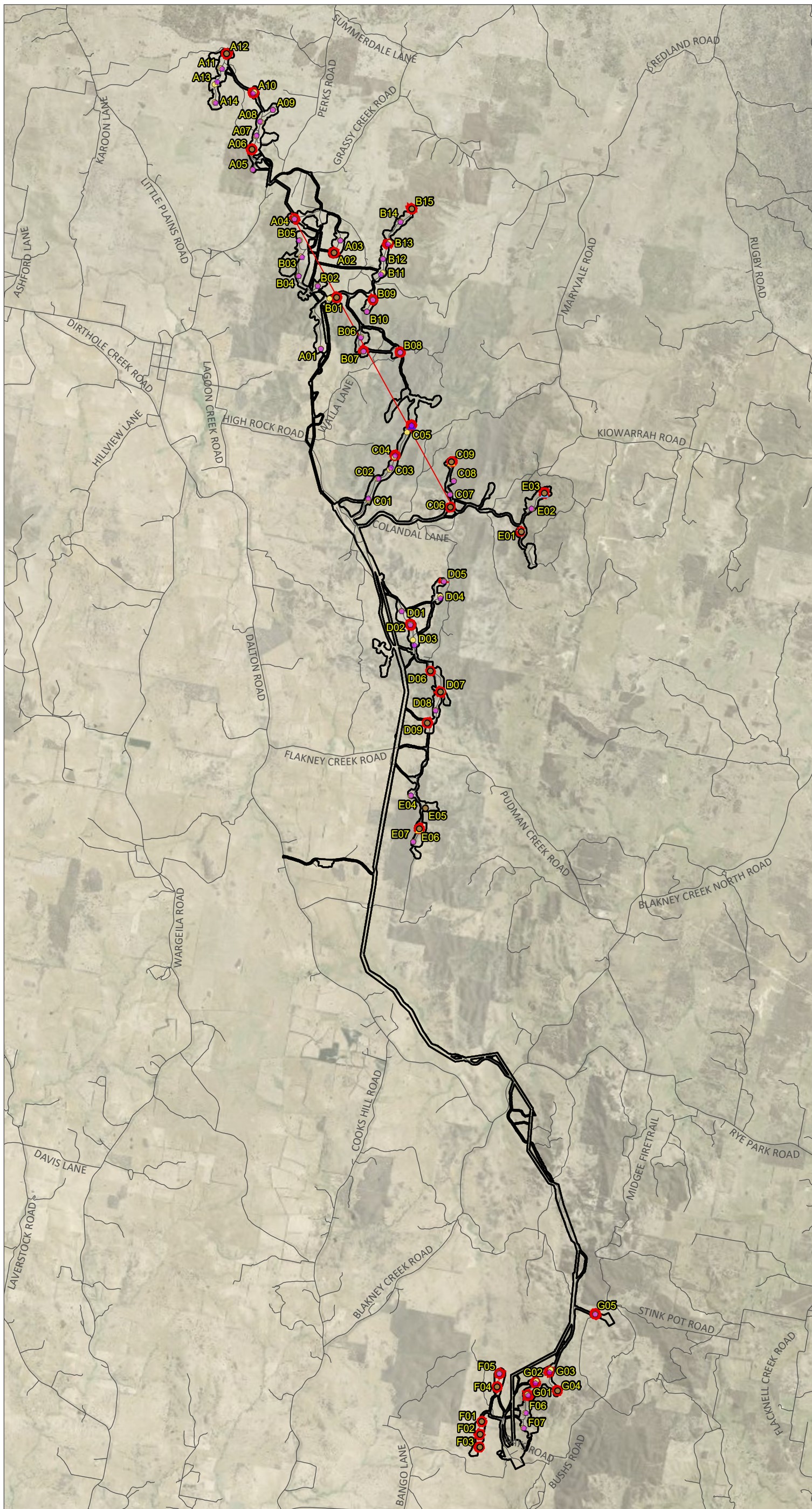
May 2025

Legend

- Turbines
- Carcass survey locations
- Road
- Carcass Transects - May 2025
- ▭ Development Corridor

Carcass Finds

- ▲ Australian Magpie (1)
- ▲ Gould's Wattled Bat (1)
- ▲ Unknown (1)
- ▲ Wedge-tailed eagle (1)



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FIGURE 3.14

Carcass Searches Results

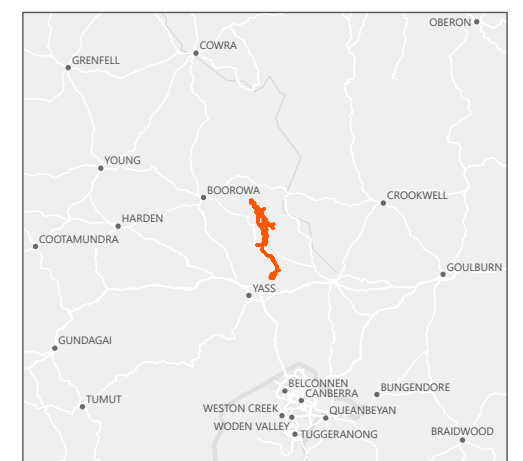
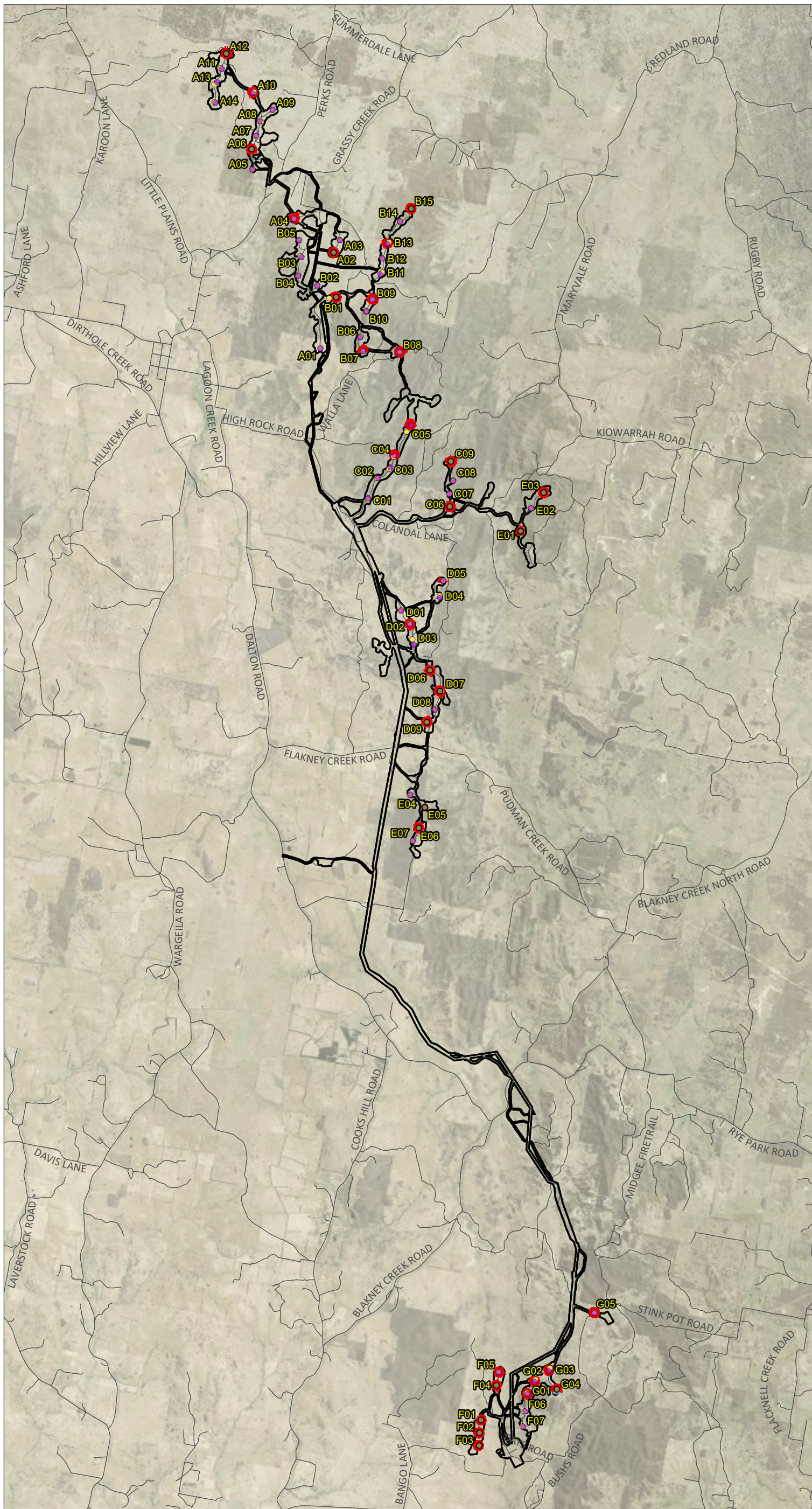
June 2025

Legend

- Turbines
- Carcass survey locations
- Road
- Carcass Transects - June 2025
- ▭ Development Corridor

Carcass Finds

- ▲ Grey Butcherbird (1)



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FIGURE 3.15

Carcass Searches

Results

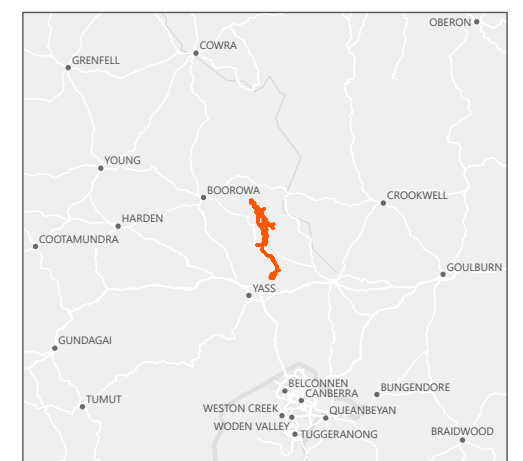
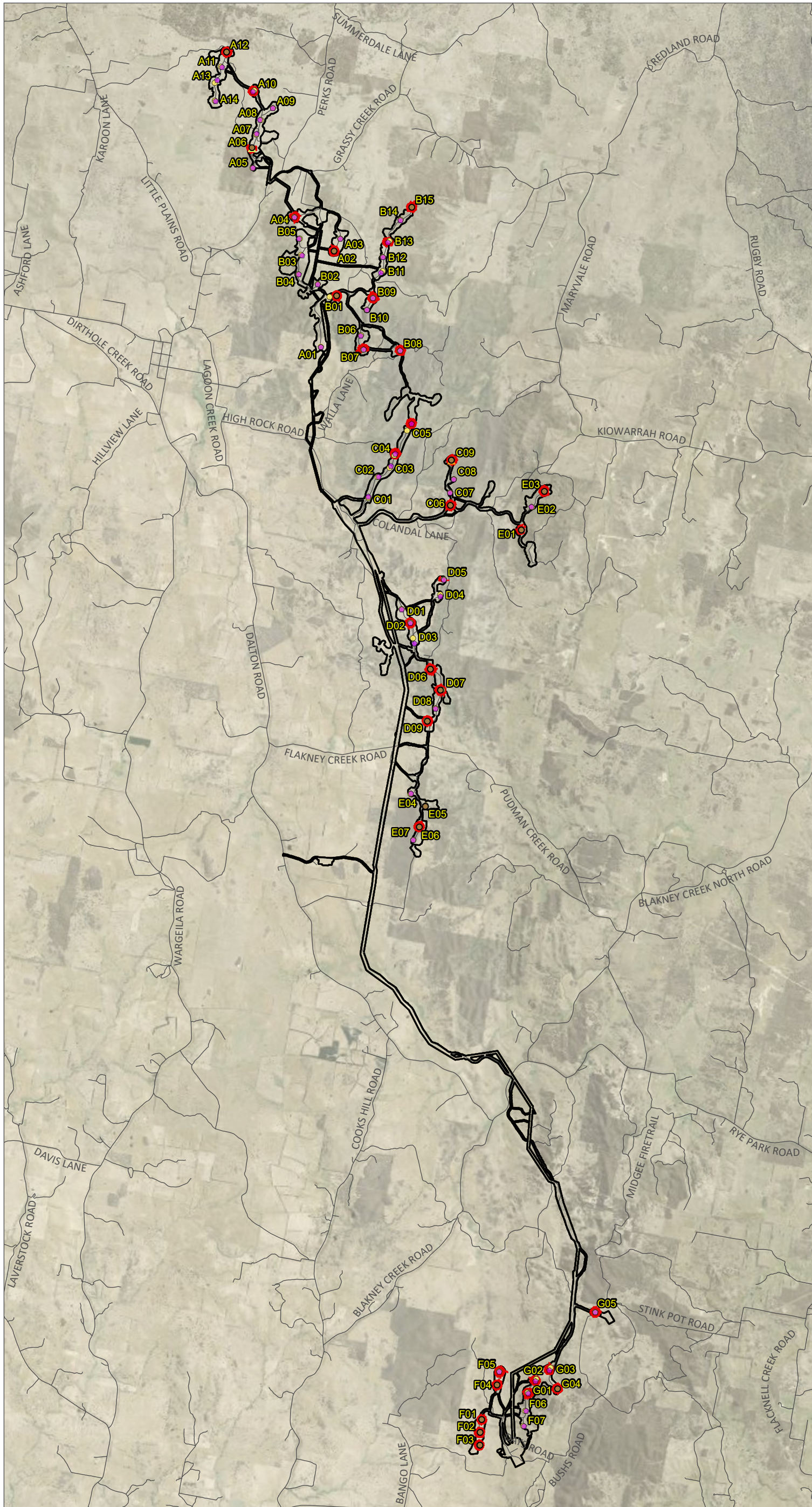
July 2025

