Cattle Hill Wind Farm

EPBC 2009/4839

13 August 2024 to 13 August 2025

Annual Compliance Report 2025

Document No.	CH-PM-REP-0135
Revision Date	November 2025
Prepared by:	Goldwind Australia (GWA)
For:	Wild Cattle Hill Pty Ltd (WCHPL)

WILD CATTLE HILL PTY LTD

GOLDWIND

Document Control - CH-PM-REP-0135

Document Version	Date	Prepared by	Reviewed/Approved for WCHPL by
Draft	*10 November 2025*	*Jeff Bembrick (GWA)*	*Lachlan Scott (Atmos Renewables)* *Oriana Infante (Atmos Renewables)*
Final	*11 November 2025*	*Jeff Bembrick (GWA)*	*Lachlan Scott (Atmos Renewables)*

Distribution

Name	Organisation	Project Role
Wild Cattle Hill Pty Ltd (WCHPL)		
Jason Porter	*Atmos Renewables*	*WCHPL, Director*
Chris Smith	*Atmos Renewables*	*Head of Asset Management*
Lachlan Scott	*Atmos Renewables*	*Asset Manager*
Goldwind Australia Pty Ltd (GWA)		
Jose Mathew	*GWA*	*GWA Service Manager*
Kylie Hampel	*GWA*	*HSEQ Manager*
Brad Fernie	*GWA*	*HSEQ Manager Service*
Paul Collins	*GWA*	*CHWF Site Managers*
Philip Bowyer-Bower	*GWA*	

Delivery Address for Annual Compliance Report	
Post	Audit and Assurance Section Compliance and Enforcement Branch Environment Assessment and Compliance Division Department of Climate Change, Energy, Environment and Water GPO Box 787, Canberra ACT 2601
Email	Attn: Katie Tangney *post.approval@dcceew.gov.au; epbcmonitoring@dcceew.gov.au*

ABBREVIATIONS

Approval Holder	Wild Cattle Hill Pty Ltd (WCHPL) ACN 610 777 369
ASL	Above Sea Level
Cattle Hill Wind Farm	Comprising 48 wind turbines and up to 150 MW capacity
CEMP	Construction Environmental Management Plan (approved by EPA under Condition CN2 of EPN 9715/1 on 01 March 2018)
Central Highlands Region	Area north of Bothwell, East of Bronte Park and surrounds, South of Liawenee, West of the Great Western Tiers
CHC	Central Highlands Council
CHWF	Cattle Hill Wind Farm
Commission(ed/ing) (EPBC)	the date the wind farm commences the generation of electricity for sale
Commissioning (EPN)	EPN 10105/2 defines commissioning as the testing of turbines and is taken to be completed when 90% of the turbines are being operated in the course of normal commercial operations.
DCCEEW or Department	Department of Climate Change, Energy, Environment and Water *(previously DAWE, Department of Agriculture, Water, and Environment)*
Director	Director, Tasmanian Environment Protection Authority, holding office under Section 18 of EMPCA. Includes a person authorised in writing by the Director to exercise a power or function on the Director's behalf.
DPEMP	Development Proposal and Environmental Management Plan (2010)
DPIPWE	Tasmanian Department of Primary Industry, Parks, Water and Environment
EMOP	Eagle Mortality Offset Plan
EMPCA	*Environmental Management and Pollution Control Act 1994*
EMP Operations	Environmental Management Plan Operations (approved by EPA on 15 September 2025, under Condition G9 of EPN 10105/2)
EPA	Tasmanian Environment Protection Authority
EPBC	*Environment Protection and Biodiversity Conservation Act 1999*
EPBC 2009/4839	EPBC Approval No. 2009/4839
EPC	Engineer, Procure and Construct
EPN	Environment Protection Notice (10105/1 issued 13 Mar 2019, then EPN 10105/2 from 12 June 2024
ERP	Emergency Response Plan
First Full Operations	First time when Tasmanian electricity network allows for all CHWF turbines to simultaneously operate and export electricity up to the maximum output
FOMP	Flora Offset Management Plan (approved under EPBC 2009/4839 Condition 23)
GWA	Goldwind Australia Pty Ltd (ACN 140 108 390)
Ha	Hectare
IDF	IdentiFlight System
kV	Kilovolt
MW	Megawatt
NVA	Natural Values Atlas (Tasmania)
O&M	Operations and Maintenance
SCADA	Supervisory Control and Data Acquisition
SFS	Significant Flora Species (EPBC Listed Orchids, Liawenee Greenhood -LG, and Crowded Leek Orchid- CLO
TasNetworks	Own, operate and maintain the electricity transmission and distribution network in Tasmania.
TFS	Tasmanian Fire Services
The Land	Project land, approximately 3km southwest of Waddamana, including part or all of titles 135246/1; 29897/1; 29897/3; 29897/5; 248810/1; 135247/1; 135247/2; 29888/4; and 29897/6
VDC	Van Diemen Consulting
WTE	Tasmanian Wedge-tailed Eagle (*Aquila audax fleayi*)
WBSE	White-bellied Sea-eagle (*Haliaeetus leucogaster*)
WCHPL	Wild Cattle Hill Pty Ltd ACN 610 777 369, Level 9, Angel Place 123 Pitt Street Sydney NSW 2000

TABLE OF CONTENTS

1 Introduction 8
1.1 Purpose of this document 8
2 Summary details of CHWF Project, Location and Context 10
2.1 Project Context 10
2.2 Project Locality and Setting 10
2.3 Associated Planning Approvals 12
2.4 CHWF Project Land 12
3 Details of CHWF Project and Development Status 13
3.1 Approved Action 13
3.2 Details of Wind Turbines 13
3.3 Other permanent infrastructure 14
3.4 Status of CHWF Works 14
4 EPBC Approval Conditions and Proponent Responses 18
4.1 Overview of the EPBC Approval requirements 18
4.2 Condition 1 – Wind Turbines no closer than 1,000m to a known eagle nest 18
4.3 Condition 2 – Construction activities within 500m or 1,000m of an active nest 18
4.4 Condition 3 – Removal of carcasses from hunting and culling 20
4.5 Condition 4 – Operations – Removal of carcasses from collisions with wind turbines 22
4.6 Condition 5 – Operations - Searches for Dead Calves during September each year 22
4.7 Conditions 6A, 6B and 6C – Collision Avoidance and Detection Plan (CADP) 22
4.7.1 Compliance with Conditions 6A, 6B, 6C 22
4.7.2 Overview of IdentiFlight system and performance 23
4.7.3 Avian Mortality Monitoring Overview 24
4.8 Condition 10 – Notification and Reporting of an Eagle collision with a Turbine 25
4.9 Condition 11 – Revised CADP within two years following commissioning 26
4.10 Condition 12 – Maintain records of searches required by Condition 11 27
4.11 Condition 13 – All wind farm roads signposted with max 40kph speed limit 28
4.12 Condition 14 – Daily checks on all wind farm roads for road-kills 30
4.13 Condition 15 – WTE monitoring as required by Permit Conditions FF4 and FF 5 30
4.13.1 Tasmanian EPN, Condition FF4 – Requirements are complete 30
4.13.2 Tasmanian EPN, Condition FF5 – Eagle Nest Productivity Monitoring (ongoing) 30
4.14 Conditions 16 and 17 – Funding of Research for long term conservation of WTE 33
4.15 Condition 18 – Review effectiveness of Research Plan five years after its approval 34
4.16 Condition 19 – Further funding in relation to WTE mortality or injury 34
4.17 Condition 20 – Review of requirements after 10 years of operations (August 2030) 34

