

5 May 2020



**EPBC Referrals**  
**Department of Agriculture, Water and Environment**

By Email: [EPBC.referrals@awe.gov.au](mailto:EPBC.referrals@awe.gov.au).

**Ref: Referral number 2020/8636**

**RE: FURTHER ECOLOGICAL SURVEYS FOR FOREST WIND PROJECT**

Forest Wind Holdings Pty Limited (FWH) submitted an EPBC Act referral for a wind farm called Forest Wind (Referral number 2020/8636) on 12 March 2020. In accordance with commitments documented in the Bird and Bat Management Plan (BBMP) and as required by the approved Development Permit for the Project, FWH is undertaking ongoing pre-operational bird surveys. In order to further support the information provided with the referral that is currently understood to be undergoing validation, FWH would like to take the opportunity to provide the recent survey results for consideration by the Department of Agriculture, Water and the Environment (DAWE).

The bird and bat surveys are being led by suitably qualified and experienced ecologist Mr. Paul Fox who has completed all surveys on the site to date. The recent surveys commenced on 18 March 2020 and will continue until mid-end May 2020 and include reference sites outside of the Project Area. The results of the surveys completed to date are provided in the attached letter from Fox and Co Environmental for your information and use in assessment. One species listed as having conservation significance under the EPBC Act was recorded within the Project Area (PLA) during the surveys, Rainbow bee-eater (*Merops ornatus*) (Listed Marine). Five individuals were observed on the 27 April 2020 flying at 45m above-ground level which is below the proposed rotor swept area. No other EPBC species including migratory birds were recorded within the Project Area (PLA).

190 Bird Utilisation Surveys (BUS) have now been undertaken.

The data collected will be used to review and update the BBMP as relevant. Any updates made to the plan will be forwarded to the DAWE along with all results of the surveys once they have been completed.

If the Department has any questions in relation to the surveys or the BBMP, FWH would be happy to discuss these. Please contact Madeleine Page on 0415 044 056 or by email [madeleine.page@cleansight.com.au](mailto:madeleine.page@cleansight.com.au).

Yours sincerely

James Pennay  
Project Director

Our ref: FWH/01052020  
Your ref:

1 May 2020

Madeleine Page  
CleanSight

Via email: [madeleine.page@cleansight.com.au](mailto:madeleine.page@cleansight.com.au)

Dear Madeleine

## **Subject: Forest Wind Project, Additional Bird and Bat Monitoring**

Forest Wind Holdings Pty Limited (FWH) proposes to develop and construct a wind farm called Forest Wind (the Project) located within exotic pine plantations in Queensland Government owned Toolara, Tuan and Neerdie State Forests, situated between Gympie and Maryborough in the Wide Bay Region of Queensland.

Ecological assessments have been undertaken to describe the existing environment and to assess the potential impacts that the Project may have on flora and fauna, particularly Matters of State Environmental Significance (MSES) and Matters of National Environmental Significance (MNES). This information informed the application for a Development Approval (DA) for a Material Change of Use (MCU) for a wind farm and referral under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). The Development Permit was received on 21 February 2020 and the EPBC Act Referral was submitted on 12 March 2020.

## **Birds**

### **Previous Survey Effort**

A total of 139 fixed-point Bird Utilisation Surveys (BUS) were undertaken between 2016 and 2019. The BUS assessments are fixed-time point counts undertaken over a 20 minute period using a method adapted from Reynolds et al. (1980) and Biosis (2016). The surveys were undertaken with consideration of relevant seasons (migratory period) and also a Before and After Control Impact (BACI) design, which continues during and post-construction to assess impacts. The BACI survey design includes reference sites placed at a sufficient distance from the proposed turbine locations to obtain data outside of the zone of influence of the turbines. Point count locations are selected to provide sufficient representation of turbine locations across the entire wind farm. Reference sites were

also surveyed within and outside the Project Area (PLA) away from proposed turbine locations. The following is recorded:

- Species
- Number of birds
- Height of bird above the ground
- Horizontal distance from observer to bird
- Weather conditions (cloud cover, wind direction, wind speed)

Refer to Fox & Co Environmental (February 2020), Ecological Assessment Report, Forest Wind Project, Report FWH-03 (Section 3.4.3) for further details on the BUS assessments for the Project Area (PLA).

Previous BUS assessments recorded 66 bird species across the Project Area (PLA). The following five (5) species as having conservation significance under the EPBC Act were recorded:

1. White-throated needletail (*Hirundapus caudacutus*) – Vulnerable (V), Migratory Terrestrial Species (MT), Listed Marine Species (LM)
2. Fork-tailed swift (*Apus pacificus*) – MT
3. Spectacled monarch (*Monarchar trivirgatus Bonn as Symposiachrus trivirgatus*) – LM, MT
4. Rainbow bee-eater (*Merops ornatus*) – LM
5. Cicadabird (*Coracina tenuirostris*) – LM

### Additional Survey Effort Since Lodging EPBC Referral

An additional 51 BUS assessments across 20 locations have been undertaken since submission of the EPBC referral on 12 March 2020 to continue the BACI assessments prior to construction as required by Condition 8 of the Development Permit.