Legend

- Turbines
- Carcass survey locations
- Road
- Carcass Transects - July 2025
- ▭ Development Corridor

Carcass Finds

- ▲ Silvereye (1)
- ▲ Wedge-tailed eagle (1)



0 2.5 5

Kilometres

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FIGURE 3.16

Carcass Searches Results

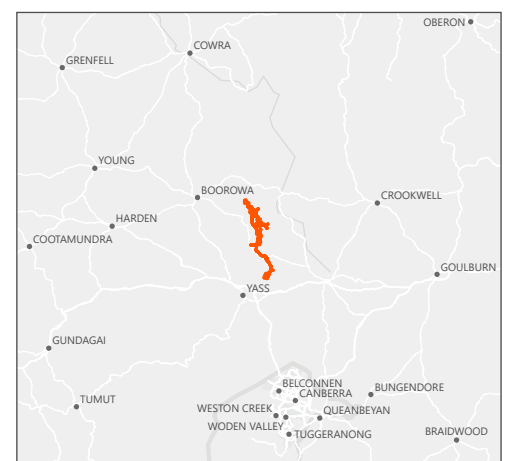
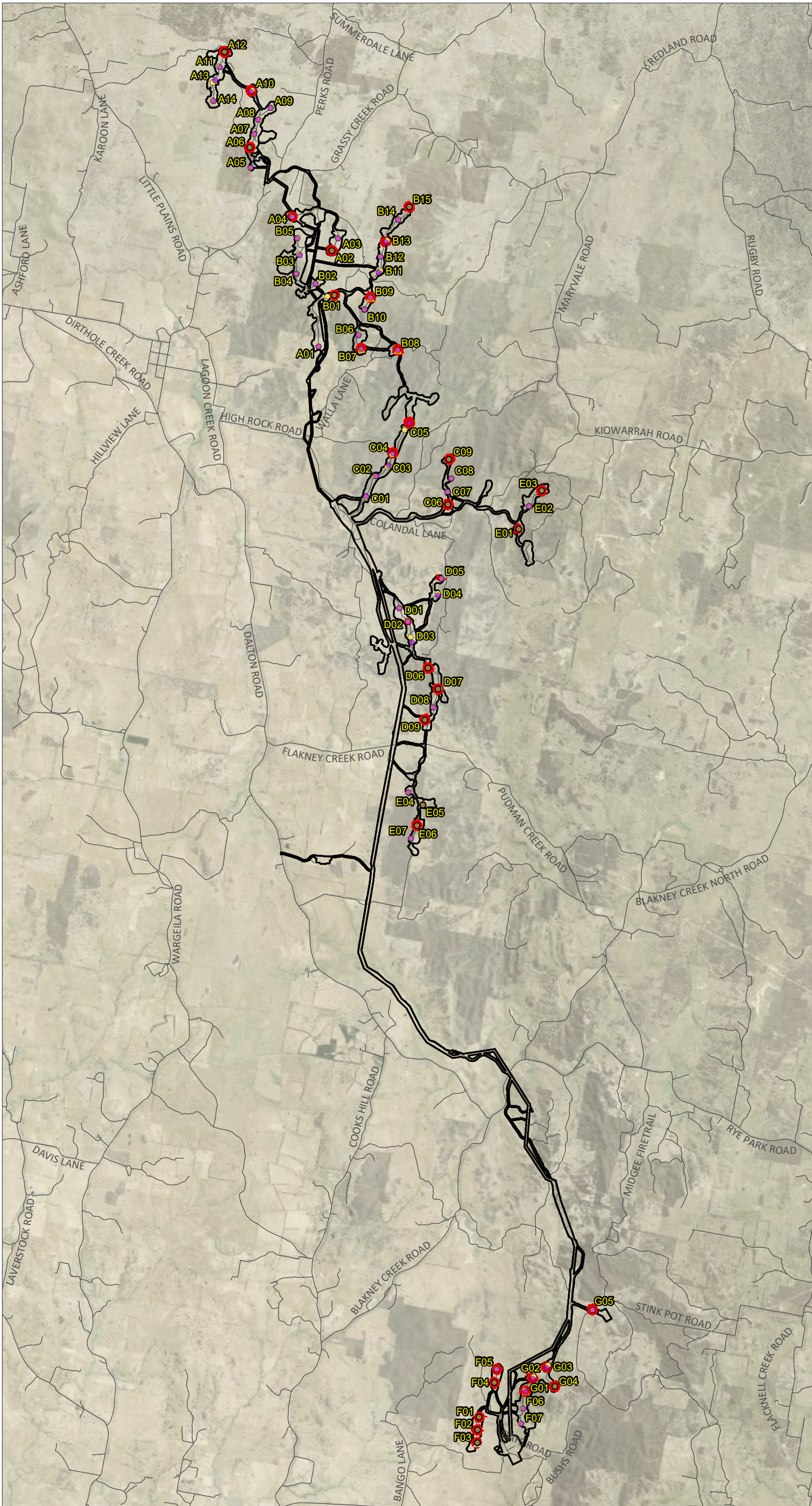
August 2025

Legend

- Turbines
- Carcass survey locations
- Road
- Carcass Transects - August 2025
- ▭ Development Corridor

Carcass Finds

- ▲ Nankeen Kestrel (1)
- ▲ Wedge-tailed eagle (3)
- ▲ Yellow Thornbill (1)



0 2.5 5

Kilometres

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FIGURE 3.17

Carcass Searches Results

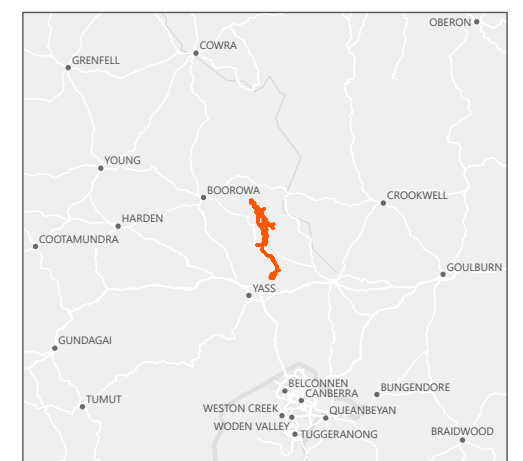
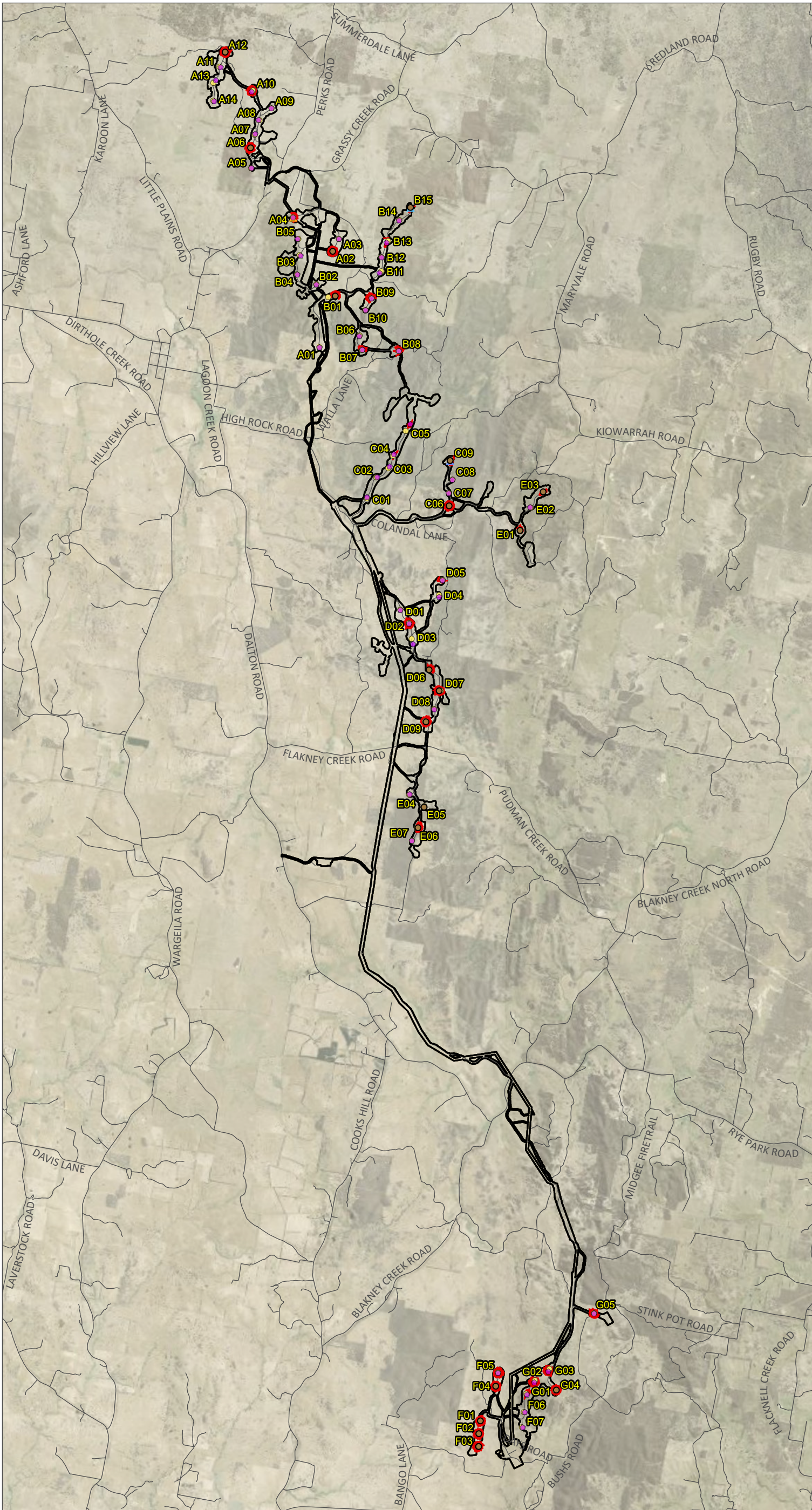
September 2025

Legend

- Turbines
- Carcass survey locations
- Road
- Carcass Transects - September 2025
- Development Corridor

Carcass Finds

- Crimson Rosella (1)
- Gould's Wattled Bat (1)
- Wedge-tailed Eagle (1)



0 2.5 5

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3.6 Carrion Removal Program Results

As of 27 November 2025, 66% of WTE strikes at RPWF (for a total of 24) have occurred at turbines that have had grazing sheep or cows present since records began in July.

Occasionally, WTGs may be unable to be searched for various reasons, including but not limited to inclement weather, maintenance works, lack of access, or safety concerns. Where this is the case, Tilt may not be able to search every turbine each month.

Tilt have also conducted additional carrion monitoring outside of the monthly carcass search program in response to WTE strikes.

Table 3.8 Carrion Removal Register

Date	Turbine	Number of Carcasses	Management Actions	Completed
30/07/2025	A01	1	Unable to access carcass due to fencing and cliffs.	Not required
30/07/2025	D05	1	Carcass removed by Tilt environment team.	Yes
30/07/2025	D01	3	Carcasses outside 200 m radius.	Not required
31/07/2025	G03	5	Spoke directly to landowner via phone call whilst on site; landowner cleared site in afternoon.	Yes
28/08/2025	G03	1	Carcass removed by Tilt environment team; note this carcass was not related to the previous carcass removal at G03.	Yes
10/09/2025	A08	1	Carcass outside 200 m radius.	Not required
11/09/2025	F02	3	Spoke directly to farmer in-person on-site; farmer cleared site immediately.	Yes
24/10/2025	A07	1	Rabbit leg removed by Tilt environment team.	Yes
24/10/2025	F07	1	Carcass removed by Tilt environment team.	Yes

4.0 Limitations

With regards to the carcasses that are too incomplete, aged or damaged to confidently identify, the process identified in Section 5.4.5 of the BBAMP will be followed. This includes sending photographs, feathers or the specimen to the Lead Ecologist, to a species expert or museum if there is potential it could be a threatened species or could trigger a non-threatened species impact trigger. DNA analysis will also be considered if necessary.

