



Yaloak South Wind Farm: Year 1 Wedge-tailed Eagle Monitoring

Final REPORT

Prepared for Pacific Hydro

30 September 2019

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Summary

Biosis Pty Ltd was commissioned by Pacific Hydro to undertake Wedge-tailed Eagle *Aquila audax* monitoring during Year 1 of the Bird and Avifauna Management Plan (BAM Plan) program implementation at Yaloak South Wind Farm (YSWF) in western Victoria. As per the Bat and Avifauna Management Plan (Biosis 2019a, b) this included monitoring of Wedge-tailed Eagle flight and breeding activity.

YSWF reached practical completion in 2018 and the BAM Plan's minimum three year program commenced in July 2018. Concurrent with the monitoring of Wedge-tailed Eagle flight and breeding activity addressed in this report, Elmoby Ecology has undertaken a carcass search program. The results of the carcass search program are not otherwise referenced in this report.

Monthly flight activity surveys were conducted at ten locations within YSWF from July 2018 to June 2019. Surveys were conducted using the same methods as pre-construction surveys. There was no statistically significant change in activity in Year 1 surveys when compared to pre-construction surveys, however there was a slight decline in monthly flight activity in the western area of the wind farm and an increase in the eastern side.

Breeding activity surveys were undertaken by locating nests within the area surrounding the wind farm and monitoring activity to determine if successful breeding occurred. One nest was located during searches in September 2018 and was monitored until October 2018. There was no activity detected at this nest during this period. Egg laying for Wedge-tailed Eagles occur between June and September, therefore due to a lack of activity in this later period of the breeding season it was determined that this nest was inactive. No breeding activity was observed during the Year 1 of monitoring within Yaloak Estate and the immediate surrounding vicinity within 5 kilometres of the wind farm.

1. Introduction

1.1 Project background

The 14 turbine Yaloak South Wind Farm (YSWF) located near Ballan in western Victoria (Figure 1), commenced operation in June 2018. Condition 19c of the Planning Permit for YSWF issued under the Moorabool Planning Scheme (Permit No: P2010002) requires the following:

A survey program to be carried out in at least three of the first five years after commissioning of the last turbine to determine the impact of the operation of the wind energy facility on the local Wedge-tailed Eagle population and will include:

- i. Assessment of the presence, behaviour and movements of any Wedge-tailed Eagles especially breeding pairs in the vicinity of the wind energy facility.*
- ii. Requirements for periodic reporting, within agreed timeframes, of the findings of the survey program to the Department of Sustainability and Environment.*

The approved Bat and Avifauna Management Plan (BAM Plan) (Biosis 2019a, b) specifies relevant monitoring and reporting requirements. These include monitoring of Wedge-tailed Eagle *Aquila audax* flight and breeding activity.

Biosis Pty Ltd was commissioned by Pacific Hydro to undertake monitoring activities for Wedge-tailed Eagles during “Year 1” of the BAM Plan’s implementation of YSWF commencing from July 2018 and completed in June 2019. This report outlines the results of Year 1 monitoring.

YSWF reached practical completion in 2018 and the BAM Plan’s minimum three year program commenced in July 2018. Concurrent with the monitoring of Wedge-tailed Eagle flight and breeding activity addressed in this report, Elmoby Ecology has undertaken a carcass search program. The results of the carcass search program are not otherwise referenced in this report.

1.2 Scope of assessment

The objectives of this investigation are:

Monitoring of Wedge-tailed Eagle flight activity

Undertake monthly point counts at the ten predetermined locations used prior to construction and take note of flight patterns. Data resulting from point counts will be analysed cumulatively at the end of each year of data collection and assessed against documented point count data from prior to construction of the wind farm. The objective will be to determine whether eagle flight activity is statistically significantly different between pre- and post-construction.

Monitoring of wedge-tailed Eagle breeding activity

Undertake nest searches (September) and nest monitoring (October) with the objective of assessing Wedge-tailed Eagle nesting activity and success, particularly as it compares with rates documented for the species elsewhere at locations not in the vicinity of wind energy facilities.

Reporting

This report describes the methods and presents results of the two monitoring investigations conducted in Year 1. Pre-construction studies conducted by Biosis (formerly Biosis Research) at YSWF in 2009 and 2010 (Biosis Research 2010) are used as baseline data to identify any changes in behaviour.

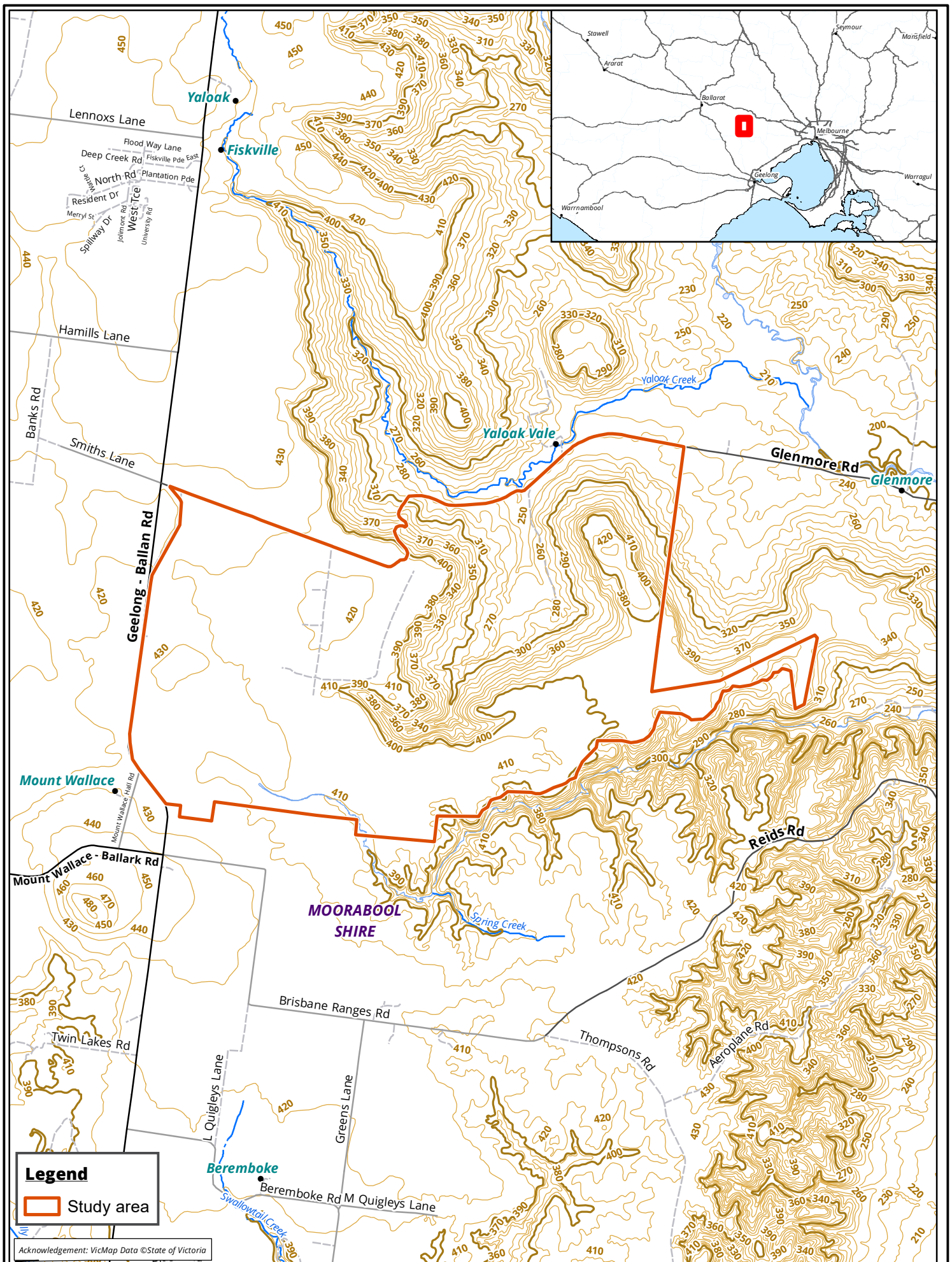


Figure 1 Location of the study area - Yaloak South Wind Farm, Victoria



2. Methods

2.1 Wedge-tailed Eagle flight activity survey

The approved BAM Plan specifies a program of monitoring Wedge-tailed Eagle flight activity based on methods applied by Biosis Research (2010).

2.1.1 Methods

Point count surveys were conducted at ten locations at a frequency of one day per month for a period of 12 months. The monitoring point locations were the same as used in the pre-construction surveys (Biosis Research 2010) (Figure 2). The coordinates of the points are presented in Table 1. The numbering of point locations ("11 – 19", "A, B") is the same as used during the pre-construction monitoring and has been maintained for continuity. Each monitoring point was surveyed twice per survey, one AM and one PM. In an effort to account for variable eagle activity, counts were carried out during all seasons, across all daylight hours and regardless of weather conditions other than conditions that reduce visibility to the extent that effective observations could not be made. Surveys for Year 1 commenced on 18 July 2018 and concluded on 17 June 2019.