Surveys were undertaken on 17 March, 10 April and 27 April 2020 to ensure the Summer migratory bird period was captured. Additional replicate surveys across the Project Area (PLA) and also outside at the reference sites have been scheduled which will also assess seasonal bird utilisation of the Project Area (PLA).

Survey sites replicated previous sites including areas outside of the Project Area (PLA) such as the Poona boat ramp located on the Great Sandy Strait. Additional survey sites were also chosen to ensure BUS sites targeted proposed turbine locations and also several kilometres away from any proposed turbine locations, and to provide further coverage across the broader Project Area (PLA). Bird survey sites are shown on Figure 1.

## Flying-foxes

An additional three flying-fox census surveys were undertaken concurrently with the additional bird surveys. The flying-fox camp at Anderleigh Road was observed for activity during the day. Evening observations from the Toolara State Forest site office entry (south end of the Project Area (PLA)) and from the Maaroom township turnoff (northern end of the Project Area (PLA)) were undertaken. Locations were chosen based on the known Maaroom flying-fox camp and the Anderleigh Road camp which are the two closest camps to the Project Area (PLA).

## Summary of Results

BUS assessments recorded 44 bird species across the Project Area (PLA) and also outside at reference sites such as Poona, during the additional assessments (refer Attachment 2 for survey data). One (1) species as having conservation significance under the EPBC Act was recorded within the Project Area (PLA):

1. Rainbow bee-eater (*Merops ornatus*) – Listed Marine (LM)

Five (5) individuals were observed on the 27 April 2020 flying at 45m above-ground level which is below the proposed rotor swept area (RSA).

No other EPBC species including migratory birds were recorded within the Project Area (PLA).

The following nine (9) birds were recorded on the Project Area (PLA) in the March and April 2020 surveys and are known to exhibit moderate to high risk flight behaviour. Risk assessment for collision-based impacts has previously been undertaken for these nine (9) birds (*Bird and Bat Utilisation Report, Fox & Co, 2020*).

1. Whistling kite (*Haliastur sphenurus*) – Least Concern (LC) (Nature Conservation Act (NC Act))
2. Tree martin (*Petrochelidon nigricans*) – LC (NC Act)
3. Wedge-tailed eagle (*Aquila audax*) – LC (NC Act)
4. Welcome swallow (*Hirundo neoxena*) – LC (NC Act)
5. Rainbow bee-eater (*Merops ornatus*) – LM (EPBC Act)
6. Torresian crow (*Corvus orru*) – LC (NC Act)
7. Australian magpie (*Gymnorhina tibicen*) – LC (NC Act)
8. Sulphur-crested cockatoo (*Cacatua galerita*) – LC (NC Act)
9. Yellow-tailed black-cockatoo (*Calyptorhynchus funereus*) – LC (NC Act)

Brahminy kites (*Haliastur sphenurus*) were observed flying at 80m above ground level which is within the proposed RSA. They were the only birds observed flying within the proposed RSA during the March and April 2020 surveys. All other birds were recorded below the proposed RSA.

Two (2) brahminy kites (*Haliastur indus*) (LC - NC Act) and two (2) white-bellied sea-eagles (*Haliaeetus leucogaster*) (LM- EPBC Act, LC – NC Act) were observed at the Poona reference site. They were not observed within the Project Area (PLA) nor are they considered likely to occur within the Project Area (PLA).

The pair of white-bellied sea-eagles (LM) were observed on 27 April 2020 at the Poona BUS reference site 6.5 km outside of the Project Area (PLA). No white-bellied sea-eagles were observed within the Project Area (PLA). This is consistent with previous assessments.

Tree martins (LC – NC Act / not listed aerial insectivores) were observed on two of the three survey days. No white-throated needletails (WTN) or fork-tailed swifts (FTS) (also aerial insectivores) were observed during the additional BACI BUS assessment surveys.

The Anderleigh camp was observed to be active at the time of the 17 March and 10 April 2020 survey with a mix of black-flying fox and grey-headed flying fox. It did not appear to be active on the 27 April 2020. The Maaroom camp did not appear to be active. No flying-foxes were observed flying over the Project Area (PLA) during any of the evening observations.

## Conclusion

A total of 190 BUS assessments have now been undertaken.

The additional survey results are consistent with previous surveys undertaken since 2016 across the Project Area (PLA) and outside of the Project Area (PLA).

Please contact Paul Fox directly if you have any further queries.