5.0 Conclusion

The Year 1 components of the BBAMP have been implemented across RPWF. Monitoring and data collection was completed in accordance with the approved revision 9 program design. The data collected during this period provides an initial dataset for assessing early operational interactions between the wind turbines and target fauna groups. These results establish a base for evaluating species activity and risks within the project area and a basis to inform the ongoing management required in the BBAMP.

During the bird surveys, seven threatened bird species (listed as vulnerable under either BC Act and/or EPBC Act) were recorded within the surveys. There were 108 sightings of threatened species during the Year 1 BBAMP surveys and incidentally. Additionally, 55 sightings of wedge-tailed eagles were recorded across the combined survey effort and incidentally. Despite these detections and a substantial survey effort, recorded mortality of threatened bird species remained very low, with only a single threatened bird carcass detected and managed in accordance with BBAMP trigger pathways. Bat utilisation surveys conducted from November to April including ultrasonic recording devices at height and on the ground (2 m off the ground). The total number of species of bats recorded was 13 species across the Project, with an additional seven species recorded in either possible or species groupings across the devices. Three of these were threatened species, all listed as vulnerable under BC Act. These recordings confirmed their presence within the project area and although, these species were identified across the site, no threatened bat mortalities were recorded at RPWF.

There was a total of 157 carcasses (37 birds, 117 bats, and three unknown) one threatened species carcass found across the Year 1 carcass search program which was reported to CPHR on the next day after find as required by the threatened species response and reporting requirements of the BBAMP. There were also 15 wedge-tailed eagle carcasses found during the Year 1 surveys, with one injured bird found released into the care of WIRES which resulted in a mortality. No combination of these strikes triggered the wedge-tailed eagle impact trigger from section 6.2 of the approved BBAMP. All were reported to CPHR within 24 hours of identification of the carcass or injured individual.

During the Year 1 carcass search program, 65 little forest bat carcasses were found during surveys. Between October 2024 and January 2025, 10 little forest bat carcasses were found within proximity to Turbine D07. Due to this, an Impact Trigger Report was issued to CPHR, following the required trigger pathway in accordance with the BBAMP.

All reporting triggers and WTE strike notifications were submitted to CPHR in accordance with the requirements of the BBAMP. After review, CPHR confirmed that no further actions were required.

Monitoring during the reporting period was undertaken in accordance with the approved BBAMP, with all except one survey completed within the required timing. Where this minor deviation to survey scheduled occurred, it was associated with site safety constraints and was managed in accordance with BBAMP provisions. Such instances were documented, communicated to CPHR and are not considered to materially affect overall BBAMP compliance or the reliability of the monitoring data. This baseline dataset will be used for identifying future trends, assessing potential impacts and informing management decisions in subsequent monitoring years, consistent with the intent of the BBAMP.

6.0 Further Review

On commencement of the operation of the Project, the BBAMP is subject to a full review (including consideration of monitoring results) with involvement from CPHR and DCCEE in accordance with Section 8.2 of the BBAMP. This review process is currently underway, with updates being developed in consultation with CPHR.

As part of this review, Rye Park Wind Farm is seeking amendments to the BBAMP to ensure a single consolidated version is approved by both CPHR and DCCEE. The review also addresses implementation challenges to support efficient and effective delivery of the BBAMP requirements.

Appendix A

Complete Bird Survey Dataset



The following data was collected along the 2 hectare - 20 minute surveys per season, including November 2024, February 2025, April 2025, and July 2025 for general bird survey transects. The data from the targeted superb surveys combined in November, for example TS_C09, TS_C10, TS_C11 and TS_C12 are superb parrot control transects and only surveyed in November 2024.

Appendix Table A.1 Species assemblage data from Year 1 Transect Surveys

Bird Species	Transect Names																							
	TS C01	TS C02	TS C03	TS C04	TS C05	TS C06	TS C07	TS C08	TS C09	TS C10	TS C11	TS C12	TS I02	TS I03	TS I04	TS I05	TS I06	TS I07	TS I08	TS I09	TS I10	TS I11	TS I12	
Nov-24	74	46	61	51	16	19	20	25	40	78	54	39	41	52	47	20	30	26	11	45	33	47	19	
Australasian Pipit (<i>Anthus novaeseelandiae</i>)	2											3						2		1		2		
Australian Hobby (<i>Falco longipennis</i>)								1																
Australian Magpie (<i>Gymnorhina tibicen</i>)	7	2	9		2	1	4	1			4	3			1		1	5		1	3	4	4	
Australian Raven (<i>Corvus coronoides</i>)		1							2			2			2				1				2	
Black-faced Cuckoo-shrike (<i>Coracina novaehollandiae</i>)	1	1	1						1								1			3				
Brown Goshawk (<i>Accipiter fasciatus</i>)				1																				
Brown Thornbill (<i>Acanthiza pusilla</i>)				3											3				3			2		
Brown-headed Honeyeater (<i>Melithreptus brevirostris</i>)			2	2						1	3													
Brush Cuckoo (<i>Cacomantis variolosus</i>)										2			1	4										
Buff-rumped Thornbill (<i>Acanthiza reguloides</i>)				1	1		2		5	7			5	3		1								
Collared Sparrowhawk (<i>Accipiter cirrocephalus</i>)											1													
Common Blackbird (<i>Turdus merula</i>)				2																				
Common Bronzewing (<i>Phaps chalcoptera</i>)											1													
Common Starling (<i>Sturnus vulgaris</i>)	3					1		9										2						
Crimson Rosella (<i>Platycercus elegans</i>)	5		1	2	2	2	2	2	4	2	4	3	1	3	1	1	5		4		5	2	1	
Dusky Woodswallow (<i>Artamus cyanopterus</i>)*	4																	4						
Eastern Rosella (<i>Platycercus eximius</i>)	3	1	1					1										1		1	10	1		
Eastern Spinebill (<i>Acanthorhynchus tenuirostris</i>)		1	1	3		2				3	1			2			1			2				
Galah (<i>Eolophus roseicapilla</i>)		11	13	5				3	2			2				1	3	3	2			1	6	
Grey Butcherbird (<i>Cracticus torquatus</i>)					3																			
Grey Fantail (<i>Rhipidura albiscapa</i>)		2	3	3					1	8	3			10	2				4					
Grey Shrike-thrush (<i>Colluricincla harmonica</i>)		1		1					2	1		2	3	2	2	1			2			1		
Horsfield's Bronze-Cuckoo (<i>Chalcites basalis</i>)	1								1															
Laughing Kookaburra (<i>Dacelo novaeguineae</i>)									1					4										
Leaden Flycatcher (<i>Myiagra rubecula</i>)			1		1					1	1			1	1				1					
Magpie-lark (<i>Grallina cyanoleuca</i>)		1																						
Mistletoebird (<i>Dicaeum hirundinaceum</i>)				1								2			1									

Bird Species	Transect Names																							
	TS C01	TS C02	TS C03	TS C04	TS C05	TS C06	TS C07	TS C08	TS C09	TS C10	TS C11	TS C12	TS I02	TS I03	TS I04	TS I05	TS I06	TS I07	TS I08	TS I09	TS I10	TS I11	TS I12	
Nankeen Kestrel (<i>Falco cenchroides</i>)																		1		2				
Noisy Friarbird (<i>Philemon corniculatus</i>)		3	2		1		1		3	2	2	1	5	5	3	2	2			1			2	
Noisy Miner (<i>Manorina melanocephala</i>)																					7			
Olive-backed Oriole (<i>Oriolus sagittatus</i>)					2		2		1	3	1			2										
Pacific Black Duck (<i>Anas superciliosa</i>)								2																
Pallid Cuckoo (<i>Heteroscenes pallidus</i>)		1							1			1												
Peregrine Falcon (<i>Falco peregrinus</i>)																		1						
Pied Butcherbird (<i>Cracticus nigrogularis</i>)																	2							
Pied Currawong (<i>Strepera graculina</i>)							1				6	1	1			1				2				
Red Wattlebird (<i>Anthochaera carunculata</i>)		1	7	2		1	2			3	1				2		2			1		2		
Restless Flycatcher (<i>Myiagra inquieta</i>)	1																							
Rufous Whistler (<i>Pachycephala rufiventris</i>)			3	1					1	4	2		3	1		1				2		2		
Sacred Kingfisher (<i>Todiramphus sanctus</i>)														2		1								
Scarlet Robin (<i>Petroica boodang</i>)*										2														
Shining Bronze-Cuckoo (<i>Chalcites lucidus</i>)			1																					
Silvereye (<i>Zosterops lateralis</i>)				3											7							1		
Southern Whiteface (<i>Aphelocephala leucopsis</i>)*	2																							
Speckled Warbler (<i>Pyrrholaemus sagittatus</i>)*									1															
Spiny-cheeked Honeyeater (<i>Acanthagenys rufogularis</i>)									1			1			1									
Spotted Pardalote (<i>Pardalotus punctatus</i>)			1				1				1				2					1				
Striated Pardalote (<i>Pardalotus striatus</i>)	1			1	1	1				2	4	3	5	2		1	1			2	3	2		
Striated Thornbill (<i>Acanthiza lineata</i>)							2			8	2		7	3		1				7				
Striped Honeyeater (<i>Plectorhyncha lanceolata</i>)					1	1	2																	
Stubble Quail (<i>Coturnix pectoralis</i>)																							1	
Sulphur-crested Cockatoo (<i>Cacatua galerita</i>)	1	16		3		1		1		23		1	2			1	1		1			7		
Superb Fairy-wren (<i>Malurus cyaneus</i>)				3		2						2			3		6	5		7		5		
Superb Parrot (<i>Polytelis swainsonii</i>)*	9																				2			
Tree Martin (<i>Petrochelidon nigricans</i>)	1																							
Varied Sittella (<i>Daphoenositta chrysoptera</i>)														2										

Bird Species	Transect Names																							
	TS C01	TS C02	TS C03	TS C04	TS C05	TS C06	TS C07	TS C08	TS C09	TS C10	TS C11	TS C12	TS I02	TS I03	TS I04	TS I05	TS I06	TS I07	TS I08	TS I09	TS I10	TS I11	TS I12	
Weebill (<i>Smicrornis brevirostris</i>)	1																							
Welcome Swallow (<i>Hirundo neoxena</i>)	101																							
Western Gerygone (<i>Gerygone fusca</i>)	3																							
White-browed Babbler (<i>Pomatostomus superciliosus</i>)	2																							
White-browed Scrubwren (<i>Sericornis frontalis</i>)	541721																							
White-eared Honeyeater (<i>Nesoptilotis leucotis</i>)	144221																							
White-faced Heron (<i>Egretta novaehollandiae</i>)	1																							
White-fronted Chat (<i>Epthianura albifrons</i>)*	4																							
White-plumed Honeyeater (<i>Ptilotula penicillata</i>)	1611																							
White-throated Gerygone (<i>Gerygone olivacea</i>)	232244																							
White-throated Treecreeper (<i>Cormobates leucophaea</i>)	311267312																							
White-winged Chough (<i>Corcorax melanorhamphos</i>)	27241																							
White-winged Triller (<i>Lalage tricolor</i>)	41																							
Willie Wagtail (<i>Rhipidura leucophrys</i>)	41242																							
Yellow Thornbill (<i>Acanthiza nana</i>)	471512																							
Yellow-faced Honeyeater (<i>Caligavis chrysops</i>)	1411																							
Yellow-rumped Thornbill (<i>Acanthiza chrysorrhoa</i>)	101421229																							
Feb-25	23	17	49	21	12	19	11	22					19	16	27	27	51	60	6	26				
Australasian Pipit (<i>Anthus novaeseelandiae</i>)	221																							
Australian Magpie (<i>Gymnorhina tibicen</i>)	3215123																							
Australian Raven (<i>Corvus coronoides</i>)	18																							
Australian Wood Duck (<i>Chenonetta jubata</i>)	3																							
Black-faced Cuckoo-shrike (<i>Coracina novaehollandiae</i>)	11																							
Brown Thornbill (<i>Acanthiza pusilla</i>)	1111																							
Brown-headed Honeyeater (<i>Melithreptus brevirostris</i>)	716																							
Buff-rumped Thornbill (<i>Acanthiza reguloides</i>)	414221																							