4.18 Condition 22 – Weed Management Strategy 34
4.19 Condition 23 – Flora Offsets for unavoidable impacts on Native orchid species 36
4.19.1 Flora Offset Strategy and Flora Offset Management Plan 36
4.19.2 Overview of Flora Offset area registration as part of FOMP Implementation.....36
4.19.3 Management, Monitoring and Reporting for the three offset areas.....37
4.19.4 Wihareja Nature Conservation Covenant.....40
4.19.5 Stone Hut Nature Conservation Covenant 41
4.19.6 Bashan Ledge Nature Conservation Covenant 42
4.20 Condition 24 – Requirement if previously unrecorded species is found..... 44
4.21 Condition 25 – Notifications required to be submitted to DCCEEW– All complete 44
4.22 Condition 26 – Records for activities in relation to EPBC Approval Conditions 44
4.23 Condition 27 – Annual Compliance Report..... 44
4.24 Condition 28 – Independent audit of compliance with EPBC Approval Conditions 45
4.25 Condition 29 – Activities other than in accordance with EPBC Approval Conditions..... 45
4.26 Condition 30 – Request by Minister for revised Plan, Report or strategy..... 45
4.27 Condition 31 – Commencement of Action within 5 years of approval (Complete)..... 45
4.28 Condition 32 – Publish Records of approved Plans for the EPBC Approval Conditions 45
4.29 Condition 33 –Availability of Plans, Reports and Strategies..... 46
5 Conclusions 47
6 References..... 48
7 Appendix A - Compliance Table - Conditions of EPBC Approval..... 49
8 Appendix B - Wedge-tailed Eagle Research Fund 2025 Report..... 64
9 Appendix C – Comparative Summary Table - EPBC Offset Areas 65

Figures

Figure 2.1 – Cattle Hill Wind Farm – General Layout as of September 2020
Figure 4.1 – Cattle Hill Wind Farm Layout, Design Report December 2017 and Exclusion Zones - Known Nests
Figure 4.2 – Cattle Hill Wind Farm – Locations of the four carcass disposal areas approved by the Minister
Figure 4.3 – Review of IDF performance and WTE mortalities (Aug 2020-Oct 2025)
Figure 4.4 – CHWF Locality – Active Nests within 4 km - VDC Review
Figure 4.5 – CHWF Locality – Activity status of known nests from checks in November 2024
Figure 4.6 - Drawing from FOMP showing locations of the 3 designated orchid offset areas.
Figure 4.7 – Wihareja – Nature Conservation Covenant Area – Layout map
Figure 4.8 – Wihareja – Nature Conservation Covenant Area – Number of Plants over 5 years
Figure 4.9 – Stone Hut - Nature Conservation Covenant Area – Layout Map
Figure 4.10 –Stone Hut- Nature Conservation Covenant Area – Number of Plants over 5 years

Figure 4.11 - Bashan Ledge – Nature Conservation Covenant Area – Layout map
Figure 4.12 – Bashan Ledge Covenant Area - Plant numbers over 5 years.
Figure 4.13 – Each Offset Area 2019 to 2023 – Number of LG for each Transect 1 to 5

Tables

Table 1.1: EPBC Condition 27 - Annual Compliance Reporting Requirements
Table 1.2 – Summary of Compliance with Conditions of Approval
Table 2.1 - Details of planning and environmental approvals for CHWF
Table 4.1 - Results of Phase 2 Monitoring conducted under BBMMP (Birds)
Table 4.2 – Results of Phase Monitoring conducted under BBMP (Bats)
Table 4.3 – CHWF WTE Mortality Incident 9 – Summary of Condition 10 Notification and Reporting
Table 4.4 – CHWF – WCHPL Payments to Eagle Research Fund (administered NRM South)
Table 4.5 – Details of CHWF Offset areas required under EPBC Approval 2009/4839 and approved FOMP
Table 4.6 – Details of protected species for each of the registered Nature Conservation Covenants

Plates

Plate 3.1 – CHWF View north from IDF 2 towards T42 (edge of woodland area) - March 2025
Plate 3.2 – CHWF View northeast from IDF2 towards central CHWF Turbine sites – March 2025
Plate 3.3 – Site visit from representatives of the EPA and DCCEEW to inspect IDF 17 – September 2023.
Plate 3.4 - View to south from IDF17 (30m high imaging unit is able to view above woodland canopy)
Plate 3.5 – View to Operations and Maintenance Facility, Wombat crossing track. September 2023
Plate 3.6 - View south to IDF 8 unit, Turbine 17 on left and more distant turbines
Plate 4.1 – View of IdentiFlight 17 unit on 30m high Tower near Turbine 46
Plate 4.2 - 40 kmph site speed limit signage at CHWF Site Entry and around the site
Plate 4.3– 30kmph signage Dusk to Dawn
Plate 4.4 – Wash Down Trailer at O&M Compound
Plate 4.5 - Selected photo-points (2022) for each of the offset areas and specific Transects and distance on transect

Declaration of Accuracy

This Annual Compliance Report relates to the Cattle Hill Wind Farm located in Central Highlands of Tasmania.

The Annual Compliance Report has been prepared in accordance with the requirements of Condition 27 of the Approval issued under the Environment Protection Biodiversity and Conservation Act 1999,

Cattle Hill Wind Farm, Tasmania - EPBC 2009/4839

This Report:

- *has been prepared for submission to the Department of Climate Change, Energy, Environment and Water in accordance with the submission date specified in the Department's email of 17 May 2019.*
- *addresses each of the Conditions of the Approval and management plans to describe the status of compliance with the respective requirements*
- *provides an accurate account of the respective matters for the Approval and does not intentionally misrepresent circumstances*
- *Is made publicly available through publication on the Cattle Hill Wind Farm website (www.cattlehillwindfarm.com).*

Jeff Bembrick

Head of Planning Compliance, Goldwind Australia, on behalf of Wild Cattle Hill Pty Ltd.

11 November 2025

1 INTRODUCTION

1.1 Purpose of this document

This Annual Compliance Report describes the activities undertaken and relevant performance in respect of:

- **Project:** Cattle Hill Wind Farm
- **Proponent:** Wild Cattle Hill Pty Ltd (ACN 610 777 369)
- **EPBC Approval:** EPBC 2009/4839
- **Condition no. 27:** – Seventh report under requirements of Condition 27 (First in 2019)
- **Report period:** 12 months from 13 August 2024 to 13 August 2025
- **Project phase:** Operations phase for all of reporting period (5th year of full operations)

The report has been prepared by Goldwind Australia (GWA) on behalf of Wild Cattle Hill Pty Ltd (WCHPL). The report has also been subject to review by Atmos Renewables as the 100% shareholder in WCHPL.

The report has been prepared in accordance with Condition 27 of EPBC Approval, EPBC 2009/4839, to fulfil the requirements of Condition 27. **Table 1.1** lists the requirements of Condition 27 and the sections of this report where each requirement is addressed.

Table 1.1: EPBC Condition 27 - Annual Compliance Reporting Requirements

EPBC Approval Condition 27 Reporting Requirements	Response details
Within 90 days of each anniversary of the commencement of the action, the person taking the action must:	Submission due by 11 November
• publish a report on its website addressing: ○ compliance with each of the conditions of this approval, including ○ implementation of any management plans as specified in the conditions.	This report with details as described in Section 4 and Appendix A
• Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the Department at the same time as the compliance report is published.	Submission of this report to DCCEEW and accessibility on CHWF Website
• Unless otherwise directed in writing by the Minister the report must include a chapter that outlines how each injured or sick wedge-tailed eagle was rehabilitated in accordance with the requirements of Condition 19. This must include: a. how the injured or sick wedge-tailed eagle was identified for rehabilitation b. the nature of injuries and/or sickness at the commencement of rehabilitation c. the actions taken to rehabilitate the wedge-tailed eagle including the location and costs of rehabilitation and qualification and experience of persons involved in rehabilitation; and d. potential survival in the wild.	Not required this report period. No sick or injured WTE during the report period.

A summary of compliance status for the Approval Conditions is shown in **Table 1.2**. Additional details are provided in Section 4 and Appendix A.