Yours faithfully



**Paul Fox**

*Director*

## References

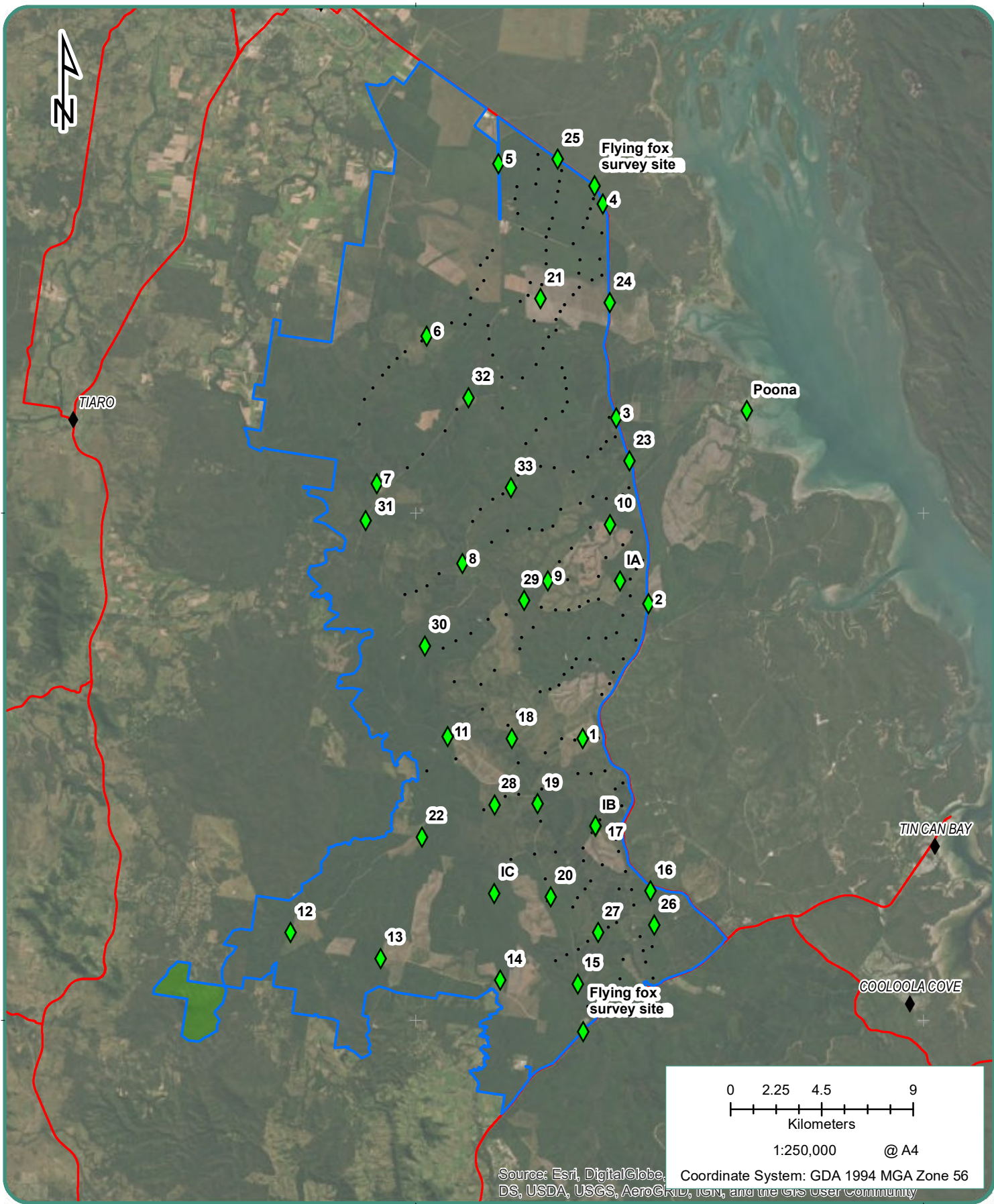
Biosis (2016). *Basic point count method for wind farm bird utilisation studies.*

Fox & Co Environmental (March 2020). *Forest Wind Bird and Bat Utilisation Survey, Report FWH-01b*

Reynolds, R, I.M. Scot & R.A.N. Ussrai. (1980). *Avariable circular-plot method for estimating bird numbers. Condor 82: 309-313*

**Attachment 1**

**Figure 1 – Bird Survey Locations**



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<b>TITLE:</b> <h1>BACI BUS Sites</h1>		<b>LEGEND</b>	
<b>MAP NO:</b> Figure 1		BACI BUS Sites	Native state forest
<b>PROJECT:</b> Forest Wind Holdings Pty Ltd -		Populated Places	
		FWH Turbine locations	
		Project Area (PLA)	

Document Path: C:\Users\greenvale\Documents\Fox & Co Environmental\Projects\Forest Wind Holdings Pty Limited\Report Figures\Fauna and flora report - FWH\_00xx-Arc collector.mxd



**Attachment 2**

**BACI BUS Assessment Data – March – April 2020**