Bird Species	Transect Names																							
	TS C01	TS C02	TS C03	TS C04	TS C05	TS C06	TS C07	TS C08	TS C09	TS C10	TS C11	TS C12	TS I02	TS I03	TS I04	TS I05	TS I06	TS I07	TS I08	TS I09	TS I10	TS I11	TS I12	
Common Bronzewing (<i>Phaps chalcoptera</i>)		1		1				1										1						
Common Starling (<i>Sturnus vulgaris</i>)																		25	2					
Crimson Rosella (<i>Platycercus elegans</i>)		3	9			2	3	4						2	1		3			4				
Dusky Woodswallow (<i>Artamus cyanopterus</i>)*	1		1																					
Eastern Rosella (<i>Platycercus eximius</i>)		1	8			6												2						
Eastern Spinebill (<i>Acanthorhynchus tenuirostris</i>)				1			1																	
Galah (<i>Eolophus roseicapilla</i>)		4	15	1	1	2								1										
Golden-headed Cisticola (<i>Cisticola exilis</i>)																				1				
Grey Butcherbird (<i>Cracticus torquatus</i>)				2			1										2							
Grey Fantail (<i>Rhipidura albiscapa</i>)				1	1								4		2	3				2				
Grey Shrike-thrush (<i>Colluricincla harmonica</i>)							1						1			1		2						
Laughing Kookaburra (<i>Dacelo novaeguineae</i>)														3		2								
Leaden Flycatcher (<i>Myiagra rubecula</i>)			1																					
Little Corella (<i>Cacatua sanguinea</i>)		2																						
Little Raven (<i>Corvus mellori</i>)							1																	
Mistletoebird (<i>Dicaeum hirundinaceum</i>)								1																
Noisy Friarbird (<i>Philemon corniculatus</i>)		1					1																	
Noisy Miner (<i>Manorina melanocephala</i>)	8																							
Pied Butcherbird (<i>Cracticus nigrogularis</i>)						1																		
Pied Currawong (<i>Strepera graculina</i>)			1	3				2						1	1									
Red Wattlebird (<i>Anthochaera carunculata</i>)		2	2					3									2							
Restless Flycatcher (<i>Myiagra inquieta</i>)	1																							
Rufous Whistler (<i>Pachycephala rufiventris</i>)																1								
Sacred Kingfisher (<i>Todiramphus sanctus</i>)				1																				
Scarlet Robin (<i>Petroica boodang</i>)*													1											
Silvereye (<i>Zosterops lateralis</i>)																	3	3						
Spiny-cheeked Honeyeater (<i>Acanthagenys rufogularis</i>)						1																		
Striated Pardalote (<i>Pardalotus striatus</i>)																				3				
Striated Thornbill (<i>Acanthiza lineata</i>)					2								3	2	2	1				4				

Bird Species	Transect Names																						
	TS C01	TS C02	TS C03	TS C04	TS C05	TS C06	TS C07	TS C08	TS C09	TS C10	TS C11	TS C12	TS I02	TS I03	TS I04	TS I05	TS I06	TS I07	TS I08	TS I09	TS I10	TS I11	TS I12
Striped Honeyeater (<i>Plectorhyncha lanceolata</i>)						1																	
Sulphur-crested Cockatoo (<i>Cacatua galerita</i>)	3	1												3			9						
Superb Fairy-wren (<i>Malurus cyaneus</i>)				4	3			2							7		5	7		5			
Weebill (<i>Smicrornis brevirostris</i>)			1																				
Welcome Swallow (<i>Hirundo neoxena</i>)																			10				
White-browed Scrubwren (<i>Sericornis frontalis</i>)				3											4								
White-eared Honeyeater (<i>Nesoptilotis leucotis</i>)		1					1								1		1						
White-fronted Chat (<i>Epthianura albifrons</i>)*						1																	
White-plumed Honeyeater (<i>Ptilotula penicillata</i>)			2					2										2					
White-throated Gerygone (<i>Gerygone olivacea</i>)					1												1						
White-throated Treecreeper (<i>Cormobates leucophaea</i>)			1	2	2		1	1					5	3	2	2				3			
White-winged Chough (<i>Corcorax melanorhamphos</i>)		1													3	6							
White-winged Triller (<i>Lalage tricolor</i>)	1																						
Willie Wagtail (<i>Rhipidura leucophrys</i>)	3		1			1		2											2				
Yellow Thornbill (<i>Acanthiza nana</i>)															1	1							
Yellow-rumped Thornbill (<i>Acanthiza chrysorrhoa</i>)				1				3															
April-25	17	52	43	31	18	43	18	16					17	27	28	38	32	53	15	19			
Australian Magpie (<i>Gymnorhina tibicen</i>)		2	2	5		3		1							1	1	4	2	8	1			
Australian Raven (<i>Corvus coronoides</i>)																	2						
Australian Wood Duck (<i>Chenonetta jubata</i>)																		2					
Black-faced Cuckoo-shrike (<i>Coracina novaehollandiae</i>)			1																	2			
Brown Thornbill (<i>Acanthiza pusilla</i>)														1	2								
Brown-headed Honeyeater (<i>Melithreptus brevirostris</i>)																4	1						
Buff-rumped Thornbill (<i>Acanthiza reguloides</i>)			4		3								3		5		1			1			
Common Blackbird (<i>Turdus merula</i>)				1																			
Common Bronzewing (<i>Phaps chalcoptera</i>)			1																				
Common Starling (<i>Sturnus vulgaris</i>)								2										20					

Bird Species	Transect Names																							
	TS C01	TS C02	TS C03	TS C04	TS C05	TS C06	TS C07	TS C08	TS C09	TS C10	TS C11	TS C12	TS I02	TS I03	TS I04	TS I05	TS I06	TS I07	TS I08	TS I09	TS I10	TS I11	TS I12	
Crimson Rosella (<i>Platycercus elegans</i>)	2	4	5	3			7	1						1	3		5	5	4	1				
Dusky Woodswallow (<i>Artamus cyanopterus</i>)*																				1				
Eastern Rosella (<i>Platycercus eximius</i>)	2	4	2	2		2		2										7						
Eastern Spinebill (<i>Acanthorhynchus tenuirostris</i>)		1	1				1										1			1				
Galah (<i>Eolophus roseicapilla</i>)	5	24	10					5							6		5	2						
Golden Whistler (<i>Pachycephala pectoralis</i>)																2								
Golden-headed Cisticola (<i>Cisticola exilis</i>)																		2	2					
Grey Butcherbird (<i>Cracticus torquatus</i>)				2			1	1																
Grey Fantail (<i>Rhipidura albiscapa</i>)		1	2	2	2		2						2	2	1	1	3			3				
Grey Shrike-thrush (<i>Colluricincla harmonica</i>)													1							1				
Laughing Kookaburra (<i>Dacelo novaeguineae</i>)	2		1		1													3						
Little Corella (<i>Cacatua sanguinea</i>)	2																							
Little Pied Cormorant (<i>Microcarbo melanoleucos</i>)																	1							
Magpie-lark (<i>Grallina cyanoleuca</i>)	2	1	1																					
Nankeen Kestrel (<i>Falco cenchroides</i>)																			1					
Olive-backed Oriole (<i>Oriolus sagittatus</i>)							1																	
Peregrine Falcon (<i>Falco peregrinus</i>)		1																						
Pied Butcherbird (<i>Cracticus nigrogularis</i>)																		2						
Pied Currawong (<i>Strepera graculina</i>)		1	2										2							1				
Red Wattlebird (<i>Anthochaera carunculata</i>)																				2				
Rufous Whistler (<i>Pachycephala rufiventris</i>)															1									
Scarlet Robin (<i>Petroica boodang</i>)*													1											
Silvereye (<i>Zosterops lateralis</i>)						17								15		20								
Spiny-cheeked Honeyeater (<i>Acanthagenys rufogularis</i>)						1																		
Spotted Pardalote (<i>Pardalotus punctatus</i>)			1		1	1	2							1	1		3							
Striated Pardalote (<i>Pardalotus striatus</i>)	1	1	1			1								1			1	1						
Striated Thornbill (<i>Acanthiza lineata</i>)					4								2			1								
Striped Honeyeater (<i>Plectorhyncha lanceolata</i>)			1		1		1																	
Sulphur-crested Cockatoo (<i>Cacatua galerita</i>)	1	5	2		1	3	1						2			1	1							

Bird Species	Transect Names																							
	TS C01	TS C02	TS C03	TS C04	TS C05	TS C06	TS C07	TS C08	TS C09	TS C10	TS C11	TS C12	TS I02	TS I03	TS I04	TS I05	TS I06	TS I07	TS I08	TS I09	TS I10	TS I11	TS I12	
Superb Fairy-wren (<i>Malurus cyaneus</i>)				4		2		1									3	4						
Weebill (<i>Smicrornis brevirostris</i>)			1																					
Welcome Swallow (<i>Hirundo neoxena</i>)						2																		
White-browed Scrubwren (<i>Sericornis frontalis</i>)				2		1								1	1	2		1						
White-eared Honeyeater (<i>Nesoptilotis leucotis</i>)		2	1	1	3		2							2		2	1							
White-plumed Honeyeater (<i>Ptilotula penicillata</i>)																		2						
White-throated Treecreeper (<i>Cormobates leucophaea</i>)				2	2								3	3	2	2				1				
White-winged Chough (<i>Corcorax melanorhamphos</i>)						6																		
Willie Wagtail (<i>Rhipidura leucophrys</i>)		1				1																		
Yellow Thornbill (<i>Acanthiza nana</i>)		1					1						1		5									
Yellow-faced Honeyeater (<i>Caligavis chrysops</i>)		3				1										2				4				
Yellow-rumped Thornbill (<i>Acanthiza chrysorrhoa</i>)			4	7		2																		
Jul-25	40	94	29	28	12	26	11	18					10	9	29	13	23	31	11	25				
Australasian Grebe (<i>Tachybaptus novaehollandiae</i>)																		1						
Australian Magpie (<i>Gymnorhina tibicen</i>)	2	3	8	4		4	2	4					1				3	6	2					
Australian Raven (<i>Corvus coronoides</i>)			5																					
Australian Wood Duck (<i>Chenonetta jubata</i>)			2					4										11						
Brown Thornbill (<i>Acanthiza pusilla</i>)				2	2											1	1							
Brown-headed Honeyeater (<i>Melithreptus brevirostris</i>)														10										
Buff-rumped Thornbill (<i>Acanthiza reguloides</i>)													1				3							
Common Blackbird (<i>Turdus merula</i>)				1																				
Common Starling (<i>Sturnus vulgaris</i>)	25																		2					
Crested Pigeon (<i>Ocyphaps lophotes</i>)			2																					
Crimson Rosella (<i>Platycercus elegans</i>)		2	2				2	2					2	5	1			3	3	2				
Eastern Rosella (<i>Platycercus eximius</i>)		8	6			3																		
Eastern Spinebill (<i>Acanthorhynchus tenuirostris</i>)				2			2								2	2	1			1				
Galah (<i>Eolophus roseicapilla</i>)	4	6	1	2				4								4		2						

Bird Species	Transect Names																								
	TS C01	TS C02	TS C03	TS C04	TS C05	TS C06	TS C07	TS C08	TS C09	TS C10	TS C11	TS C12	TS I02	TS I03	TS I04	TS I05	TS I06	TS I07	TS I08	TS I09	TS I10	TS I11	TS I12		
Golden Whistler (<i>Pachycephala pectoralis</i>)	2										1		1	1			1								
Golden-headed Cisticola (<i>Cisticola exilis</i>)	1																								
Grey Shrike-thrush (<i>Colluricincla harmonica</i>)	1						1	2										1		1					
Little Corella (<i>Cacatua sanguinea</i>)	12																								
Mistletoebird (<i>Dicaeum hirundinaceum</i>)	1																								
Pied Currawong (<i>Strepera graculina</i>)	1			4	1																				
Scarlet Robin (<i>Petroica boodang</i>)*	1																								
Striated Pardalote (<i>Pardalotus striatus</i>)	1																								
Striated Thornbill (<i>Acanthiza lineata</i>)	3										3			3	2	8									
Sulphur-crested Cockatoo (<i>Cacatua galerita</i>)	52																								
Superb Fairy-wren (<i>Malurus cyaneus</i>)	2				1		3			1						6		8	3	3					
Wedge-tailed Eagle (<i>Aquila audax</i>)	1			1																					
Weebill (<i>Smicrornis brevirostris</i>)	1																								
Welcome Swallow (<i>Hirundo neoxena</i>)	10																								
White-browed Scrubwren (<i>Sericornis frontalis</i>)	5				1			2																	
White-eared Honeyeater (<i>Nesoptilotis leucotis</i>)	1		1			1		2															1		
White-plumed Honeyeater (<i>Ptilotula penicillata</i>)	2																								
White-throated Treecreeper (<i>Cormobates leucophaea</i>)	2			2	2			2										2	1	1	5				
White-winged Chough (<i>Corcorax melanorhamphos</i>)	7																								
Yellow Thornbill (<i>Acanthiza nana</i>)	9	4			1	8										5									
Yellow-rumped Thornbill (<i>Acanthiza chrysorrhoa</i>)	3		4				1		1																

*Species listed as Vulnerable under the EPBC Act or BC Act.

The flight height data is presented below **Table A.2** for all birds observed and heard across vantage point and transect surveys. In this table, Heard means from all combined surveys this bird was only ever heard (not seen) and flight data could not be recorded. Species without a flight height were observed on the ground exclusively throughout the surveys.