Table 1.2 – Summary of Compliance for Conditions of Approval

Condition	Compliance Status	Management Plan	Relevant Date	Comment
1	Complies	Layout complies	Report Period	Complete
2	Complies	Construction works complied	Report Period	Complete
3	Complies	Records are maintained	Addressed	Ongoing
4	Complies	Operational full period	Report Period	Complies
5	Complies	Operational full period	Report Period	Complies
6	*Revoked*	*Replaced by 6A to 6C (CADP)*		
6A	Complies	CAD Plan approved	28 May 2018	Complete
6B	Complies	Commissioning from 19/11/19	Achieved	Complete
6C	Complies	18-mth CADP Trial Report	March 2022	Complete
7	*Revoked*	*Replaced by 6A to 6C (CADP) or addressed by State requirements*		
8	*Revoked*			
9	*Revoked*			
10	Complies	One WTE mortality reported	Annual review	Ongoing
11	Complies	Updated revised CADP submitted 13 June 2025 and incorporates details for IDF 17	Updated CADP submitted June 2025	Latest CADP under review by DCCEEW
12	Complies	Physical search records kept	Records kept	Ongoing
13	Complies	Roads signposted for 40 kmph	Signs installed	Ongoing
14	Complies	Site staff conduct reviews	Addressed	Ongoing
15	Complies	Searches done since 19/11/19	Addressed	Ongoing
16	Complies	DCCEEW approved 8/01/2019	8 Jan 2019	Ongoing
17	Complies	First payment 24 October 2019	Annual payment	Annual
18	Complies	Due after 5 years of funding	Submitted 17/10/2025	First review complete
19	Complies	>2 WTE mortality or injury	Not Triggered	Ongoing
20	Not due yet	After ten years, i.e. 5 Aug 2030	NA	Future
21	*Revoked*	*Addressed by State provisions*		
22	Complies	Weed Management Plan	14 Dec 2017	Ongoing
23	Complies, FOMP approval	Flora Offset Strategy Flora Offset Management Plan	15 Mar 2018 10 Aug 2019	Approved Approved
	FOMP actions commenced	Covenants registered, FOMP implementation in progress,	Ongoing management	Reports submitted
24	Complies	No new threatened species	Report Period	Ongoing
25	Complies	Notifications complete	Report Period	Complete
26	Complies	All required records are kept	Report Period	Ongoing
27	Complies	7th Annual Compliance Report	By 11 Nov 2024	Complies
28	Complies	No direction from Minister	Report Period	Ongoing
29	Complies	No revisions	Report Period	Ongoing
30	Complies	No requests from Minister	Report Period	Ongoing
31	Complies	Action commenced within 5yrs	Closed	Complete
32	Complies	Website is maintained	Report period	Ongoing
33	Complies	No public requests	Report Period	Ongoing

2 SUMMARY DETAILS OF CHWF PROJECT, LOCATION AND CONTEXT

2.1 Project Context

Cattle Hill Wind Farm (CHWF) has been developed in the Central Highlands of Tasmania to the east of Lake Echo and to the southwest of the Village of Waddamana. Construction commenced in 2018 and is now complete, with all wind turbines installed, commissioning of turbines occurring from November 2019 to end of April 2020 and, the wind farm's first full operations was achieved by 04 August 2020.

The wind farm comprises 48 Goldwind wind turbines that can collectively produce 148.5 MW of electricity sourced from the wind energy resources available at the site (144 MW maximum allowed output to Grid).

CHWF can power approximately 63,500 Tasmanian homes, which increased Tasmania's renewable energy generation capacity by approximately 5% providing a significant contribution to Tasmania's achievement of becoming fully self-sufficient with renewable energy in 2022.

2.2 Project Locality and Setting

CHWF is located in Tasmania's Central Highlands, approximately 93 kilometres (kms) north-west of Hobart and 110 kms south of Launceston. The site is within a sparsely populated and relatively isolated part of the Central Highlands Council municipal area, on land which ranges in height of the wind turbine sites from approximately 764 to 915 metres (m) above sea level (**Figure 2.1**).

The site is approximately 35 kms south of the township of Miena and is bordered geographically by Lake Echo to the West, and the Ouse River Valley to the east, where the former Waddamana Power Station remains as a heritage site and museum. Waddamana village is about 3 kms to the northeast and contains a collection of semi-vacant residences which now provide short term accommodation. The Waddamana Power Station and associated infrastructure, penstocks, canals, pipelines and access network are part of the local area heritage and receive low level of visitation by tourists to the region.

The CHWF site is accessible by unsealed public roads from the northeast, east and south, normally associated with very low traffic levels.

The wind farm occupies an area of approximately 4,121 hectares of privately-owned land (**Section 2.4**).

Lake Echo to the west of the project area, is a Hydro Tasmania asset and together with Ouse River to the east of CHWF, provides recreational fishing opportunities for the community and sporting groups.

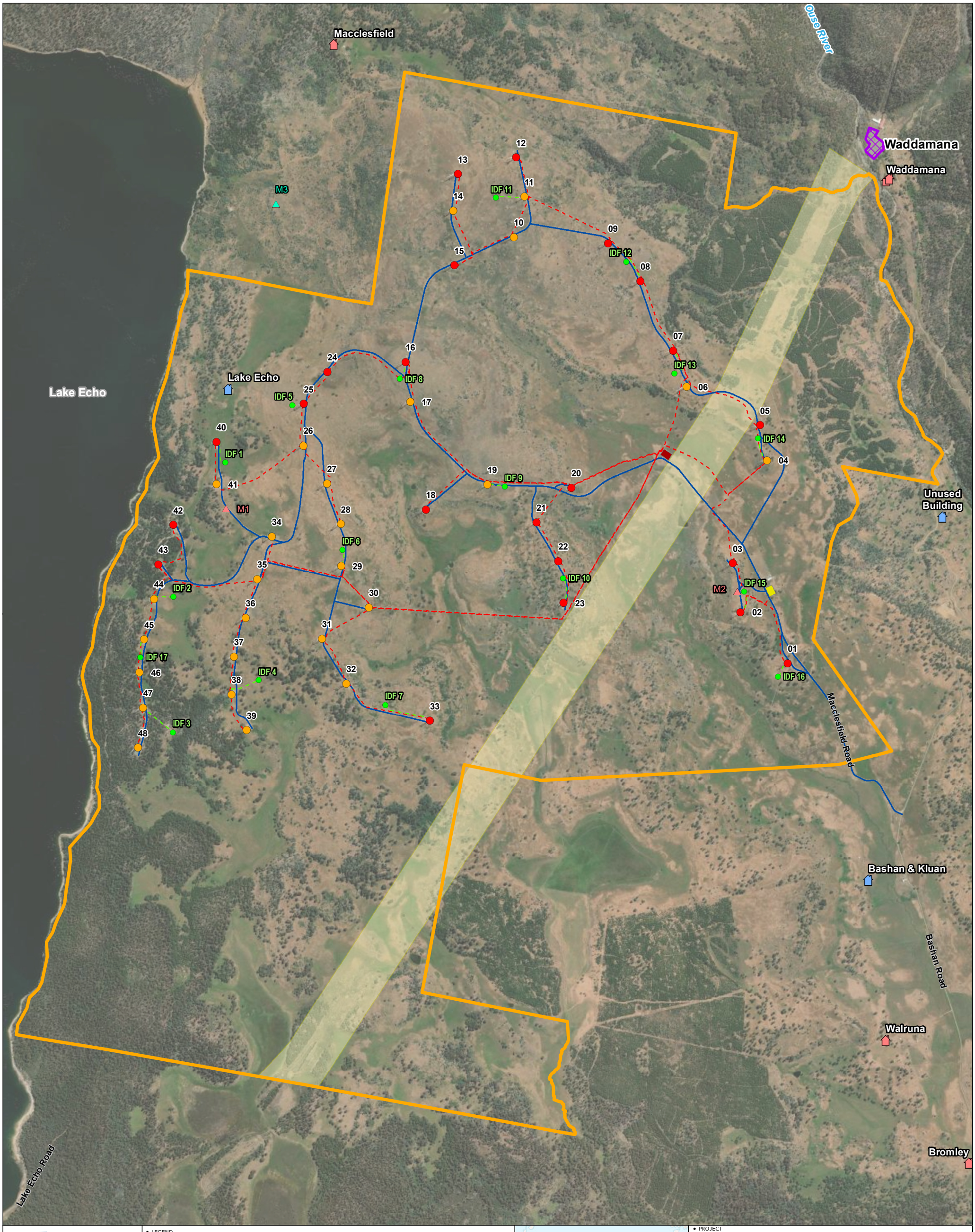
Grazing and forestry land are located to the north, east and south and are associated with sparse rural housing. The project area itself comprises ten lots, owned by two landowners, and has been historically used for cattle grazing, forestry and hunting.