During each survey the point was monitored by one stationary observer for a period of 20 minutes. Within this period the following information was recorded:

- Start time and date.
- Weather conditions.
- For Wedge-tailed Eagles only, the number of individuals, behaviour, distance from observer and height of observation was recorded.

During these surveys each new sighting of a Wedge-tailed Eagle was recorded as one activity. If a Wedge-tailed Eagle disappeared from view of the observer and then came back into view it would be recorded as a separate activity. Therefore number of records relates to flight activity and not a count of the number of individuals.

Prior to April 2019, flight data was documented on the basis of an instantaneous record of the location where an eagle was first observed in flight. This method was used as it conforms precisely to the data collection methods used during pre-construction surveys. From April 2019 surveys flight paths of Wedge-tailed Eagles were also recorded because the BAM Plan uses the term 'flight paths' and this approach may improve understanding of eagle activity over the landscape. However, it remains necessary to use the instantaneous record of the location where an eagle was first observed for comparisons of pre- and post-construction activity. The flight path was mapped from the first sighting of an individual eagle until it was no longer within sight. If multiple eagles were observed flying at the same time, whichever was sighted first was mapped.

All data was collected using electronic data tablets.

2.1.2 Data analysis

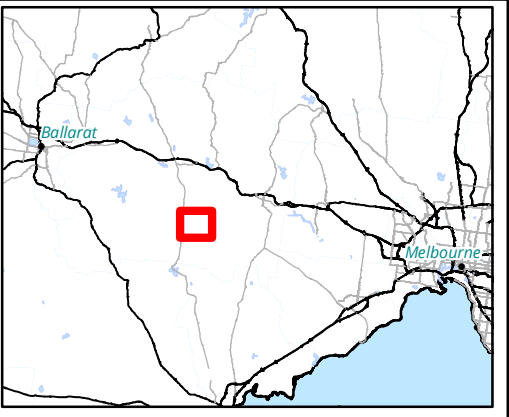
Year 1 data was compared to pre-construction phase data collected during 2009 and 2010. There was some variability in the amount of surveys undertaken during each month of the pre-construction period. In order to compare the data we have calculated the mean number of flights recorded per survey for each month and based comparisons upon these mean values. For example in August 2009 there were 7 surveys undertaken at site 11 with 16 flights recorded. Therefore the mean for August 2009 is 2.3 per survey.

A paired *t*-test was used to determine if there was any significant difference between pre-construction and Year 1 data.

In the pre-construction period, no surveys were conducted during the months of February, April, May and June so Year 1 data from those months has been excluded from these comparisons. They will, however, be used to compare with future post-construction data to identify long term patterns.

Table 1 Location of monitoring points.

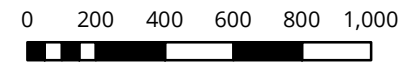
Point code	Location description	Easting (GDA94) Zone 55	Northing (GDA94) Zone 55
11	Near turbine YS01	256374	5822287
12	Between turbines YS06 and YS07	257394	5821375
13	Between turbines YS04 and YS08	256769	5820647
14	Between turbines YS04 and YS08	258625	5819893
15	Between turbines YS04 and YS08	259115	5820185
16	Between turbines YS04 and YS08	259866	5820934
17	Between turbines YS04 and YS08	260137	5821596
19	East of the wind farm	260603	5820706
A	Between turbines YS02 and YS03	256440	5821522
B	Between turbines YS03 and YS04	256534	5820914



Legend

- Study area
- Survey point
- ▲ Turbine location

Figure 2 Wedge-tailed Eagle monitoring sites



Metres
 Scale: 1:22,000 @ A3
 Coordinate System: GDA 1994 VICGRID94

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 Sydney, Wangaratta & Wollongong

Matter: 27507,
 Date: 06 August 2019,
 Checked by: CEP, Drawn by: LW, Last edited by: IWilson
 Location: P:\27500s\27507\Mapping\
 27507_F2_TurbineLocations.mxd

Acknowledgements: Vicmap ©State of Victoria

2.2 Wedge-Tailed Eagle breeding activity

The BAM Plan specifies a program of monitoring Wedge-tailed Eagle breeding activity by determining nest locations and monitoring activity and success, the primary measure of success being the number of juveniles fledged from nests.

2.2.1 Methods

Area searches to determine nest locations were undertaken early in the breeding season within areas previously surveyed (BLA 2007). The area searched included Yaloak estate, and the surrounding local area within 5 kilometres of the wind farm. Biosis consulted with staff from Yaloak Estate, and visited nest locations known from pre-construction surveys (Appendix 1).

One day of searching was undertaken by two ecologists on 22 August 2018, which focused within the southern area of Yaloak Estate and the surrounding local area. Outside of Yaloak Estate surveys were limited to areas with public accessibility. A spotting scope was used to survey inaccessible areas from afar. This included a number of vantage points for the northern section of Brisbane Ranges National Park which is directly adjacent to Yaloak Estate.

A further two days of searching was conducted by two ecologists throughout northern and central areas of Yaloak Estate on 13 and 14 September 2018. This involved a combination of driving and walking around the site where accessible and using a spotting scope to check areas with limited accessibility.

Any nest located during the searches was then observed for a further three times through the rest of September until the end of October. Observations were made once a fortnight as required by the BAM Plan. Observations were made using a spotting scope from a vantage point approximately 100 metres away from the nest in order to reduce disturbance to the eagles present. An observer would watch the nest for approximately an hour and record observations of any activity in the nest or from adult eagles observed near the nest.

3. Results

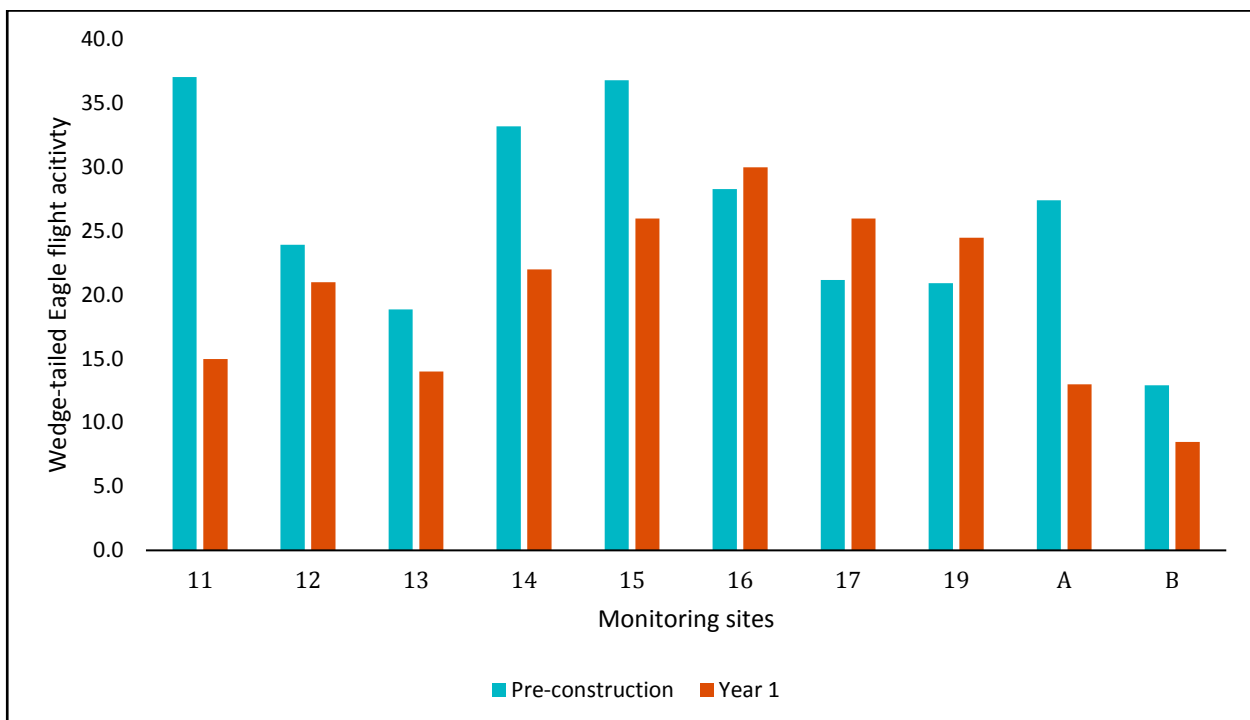
3.1 Wedge-tailed Eagle activity survey

During Year 1 surveys, a total of 391 Wedge-tailed Eagle flights were recorded, with eagles recorded around the site during all 12 months. Much of this activity was concentrated around the eastern area of the site near the escarpments and over the Brisbane Ranges National Park. Activity was highest during winter and spring. Statistical analysis of pre-construction and Year 1 data showed no significant difference between the two periods. The mean change in activity ($M=6.07$, $SD=8.57$, $N=10$) was not significantly greater than zero ($t(9)=2.24$, two-tailed $p=0.052$).

However there was a change in how the site was used between the two periods. Whilst the majority of point count locations had a decrease in eagle activity, sites 16, 17, and 19 had an increase in activity when compared to the pre-construction surveys (Figure 3). These sites are situated in the eastern part of the wind farm along the edges of escarpments.