Appendix Table A.2 BBAMP Year 1 Survey – Flight Height Data from Transects and BBUS

Species name (scientific name)	Threatened status (BC Act/EPBC Act)	Flight height above ground (average) (m):	Flight height above ground (minimum) (m):	Flight height above ground (maximum) (m):
Australasian Grebe (<i>Tachybaptus novaehollandiae</i>)		On ground	On ground	On ground
Australasian Pipit (<i>Anthus novaeseelandiae</i>)		5	1	20
Australian Hobby (<i>Falco longipennis</i>)		15	15	15
Australian Magpie (<i>Gymnorhina tibicen</i>)		10	1	50
Australian Owlet-nightjar (<i>Aegotheles cristatus</i>)		Heard	Heard	Heard
Australian Raven (<i>Corvus coronoides</i>)		25	5	100
Australian White Ibis (<i>Threskiornis molucca</i>)		30	30	30
Australian Wood Duck (<i>Chenonetta jubata</i>)		10	5	15
Black-faced Cuckoo-shrike (<i>Coracina novaehollandiae</i>)		15	2	30
Black-shouldered Kite (<i>Elanus axillaris</i>)		30	30	30
Brown Falcon (<i>Falco berigora</i>)		29	10	80
Brown Goshawk (<i>Accipiter fasciatus</i>)		12	10	15
Brown Songlark (<i>Cincloramphus cruralis</i>)		Heard	Heard	Heard
Brown Thornbill (<i>Acanthiza pusilla</i>)		6	1	15
Brown-headed Honeyeater (<i>Melithreptus brevirostris</i>)		15	7	25
Brush Cuckoo (<i>Cacomantis variolosus</i>)		Heard	Heard	Heard
Buff-rumped Thornbill (<i>Acanthiza reguloides</i>)		6	1	15
Chestnut-rumped Heathwren (<i>Hylacola pyrrhopygia</i>)		1	1	1
Collared Sparrowhawk (<i>Accipiter cirrocephalus</i>)		15	15	15
Common Blackbird (<i>Turdus merula</i>)		4	3	5
Common Bronzewing (<i>Phaps chalcoptera</i>)		4	1	10
Common Starling (<i>Sturnus vulgaris</i>)		13	1	30

Species name (scientific name)	Threatened status (BC Act/EPBC Act)	Flight height above ground (average) (m):	Flight height above ground (minimum) (m):	Flight height above ground (maximum) (m):
Crested Pigeon (<i>Ocyphaps lophotes</i>)		9	7	10
Crimson Rosella (<i>Platycercus elegans</i>)		9	1	30
Dusky Woodswallow (<i>Artamus cyanopterus</i>)	V / -	26	1	100
Eastern Rosella (<i>Platycercus eximius</i>)		10	1	20
Eastern Spinebill (<i>Acanthorhynchus tenuirostris</i>)		10	5	15
European Goldfinch (<i>Carduelis carduelis</i>)		15	5	20
Galah (<i>Eolophus roseicapilla</i>)		20	5	100
Golden Whistler (<i>Pachycephala pectoralis</i>)		11	10	15
Golden-headed Cisticola (<i>Cisticola exilis</i>)		4	2	10
Grey Butcherbird (<i>Cracticus torquatus</i>)		14	10	20
Grey Fantail (<i>Rhipidura albiscapa</i>)		9	2	15
Grey Shrike-thrush (<i>Colluricincla harmonica</i>)		7	2	10
Horsfield's Bronze-Cuckoo (<i>Chalcites basalis</i>)		Heard	Heard	Heard
Laughing Kookaburra (Dacelo novaeguineae)		10	1	15
Leaden Flycatcher (<i>Myiagra rubecula</i>)		10	10	10
Little Corella (<i>Cacatua sanguinea</i>)		22	15	40
Little Pied Cormorant (<i>Microcarbo melanoleucos</i>)		21	1	40
Little Raven (<i>Corvus mellori</i>)		15	5	30
Magpie-lark (<i>Grallina cyanoleuca</i>)		11	2	20
Mistletoebird (<i>Dicaeum hirundinaceum</i>)		11	10	15
Nankeen Kestrel (<i>Falco cenchroides</i>)		21	5	40
Noisy Friarbird (<i>Philemon corniculatus</i>)		12	5	20
Noisy Miner (<i>Manorina melanocephala</i>)		10	5	15
Olive-backed Oriole (<i>Oriolus sagittatus</i>)		14	10	15
Pacific Black Duck (<i>Anas superciliosa</i>)		On ground	On ground	On ground

Species name (scientific name)	Threatened status (BC Act/EPBC Act)	Flight height above ground (average) (m):	Flight height above ground (minimum) (m):	Flight height above ground (maximum) (m):
Pallid Cuckoo (<i>Heteroscenes pallidus</i>)		Heard	Heard	Heard
Peregrine Falcon (<i>Falco peregrinus</i>)		31	15	40
Pied Butcherbird (<i>Cracticus nigrogularis</i>)		7	1	15
Pied Currawong (<i>Strepera graculina</i>)		15	1	30
Red Wattlebird (<i>Anthochaera carunculata</i>)		11	5	25
Red-rumped Parrot (<i>Psephotus haematonotus</i>)		20	20	20
Restless Flycatcher (<i>Myiagra inquieta</i>)		7	5	10
Rufous Whistler (<i>Pachycephala rufiventris</i>)		12	10	15
Sacred Kingfisher (<i>Todiramphus sanctus</i>)		9	7	10
Scarlet Robin (<i>Petroica boodang</i>)	V / -	4	1	15
Shining Bronze-Cuckoo (<i>Chalcites lucidus</i>)		Heard	Heard	Heard
Silvereye (<i>Zosterops lateralis</i>)		13	2	30
Southern Whiteface (<i>Aphelocephala leucopsis</i>)	V / V	2	1	5
Speckled Warbler (<i>Pyrrholaemus sagittatus</i>)	V / -	2	1	3
Spiny-cheeked Honeyeater (<i>Acanthagenys rufogularis</i>)		13	10	15
Spotted Pardalote (<i>Pardalotus punctatus</i>)		10	5	15
Straw-necked Ibis (<i>Threskiornis spinicollis</i>)		117	100	150
Striated Pardalote (<i>Pardalotus striatus</i>)		14	10	20
Striated Thornbill (<i>Acanthiza lineata</i>)		11	0	20
Striped Honeyeater (<i>Plectorhyncha lanceolata</i>)		15	15	15
Stubble Quail (<i>Coturnix pectoralis</i>)		Heard	Heard	Heard
Sulphur-crested Cockatoo (<i>Cacatua galerita</i>)		26	2	100
Superb Fairy-wren (<i>Malurus cyaneus</i>)		2	1	10
Superb Parrot (<i>Polytelis swainsonii</i>)	V / V	19	On ground	30
Tree Martin (<i>Petrochelidon nigricans</i>)		13	10	15

Species name (scientific name)	Threatened status (BC Act/EPBC Act)	Flight height above ground (average) (m):	Flight height above ground (minimum) (m):	Flight height above ground (maximum) (m):
Varied Sittella (<i>Daphoenositta chrysoptera</i>)	V / -	9	5	15
Wedge-tailed Eagle (<i>Aquila audax</i>)		83	10	300
Weebill (<i>Smicrornis brevirostris</i>)		Heard	Heard	Heard
Welcome Swallow (<i>Hirundo neoxena</i>)		14	2	30
Western Gerygone (<i>Gerygone fusca</i>)		4	2	5
Whistling Kite (<i>Haliastur sphenurus</i>)		43	30	50
White-browed Babbler (<i>Pomatostomus superciliosus</i>)		4	2	5
White-browed Scrubwren (<i>Sericornis frontalis</i>)		2	1	5
White-eared Honeyeater (<i>Nesoptilotis leucotis</i>)		9	2	15
White-faced Heron (<i>Egretta novaehollandiae</i>)		13	5	30
White-fronted Chat (<i>Epthianura albifrons</i>)	V / -	12	10	15
White-necked Heron (<i>Ardea pacifica</i>)		On ground	On ground	On ground
White-plumed Honeyeater (<i>Ptilotula penicillata</i>)		11	1	15
White-throated Gerygone (<i>Gerygone olivacea</i>)		Heard	Heard	Heard
White-throated Treecreeper (<i>Cormobates leucophaea</i>)		9	2	15
White-winged Chough (<i>Corcorax melanorhamphos</i>)		8	1	15
White-winged Triller (<i>Lalage tricolor</i>)		7	On ground	10
Willie Wagtail (<i>Rhipidura leucophrys</i>)		4	1	10
Yellow Thornbill (<i>Acanthiza nana</i>)		8	2	20
Yellow-faced Honeyeater (<i>Caligavis chrysops</i>)		16	5	30
Yellow-rumped Thornbill (<i>Acanthiza chrysorrhoa</i>)		5	On ground	15

Table A.3 provides the results of Vantage Point Surveys across November 2024, February 2025, April 2025 and July 2025.

Appendix Table A.3 BBAMP Year 1 Survey – Seasonal Vantage Point Surveys Survey Data

	VPC03	VPC04	VPI01	VP103	VP104	Incidental
November 2024	37	113	25	50	25	3
Australasian Pipit (<i>Anthus novaeseelandiae</i>)		1	3		4	
Australian Magpie (<i>Gymnorhina tibicen</i>)	3	3	9		4	
Australian Raven (<i>Corvus coronoides</i>)	1	1				
Australian Wood Duck (<i>Chenonetta jubata</i>)		56				
Black-faced Cuckoo-shrike (<i>Coracina novaehollandiae</i>)	3	1				
Brown Falcon (<i>Falco berigora</i>)		1	1			
Brown Songlark (<i>Cincloramphus cruralis</i>)		1				
Brush Cuckoo (<i>Cacomantis variolosus</i>)	1			2		
Common Starling (<i>Sturnus vulgaris</i>)		11				
Crimson Rosella (<i>Platycercus elegans</i>)	6					
Eastern Spinebill (<i>Acanthorhynchus tenuirostris</i>)			1			
Galah (<i>Eolophus roseicapilla</i>)		4	2		3	
Golden-headed Cisticola (<i>Cisticola exilis</i>)		1				
Grey Butcherbird (<i>Cracticus torquatus</i>)	2					
Grey Shrike-thrush (<i>Colluricincla harmonica</i>)	1	1		1		
Laughing Kookaburra (<i>Dacelo novaeguineae</i>)					1	
Leaden Flycatcher (<i>Myiagra rubecula</i>)				1		
Little Raven (<i>Corvus mellori</i>)	2	1				
Nankeen Kestrel (<i>Falco cenchroides</i>)		4				
Noisy Friarbird (<i>Philemon corniculatus</i>)	2					
Noisy Miner (<i>Manorina melanocephala</i>)			2			
Olive-backed Oriole (<i>Oriolus sagittatus</i>)	2			1		
Pallid Cuckoo (<i>Heteroscenes pallidus</i>)					1	
Pied Currawong (<i>Strepera graculina</i>)				1		
Red Wattlebird (<i>Anthochaera carunculata</i>)	2			1		
Red-rumped Parrot (<i>Psephotus haematonotus</i>)		1				

	VPC03	VPC04	VPI01	VP103	VP104	Incidental
Rufous Whistler (<i>Pachycephala rufiventris</i>)	2			2		
Spotted Pardalote (<i>Pardalotus punctatus</i>)	1					
Straw-necked Ibis (<i>Threskiornis spinicollis</i>)				40		
Striated Pardalote (<i>Pardalotus striatus</i>)		1	1			
Striped Honeyeater (<i>Plectorhyncha lanceolata</i>)	2					
Stubble Quail (<i>Coturnix pectoralis</i>)		1				
Sulphur-crested Cockatoo (<i>Cacatua galerita</i>)		4	1		4	
Superb Fairy-wren (<i>Malurus cyaneus</i>)		5				
Superb Parrot (<i>Polytelis swainsonii</i>)			1			
Wedge-tailed Eagle (<i>Aquila audax</i>)	5	2	4			3
Welcome Swallow (<i>Hirundo neoxena</i>)		8				
White-eared Honeyeater (<i>Nesoptilotis leucotis</i>)		2				
White-fronted Chat (<i>Epthianura albifrons</i>)					6	
White-necked Heron (<i>Ardea pacifica</i>)		1				
White-throated Treecreeper (<i>Cormobates leucophaea</i>)	2					
Willie Wagtail (<i>Rhipidura leucophrys</i>)		2				
Yellow-faced Honeyeater (<i>Caligavis chrysops</i>)				1		
Yellow-rumped Thornbill (<i>Acanthiza chrysorrhoa</i>)					2	
February 2025	35	89	27	22	15	14
Australasian Pipit (<i>Anthus novaeseelandiae</i>)		1				
Australian Magpie (<i>Gymnorhina tibicen</i>)	13	6	6	8	2	
Australian Raven (<i>Corvus coronoides</i>)	2	1	1	1	1	
Black-faced Cuckoo-shrike (<i>Coracina novaehollandiae</i>)		1			1	
Black-shouldered Kite (<i>Elanus axillaris</i>)						1
Brown Falcon (<i>Falco berigora</i>)		1				
Brown Thornbill (<i>Acanthiza pusilla</i>)					1	
Chestnut-rumped Heathwren (<i>Calamanthus pyrrhopygius</i>)					1	
Common Starling (<i>Sturnus vulgaris</i>)		11				

