

GULLEN RANGE WIND FARM
WEDGE-TAILED EAGLE BREEDING SURVEY
2017

New Gullen Range Wind Farm Pty Ltd



Brett Lane & Associates Pty. Ltd.
Ecological Research & Management

Suite 5 61–63 Camberwell Road, Hawthorn, VIC 3123

P.O. Box 337, Camberwell, VIC 3124

Ph. (03) 9815 2111

Fax. (03) 9815 2685

December 2017

Report No. 14182 (34.0)

CONTENTS

1. INTRODUCTION.....	1
2. METHODS	2
2.1. Existing Information	2
2.2. Field Methodology.....	2
2.3. Training Session.....	2
2.4. Limitations of field assessment.....	2
3. RESULTS.....	4
3.1. Survey Results.....	4
4. Conclusion.....	6

TABLES

Table 1: Description of each nest site and related evidence of recent activity.....	5
---	---

FIGURES

Figure 1: Location of WTE nests at Gullen Range Wind Farm.	3
---	---

1. INTRODUCTION

New Gullen Range Wind Farm Pty Ltd (NGRWF) engaged Brett Lane and Associates Pty Ltd (BL&A) to monitor the breeding activity of Wedge-tailed Eagle (WTE) twice per year (September and November) for an initial two-year period at the NGRWF.

Based on concerns raised by the Office of Environment and Heritage (OEH) about potential impacts on breeding Wedge-tailed Eagle (WTE) at Gullen Range Wind Farm, NGRWF agreed to monitor the breeding activity of WTE. This investigation was commissioned to monitor the nestlings that are still dependent on their parents in September and check on the grown birds in November before they disperse.

This report presents the findings of the WTE breeding season during 2017.

Specifically, the scope of the investigation included the following.

- Checks for breeding activity at nine WTE nests known to occur in the area in September and late November 2017;
- Additional searches for any additional Wedge-tailed Eagle nesting sites on the wind farm and its vicinity; and
- A training session was undertaken to train windfarm staff in carcass searches while driving across the wind farm site, carcass handling and reporting.

This report presents the findings of the assessment, identifies issues and provides recommendations and mitigation options. It is divided into the sections described below.

Section 2 presents the methods of the surveys.

Section 3 presents the results of the monitoring.

Section 6 presents the conclusions.

This investigation was undertaken by a team from Brett Lane & Associates Pty Ltd, comprising Curtis Doughty (Senior Zoologist), Inga Kulik (Senior Ecologist & Project Manager) and Brett Lane (Principal Consultant).

2. METHODS

2.1. Existing Information

During the first two years of operation, monitoring of the local Wedge-tailed Eagle population was undertaken at NGRWF. During this time, nine nesting sites were located and found to be used by four resident breeding pairs.

2.2. Field Methodology

The WTE monitoring was undertaken on the 3rd and 4th October and the 28th and 29th November 2017, with all WTE nest sites monitored for recent use. The location of the WTE nesting sites is presented in Figure 1.

Monitoring included the following:

- Looking into nests from vantage points where possible and recording if any nestlings or adults were at the nest;
- Making notes on the general condition of the nest;
- If nests were empty, looking under the nests for signs of recent use including prey, feathers, white wash and/or pellets.

While traversing the NGRWF, notes were made on the presence, location and observed behaviour of any WTE recorded on the property.

In addition, every turbine was scanned for WTE carcasses, with any found carcasses collected and reported to the wind farm management.