An existing TasNetworks high voltage electricity transmission easement crosses the site allowing the wind farm to connect to the transmission network, with the addition of only minor new overhead line infrastructure required between the wind farm substation and the existing 220 kV line easement. Operation and maintenance of the TasNetworks transmission lines require occasional visitation by TasNetworks and its contractors to the project locality.

The CHWF was subject to pre-existing conservation covenant areas, Lake Echo Covenant established by the landowner and, a Carbon Offset Forest area in west of the project. Project activities within Lake Echo Covenant were subject to Authorisation by NRE Tasmania and the Carbon offset area prohibits clearing of vegetation in the defined carbon forest which has excluded areas required for the CHWF infrastructure.

An additional 3 covenants were installed under the EPBC Act (one on CHWF Site and two external to CHWF) and a fourth covenant established on site under state legislation. More details of the post-construction covenants established in accordance with EPBC Approval requirements are provided in Section 4.19.

FIGURE 2.1 CHWF Site Layout (As-Built)



GOLDWIND

PROJECT MANAGEMENT

Disclaimer:
This plan was prepared for the purpose and exclusive use of Goldwind Australia.
Goldwind Australia gives no warranty in relation to the data (including accuracy, reliability, completeness or suitability) and accepts no liability for any loss, damage or costs (including consequential damage) relating to any use of the data in this map.

Coordinate System: GDA94 MGA55

• LEGEND

Installed Turbine
- 3.0 MW
- 3.2 MW

Residence
- Involved
- Uninvolved

Met Mast
- Existing Met Mast
- Former Met Mast
- Constructed or Upgraded Access
- Underground Cabling
- Site Extent
- Waddamana Substation
- Operation and Maintenance Facility
- Substation
- Identiflight Station
- Identiflight Cabling
- Transmission Network 150m Setback

• PROJECT
Cattle Hill Wind Farm

• TITLE
Layout – Operations at December 2023

• DATE 5/12/2023	• PRODUCED V.Kulkarni
• SCALE 1:30,500 @ A3	• CHECKED K.Fuller
• STATUS Draft	• APPROVED J.Bembrick

0 445 890 1,780 Metres N

• DRAWING No. CHWF_DES_015_01D Operations	• REV 01D

2.3 Associated Planning Approvals

In addition to the EPBC approval for the CHWF Project, WCHPL has obtained approvals from Tasmanian State and Local regulators as detailed in **Table 2.1**. WCHPL is the Approval Holder for each Approval.

Table 2.1 – Details of planning and environmental approvals for CHWF

Jurisdiction	Regulator	Approval No.	Infrastructure
Commonwealth	Department of Agriculture, Water and Environment (DCCEW)	EPBC 2009/4839	CHWF
State	Environment Protection Authority	EPN 10105/2	CHWF
Local	Central Highlands Council - Permit	DA 2010/19, as amended	CHWF
Local	Central Highlands Council - Permit	DA 2017/56	Identiflight System (amended in March 2023 for additional Identiflight unit (IDF17))
Local	Central Highlands Council - Permit	DA 2017/57	Met Masts – not installed
Local	Central Highlands Council - Permit	DA 2018/09	Roadworks permit
Local	Central Highlands Council - Permit	DA 2018/31	Off Site Road Upgrades
State	DPIPWE – Covenant Authorisations for construction works within Lake Echo Covenant	By letter from DPIPWE	Allows specified activities and impacts within Covenant area
State	DPIPWE – Permits to Take (PTT) in relation to Threatened Species or Products of Wildlife.	Various	Allows specific impacts under the Terms and Conditions of the PTT.

The planning permit for CHWF, DA 2010/19, was obtained from Central Highlands Council (CHC) under the Tasmanian *Land Use and Planning Approvals Act 1993* and as amended by the Resource Management and Planning Appeal Tribunal (RMPAT). The Permit comprised two parts, that issued by CHC, and Part B issued by EPA Tasmania. Current form of Part B is Environment Protection Notice (EPN) 10105/2 that was issued by EPA on 12 June 2024 under the Tasmanian *Environmental Management and Pollution Control Act 1994 (EMPCA)*. The EPN varies or supplements the environmental conditions of Permit No. DA 2010/19.

2.4 CHWF Project Land

The land on which the CHWF is located is situated immediately to the east of Lake Echo and accessed from Bashan Rd, approximately 3 km southwest of Waddamana, and includes part or all the following land titles (defined in approvals DA2010/19, EPN 10105/2, and EPBC 2009/4839). These titles are held by two landowners (Landowner 1 and Landowner 2), as follows:

- Landowner 1 - 135246/1; 29897/1; 29897/3; 29897/5; 135247/1; 135247/2; 29888/4, 29897/6.
- Landowner 2 - 248810/1.

There are also areas of Crown land where agreements were reached for project access across the crown lands, as necessary. Additionally, a TasNetworks transmission easement crosses the project area. Specific provisions also apply to conservation covenants established at the site (see Section 4.19)

3 DETAILS OF CHWF PROJECT AND DEVELOPMENT STATUS

3.1 Approved Action

The EPBC Approval allows the following Approved Action:

> *To develop a wind farm consisting of up to 100 wind turbine generators and associated infrastructure east of Lake Echo in Tasmania's Central Highlands as described in the referral received on 7 April 2009 and request for variation to proposal received 30 August 2010.*

Appendix A of the EPBC Approval (EPBC 2009/4839) shows, the project layout based on the Design Report Layout December 2017 and, exclusion zones from Eagle Nests known at that time.

Appendix B of the EPBC Approval (EPBC 2009/4839) shows the extent of the CHWF project area.

The installed CHWF layout is consistent with the Tasmanian planning approvals and the Design Report December 2017 approved by EPA 01 March 2018 and the EPBC Approval. The layout for the Design Report addressed all the relevant Commonwealth, State and Local planning matters.

The CHWF project comprises a lesser number of wind turbines, 48 instead of the 100 originally considered by the EPBC referral. The CHWF project has a reduced footprint, however the installed turbines are larger than originally proposed. This enabled the project to take advantage of advances in technology which provide greater wind turbine efficiency and improved performance with a reduced environmental impact.

The details of the CHWF project as implemented are outlined below. The proponent has kept the Department aware of the EPA approved Final Design for the project and subsequent minor variations required for the project that have been approved by the EPA.

3.2 Details of Wind Turbines

The project comprises 48 wind turbines. These are Goldwind's Permanent Magnet Direct Drive design with either 3 MW or 3.2 MW rating (26 by GW140/3000 and 22 by GW140/3200) with a total wind farm generating capacity of 148.4 MW (maximum output to Grid is capped at 144 MW).

The wind turbines shown in Plates 3.1 to 3.6 have approximate dimensions as follows:

- A maximum height (to highest point of rotor swept area) of 170 m above ground level;
- A hub height of approximately 100 m;
- The three bladed rotors are approximately 140 m in diameter.

Near the base of each wind turbine tower are:

- An external kiosk-style 33kV transformer and switch gear;
- Two banks of cooling fans. Cooling fluid circulates between the cooling fan units and the internal areas of the tower and turbine;
- A compacted hardstand area formed during construction at each wind turbine site, for use by large cranes and for component laydown. These hardstands are retained for the operations phase in case large cranes are required for future maintenance activities.

No aviation safety lighting is required on the wind turbines. Lighting is provided at the entry to each wind turbine tower. The wind turbines are off-white/grey with non-reflective finish as approved by CHC.