	VPC03	VPC04	VPI01	VP103	VP104	Incidental
Crimson Rosella (<i>Platycercus elegans</i>)	6	1	1			
Dusky Woodswallow (<i>Artamus cyanopterus</i>)						5
Eastern Rosella (<i>Platycercus eximius</i>)		1				
Galah (<i>Eolophus roseicapilla</i>)		27	7	2	2	
Grey Butcherbird (<i>Cracticus torquatus</i>)	1					
Grey Shrike-thrush (<i>Colluricincla harmonica</i>)	2		2	1		
Laughing Kookaburra (<i>Dacelo novaeguineae</i>)	1					
Leaden Flycatcher (<i>Myiagra rubecula</i>)	1					
Little Raven (<i>Corvus mellori</i>)		25				
Magpie-lark (<i>Grallina cyanoleuca</i>)		1				
Nankeen Kestrel (<i>Falco cenchroides</i>)	1	2				
Noisy Miner (<i>Manorina melanocephala</i>)			2			
Pied Currawong (<i>Strepera graculina</i>)				1		
Red Wattlebird (<i>Anthochaera carunculata</i>)	1	1		1		
Rufous Whistler (<i>Pachycephala rufiventris</i>)	1			2		
Southern Whiteface (<i>Aphelocephala leucopsis</i>)						2
Spotted Pardalote (<i>Pardalotus punctatus</i>)				1		
Striated Pardalote (<i>Pardalotus striatus</i>)			1			
Sulphur-crested Cockatoo (<i>Cacatua galerita</i>)	2	3	1			
Superb Fairy-wren (<i>Malurus cyaneus</i>)					1	
Wedge-tailed Eagle (<i>Aquila audax</i>)	1	2		2		6
Welcome Swallow (<i>Hirundo neoxena</i>)			3		4	
White-eared Honeyeater (<i>Nesoptilotis leucotis</i>)	1			1	1	
White-faced Heron (<i>Egretta novaehollandiae</i>)		1				
White-necked Heron (<i>Ardea pacifica</i>)		1				
White-throated Treecreeper (<i>Cormobates leucophaea</i>)	2		2	2	1	
Willie Wagtail (<i>Rhipidura leucophrys</i>)			1			
Yellow-rumped Thornbill (<i>Acanthiza chrysorrhoa</i>)		3				
April 2025	108	370	88	42	53	32

	VPC03	VPC04	VPI01	VP103	VP104	Incidental
Australasian Pipit (<i>Anthus novaeseelandiae</i>)			1			
Australian Magpie (<i>Gymnorhina tibicen</i>)	6	10	11	3	5	
Australian Owlet-nightjar (<i>Aegotheles cristatus</i>)	1					
Australian Raven (<i>Corvus coronoides</i>)	1	2		2	2	
Australian White Ibis (<i>Threskiornis moluccus</i>)		1				
Black-faced Cuckoo-shrike (<i>Coracina novaehollandiae</i>)		4			2	
Brown Thornbill (<i>Acanthiza pusilla</i>)					1	
Buff-rumped Thornbill (<i>Acanthiza reguloides</i>)				3		
Common Starling (<i>Sturnus vulgaris</i>)		307	50			
Crimson Rosella (<i>Platycercus elegans</i>)	13		2			
Dusky Woodswallow (<i>Artamus cyanopterus</i>)			2		5	18
Eastern Rosella (<i>Platycercus eximius</i>)					2	
Eastern Spinebill (<i>Acanthorhynchus tenuirostris</i>)			1	2	2	
European Goldfinch (<i>Carduelis carduelis</i>)	14					
Galah (<i>Eolophus roseicapilla</i>)		28			2	
Grey Butcherbird (<i>Cracticus torquatus</i>)	1			1	1	
Grey Fantail (<i>Rhipidura albiscapa</i>)	2		1	1	1	
Grey Shrike-thrush (<i>Colluricincla harmonica</i>)	2		1	1	2	
Laughing Kookaburra (<i>Dacelo novaeguineae</i>)				1		
Magpie-lark (<i>Grallina cyanoleuca</i>)		5		2		
Nankeen Kestrel (<i>Falco cenchroides</i>)		2				
Noisy Miner (<i>Manorina melanocephala</i>)			1			
Peregrine Falcon (<i>Falco peregrinus</i>)			1			
Pied Currawong (<i>Strepera graculina</i>)		2		1		
Red Wattlebird (<i>Anthochaera carunculata</i>)				1		
Scarlet Robin (<i>Petroica boodang</i>)						3
Southern Whiteface (<i>Aphelocephala leucopsis</i>)						7
Spotted Pardalote (<i>Pardalotus punctatus</i>)	2		1	1		

	VPC03	VPC04	VPI01	VP103	VP104	Incidental
Striated Pardalote (Pardalotus striatus)	2			1	1	
Sulphur-crested Cockatoo (Cacatua galerita)		3	5	16		
Superb Fairy-wren (Malurus cyaneus)					3	
Wedge-tailed Eagle (Aquila audax)			7		2	4
Welcome Swallow (Hirundo neoxena)		3			5	
Whistling Kite (Haliastur sphenurus)					1	
White-eared Honeyeater (Nesoptilotis leucotis)	2	1	1	3	2	
White-throated Treecreeper (Cormobates leucophaea)	2		2	2	1	
Willie Wagtail (Rhipidura leucophrys)		1				
Yellow-faced Honeyeater (Caligavis chrysops)	60	1	1	1	13	
July 2025	51	193	38	28	23	29
Australasian Pipit (Anthus novaeseelandiae)						4
Australian Magpie (Gymnorhina tibicen)	5	8	11	3	1	
Australian Raven (Corvus coronoides)	3	3	8	6	1	
Australian Wood Duck (Chenonetta jubata)		5				
Brown Falcon (Falco berigora)						1
Common Starling (Sturnus vulgaris)		137				
Crimson Rosella (Platycercus elegans)	33	3			9	
Eastern Spinebill (Acanthorhynchus tenuirostris)	1		1			
Galah (Eolophus roseicapilla)		8		4	2	
Grey Butcherbird (Cracticus torquatus)	1					
Grey Shrike-thrush (Colluricincla harmonica)			1	2		
Little Corella (Cacatua sanguinea)		2				
Little Raven (Corvus mellori)		10				
Magpie-lark (Grallina cyanoleuca)		2				
Noisy Miner (Manorina melanocephala)			1			
Pied Butcherbird (Cracticus nigrogularis)		2				
Pied Currawong (Strepera graculina)	2	3				
Scarlet Robin (Petroica boodang)	1			2		2

	VPC03	VPC04	VPI01	VP103	VP104	Incidental
Sulphur-crested Cockatoo (Cacatua galerita)		7	12	9	2	
Varied Sittella (Daphoenositta chrysoptera)						8
Wedge-tailed Eagle (Aquila audax)	2	2			6	5
Welcome Swallow (Hirundo neoxena)					1	
White-eared Honeyeater (Nesoptilotis leucotis)	1		3		1	
White-faced Heron (Egretta novaehollandiae)		1	1			
White-fronted Chat (Epthianura albifrons)						9
White-throated Treecreeper (Cormobates leucophaea)	2			2		4

Appendix B

Expert Bat Report



Microbat Call Identification Report

Prepared for ("Client"):	Umwelt
Survey location/project name:	Rye Park Wind Farm BBAMP Year 1
Survey dates:	November 2024 - April 2025
Client project reference:	31305
Job no.:	UMW-2509
Report date:	30 September 2025

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Methods

Data received

Balance! Environmental received 450,521 WAV files, which were recorded over five months (November 2024 to April 2025) at the Rye Park Wind Farm, NSW. The dataset was recorded for the Year 1 Annual Review of the Bird and Bat Adaptive Management Plan (BBAMP).

Six Anabat Chorus detectors (Titley Scientific, Brisbane) were deployed in pairs at three turbines (site codes A04, D06, G03) with one unit recording at hub height (120m) and the other at ground level (2m). All detectors were programmed to record from sunset to sunrise each night and had the following settings:

- | | |
|-----------------------------|------------|
| • Recording Profile | Ultrasonic |
| • Activation | Triggered |
| • Sample Rate | 320 kHz |
| • High-pass Filter | 10 kHz |
| • Trigger minimum frequency | 8 kHz |
| • Trigger maximum frequency | 250 kHz |
| • Trigger Window | 2000 ms |
| • Minimum event | 2 ms |
| • Maximum File Duration | 10000 ms |
| • ZC Sensitivity | 16 |

The dataset included recordings made over the following periods, with the number of detector nights varying between detectors within each period:

- 13th November – 15th December 2024
- 21st January - 9th February 2025
- 11th February – 16th March 2025
- 24th March – 14th April 2025

The total number of detector-nights and total number of WAV files recorded at each site are shown in **Table 1**.

Analysis brief

The client requested that analysis include a full count of all calls per species (or unresolved species complex) for a minimum of ten (10) nights per month per site/height combination, recognising a shortfall in the dataset that resulted in only eight (8) detector-nights at D06 (hub and ground) in January; and eight (8) detector-nights at A04 (hub) in April.

It was further requested that, where possible, the data selected for analysis should represent ten consecutive nights.

Post-processing and call analysis

All data processing and analysis was performed in *Anabat Insight* (Version 2.1.6; Titley Scientific, Brisbane). Key processing steps included:

1. All WAV files were first processed with a filter to label and exclude files containing only background noise and/or fewer than four bat call pulses. Filter settings were as follows:
 - i. $F_c = 10 - 165$ kHz
 - ii. $Dur = 2 - 120$ ms
 - iii. $TBC = 5 - 1500$ ms
2. The Decision Tree tool was used to scan all WAV files that passed the noise filter (i.e. those containing bat calls) and group them according to the average metrics of the calls within. Decision Tree grouping was based primarily on characteristic frequency (F_c), with some frequency groups further subdivided using metrics such as pulse duration (Dur), slope of the characteristic section (Sc), and a custom “bandwidth” metric derived from the difference between maximum frequency (F_{max}) and F_c .
3. Differentiation of the species present within each Decision Tree group was achieved by:
 - a. using the Search tool in an iterative process to find signals meeting species-specific metric-based filters
 - i. for each target species, the relevant files were searched on a “per pulse” basis, initially accepting only files with at least 50% of pulses, and a minimum of four pulses overall meeting the species-specific criteria.
 - ii. subsequent iterations of the searches used slightly broader criteria boundaries and/or varied acceptance limits (e.g. minimum of 10 pulses without the % of pulses limit).
 - b. at the conclusion of each Search iteration, at least 20% (and often 100%) of the calls that passed the filter (i.e. likely belonged to the target species) were manually vetted before applying the relevant species label.

Call metrics used in the Search process, along with the manual vetting process, relied upon published call descriptions (Pennay *et al.* 2004) and/or were derived from regionally relevant reference calls. The likelihood of species’ occurrence in the survey area was confirmed by referring to relevant distributional information (e.g., Australasian Bat Society 2021; Baker & Gynther 2023; Churchill 2008).

Where a call receives a unique species label in the above iterative process, it is implied that the identification is highly reliable. Calls thus identified are counted in the “Positively identified species” section of the Results tables. Where there is any doubt over call identities during the Search-and-vet process the files receive a “species complex” label and those calls are listed as “Unresolved calls” in the Results tables.

Reporting standard

The format and content of this report follows Australasian Bat Society standards for the interpretation and reporting of bat call data (Reardon 2003), available on-line at <http://www.ausbats.org.au/>.

Species nomenclature follows Armstrong *et al.* (2020).

Results & Discussion

Data selected for analysis

In accordance with the Analysis Brief, a total of ten detector-nights per month was selected from the dataset, except for those sites where only eight nights were available. The selected dataset represented 58% of the total available detector-nights and 67% of the total available WAV files (see **Table 1**).

The series of detector-nights analysed for each month were chosen to maximise the number of bat calls detected across all six detectors. Selected recording periods included:

- November 2024 nights of 14th to 23rd
- January 2025 nights of 21st to 30th
- February 2025 nights of 14th to 23rd
- March 2025 nights of 1st, 2nd and 24th to 31st
- April 2025 nights of 2nd to 11th

The gap in the March 2025 selection was necessitated by nights after the 2nd being largely devoid of bat call detections, presumably due to low power faults at the end of the 11th February-16th March deployment period.

Table 1 Bat detector deployment statistics: Rye Park BBAMP, November 2024 – April 2025.