Whilst the overall trend shows reduced activity directly within the wind farm, Wedge-tailed Eagles were observed flying at rotor height within the wind farm throughout the 12 months, and there was no obvious evidence of avoidance behaviour of the turbines during Year 1. Figure 4 shows the flight paths that Wedge-tailed Eagles used when flying within the YSWF during all the surveys conducted from April to June 2019.

Figure 3 Comparison of pre-construction and Year 1 Wedge-tailed Eagle activity excluding data from February, April, May and June of 2019 as per section 2.1.2



In addition to the presence and operation of the wind farm, there are a number of variables that may have affected eagle activity between pre-construction and Year 1 surveys. There was also a nine-year interval between the two periods of monitoring. Activity may have been affected by a change in nesting sites by Wedge-tailed Eagles and resource availability in the wider region. We do not have information for the period

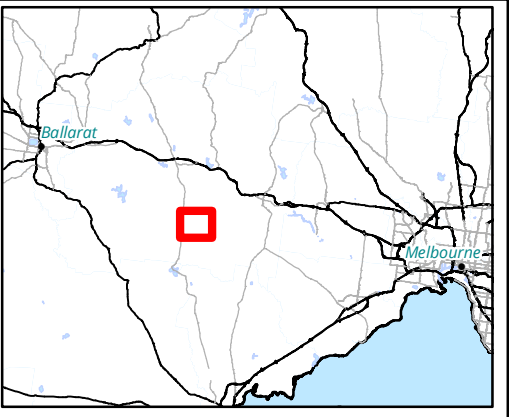
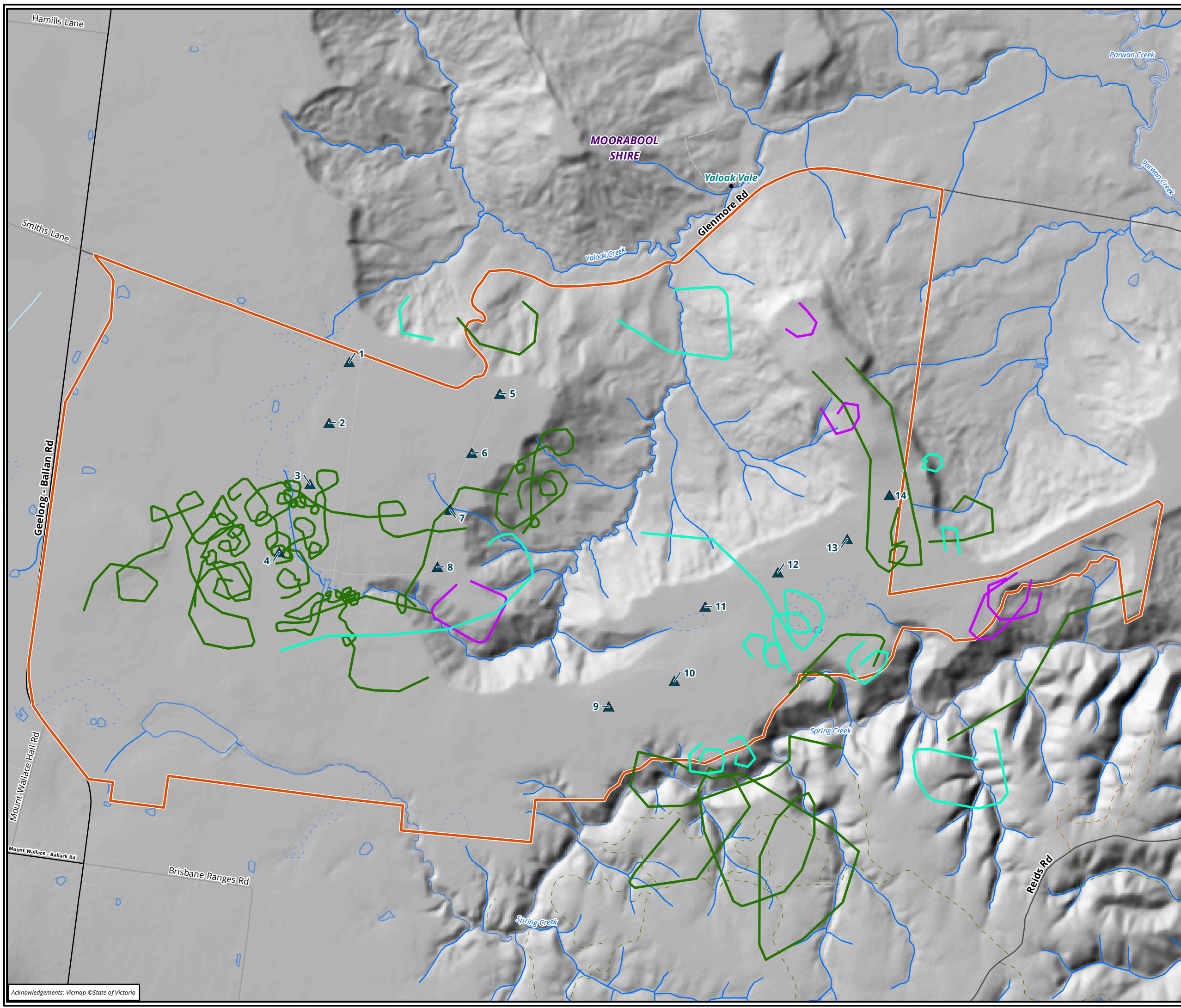
between 2010 and 2018 but at some time in that period it appears that two Wedge-tailed Eagle nests within Yaloak Estate that were known to have been active at times between 2006 and 2009 were no longer in existence or were no longer active in Year 1. Staff of the Estate reported that no active nests had been observed by them for a number of years (see Section 3.2).

Changes in land use and management of Yaloak Estate have also taken place. During 2009 and 2010 no lambing occurred within the portion of the property where the wind farm now operates. Lambing did take place in some paddocks near turbines in 2018, although we note that lambing is no longer permitted there and did not take place there in 2019. Rotation between areas cropped and used for sheep also appear to have differed somewhat between 2009/2010 and Year 1.

3.2 Wedge-tailed Eagle breeding survey

One Wedge-tailed Eagle nest was recorded within Yaloak Estate, while no nests were recorded in the surrounding area outside of the estate (Figure 5). During 2018, this nest within the estate was monitored from mid-September until the end of October from a vantage point that allowed for the observers to partly see into the nest. During this period no activity was observed in or around it. Egg laying for Wedge-tailed Eagles is known to occur between April to September, with egg hatching generally occurring during September and October in Victoria (Marchant and Higgins 1993). As there was no activity observed during this period it was determined that the nest was inactive and no further surveys were undertaken. The current land managers informed us that no active nests had been observed by them for a number of years within Yaloak Estate.

The nest recorded during Year 1 was one of the three active nests recorded in 2006–2009 during pre-construction surveys. None of the other nests from that period of surveys, shown in Appendix 1, could be located.



Legend

- Study area
 - ▲ Turbine location
- Wedge-tailed Eagle flight paths**
- 17/06/2019
 - 21/05/2019
 - 18/04/2019

Figure 4 Wedge-tailed Eagle flight path observations

0 200 400 600 800 1,000
 Metres
 Scale: 1:22,000 @ A3
 Coordinate System: GDA 1994 VICGRID94



Matter: 27507,
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 Checked by: CEP, Drawn by: LW, Last edited by: IWilson
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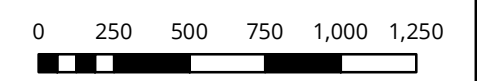
Acknowledgements: Vicmap ©State of Victoria



Legend

- Study area
- + Wedge-tailed Eagle nest

Figure 5 Wedge-tailed Eagle nest location 2018



Metres
 Scale: 1:25,000 @ A3
 Coordinate System: GDA 1994 VICGRID94



Matter: 27507,
 Date: 07 August 2019,
 Checked by: CEP, Drawn by: LW, Last edited by: IWilson
 Location: P:\27500s\27507\Mapping\27507_F4_EagleNest.mxd

Acknowledgements: Vicmap ©State of Victoria

4. Conclusion

Year 1 monitoring for Wedge-tailed Eagles at YSWF showed no significant change in Wedge-tailed Eagle flight activity, however, a reduction in breeding activity in comparison to pre-construction data was noted. Other than the presence of turbines, there are many variables that may have affected these results including long-term weather conditions, resource availability and changes in land management. Overall, the results of Year 1 do not provide any evidence that the presence and operation of the wind farm have had a measurable effect on use of the site by Wedge-tailed Eagles.

Nonetheless, Wedge-Tailed Eagles were observed within the site during the entire 12 months. Monitoring will continue for at least a further two years in order to determine any patterns in the activity of Wedge-tailed Eagles.

References

Biosis Research 2010. Wedge-tailed Eagle Turbine Collision Risk Modelling Yaloak South Wind Farm. Report prepared for Pacific Hydro Pty Ltd. Authors: Smales, I., Sofo, K. & McCutcheon, C., Biosis Pty Ltd, Melbourne.