3.2.1.1 Substation details

A substation is located near to the pre-existing TasNetworks transmission easement that crosses the project area. The Substation includes:

- A 33-kV switch room receives 33 kV cables from each of the wind farm's five collector groups;
- A 33kV/220 kV transformer in concrete bund;
- Landing gantry for conductors from substation to cut-in poles for the 220-kV transmission line;
- Various electrical protection and power quality equipment;
- Security fencing around the substation and surrounding site drainage;
- Earthing grid below gravel cover for substation compound.

3.3 Other permanent infrastructure

The wind farm design also includes:

- An access track network from the site entry to all turbine sites and the substation site (**Figure 2.1**);
- Five 33kV collection circuits comprising 33kV underground cables between groups of turbines and the substation. Communications and control cables are co-located with the 33kV cables;
- An Operations and Maintenance (O&M) facility near the site entry and adjacent Macclesfield Road comprising:
    - a compound surrounded by security fencing;
    - a building providing office desks, computer and communications facilities and amenities;
    - a workshop, refuelling area, generator and storeroom;
- 17 IdentiFlight units located throughout the wind turbine layout to provide optical coverage of the airspace surrounding each of the 48 turbines and support turbine curtailment for Eagle protection.

Amendment of Central Highlands Council (CHC) Planning Permit DA 2017/56 (for installation of the Indentiflight system) was gained for the instalment of an additional 30m IdentiFlight unit (IDF 17). This unit has been installed to provide complete coverage of Turbine 46 and improved coverage of Turbines 44 to 47 located within the forested area. Further details are provided in Section 4.7.2.

3.4 Status of CHWF Works

All wind farm infrastructure was installed during 2018 to 2020, except for a taller tower (30m high) Identiflight unit that was installed in 2023 between Turbines 45 and 46 to mitigate an identified higher risk to WTE at that location. No further WTE mortalities have occurred at that location since IDF17 was installed.

Achievement of Full Operations for CHWF was notified to DCCEEW on 5 August 2020. For this 2025 report period, the project has been in the fifth full year of CHWF operations phase. All construction impacts have been rehabilitated and are regarded as satisfactorily rehabilitated. Nevertheless, ongoing monitoring and maintenance of the project footprint continues, including weed control, access track and drainage maintenance and if required, revegetation. Condition of vegetation varies with seasons and the range of conditions that typify the Tasmanian Central Highlands.

Two additional covenants have been established on site and two were established off-site to enable the quantum of required vegetation species offsets. These areas are subject to monitoring and management.

Additionally, substantial effort has been directed towards protection of the Tasmanian Wedge-tailed Eagle (WTE) with the first Australian application of the innovative Identiflight technology and refinement of its operation for the location and the protected species. The demonstration of the IDF technology has gained substantial attention and been reviewed by regulators and other wind farm developers that as a result, are better able to understand the benefits of the technology and consider its wider application. CHWF can be regarded as a pioneering project for the Australian deployment of the Identiflight technology.

A set of site views are provided in Plates 3.1 to 3.6.

Plate 3.1 – CHWF View north from IDF 2 towards T42 (edge of woodland area) - March 2025

Plate 3.2 – CHWF View northeast from IDF2 towards central CHWF Turbine sites – March 2025

Plate 3.3 – Site visit from representatives of EPA and DCCEEW to inspect IDF 17 – September 23

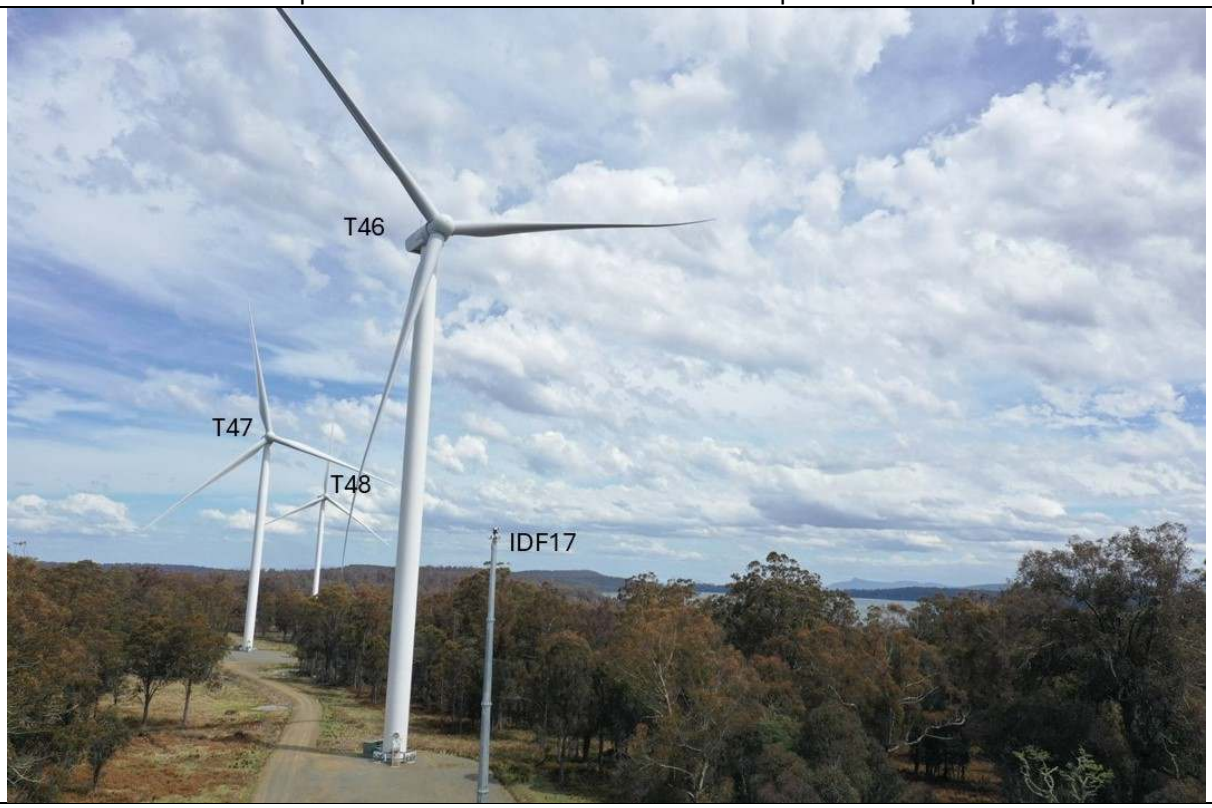


Plate 3.4 - View to south from IDF17 (30m high imaging unit is able to view above canopy)

Plate 3.5 – View to Operations and Maintenance Facility, Wombat crossing track. September 2023

Plate 3.6 – View south at IDF 8 in proximity to surrounding turbines, Turbine 17 on left

4 EPBC Approval Conditions and Proponent Responses

4.1 Overview of the EPBC Approval requirements

Since issue of EPBC Approval 2009/4839, the conditions of EPBC approval have been subject to several variations including but not limited to the following:

- The revocation of Conditions 6 to 9, three Conditions 6A, 6B and 6C were added in place of the revoked Conditions 6 to 9.
- The revocation of Condition 21, as it was separately addressed by State approval conditions;
- Further variations occurred on 3 July 2020 to define first full operations in relation to commencement of the IDF trial under Condition 6C and requiring associated minor variation of Conditions 11 and 25;
- A further variation was advised by DCCEEW on 12 October 2020 to vary requirement for publishing of Incident Reports required by Condition 10 on the Website to either reporting details required by Condition 10 for the incidents, on the CHWF Website or, by including these details within the Annual Compliance Reports that are required to be placed on the CHWF Website;
- On 4 November 2022 Condition 10 was varied to amend the reporting timeframe in the event of a collision of either a Wedge-tailed Eagle or a White-bellied Sea Eagle from "*within one week* "to "*within fifteen business days*" to allow adequate time to compile relevant investigation reports.

Provided in the following sections, are responses to each of the EPBC conditions as applicable for this reporting period and which describe the status of compliance requirements. Where relevant, implementation of management plans is also described. Details of the Compliance Status for each condition is also tabulated in **Appendix A** with the summary of compliance set out in Table 1.2**.**

4.2 Condition 1 – Wind Turbines no closer than 1,000m to a known eagle nest

Condition 1 requires that wind turbine generators are not constructed closer than 1,000 metres of a 'known' eagle nest (at Dec 2017). All 48 wind turbines have now been installed in compliance with Condition 1.