SITE	Data submitted		Data selected for analysis		
	Total nights	Total WAV	No. of nights	Total WAV	WAV with calls
A04g	94	20321	50	10133	2646
A04h	65	147129	48	109528	555
D06g	85	13516	48	4162	1721
D06h	75	112571	48	84064	440
G03g	86	74719	50	45575	3725
G03h	102	82265	50	50588	159
TOTALS	507	450521	294	304050	9246
Proportion*			57.99%	67.49%	3.04%

* **Note:** for No. of nights and Total WAV the Proportion value is Selected / Submitted;
for WAV with calls, Proportion = WAV with calls / Total WAV selected

The accompanying Microsoft Excel file <UMW-2510_RyeParkWF-BBAMP-Yr1_bat-call-results.xlsx> includes a worksheet (*Files-rec_vs_files-calls*) with a breakdown of the number of files received and analysed per month for each site.

False triggering and noise

The noise filtering process excluded more than 95% (294,804) of the 304,050 selected WAV files from further consideration (see **Table 1**). This high ratio of noise to bat-calls was consistent across the entire dataset, not just the selected WAV files, and is likely due to excessive wind-generated triggering of recording, especially on the hub-level detectors.

All detectors operated with the factory-default ZC sensitivity setting of 16, which clearly resulted in excessive recording of non-bat sounds, so consideration should be given to reducing this sensitivity setting (e.g. to 12) in future sampling periods to reduce unnecessary generation of non-bat WAV files.

Bats detected

A total of 9368 individual bat call passes was identified in the selected dataset, with 83% (7802) of those calls positively attributed to twelve distinct species plus the undifferentiated *Nyctophilus* genus. Two *Nyctophilus* species (*N. geoffroyi* and *N. gouldi*) potentially occur in the study area.

The other 1566 unresolved calls could not be reliably identified and were allocated to several multi-species complexes. All members of the species complexes were also positively identified from one or more definitive calls.

Tables 2-4 provide a breakdown of the total calls detected per month at each site from each species and species complex.

Example call spectrograms for each species appear at **Appendix 1**.

The accompanying Excel file <UMW-2510_RyeParkWF-BBAMP-Yr1_bat-call-results.xlsx> includes a complete list of files with their species identification labels (<ID-by-file> worksheet). A pivot table is also included to allow extraction of results in additional formats from the <ID-by-file> worksheet.

Relative activity levels

A quick comparison of call detection rates (standardised to the mean number of calls recorded per night) shows that bat activity was consistently a lot lower at hub heights than at ground level at each turbine (see **Figure 1**). The number of species detected at hub height was also considerably lower than at ground level (see **Tables 2-4**).

References

- Armstrong, K.N., Reardon, T.B., and Jackson, S.M. (2020). A current taxonomic list of Australian Chiroptera. Australasian Bat Society. Version 2020-06-09.
URL: <http://ausbats.org.au/species-list/4593775065>
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- Baker, A.M. and Gynther, I.C. (editors) (2023). *Strahan's Mammals of Australia*. Fourth Edition; Reed New Holland Publishers; Sydney.
- Churchill, S. (2008). *Australian Bats*. Jacana Books, Allen & Unwin; Sydney.
- Pennay, M., Law, B. and Reinhold, L. (2004). *Bat Calls of New South Wales*. Department of Environment and Conservation, Hurstville.
- Reardon, T. (2003). Standards in bat detector based surveys. *Australasian Bat Society Newsletter* **20**, 41-43.

Table 2 Bats recorded at Rye park Wind Farm, November 2024 – April 2025: **Site A04**.

Level:	Ground					Ground Total	Hub					Hub Total	A04 Total
Month:	2024- 11	2025- 01	2025- 02	2025- 03	2025- 04		2024- 11	2025- 01	2025- 02	2025- 03	2025- 04		
Positively identified calls													
<i>Chalinolobus gouldii</i>	15	97	203	115	65	495	1	2	5	3	2	13	508
<i>Chalinolobus morio</i>	4	2	13	11	254	284							284
<i>Falsistrellus tasmaniensis</i>	1		1			2							2
<i>Nyctophilus</i> sp.	15	9	13	7	16	60							60
<i>Scotorepens greyii</i>			1			1							1
<i>Vespadelus darlingtoni</i>	32	2	42	5	74	155					1	1	156
<i>Vespadelus regulus</i>	70	13	53	14	45	195	3					3	198
<i>Vespadelus vulturnus</i>	19	6	23	5	4	57							57
<i>Miniopterus orianae oceanensis</i>	30	3	1	1	4	39							39
<i>Austronomus australis</i>	337	218	67	175	30	827	338	47	34	88	15	522	1349
<i>Ozimops planiceps</i>	7	1		15	4	27	6				2	8	35
<i>Ozimops ridei</i>	1					1		1				1	2
<i>Saccolaimus flaviventris</i>													
Unresolved species complexes													
<i>C. gouldii</i> or <i>Ozimops</i> sp.	4	1	7	1	5	18			3	1	2	6	24
<i>C. morio</i> or <i>V. vulturnus</i>	38	1	3	2	6	50							50
<i>S. greyii</i> or <i>F. tasmaniensis</i>	1		1		1	3							3
<i>S. greyii</i> or <i>V. darlingtoni</i>		1				1							1
<i>V. darlingtoni</i> or <i>V. regulus</i>	19	1	3		2	25							25
<i>V. regulus</i> or <i>V. vulturnus</i>	40	7	15	2	14	78	1					1	79
<i>Vespadelus</i> sp. or <i>M. o. oceanensis</i>	163	25	69	15	92	364					3	3	367
Month total	796	387	515	368	616	2682	349	50	42	92	25	558	3240

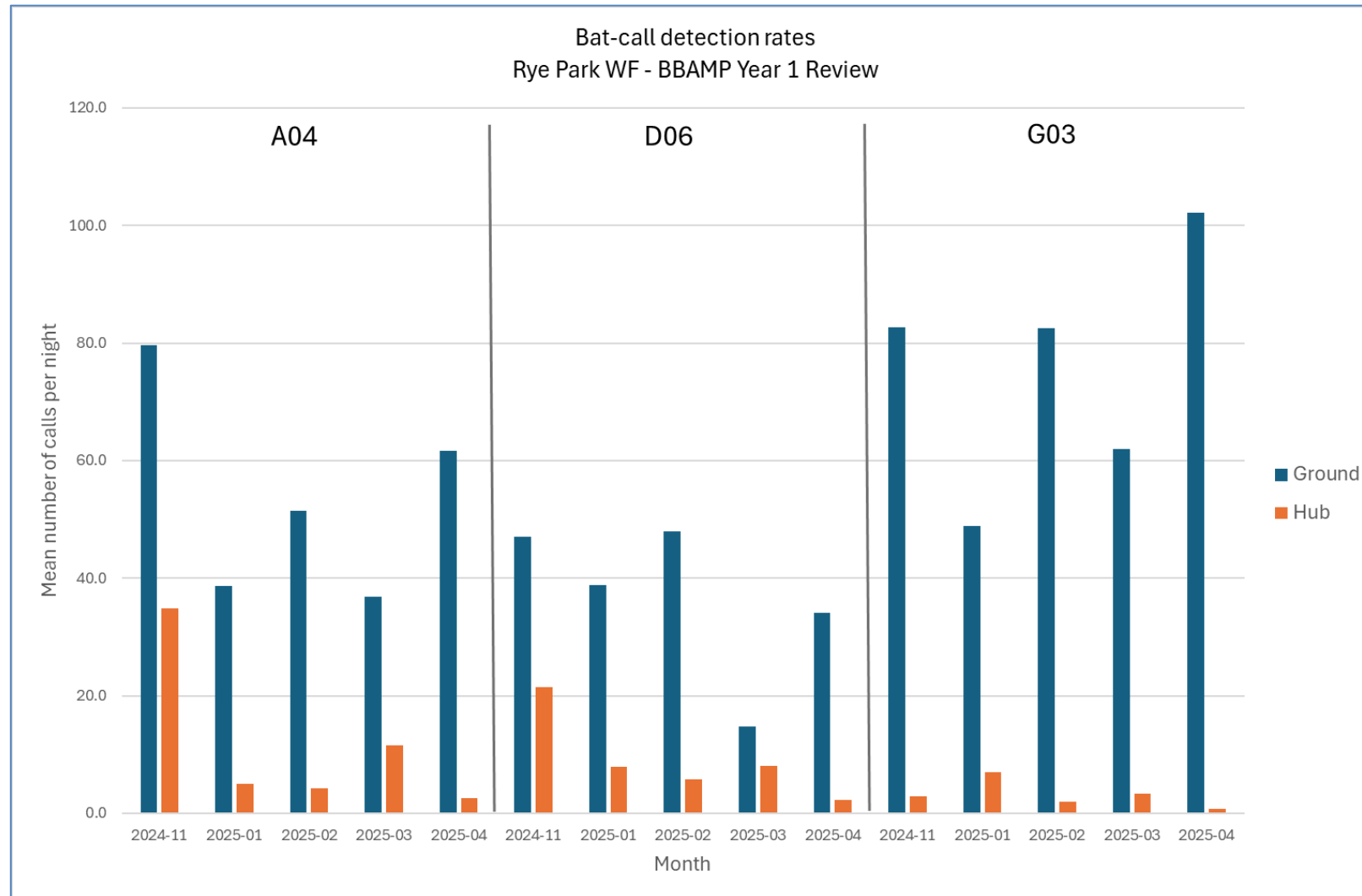
Table 3 Bats recorded at Rye Park Wind Farm, November 2024 – April 2025: **Site D06**.

Level:	Ground					Ground Total	Hub					Hub Total	D06 Total
Month:	2024-11	2025-01	2025-02	2025-03	2025-04		2024-11	2025-01	2025-02	2025-03	2025-04		
Positively identified calls													
<i>Chalinolobus gouldii</i>	11	69	173	44	61	358			3	3	5	11	369
<i>Chalinolobus morio</i>	12	2	8	5	50	77							77
<i>Falsistrellus tasmaniensis</i>	1	1				2							2
<i>Nyctophilus</i> sp.	9	17	9	3	7	45							45
<i>Scotorepens greyii</i>		2				2							2
<i>Vespadelus darlingtoni</i>	3	10	33	12	29	87				1	4	5	92
<i>Vespadelus regulus</i>	169	35	36	2	36	278	1					1	279
<i>Vespadelus vulturnus</i>	14	18	34	1	64	131							131
<i>Miniopterus orianae oceanensis</i>	2	9		1	1	13							13
<i>Austronomus australis</i>	180	50	15	41	8	294	196	53	39	60	3	351	645
<i>Ozimops planiceps</i>	6	3	6	14	8	37	12	7	10	12	4	45	82
<i>Ozimops ridei</i>		1	1	1		3	3					3	6
<i>Saccolaimus flaviventris</i>			7			7							7
Unresolved species complexes													
<i>C. gouldii</i> or <i>Ozimops</i> sp.	3	5	32	11	2	53		3	4	4	1	12	65
<i>C. morio</i> or <i>V. vulturnus</i>	21	2	9	3	9	44					1	1	45
<i>S. greyii</i> or <i>F. tasmaniensis</i>		4	1		3	8	1					1	9
<i>S. greyii</i> or <i>V. darlingtoni</i>		1				1							1
<i>V. darlingtoni</i> or <i>V. regulus</i>	4	5	4			13	2					2	15
<i>V. regulus</i> or <i>V. vulturnus</i>	24	11	21	1	14	71							71
<i>Vespadelus</i> sp. or <i>M. o. oceanensis</i>	12	65	91	8	49	225			2	1	5	8	233
Month total	471	310	480	147	341	1749	215	63	58	81	23	440	2189

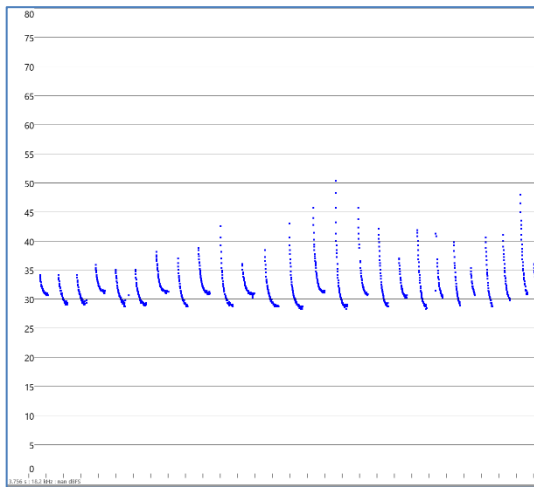
Table 4 Bats recorded at Rye park Wind Farm, November 2024 – April 2025: **Site G03**.