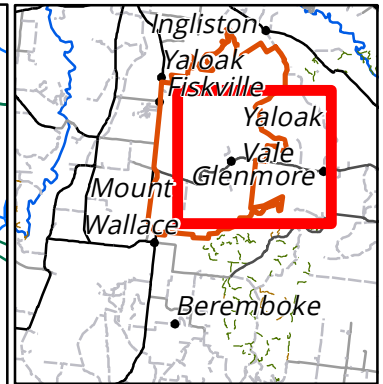
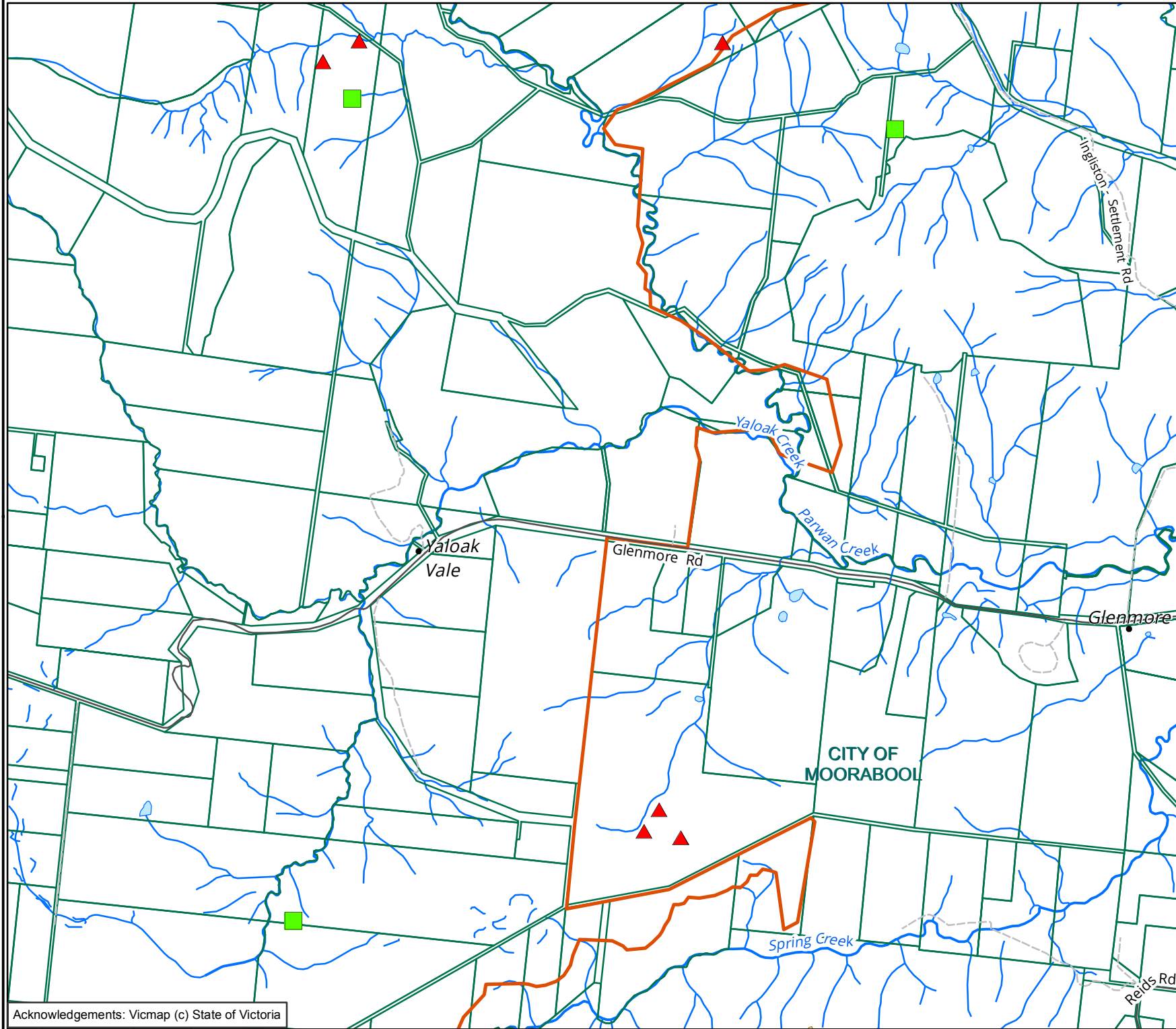
Biosis 2019a. Bat and Avifauna Management Plan for Yaloak South Wind Farm: Volume 1 Background & Rationale. Report for Pacific Hydro Pty Ltd. Authors: Smales, I. & Gilmore, D, Biosis Pty Ltd, Melbourne.

Biosis 2019b. Bat and Avifauna Management Plan for Yaloak South Wind Farm: Volume 2 Implementation Plan. Report for Pacific Hydro Ltd. Authors: Smales, I. & Gilmore, D., Biosis Pty Ltd, Melbourne.

Brett Lane and Associates 2007. Yaloak Estate Wedge-tailed Eagle Age Structure Survey. Report prepared for Pacific Hydro Pty Ltd. Brett Lane and Associates, Melbourne

Marchant, S., and Higgins, P.J 1993. Handbook of Australian, New Zealand and Antarctic Birds, Volume 2: Raptors to Lapwings', Oxford University Press, Melbourne.

Appendix 1 Locations of wedge-tailed eagle nests 2009 (pre-construction)



Legend

- Study Area
- WTE nests**
- Active nests
- ▲ Inactive nests

Figure 5: Locations of Wedge-tailed Eagle nests 2009

0 240 480 720 960 1,200
 Metres
 Scale: 1:35,000 @ A4
 Coordinate System: GDA 1994 MGA Zone 55

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Matter: 17144,
 Date: 02 May 2014,
 Checked by: JS, Drawn by: JMS, Last edited by: jshepherd
 Location: P:\17100s\17144\Mapping\17144_F2_WTE

Appendix 2 Raw data from Wedge-tailed Eagle flight monitoring

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
18/07/2018	1	1	20	500	Flying	flew behind wind turbine	17	144.2785	-37.7217
18/07/2018	1	1	50	800	Flying	flying around turbine	17	144.2785	-37.7216
18/07/2018	1	2	100	1000	Flying		17	144.2785	-37.7216
18/07/2018	1	1	1500	80	Flying		17	144.2785	-37.7216
18/07/2018	1	1	80	250	Flying		17	144.2785	-37.7216
18/07/2018	1	1	100	1000	Flying		17	144.2785	-37.7216
18/07/2018	1	1	150	1800	Flying		17	144.2785	-37.7216
18/07/2018	1	6	50	1000	Flying		17	144.2785	-37.7217
18/07/2018	1	2	80	1500	Flying	in valley	17	144.2784	-37.7217
18/07/2018							17	144.2784	-37.7217
18/07/2018	1	2	150	2000	Flying		19	144.2835	-37.7297
18/07/2018	1	1	50	1500	Flying		19	144.2835	-37.7297
18/07/2018	1	1	80	1000	Flying		19	144.2835	-37.7297
18/07/2018	1	1	150	1500	Flying		19	144.2834	-37.7297
18/07/2018	1	1	20	500	Flying		19	144.2835	-37.7297
18/07/2018	1	1	30	1500	Flying		19	144.2835	-37.7297

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
18/07/2018	1	1	200	500	Flying		19	144.2835	-37.7297
18/07/2018	1	1	250	1200	Flying		19	144.2835	-37.7297
18/07/2018	1	1	200	1000	Flying		19	144.2835	-37.7297
18/07/2018							19	144.2835	-37.7297
18/07/2018	1	1	250	1000	Flying		16	144.2753	-37.7274
18/07/2018	1	1	30	800	Flying		16	144.2753	-37.7274
18/07/2018	1	1	150	600	Flying		16	144.2753	-37.7274
18/07/2018	1	1	50	0	Flying		16	144.2753	-37.7274
18/07/2018	1	1	100	0	Flying		16	144.2753	-37.7275
18/07/2018	1	1	150	200	Flying		16	144.2753	-37.7275
18/07/2018	1	1	100	200	Flying		16	144.2753	-37.7274
18/07/2018							16	144.2753	-37.7274
18/07/2018	1	1	150	500	Flying		15	144.2664	-37.7339
18/07/2018	1	1	100	1000	Flying		15	144.2664	-37.7339
18/07/2018	1	1	120	1000	Flying		15	144.2664	-37.7339
18/07/2018							15	144.2664	-37.7339
18/07/2018	1	1	80	200	Flying		14	144.2607	-37.7365
18/07/2018	1	1	80	400	Flying		14	144.2607	-37.7365

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
18/07/2018	1	1	30	1200	Flying		11	144.2361	-37.7144
18/07/2018	1	1	100	1000	Flying		11	144.2361	-37.7144
18/07/2018	1	1	120	1000	Flying		11	144.2361	-37.7144
18/07/2018							11	144.2361	-37.7144
18/07/2018							A	144.2386	-37.7238
18/07/2018							13	144.2399	-37.7293
18/07/2018							B	144.2374	-37.7267
18/07/2018	1	1	90	900	Flying		12	144.2476	-37.7232
18/07/2018	1	1	80	1000	Flying		12	144.2476	-37.7232
18/07/2018	1	1	40	1000	Flying	flying around turbine	12	144.2476	-37.7232
18/07/2018							12	144.2476	-37.7232
18/07/2018	1	1	20	100	Flying		11	144.2362	-37.7144
18/07/2018	1	1	50	1200	Flying		11	0	0
18/07/2018							11	0	0
18/07/2018	1	1	50	1000	Flying		A	144.2366	-37.7216
18/07/2018	1	1	60	1000	Flying		A	144.2366	-37.7217
18/07/2018	1	1	80	1300	Flying		A	144.2366	-37.7217
18/07/2018	1	1	70	1100	Flying		A	144.2366	-37.7216