The CHWF Final Design is described in the CHWF Design Report, dated December 2017 and approved by the EPA on 01 March 2018. The design incorporated setbacks of more than 1,000 metres from eagle nests '*Known Nests*' that were known at the time the of the final Design Report. The setbacks satisfied the requirement of Condition 1 of the EPBC Approval (see **Figure 4.1**).

During 2018 it became evident that new eagle nests had been established. Subsequently after consultation with DCCEEW and EPA, both the EPBC Approval and EPN were varied to distinguish 'existing (*Known*) nests' that were considered by the final design in 2017. New nests identified after the Final Design have been subject to further consideration by regulators, separate from the Condition requirements for 'Known Nests'.

4.3 Condition 2 – Construction activities within 500m or 1,000m of an active nest

As indicated above, all construction works were completed by February 2020, well before the current Review Period, therefore Condition 2 (relating to construction) is no longer applicable for operations.

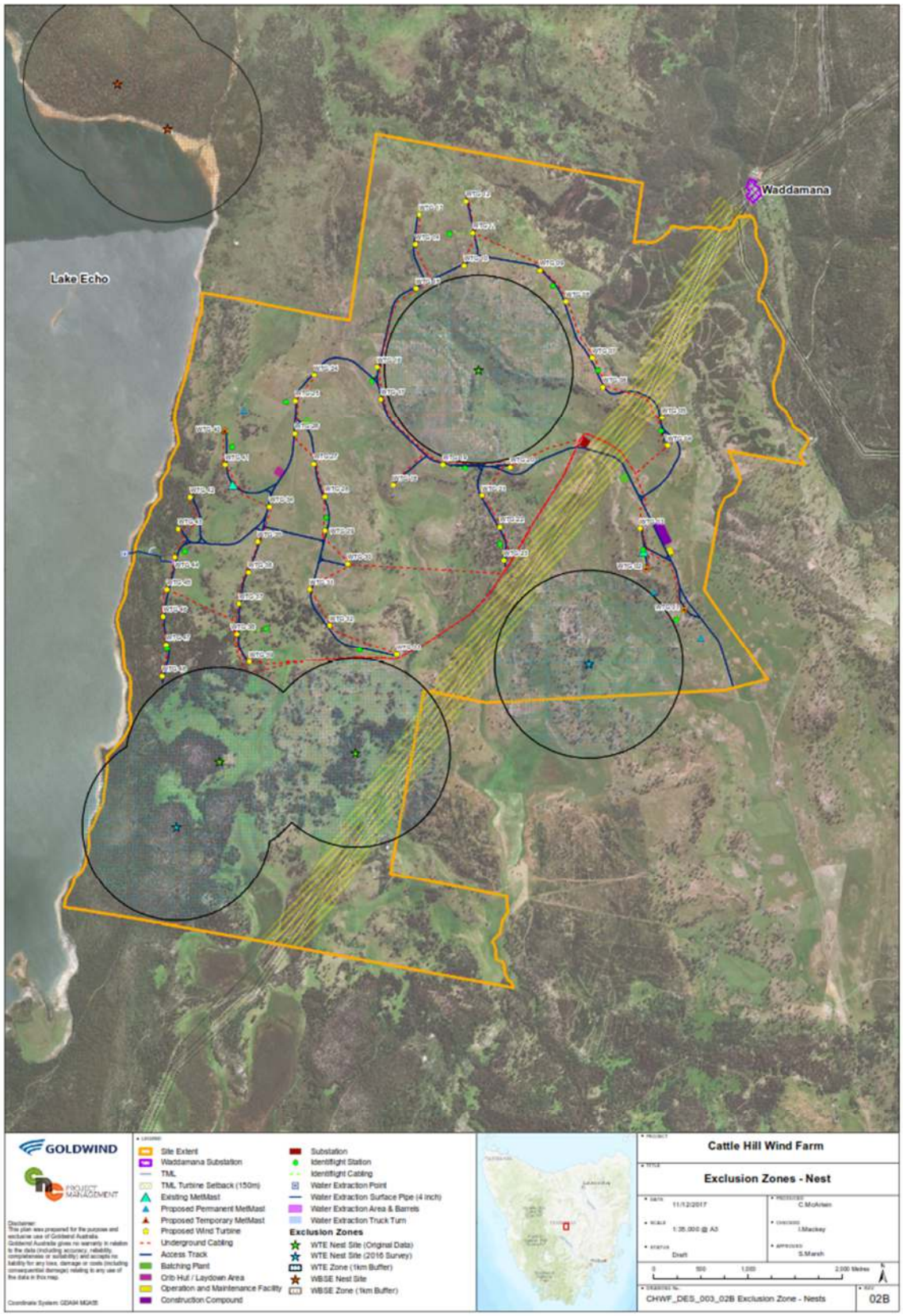


Figure 4.1 – Wind Farm Layout, Design Report December 2017 and Exclusion Zones - Known Nests

4.4 Condition 3 – Removal of carcasses from hunting and culling

Condition 3 requires, immediate removal of all animal carcasses from hunting and culling activities from within 500 metres of wind turbine generator locations from 12 months prior to commissioning and for the life of the wind farm.

Hunting and culling have been occurring on the two properties where CHWF is located, since well before the development commenced. It continues in similar form, with arrangements in place to ensure safe conduct in the vicinity of the development activities, and with defined processes for record keeping in respect of numbers and types of carcasses together with details of their removal or disposal onsite.

Records of animals shot are prepared by shooters (species and number shot, location shot, location disposed and person removing the animal or carcass) and periodically forwarded to WCHPL. Records are available from the Echo Lake Shooters group since 2 June 2017. These records are available for analysis and those for the report period are reviewed during preparation of this report.

Culling for the two properties where CHWF is located accounted for a total 5,540 carcasses for the 2024/2025 year (5,066 on the Lake Echo property and 474 on the Bashan Property).