Level:	Ground					Ground Total	Hub					Hub Total	G03 Total
Month:	2024- 11	2025- 01	2025- 02	2025- 03	2025- 04		2024- 11	2025- 01	2025- 02	2025- 03	2025- 04		
Positively identified calls													
Chalinolobus gouldii	527	130	539	407	524	2127	1	5	5	5	2	18	2145
Chalinolobus morio		1	26	16	27	70							70
Falsistrellus tasmaniensis			3		1	4							4
Nyctophilus sp.	4	6	14	10	28	62							62
Scotorepens greyii		1	1		2	4							4
Vespadelus darlingtoni	10	6	23	3	18	60			1			1	61
Vespadelus regulus	28	21	30	1	72	152							152
Vespadelus vulturnus	25	24	26	9	112	196							196
Miniopterus orianae oceanensis	11	3		1	4	19							19
Austronomus australis	113	214	49	86	24	486	24	64	6	25		119	605
Ozimops planiceps	11	1	5	6		23	2		1			3	26
Ozimops ridei	3	1		1	8	13	1	1		1	1	4	17
Saccolaimus flaviventris													
Unresolved species complexes													
C. gouldii or Ozimops sp.	28	5	31	44	25	133			7	2	2	11	144
C. morio or V. vulturnus	6	2	13	12	18	51							51
S. greyii or F. tasmaniensis	1	1			2	4							4
S. greyii or V. darlingtoni			1			1							1
V. darlingtoni or V. regulus	1	1				2	1					1	3
V. regulus or V. vulturnus	29	18	16	3	31	97					1	1	98
Vespadelus sp. or M. o. oceanensis	30	53	48	20	125	276					1	1	277
Month total	827	488	825	619	1021	3780	29	70	20	33	7	159	3939

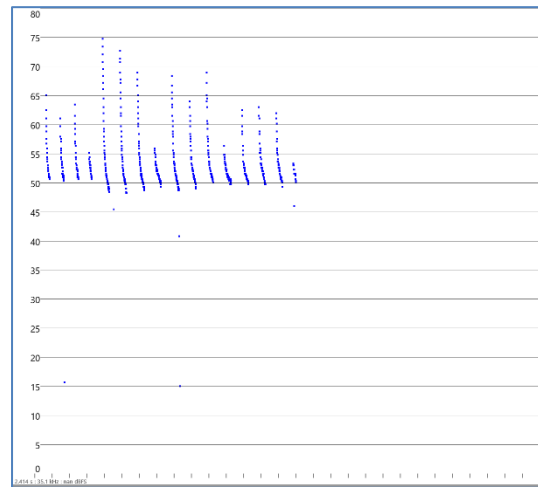
Figure 1 Relative activity levels at ground and hub level for three turbine sites: Rye Park Wind Farm, November 2024 – April 2025.



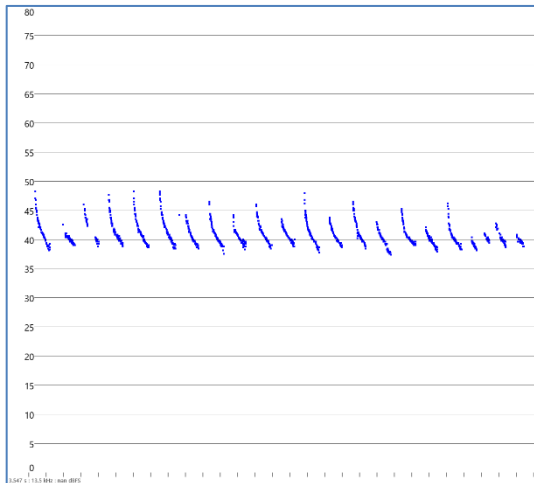
Appendix 1 Representative call sequences recorded at Rye Park Wind Farm, Nov. 2024-Apr. 2025.
x-axis = 10 ms per tick-mark; time between pulses removed ("compressed")



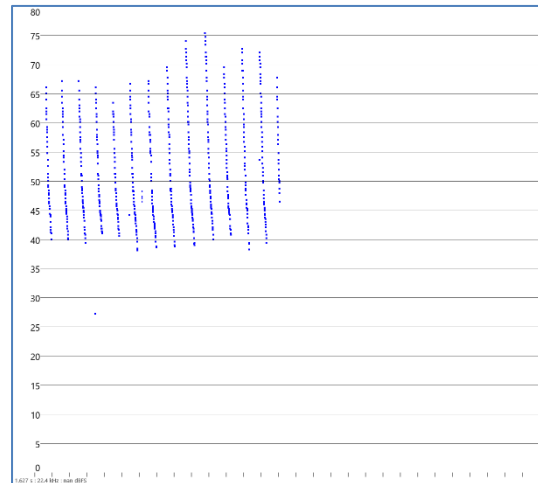
Chalinolobus gouldii



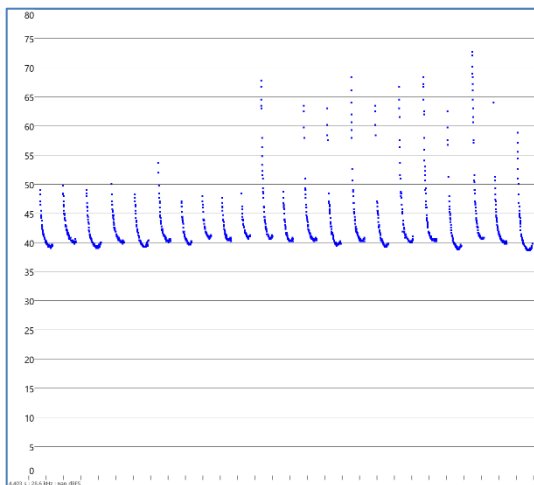
Chalinolobus morio



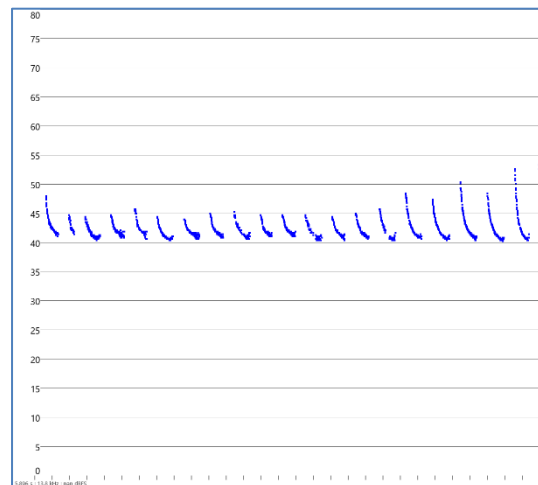
Falsistrellus tasmaniensis



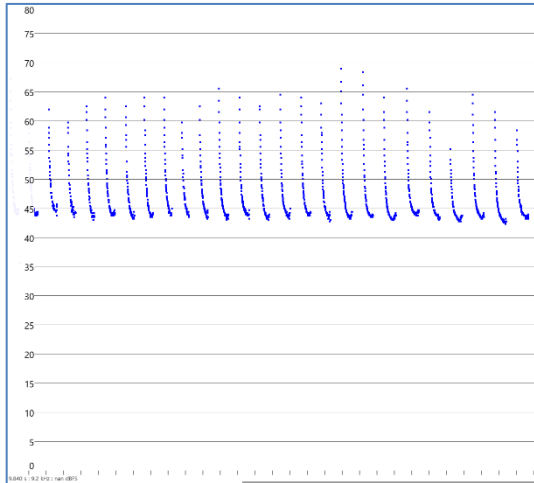
Nyctophilus sp.



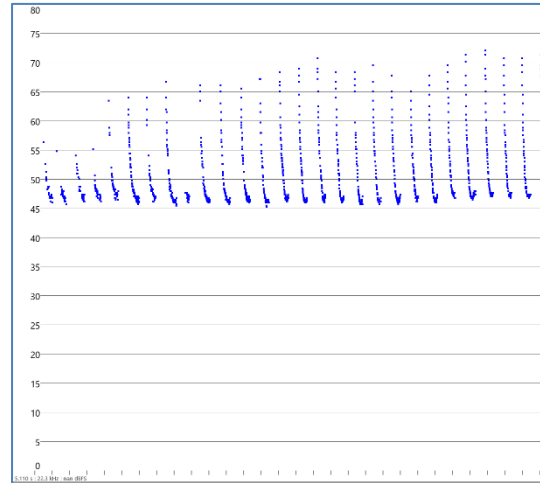
Scotorepens greyii



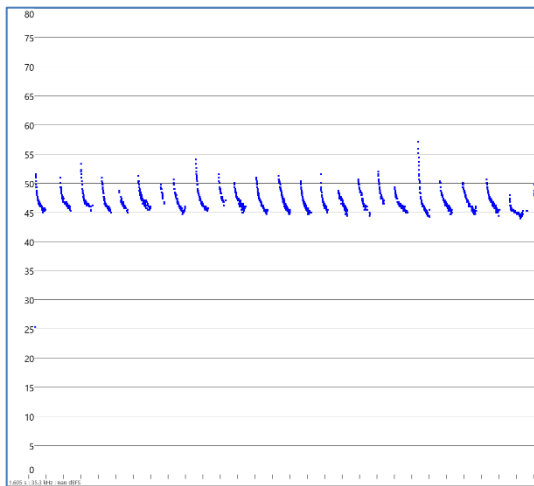
Vespadelus darlingtoni



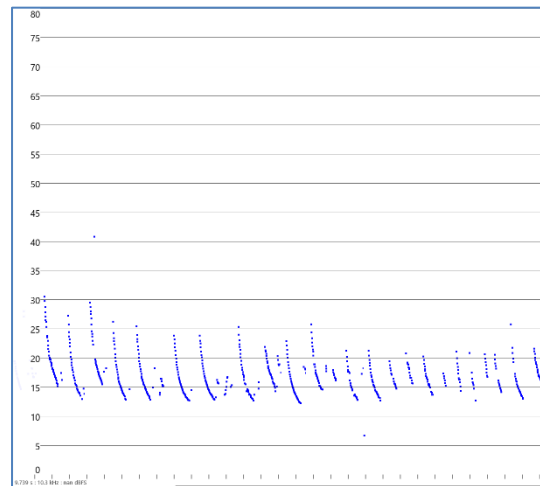
Vespadelus regulus



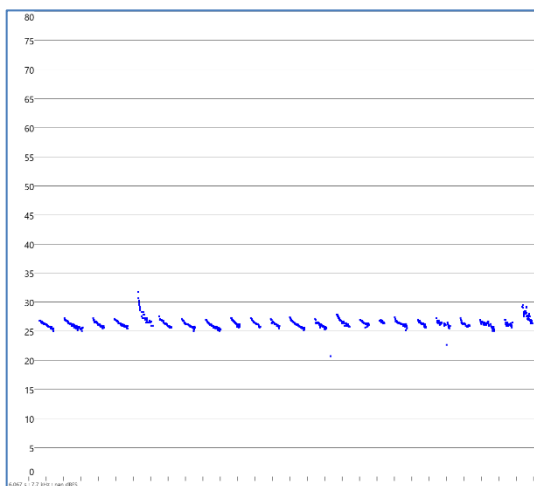
Vespadelus vulturnus



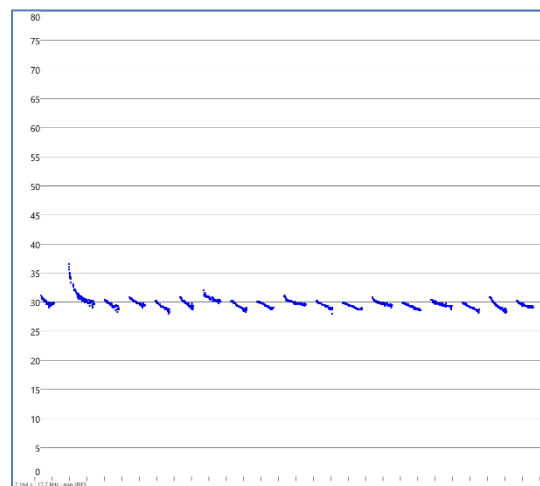
Miniopterus orianae oceanensis



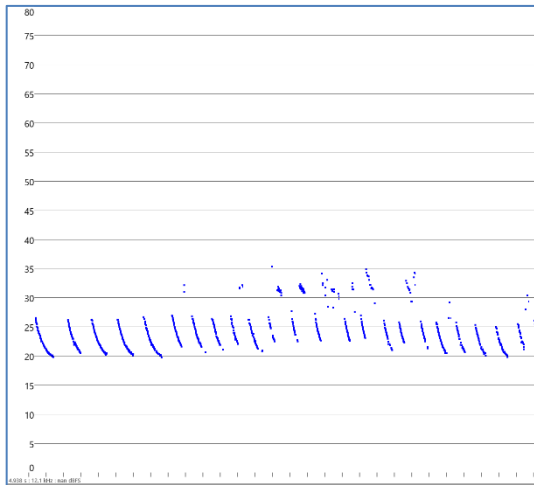
Austronomus australis



Ozimops planiceps



Ozimops ridei



Saccolaimus flaviventris



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