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
18/07/2018							A	0	0
18/07/2018	1	1	90	1500	Flying		13	144.2399	-37.7294
18/07/2018	1	1	50	1500	Flying		13	144.2399	-37.7294
18/07/2018	1	1	30	1400	Flying		13	144.2399	-37.7294
18/07/2018	1	1	70	1000	Flying		13	144.2399	-37.7294
18/07/2018	1	1	90	1300	Flying		13	144.2399	-37.7294
18/07/2018	1	1	130	2000	Flying		13	144.2399	-37.7294
18/07/2018							13	144.2399	-37.7293
18/07/2018							B	144.2371	-37.7278
18/07/2018	1	1	120	2000	Flying		12	144.2474	-37.7228
18/07/2018	1	1	50	1700	Flying		12	144.2474	-37.7228
18/07/2018	1	1	80	2000	Flying		12	144.2474	-37.7228
18/07/2018	1	1	50	1000	Flying	Flying really close to turbine blade	12	144.2474	-37.7228
18/07/2018	1	1	100	1300	Flying		12	144.2474	-37.7229
18/07/2018							12	0	0
18/07/2018	1	1	60	800	Flying		17	144.2784	-37.7216
18/07/2018	2	2	120	900	Flying		17	144.2784	-37.7216
18/07/2018	3	3	50	1200	Flying		17	144.2784	-37.7216

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
18/07/2018	1	1	100	900	Flying		17	144.2784	-37.7216
18/07/2018							17	0	0
18/07/2018	1	1	100	1200	Flying		19	144.2832	-37.7297
18/07/2018	1	1	80	700	Flying		19	144.2833	-37.7297
18/07/2018	1	1	30	700	Flying		19	144.2833	-37.7297
18/07/2018	1	1	80	900	Flying		19	144.2833	-37.7297
18/07/2018	1	1	130	1500	Flying		19	144.2832	-37.7297
18/07/2018							19	0	0
18/07/2018	1	1	70	100	Flying		16	144.2752	-37.7274
18/07/2018	1	1	100	1100	Flying		16	144.2753	-37.7274
18/07/2018	1	1	100	1100	Flying		16	144.2753	-37.7274
18/07/2018							16	0	0
18/07/2018	1	1	60	700	Flying		15	144.2665	-37.734
18/07/2018	1	1	80	1200	Flying		15	144.2665	-37.734
18/07/2018	2	2	100	900	Flying	Two individuals flying together over gorge	15	144.2662	-37.7344
18/07/2018							15	0	0
18/07/2018	1	1	90	800	Flying		14	144.2608	-37.7365
18/07/2018	1	1	100	1100	Flying		14	144.2608	-37.7365

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
18/07/2018	1	1	120	1600	Flying		14	144.2608	-37.7365
18/07/2018	1	1	80	900	Flying		14	144.2608	-37.7365
18/07/2018							14	144.2605	-37.7363
10/12/2018		0					B	144.2398	-37.7286
10/12/2018		0					A	144.2401	-37.7204
10/12/2018		0					11	144.2361	-37.7143
10/12/2018	1	1	350	1400	Flying		13	144.2397	-37.73
10/12/2018	1	1	250	1500	Flying		12	144.2479	-37.7238
10/12/2018	1	1	500	1000	Flying		19	144.2795	-37.725
10/12/2018		0					17	144.2795	-37.725
10/12/2018	1	1	100	1100	Flying		16	144.2755	-37.7282
10/12/2018		0					15	144.2648	-37.7347
10/12/2018	1	1	100	1250	Flying		14	144.2603	-37.7362
10/12/2018	1	1	600	1750	Flying		14	144.2603	-37.7362
10/12/2018		0					14	144.2604	-37.7362
10/12/2018		0					14	144.2617	-37.736
10/12/2018		0					15	144.2688	-37.7334
10/12/2018		0					16	144.2762	-37.7274

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
10/12/2018	1	1	80	700	Flying		17	144.2808	-37.7264
10/12/2018		0					17	144.2787	-37.7217
10/12/2018	1	1	100	300	Flying		19	144.2797	-37.7254
10/12/2018		0					19	144.2831	-37.7295
10/12/2018	1	1	90	600	Flying		12	144.2472	-37.7223
10/12/2018	1	1	90	800	Flying		12	144.2472	-37.7224
10/12/2018	1	1	100	500	Flying		12	144.2472	-37.7224
10/12/2018		0					12	144.247	-37.7224
10/12/2018	1	1	120	900	Flying		11	144.236	-37.7144
10/12/2018	1	1	100	850	Flying		A	144.238	-37.7236
10/12/2018	1	1	120	700	Flying		A	144.238	-37.7237
10/12/2018	1	1	100	800	Flying		A	144.2382	-37.7235
10/12/2018		0					A	144.2381	-37.7237
10/12/2018		0					B	144.2398	-37.7298
10/12/2018	1	1	80	700	Flying		13	144.2399	-37.7298
10/12/2018		0					13	144.2398	-37.7298
17/01/2019	1	1	100	600	Flying		13	144.2405	-37.7285
17/01/2019	1	1	100	600	Flying		13	144.2398	-37.7299

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
17/01/2019		0					B	144.238	-37.7237
17/01/2019	1	1	90	800	Flying		A	144.238	-37.7237
17/01/2019		0					A	144.238	-37.7237
17/01/2019		0					11	144.2361	-37.7144
17/01/2019		0					12	144.2473	-37.7227
17/01/2019		0					17	144.2797	-37.7252
17/01/2019		0					19	144.2832	-37.7298
17/01/2019		0					16	144.2759	-37.728
17/01/2019		0					15	144.2666	-37.7341
17/01/2019		0					14	144.2608	-37.7363
17/01/2019		0					17	144.2796	-37.7253
17/01/2019	1	1	200	1250	Flying		19	144.2796	-37.7253
17/01/2019		0					16	144.2773	-37.7266
17/01/2019	1	1	350	900	Flying		15	144.2679	-37.7333
17/01/2019	1	1	50	300	Flying		15	144.2679	-37.7333
17/01/2019	1	1	800	1500	Flying		15	144.2679	-37.7333
17/01/2019	1	1	250	800	Flying		14	144.2603	-37.7362
17/01/2019	1	1	125	1250	Flying		13	144.2399	-37.7294

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
17/01/2019		0					12	144.2477	-37.7238
17/01/2019		0					B	144.2398	-37.7283
17/01/2019		0					A	144.2399	-37.7203
17/01/2019		0					11	144.2361	-37.7144
19/02/2019	1	1	100	1200	Flying		15	144.2667	-37.7339
19/02/2019	1	1	350	1300	Flying		15	144.2667	-37.7339
19/02/2019		0					15	144.2668	-37.7339
19/02/2019		0					14	144.2604	-37.7361
19/02/2019		0					12	144.2477	-37.7238
19/02/2019		0					13	144.2399	-37.7293
19/02/2019		0					B	144.2386	-37.7284
19/02/2019		0					A	144.24	-37.7203
19/02/2019	1	1	200	2000	Flying		11	144.2361	-37.7144
19/02/2019		0					11	144.2361	-37.7144
19/02/2019	1	1	350	1250	Flying		19	144.2795	-37.725
19/02/2019	1	1	200	900	Flying		17	144.2796	-37.7251
19/02/2019	1	1	150	500	Flying		16	144.2762	-37.7272
19/02/2019	1	1	350	750	Flying		16	144.2762	-37.7273

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
19/02/2019	1	1	100	800	Flying		13	144.2398	-37.7298
19/02/2019	1	1	60	200	Flying		13	144.2398	-37.7299
19/02/2019		0					13	144.2398	-37.7298
19/02/2019	1	1	100	1200	Flying		11	144.2403	-37.7272
19/02/2019		0					B	144.2384	-37.7283
19/02/2019	1	1	80	1200	Flying		A	144.238	-37.7237
19/02/2019		0					A	144.238	-37.7237
19/02/2019		0					12	144.2406	-37.7284
19/02/2019	1	1	60	100	Flying		16	144.2786	-37.7218
19/02/2019	1	1	80	1000	Flying		16	144.2786	-37.7218
19/02/2019	1	1	100	900	Flying		16	144.2787	-37.7218
19/02/2019		0					16	144.2796	-37.7252
19/02/2019	1	1	30	300			19	144.2813	-37.7283
19/02/2019		0					19	144.2833	-37.7297
19/02/2019	1	1	80	1100	Flying		16	144.2756	-37.7282
19/02/2019	1	1	80	1100	Flying		16	144.2756	-37.7282
19/02/2019		0					16	144.2756	-37.7282
19/02/2019		0					15	144.2669	-37.734