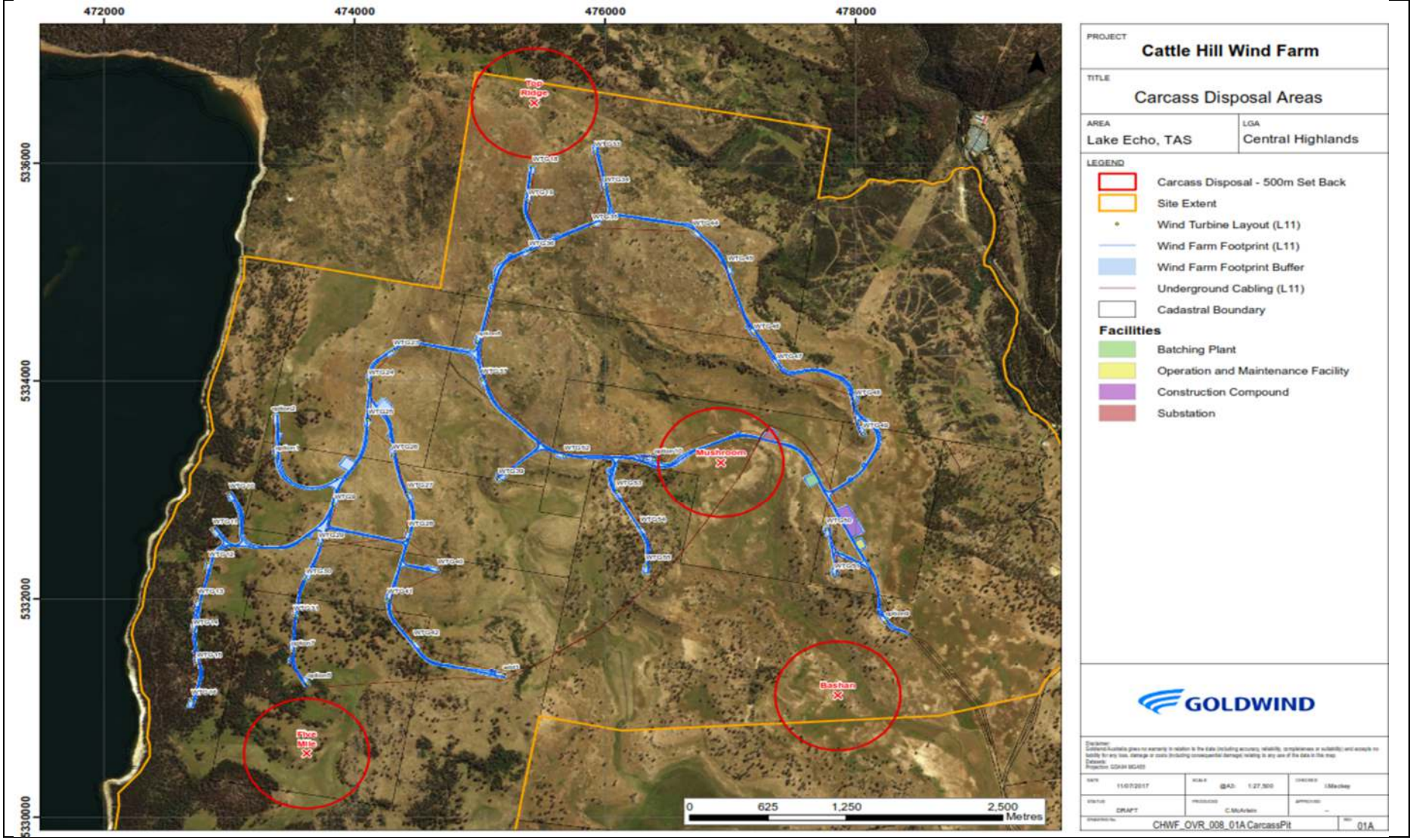
The culling covered a range of species (Bennetts Wallaby, Deer, Possum, Pademelon/Rufous wallaby, hares/rabbits, cats and ducks) through hunters engaged by the respective property owners. Carcasses from Lake Echo are disposed of either in one of the four approved Carcass Disposal Areas or removed whole from site. Carcasses for the Bashan Property are all removed whole from site.

Four Carcass Disposal Areas (refer **Figure 4.3**) were approved on 7 August 2017, by the delegate of the Federal Minister that administers the EPBC Act. They are required to be used where carcass disposal is on site and where activities are relevant to EPBC Conditions 3, 4 and 5. For those carcasses that are subject to Conditions 3 to 5, the following disposal was undertaken for the reporting period:

- Five Mile – Carcass material placed in covered pits (total 2,015 disposed on-site)
- Bottom Mushroom – Carcass material placed in covered pits (total 1,724 disposed on-site)
- Bottom Ridge – Carcass material disposed in covered pits (total 78 disposed on-site)
- Top ridge – No carcass disposal has occurred at this pit location (zero disposed at Top ridge)
- Whole carcass removed from CHWF Site (total 1,723 removed from site).

The disposal areas are covered pit disposal facilities to comply with the Tasmanian *Animal Health Act 1995* which requires all carcasses are covered within 48 hours. The form of covering has previously been inspected by EPA and DCCEEW. As a result of the covering of disposed carcasses to comply with the Tasmanian Animal Health Act, 1995, the approved disposal sites no longer provide a food source for WTE which will mean that WTE will need to pursue other food sources, either within the site or away from CHWF. This may affect presence and distribution of WTE at the project site.

Figure 4.2 – Location of the four carcass disposal areas approved by the Minister's Delegate on 7 August 2017



4.5 Condition 4 – Operations – Removal of carcasses from collisions with wind turbines

Condition 4 requires that during wind farm operations, animal carcasses resulting from collisions with wind turbines generators, vehicles and/or other regular farming activities within the wind farm site are removed on the day they are discovered and are placed in locations, approved in writing by the Minister, no closer than 500 metres from the wind turbine generator locations.

As described in Section 4.4, hunters have continued to undertake hunting and culling and maintained established disposal procedures and record-keeping, including use of approved carcass pits. The CHWF Site Service Team also undertake routine inspections of IDF and Turbine locations in the course of their site activities and may locate any carcasses and respond according to site procedures.

Carcasses may arise from road kills, animal health issues or collision with wind turbines.

Carcasses in the vicinities of turbines may either be identified by the ecology team routine searches for avifauna carcases or, identified by the Site Service team during routine activities travelling around site and inspecting and maintaining the turbines and Identiflight units. Carcasses found by the Service team are referred to as incidental finds and are collected and stored in a freezer for later identification by ecologists and, in some cases, are retained for use in future scavenger trials associated with the intensive bird and bat mortality monitoring program under EPN 10105/2.

Road kills on site are rare, due to reduced vehicle speeds on-site. The number of avian collisions with turbines is also low (Currently less than one WTE per 48 Turbines per year, and 2.5 avifauna per turbine/year for all avian species (birds and bats).

For the 2025 reporting period there was one Wedge-tailed Eagle mortality. With the previous year having no WTE mortalities, this then represents one WTE mortality over 2 full years, an improved outcome.

4.6 Condition 5 – Operations - Searches for Dead Calves during September each year

Condition 5 requires that daily searches are conducted for dead calves during September each year and any carcasses are removed from within 500 m of any wind turbines. Additionally, unless otherwise agreed to in writing by the Department, wind turbine generators must not operate during day light hours within 1000 metres of paddocks where lambing is occurring. In the Department's letter of 14 February 2018, the Director agreed to operation of turbines no closer than 500 metres from any lambing activities but that does not yet appear to have been changed in wording of Condition 5.

The wind farm operated during September, within the report period, and no lambing occurred in the vicinity of wind turbines being operated where wind conditions were suitable. The landowners and site personnel undertake regular inspections of their properties and will respond to any stock carcasses on-site. Ongoing carcass monitoring has been arranged by WCHPL for the areas around wind turbines and any carcasses found are collected and disposed at on-site pits or, stored in a freezer on-site if required for the BBMMP purposes.

4.7 Conditions 6A, 6B and 6C – Collision Avoidance and Detection Plan (CADP)

4.7.1 Compliance with Conditions 6A, 6B, 6C

Condition 6A requires the preparation and submission of a Collision Avoidance and Detection Plan (CADP) to the Minister for approval. The CADP was submitted to the Department and approval obtained on 29 May 2018. Requirements for Condition 6A have been completed. The CADP describes use of the IdentiFlight system on a trial basis. One of the 17 IdentiFlight units installed on site is shown in Plate 4.1. The CADP has been updated (section 4.9) to include the recently installed IDF 17 and review of about 5 years of operational performance. It was submitted to DCCEEW on 13 June 2025 and is under review by DCCEEW.

Condition 6B requires that the wind farm not be commissioned until the CADP has been approved by the Minister. The CADP was approved on 29 May 2018, prior to the wind farm commissioning that commenced from 19 November 2019. Requirements are complete.

Condition 6C requires a detailed assessment of the effectiveness of the CADP system to be submitted to the Minister within 18 months of the earlier of first full operation or 1 September 2020. First full operation was notified on 5 August 2020 and this requirement applies from that time. The CADP assessment report was submitted initially in February 2022 and a revised final version in March 2022.

The project is compliant with all requirements of Conditions 6A, 6B and 6C.

4.7.2 Overview of IdentiFlight system and performance

The IdentiFlight (IDF) system was trialled in accordance with the CADP. IdentiFlight commenced initial operation on 19 November 2019 and the initial 16 IdentiFlight stations were progressively implemented with all 16 IdentiFlight units available for CHWF full operations from 05 August 2020.

The March 2022 report of the 18-month trial (Condition 6c) indicated that the IDF system performance has been effective in limiting the number of Eagle collisions with the wind turbines but is not able to prevent all collisions. Subsequent incident investigations undertaken for deceased eagles (September 2021 to September 2022) found near Turbine 46, revealed that Turbine 46 had a significant blind spot extending from 110m ASL to ground level. Significant occlusions were also identified for Turbines 42 and 45.