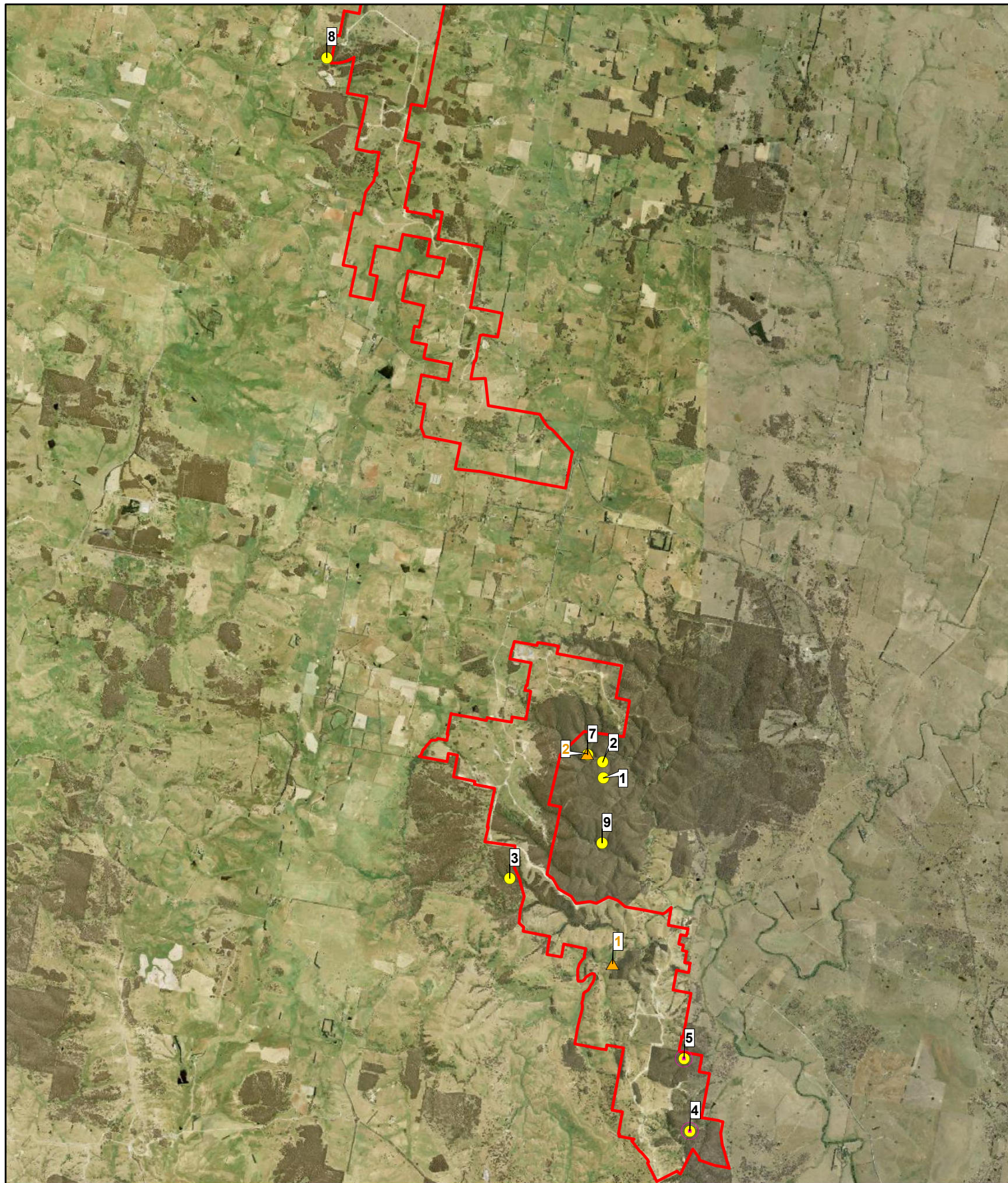
2.3. Training Session

BL&A undertook a training session on the morning of the 4th October 2017. The wind farm personnel were asked to look out for WTE carcasses when traversing about the site. They were instructed to collect the carcass and fill out a casualty report if they came across any eagle remains. The casualty report will be prepared and forwarded to OEH within seven working days. The eagle carcass will be stored in the freezer on-site for up to three weeks before its disposal.

2.4. Limitations of field assessment

The timing and duration of WTE surveys, and the weather conditions under which surveying was undertaken, was considered suitable for detecting the species.

The field survey undertaken at the end of November 2017 failed to record any eagle chicks within nests. However, this does not necessarily indicate a failed breeding attempt, as the young birds observed earlier in October may have already fledged and left the nest.



Legend

- Wind farm boundary
- Tracks
- Turbines
- Active nests (2)
- Peregrine Falcon nests (2)
- Wedge-tailed eagle nests (8)

Kilometers

0 0.5 1 2 3 4 5

Figure 1: Raptor nests

Project: Gullen Range Wind Farm

Client: Goldwind Australia

Project No.: 14182

Date: 4/12/2017

Created By: N. May / C. Doughty

BL&A



Brett Lane & Associates Pty. Ltd.
Ecological Research & Management

Experience
Knowledge
Solutions

Suite 5, 61 - 63 Camberwell Road
Hawthorn East, VIC 3123
PO Box 337, Camberwell, VIC 3124, Australia

Ph. (03) 9815 2111 / Fax (03) 9815 2685
enquiries@ecologicalresearch.com.au
www.ecologicalresearch.com.au

N



3. RESULTS

3.1. Survey Results

Out of the nine nests located within NGRWF, two nesting sites were used by WTE during the 2017 breeding season.

During the survey in early October 2017, WTE nest 4 contained one chick. The chick had downy white feathers which would suggest it was less than one month old (Figure 1). The chick was not observed during the November survey.



Figure 1: WTE chick observed within WTE nest 4.

During the survey in early October 2017, WTE nest 5 contained two eagle chicks. They both had downy white feathers which would suggest they were less than one month old (Figure 2).



Figure 2: WTE chicks observed within WTE nest 5.

Out of the nine WTE nests inspected, two were used by WTE for breeding during 2017. WTE nests 4 and 5 were used for breeding in 2017. A description of nest condition and evidence of recent activity for all nine nest sites is described in Table 1.

WTE nest 6 was used for breeding by Peregrine Falcon in 2016 and 2017. The last time WTE breeding occurred at WTE nest 6 was in 2015.

Table 1: Description of each nest site and related evidence of recent activity.

Nest	Oct-17	Nov-17
WTE nest 1	Nest has completely fallen out of tree.	No recent activity.
WTE nest 2	Old nest, falling out of tree, no recent activity.	No recent activity.
WTE nest 3	Large nest still in good condition, no recent activity.	No recent activity.
WTE nest 4	Large nest with one young chick with downy feathers.	No chick in nest, signs of recent use.
WTE nest 5	Nest with two young chicks with downy feathers.	No chick in nest, signs of recent use.
WTE nest 6/ Peregrine Falcon nest 2	This nest was used by WTE in 2015. It has been occupied by Peregrine Falcon in 2016 and 2017.	Nest empty, no recent use by WTE.
WTE nest 7	Old nest, falling out of tree, no recent activity.	No recent activity.
WTE nest 8	Nest still in good condition, no recent activity.	No recent activity.
WTE nest 9	Old nest, falling out of tree, no recent activity.	No recent activity.
Peregrine Falcon nest 1	Nest still in good condition, no recent activity.	No recent activity.

Wedge-tailed Eagles were seen flying over the wind farm in most areas. Eagles were observed flying over Bannister, Pomeroy and Gurrundah sections of the wind farm site.

4. CONCLUSION

Similar findings were observed during the 2017 breeding season to the previous 2016 season, with two nest sites used by Wedge-tailed Eagle in 2017 at the Gullen Range Wind Farm. These two nesting sites were both located at Gurrundah in the southern section of the wind farm. Both of these nesting sites were also used in 2015 and 2016.

Further monitoring of WTE nesting sites will continue next year during the 2018 breeding season from September to December.