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
19/02/2019	1	1	100	800	Flying		14	144.2609	-37.7362
19/02/2019	1	1	90	800	Flying		14	144.2609	-37.7362
19/02/2019	1	1	110	900	Flying		14	144.2609	-37.7362
19/02/2019		0					14	144.2609	-37.7361
20/03/2019		0					11	144.2361	-37.7144
20/03/2019		0					A	144.2365	-37.7212
20/03/2019		0					B	144.2374	-37.7267
20/03/2019	1	1	40	650	Flying		12	144.2486	-37.724
20/03/2019	1	1	150	1100	Flying		13	144.2399	-37.7296
20/03/2019	1	1	200	1100	Flying		13	144.2399	-37.7296
20/03/2019		0					14	144.263	-37.7357
20/03/2019		0					15	144.2662	-37.7343
20/03/2019		0					16	144.2761	-37.7278
20/03/2019		0					19	144.2835	-37.7294
20/03/2019		0					17	144.2784	-37.7215
20/03/2019	1	1	40	800	Flying		14	144.2611	-37.7361
20/03/2019	1	1	150	700	Flying		14	144.2611	-37.7362
20/03/2019		0					14	144.2611	-37.7362

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
20/03/2019		0					15	144.2677	-37.7337
20/03/2019		0					16	144.271	-37.7323
20/03/2019	1	1	100	700	Flying		17	144.279	-37.7214
20/03/2019	1	1	100	400	Flying		19	144.2832	-37.7297
20/03/2019		0					19	144.2832	-37.7297
20/03/2019		0					11	144.2361	-37.7144
20/03/2019		0					A	144.238	-37.7236
20/03/2019		0					B	144.2378	-37.7278
20/03/2019		0					12	144.2473	-37.7224
20/03/2019		0					13	144.2398	-37.7299
18/04/2019		0					A	144.2412	-37.7204
18/04/2019	1	1	200	1250	Flying		11	144.236	-37.7143
18/04/2019		0					B	144.2385	-37.7283
18/04/2019		0					13	144.2399	-37.7296
18/04/2019		0					12	144.2477	-37.7238
18/04/2019	1	1	300	750	Flying		15	144.2657	-37.7343
18/04/2019	1	1	400	800	Flying		15	144.2698	-37.7328
18/04/2019	1	1	350	500	Flying		19	144.2807	-37.7244

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
18/04/2019		0					19	144.2807	-37.7244
18/04/2019	1	1	150	450	Flying		17	144.2797	-37.7249
18/04/2019		0					17	144.2784	-37.722
18/04/2019		0					16	144.2759	-37.7274
18/04/2019		0					14	144.2603	-37.7364
18/04/2019	1	1	200	20	Flying		17	144.2784	-37.7217
18/04/2019	1	1	120	600	Flying		19	144.2828	-37.7284
18/04/2019	1	1	150	1600	Flying		19	144.2834	-37.7292
18/04/2019	1	1	150	800	Flying	Over ranges	16	144.2758	-37.7281
18/04/2019		0					15	144.2666	-37.7342
18/04/2019		0					14	144.2606	-37.7363
18/04/2019	1	1	200	100	Flying		13	144.2398	-37.7298
18/04/2019	1	1	150	40	Flying		13	144.2399	-37.7299
18/04/2019	1	1	100	100	Flying		12	144.2477	-37.7233
18/04/2019	1	1	100	400	Flying		12	144.2476	-37.7233
18/04/2019	1	1	120	600	Flying		12	144.2476	-37.7233
18/04/2019	1	1	120	900	Flying		B	144.2373	-37.7264
18/04/2019	1	1	130	950	Flying		B	144.2373	-37.7264

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
18/04/2019	1	1	90	900	Flying		A	144.2365	-37.7212
18/04/2019	1	1	90	1100	Flying		A	144.2365	-37.7212
18/04/2019	1	1	110	1400	Flying		A	144.2365	-37.7212
18/04/2019	1	1	110	1400	Flying		A	144.2365	-37.7212
18/04/2019	1	4	15	1700	Flying		11	144.236	-37.7144
21/05/2019	1	1	200	1100	Flying		13	144.2399	-37.7295
21/05/2019	1	1	400	1200	Flying		B	144.2398	-37.7203
21/05/2019		0					A	144.2398	-37.7203
21/05/2019		0					11	144.2361	-37.7143
21/05/2019	1	1	400	1250	Flying		12	144.2477	-37.7238
21/05/2019		0					19	144.2833	-37.7272
21/05/2019	1	1	200	850	Flying		17	144.2795	-37.7253
21/05/2019		0					16	144.2762	-37.7273
21/05/2019	1	1	300	900	Flying		15	144.2659	-37.7343
21/05/2019	1	1	900	2000	Flying		15	144.2659	-37.7343
21/05/2019		0					15	144.2762	-37.7273
21/05/2019	1	1	250	1500	Flying		14	144.2604	-37.7362
21/05/2019	1	1	600	1700	Flying		14	144.2604	-37.7362

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
21/05/2019		0					14	144.2604	-37.7362
21/05/2019	1	1	100	2300	Flying		17	144.2796	-37.7252
21/05/2019							17	144.2796	-37.7252
21/05/2019	1	1	90	900	Flying		19	144.2832	-37.7297
21/05/2019							19	144.2832	-37.7296
21/05/2019	1	1	60	1100	Flying		16	144.2762	-37.7274
21/05/2019	1	1	70	2000	Flying		16	144.2763	-37.7274
21/05/2019	1	1	70	2000	Flying		16	144.2762	-37.7274
21/05/2019	1	1	100	1000	Flying		16	144.2762	-37.7274
21/05/2019							16	144.2762	-37.7274
21/05/2019	1	1	120	2100	Flying		15	144.268	-37.7335
21/05/2019	1	1	100	500	Flying		15	144.268	-37.7335
21/05/2019	1	1	100	500	Flying		15	144.268	-37.7335
21/05/2019							15	144.268	-37.7335
21/05/2019	1	1	100	700	Flying		14	144.2609	-37.7362
21/05/2019	1	1	80	1500	Flying		14	144.2609	-37.7362
21/05/2019							14	144.2609	-37.7361
21/05/2019							B	144.2418	-37.7178

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
21/05/2019							11	144.2361	-37.7143
21/05/2019	1	1	70	2000	Flying		12	144.2473	-37.7225
21/05/2019	1	1	250		Perched	On ground eating sheed carcass	13	144.2398	-37.7299
21/05/2019							A	144.238	-37.7237
17/06/2019		0					17	144.2795	-37.7252
17/06/2019		0					17	144.2795	-37.7252
17/06/2019	1	1	250	250	Flying		19	144.2795	-37.7252
17/06/2019		0					19	144.2796	-37.7252
17/06/2019	1	1	100	900	Flying		16	144.2763	-37.7274
17/06/2019		0					16	144.2763	-37.7274
17/06/2019	1	2	200	850	Flying		15	144.2669	-37.7338
17/06/2019		0					15	144.2669	-37.7339
17/06/2019	1	2	150	900	Flying		14	144.2602	-37.7362
17/06/2019		0					14	144.2602	-37.7362
17/06/2019		0					B	144.2385	-37.7283
17/06/2019		0					13	144.2399	-37.7294
17/06/2019		0					12	144.2478	-37.7238
17/06/2019		0					A	144.2399	-37.7203

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
17/06/2019		0					11	144.236	-37.7144
17/06/2019	1	1	100	500	Flying		13	144.2399	-37.7294
17/06/2019		0					12	144.2485	-37.7241
17/06/2019		0					B	144.2367	-37.7227
17/06/2019		0					A	144.2384	-37.7235
17/06/2019	1	1	100	1000	Flying		11	144.236	-37.7144
17/06/2019	1	1	120	1000	Flying		11	144.2361	-37.7144
17/06/2019	1	1	50	1000	Flying	Over forest	19	144.2809	-37.7265
17/06/2019	1	1	60	800	Flying		19	144.2834	-37.7292
17/06/2019	1	1	20	500	Flying		17	144.2794	-37.7243
17/06/2019	1	1	50	700	Flying		16	144.2666	-37.7342
17/06/2019	1	1	15	250	Flying	Ended up perched on fence under turbine 11	15	144.2666	-37.7341
17/06/2019	1	1	20	300	Flying		15	144.2663	-37.7338
17/06/2019	1	1	10	350	Perched	Perched in tree	15	144.2663	-37.7338
17/06/2019		0					14	144.2607	-37.7362
14/08/2018	1	1	40	1250	Flying		19	0	0
14/08/2018	1	1	150	1300	Flying		19	0	0

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
14/08/2018	1	1	90	2000	Flying		17	0	0
14/08/2018	1	1	60	350	Flying		17	0	0
14/08/2018	1	1	50	1900	Flying		16	0	0
14/08/2018	1	1	70	2000	Flying		16	0	0
14/08/2018	1	1	2	60	Flying	so close to me!!!!	16	0	0
14/08/2018	1	1	150	1750	Flying		15	0	0
14/08/2018	1	1	110	1100	Flying		15	0	0
14/08/2018	1	1	90	2200	Flying		15	0	0
14/08/2018	1	1	90	1500	Flying		14	0	0
14/08/2018	1	1	90	1800	Flying		14	0	0
14/08/2018	1	1	110	1500	Flying		14	0	0
14/08/2018	1	1	90	1600	Flying		14	0	0
14/08/2018	1	1	20	1000	Flying		11	0	0
14/08/2018	1	1	80	2500	Flying		11	0	0
14/08/2018	1	1	100	2600	Flying		11	0	0
14/08/2018	1	1	90	2600	Flying		11	0	0
14/08/2018	1	1	100	2500	Flying		11	0	0
14/08/2018	1	1	120	2700	Flying		11	0	0

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
14/08/2018	1	1	60	1000	Flying		11	0	0
14/08/2018	1	1	90	2000	Flying		11	0	0
14/08/2018	1	1	1100	2500	Flying		A	0	0
14/08/2018	1	1	800	2500	Flying		A	0	0
14/08/2018		0					16	0	0
14/08/2018		0					17	0	0
14/08/2018	1	1	40	750	Flying		12	0	0
14/08/2018	1	1	70	1500	Flying		12	0	0
14/08/2018	1	1	70	1500	Flying		12	0	0
14/08/2018	1	1	60	900	Flying		11	144.2362	-37.7144
14/08/2018	1	1	100	900	Flying		11	144.2362	-37.7144
14/08/2018	1	1	200	1000	Flying		11	144.2362	-37.7144
14/08/2018	1	1	30	900	Flying		a	144.2364	-37.7208
14/08/2018	1	1	80	1000	Flying		a	144.2365	-37.721
14/08/2018		1	140	800	Flying		a	144.2365	-37.721
14/08/2018		1	20	600	Flying		b	144.2374	-37.7266
14/08/2018		0					b	144.2374	-37.7267
14/08/2018	1	1	80	1000	Flying		13	144.2399	-37.7297

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
14/08/2018	1	1	100	1200	Flying		13	144.2399	-37.7297
14/08/2018		1	120	1000	Flying		12	144.2485	-37.7243
14/08/2018		2	80	800	Flying		12	144.2476	-37.7231
14/08/2018		1	40	50	Flying		12	144.2476	-37.7231
14/08/2018		1	40	100	Flying		12	144.2476	-37.7231
14/08/2018		1	40	100	Flying		19	144.2833	-37.7296
14/08/2018	1	1	80	800	Flying		19	144.2833	-37.7296
14/08/2018		1	60	800	Flying		19	144.2833	-37.7296
14/08/2018		2	200	1200	Flying		19	144.2833	-37.7296
14/08/2018		2	80	1000	Flying		19	144.2833	-37.7296
14/08/2018	1	1	180	1000	Flying		19	144.2833	-37.7296
14/08/2018		1	50	800	Flying		19	144.2833	-37.7296
14/08/2018	1	2	200	900	Flying		19	144.2833	-37.7296
14/08/2018		1	300	800	Flying		19	144.2833	-37.7296
14/08/2018		1	130	100	Flying		17	144.2785	-37.7215
14/08/2018	1	2	140	100	Flying		17	144.2785	-37.7215
14/08/2018		1	120	1000	Flying		17	144.2785	-37.7215
14/08/2018		2	100	300	Flying		17	144.2785	-37.7215

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
14/08/2018		1	160	50	Flying		17	144.2785	-37.7215
14/08/2018	1	1	15	10	Flying		17	144.2785	-37.7215
14/08/2018		4	80	800	Flying		17	144.2785	-37.7215
14/08/2018		1	40	850	Flying		17	144.2785	-37.7215
14/08/2018	1	1	200	900	Flying		17	144.2785	-37.7215
14/08/2018	1	4	20	100	Flying		16	144.2758	-37.728
14/08/2018	1	3	100	150	Flying		16	144.2755	-37.728
14/08/2018	1	2	120	400	Flying		16	144.2755	-37.7279
14/08/2018		1	30	200	Flying		16	144.2755	-37.7279
14/08/2018		1	80	250	Flying		16	144.2755	-37.7279
14/08/2018		3	70	400	Flying		16	144.2755	-37.7279
14/08/2018	1	1	90	0	Flying		16	144.2755	-37.7279
14/08/2018		1	100	0	Flying		16	144.2755	-37.7279
14/08/2018		1	90	800	Flying		16	144.2755	-37.7279
14/08/2018	1	1	100	1000	Flying		16	144.2755	-37.7279
14/08/2018		2	100	200	Flying		16	144.2755	-37.7279
14/08/2018		2	120	300	Flying		16	144.2755	-37.7279
14/08/2018		2	80	200	Flying		16	144.2755	-37.7279

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
14/08/2018		1	150	400	Flying		16	144.2755	-37.7279
14/08/2018		2	100	500	Flying		16	144.2755	-37.7279
14/08/2018		2	150	800	Flying		16	144.2755	-37.7279
14/08/2018	1	1	20	250	Flying		15	144.2671	-37.7339
14/08/2018	1	4	100	500	Flying		15	144.2666	-37.7339
14/08/2018	1	1	125	500	Flying		15	144.2666	-37.7339
14/08/2018	1	1	100	250	Flying		15	144.2666	-37.7339
14/08/2018	1	1	20	150	Flying		15	144.2666	-37.7338
14/08/2018	1	2	40	400	Flying		15	144.2666	-37.7338
14/08/2018	1	1	50	500			15	144.2666	-37.7338
14/08/2018	1	2	60	500	Flying		15	144.2666	-37.7338
14/08/2018	1	1	60	550	Flying		15	144.2666	-37.7339
14/08/2018	1	2	100	300	Flying		15	144.2666	-37.7339
14/08/2018	1	1	90	150	Flying	over turbines	15	144.2666	-37.7338
14/08/2018	1	5	100	400	Flying		14	144.2608	-37.7365
14/08/2018	1	2	30	200	Flying		14	144.2608	-37.7364
14/08/2018	1	2	60	20	Flying		14	144.2608	-37.7364
14/08/2018	1	1	40	300	Flying		14	0	0

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
14/08/2018	1	1	40	80	Flying		14	144.2608	-37.7364
14/08/2018	1	2	50	200	Flying	over gully	14	144.2608	-37.7364
14/08/2018	1	1	60	200	Flying		14	144.2608	-37.7364
14/08/2018		0					14	144.2608	-37.7364
18/09/2018	1	2	150	1500	Flying		12	144.2486	-37.724
18/09/2018		0					13	144.2399	-37.7294
18/09/2018		0					B	144.2366	-37.722
18/09/2018		0					A	144.2366	-37.7219
18/09/2018		0					11	144.236	-37.7144
18/09/2018	1	1	20	1200	Flying	flew by turbines and over sheep	19	144.2832	-37.7295
18/09/2018	1	1	80	1000	Flying	near turbine	19	144.2832	-37.7295
18/09/2018	1	2	400	900	Flying		17	144.2786	-37.7216
18/09/2018	1	2	500	1200	Flying		17	144.2786	-37.7216
18/09/2018	1	1	400	300	Flying		16	144.2758	-37.728
18/09/2018	1	1	600	400	Flying		16	144.2756	-37.7278
18/09/2018	1	2	500	1500	Flying		16	144.2756	-37.7278
18/09/2018	1	2	80	150	Flying		16	144.2756	-37.7278
18/09/2018	1	1	150	200	Flying		16	144.2756	-37.7278

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
18/09/2018	1	1	250	250	Flying		16	144.2756	-37.7278
18/09/2018	1	2	300	500	Flying		16	144.2756	-37.7278
18/09/2018	1	1	20	100	Flying	hovering over sheep, chased away by magpies	15	144.2665	-37.7339
18/09/2018	1	2	100	400	Flying		15	144.2665	-37.7339
18/09/2018	1	1	150	700	Flying		15	0	0
18/09/2018	1	1	180	700	Flying		15	144.2665	-37.7339
18/09/2018	1	1	60	200	Flying		14	144.2605	-37.7366
18/09/2018	1	2	100	250	Flying		14	144.2608	-37.7365
18/09/2018	1	1	20	200	Flying		14	144.2608	-37.7364
18/09/2018	1	3	40	300	Flying		14	144.2608	-37.7364
18/09/2018	1	1	80	300	Flying		17	144.2785	-37.7217
18/09/2018	1	1	100	500	Flying		17	144.2785	-37.7217
18/09/2018	1	1	100	500	Flying		17	144.2785	-37.7217
18/09/2018	1	1	90	300	Flying		17	144.2785	-37.7217
18/09/2018	1	1	100	400	Flying		17	144.2785	-37.7217
18/09/2018	1	1	90	300	Flying		19	144.2823	-37.727
18/09/2018	1	1	120	700	Flying		16	144.2763	-37.7273

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
18/09/2018	1	1	120	500	Flying		16	144.2763	-37.7273
18/09/2018	1	1	90	400	Flying		16	144.2763	-37.7273
18/09/2018	1	1	90	350	Flying		16	144.2763	-37.7273
18/09/2018	1	1	120	100	Flying		15	144.267	-37.734
18/09/2018	1	1	20	300	Flying		15	144.267	-37.734
18/09/2018	1	1	70	300	Flying		15	144.267	-37.734
18/09/2018	1	1	90	250	Flying		15	144.267	-37.734
18/09/2018	1	1	110	400	Flying		15	144.267	-37.734
18/09/2018	1	1	110	400	Flying		15	144.267	-37.734
18/09/2018	1	1	60	250	Flying		14	144.261	-37.7361
18/09/2018	1	1	70	250	Flying		14	144.261	-37.7361
18/09/2018	1	1	60	300	Flying		14	144.261	-37.7362
18/09/2018	1	1	90	400	Flying		14	144.261	-37.7361
18/09/2018	1	1	100	600	Flying		12	144.2474	-37.7227
18/09/2018	1	1	80	350	Flying		12	144.2474	-37.7227
18/09/2018	1	1	90	350	Flying		12	144.2474	-37.7227
18/09/2018	1	1	120	450	Flying		12	144.2474	-37.7227
18/09/2018	1	1	70	350	Flying		12	144.2474	-37.7227

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
18/09/2018	1	1	110		Flying		12	144.2474	-37.7227
18/09/2018	1	1	60	350	Flying		12	144.2474	-37.7227
18/09/2018	1	1	70	700	Flying		13	144.2399	-37.7294
18/09/2018	1	1	80	500	Flying		13	144.2399	-37.7294
18/09/2018	1	1	70	800	Flying		B	144.2374	-37.7269
18/09/2018	1	1	70	800	Flying		B	144.2375	-37.7268
18/09/2018	1	1	90	600	Flying		B	144.2375	-37.7268
18/09/2018	1	1	60	500	Flying		B	144.2375	-37.7268
18/09/2018	1	1	80	500	Flying		11	144.2361	-37.7144
18/09/2018	1	1	80	500	Flying		11	144.236	-37.7144
18/09/2018	1	1	100	550	Flying		11	144.2362	-37.7145
18/09/2018	1	1	70	500	Flying		A	144.2365	-37.7212
24/10/2018	1	1	200	800	Flying		15	144.2666	-37.7341
24/10/2018	1	1	80	400	Flying		15	144.2666	-37.7341
24/10/2018	1	2	200	1000	Flying		15	144.2666	-37.7341
24/10/2018	1	1	300	1000	Flying		15	144.2667	-37.7341
24/10/2018	1	1	100	1000	Flying		16	144.2757	-37.7273
24/10/2018	1	1	200	800	Flying		16	144.2757	-37.7274

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
24/10/2018	1	1	100	900	Flying		16	144.2757	-37.7274
24/10/2018	1	1	100	1000	Flying		16	144.2758	-37.7274
24/10/2018	1	1	90	1000	Flying		16	144.2758	-37.7273
24/10/2018	1	1	20	1000	Flying		16	144.2758	-37.7273
24/10/2018	1	1	30	1000	Flying		16	144.2758	-37.7273
24/10/2018	1	1	100	400	Flying		17	144.2784	-37.7217
24/10/2018	1	1	10	150	Flying		19	144.2833	-37.7293
24/10/2018	1	1	80	200	Flying		19	144.2834	-37.7293
24/10/2018		0					11	144.236	-37.7144
24/10/2018		0					A	144.2374	-37.7266
24/10/2018	1	1	300	600	Flying		B	144.2399	-37.7294
24/10/2018	1	1	80	700	Flying		13	144.2399	-37.7294
24/10/2018	1	1	50	800	Flying		13	144.2399	-37.7294
24/10/2018	1	1	30	800	Flying		13	144.2399	-37.7294
24/10/2018	1	1	250	150	Flying		13	144.2399	-37.7294
24/10/2018	1	1	100	200	Flying		12	144.2477	-37.7232
24/10/2018	1	1	100	450	Flying		12	144.2476	-37.7233
24/10/2018	1	1	120	500	Flying		12	144.2476	-37.7233

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
24/10/2018	1	1	20	150	Flying	attacked ravens	12	144.2477	-37.7233
24/10/2018	1	1	120	20	Flying		12	144.2477	-37.7233
24/10/2018	1	1	300	1000	Flying		12	144.2477	-37.7233
24/10/2018	1	1	90	500	Flying		14	144.2624	-37.7357
24/10/2018	1	1	90	900	Flying		14	144.2624	-37.7357
24/10/2018	1	1	85	850	Flying		14	144.2624	-37.7357
24/10/2018	1	1	100	800	Flying		11	144.2361	-37.7144
24/10/2018	1	1	75	500	Flying		A	144.2376	-37.7228
24/10/2018	1	1	80	600	Flying		A	144.2366	-37.7216
24/10/2018	1	1	70	400	Flying		B	144.2375	-37.7272
24/10/2018	1	1	90	700	Flying		13	144.2399	-37.7295
24/10/2018	1	1	100	800	Flying		12	144.2474	-37.7229
24/10/2018	1	1	90	300	Flying		14	144.2607	-37.7363
24/10/2018	1	1	80	350	Flying	Really close to turbine 8	14	144.2607	-37.7363
24/10/2018	1	1	60	300	Flying		15	144.2663	-37.7343
24/10/2018	1	1	70	400	Flying		15	144.2663	-37.7343
24/10/2018	1	1	100	550	Flying		15	144.2663	-37.7343
24/10/2018	1	1	90	500	Flying		16	144.2755	-37.7283

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
24/10/2018	1	1	80	600	Flying		17	144.2786	-37.7217
24/10/2018	1	1	60	400	Flying		17	144.2786	-37.7217
24/10/2018	1	1	80	700	Flying		17	144.2788	-37.7217
24/10/2018	1	1	90	500	Flying		17	144.2788	-37.7217
24/10/2018	1	1	80	400	Flying		17	144.2788	-37.7217
24/10/2018	1	1	80	400	Flying		19	144.2827	-37.7297
24/10/2018	1	1	90	400	Flying		19	144.2832	-37.7297
24/10/2018	1	1	90	450	Flying		19	144.2832	-37.7297
24/10/2018	1	1	80	500	Flying		19	144.2833	-37.7297
24/10/2018	1	1	100	450	Flying		19	144.2833	-37.7297
24/10/2018	1	1	70	600	Flying		19	144.2833	-37.7297
12/11/2018	1	1	100	600	Flying		12	144.2474	-37.7228
12/11/2018	1	1	90	750	Flying		12	144.2474	-37.7228
12/11/2018		0					13	144.2398	-37.7299
12/11/2018	1	1	100	1000	Flying		B	144.2379	-37.7278
12/11/2018		0					A	144.2392	-37.7237
12/11/2018		0					11	144.2361	-37.7144
12/11/2018	1	1	100	700	Flying		16	144.2757	-37.7281

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
12/11/2018	1	1	150	600	Flying		16	144.2757	-37.7281
12/11/2018	1	1	130	700	Flying		16	144.2757	-37.7281
12/11/2018	1	1	100	650	Flying		16	144.2757	-37.7281
12/11/2018	1	1	50	900	Flying		17	144.279	-37.7227
12/11/2018	1	1	50	900	Flying		17	144.2787	-37.7216
12/11/2018	1	1	70	800	Flying		17	144.2787	-37.7216
12/11/2018	1	1	120	800	Flying		17	144.2787	-37.7216
12/11/2018	1	1	75	600	Flying		17	144.2787	-37.7216
12/11/2018	1	1	90	800	Flying		17	144.2787	-37.7216
12/11/2018	1	1	90	900	Flying		19	144.2821	-37.7259
12/11/2018	1	1	100	750	Flying		19	144.2832	-37.7297
12/11/2018	1	1	80	500	Flying		19	144.2833	-37.7297
12/11/2018	1	1	80	500	Flying		19	144.2832	-37.7297
12/11/2018	1	1	100	600	Flying		15	144.267	-37.734
12/11/2018	1	1	80	700	Flying		15	144.267	-37.734
12/11/2018	1	1	80	700	Flying		15	144.267	-37.734
12/11/2018	1	1	80	650	Flying		15	144.267	-37.734
12/11/2018		0					15	144.267	-37.734

Date	Number of movements	Number of birds	Height above ground (m)	Distance from observer (m)	Behaviour (code)	Note	Point number	Easting	Northing
12/11/2018	1	1	90	800	Flying		14	144.261	-37.7361
12/11/2018	1	1	90	900	Flying		14	144.2609	-37.7362
12/11/2018	1	1	150	650	Flying		17	144.2795	-37.725
12/11/2018		0					16	144.2796	-37.725
12/11/2018	1	1	150	1250	Flying		19	144.2763	-37.7272
12/11/2018	1	1	85	600	Flying		15	144.2655	-37.7345
12/11/2018	1	1	200	900	Flying		15	144.2656	-37.7344
12/11/2018		0					14	144.2603	-37.7362
12/11/2018	1	1	100	1500	Flying		13	144.2399	-37.73
12/11/2018	1	1	50	1000	Flying		13	144.24	-37.73
12/11/2018		0					12	144.247	-37.7237
12/11/2018		0					B	144.2398	-37.7284
12/11/2018		0					A	144.2412	-37.7205
12/11/2018		0					11	144.2361	-37.7144