To address these blind spots identified from the previous investigations, a 30m IDF tower (IDF 17) was installed (between T45 and T46) in October 2023. Pleasingly, since the installation and operation of IDF 17 there have been no Eagle mortalities reported since at either Turbine 45 and 46 and coverage has been improved at Turbines beyond Turbine 45 and 46. This mitigation measure has achieved the intended outcome, which was to achieve 'fully covered' IDF protection status for T46 so the turbine could safely operate during daylight hours. As a secondary outcome, IDF-17 has also improved visibility of T43, T44, T45, T47, and T38.

Plate 4.1

View of IDF 17
On 30 m tower near Turbine 46

4.7.3 Avian Mortality Monitoring Overview

Mortality monitoring required by the project approvals commenced from November 2019 (Phase 1 Surveys) and scaled up with commencement of full operations from 4 August 2020 (Both Phase 1 and Phase 2 Surveys). Phase 1 surveys (weekly) were ceased on 12 July 2022 with Phase 2 surveys ongoing and including for the reporting period.

The Phase 2 surveys commenced from August 2020 and involve intensive monitoring for half of the turbines (24) being surveyed every second month and the other 24 surveyed on alternate months. The Phase 2 surveys involve two teams (one human, one with a detection dog) walking 6 metre transects out to 60 metres from the centre of the turbine, and 12 metres transects out to 120 metres (main surveys).

Results of the Phase 2 monitoring are for the 2024/2025 period (consistent with annual reporting to EPA). They are comprised of 92 Bird and 29 Bat mortalities representing 28 Bird species (Table 4-1) and 7 or more Bat species (Table 4-2). Of the total 121 mortalities, 3 bird species are EPBC listed.

WTE is listed as Endangered, while the Blue-winged Parrot and White-throated Needletail are listed as Vulnerable. Stringent provisions are included in the approvals for WTE protection and potential impact has been reduced through application of Identiflight. Further review of the significance of impacts on the two vulnerable species will be undertaken as part of five-year review of bird and bat mortality monitoring results.

Table 4.1 – Bird species found for Phase 2 Mortality Monitoring for Period 2024/2025

Species	EPBC	Count	Percent (%)	Comment re EPBC species
Australian magpie		5	5.4	
Black currawong		7	7.6	
Black-faced cuckoo		1	1.1	
Blue-winged parrot	Vulnerable	5	5.4	Review significance of impact
Bronzed cuckoo		1	1.1	
Brown falcon		5	5.4	
Chestnut Teal		1	1.1	
Eastern rosella		5	5.4	
Eurasian skylark		4	4.3	
European goldfinch		1	1.1	
European starling		24	26.1	
Flame robin		1	1.1	
Forest raven		3	3.3	
Green rosella		1	1.1	
Grey fantail		3	3.3	
Pacific black duck		2	2.2	
Peregrine falcon		1	1.1	
Pink robin		1	1.1	
Robin		1	1.1	
Rosella		1	1.1	
Silvereye		1	1.1	
Skylark Pipette		1	1.1	
Striated pardalote		3	3.3	
Tree martin		7	7.6	
Wedge-tailed Eagle	Endangered	1	1.1	Low impact, 1 WTE in last 2 years
Welcome swallow		3	3.3	
White-throated Needletail	Vulnerable	2	2.2	High presence but low impact
Yellow-rumped		1	1.1	
		92	**100**	

Table 4.2 – Bat species found for Phase 2 Mortality Monitoring for Report Period

Species	Count	Percent	Comment
Eastern striped pipistrelle	1	3.4	
Gould's Wattled Bat	8	27.6	
Large Forest Bat	7	24.1	
Lesser long-eared bat	1	3.4	
Southern forest bat	3	10.3	
White-striped Freetail Bat	4	13.8	Not previously known in Tasmania
Unidentified Bat	5	17.2	
	29	**100**	

EPBC Approval, Conditions 7, 8 and 9 have been revoked.

4.8 Condition 10 – Notification and Reporting of an Eagle collision with a Turbine

Condition 10 requires notification to: "*the Department by email within 24 hours of any collision between a wedge-tailed eagle or white bellied sea eagle and a wind turbine. Within fifteen business days of the initial notification, the person taking the action must submit to the Department a detailed collision report, that as a minimum includes:" (items (a) to (e) of Condition10).*

A single deceased WTE was found during the report period. The WTE was found on 8 October 2024, near Turbine 42. WCHPL complied with all aspects of Condition 10 for notifications and, Incident Reporting to DCCEEW for the T42 WTE mortality and for the reporting period. Table 4.3 provides summary details for the T42 WTE mortality.

Table 4.3 CHWF WTE Mortality Incident 9 – Summary of Condition 10, Notification and Reporting

	EPBC Condition 10 Requirement	WCHPL Response to Condition 10 requirement
	Notification within 24 hours of collision	A deceased Wedge-tailed Eagle was found 111 m from Turbine 42 at approx. 1.31pm on 8 October 2024 (Incident BB0605). The incident was notified to regulators (DCCEEW and EPA) within approximately 24 hours of discovery, by email.
	Submit Incident (detailed collision) Report within 15 days of notification of the incident	An Incident Report was submitted to DCCEEW and EPA on 18 October 2024, after receipt of Necropsy including X-rays on 16 October 2024 and additional review of available IdentiFlight records and mitigation options to prepare the Incident Report.
a	The **species** of eagle, the **sex** and **estimated age**	The species was confirmed by a vet as: • a Tasmanian Wedge-tailed Eagle (Aquila audax). • Male • Mature Adult
b	The **nature of injuries or mortality and cause** as reported by a veterinarian.	The specimen was assessed by a vet including x-rays (16/10/2024) and reported in a Necropsy Report, (16/10/2024) and was found to have: "*Right wing found separate from rest of the body, Fractured right femur and radius and ulna. Head, body, muscles and organs all highly decomposed.*

		Diagnosis: Fractured wing and leg, consistent with collision with wind turbine." *The Eagle had total length 930mm, wingspan ~1900mm and weight of (>1.6kg, decomposed)*
c	The **nearest turbine** to where the injured eagle or carcass was found	Found 111m SSE of the tower of Turbine 42.
d	Details of how the injury or mortality was caused and proposed response to prevent further mortalities occurring	The most likely cause of the mortality is a collision with Turbine 42, although some details raised uncertainty and no records from Identiflight recorded a collision. The IDF system is designed to shut down turbines when an eagle is at risk of collision and the system appears to be very effective for much of the CHWF site. However, at this location where T42 is surrounded by tall trees and together with terrain features, there is limited IDF coverage of T42 and WTE protection zones surrounding T42. An obvious source of IDF occlusion was a large tree immediately to the north of IDF 2 and that has been removed in April 2025. Further options to improve IDF coverage for T42 are under consideration and a full solution is yet to be determined.
e	If the eagle was injured, information about its condition, including if and how the eagle will be rehabilitated and re-released.	Not applicable.

The installation and commissioning of IDF17 has been successful in providing full coverage of Turbine 46 and improved visibility of T43, T44, T45, T47, and T38. This has likely contributed to no further Eagle mortalities occurring at previous WTE mortality sites T38, T45 and T46, during the reporting period. However, T42 is too distant from IDF17 for any significant improvement in coverage and still has issues for terrain and vegetation occlusion. Further investigations are continuing to seek a solution to the occlusion for T42 protection zones.

Phase 2 avian mortality monitoring as described in Section 4.7.3 has been undertaken throughout the reporting period.

4.9 Condition 11 – Revised CADP within two years following commissioning

Condition 11 requires that: *"Within 2 years following the earlier of first full operation or 1 September 2020, submit for the Minister's written approval a revised CADP containing details of the collision avoidance and detection system proposed to be subsequently implemented (including technologies installed and practices undertaken) for monitoring WTE movements, preventing WTE collisions with turbines and recording collisions."*

Notification that the wind farm had reached first full operation was provided to the Department on 5 August 2020, approximately 4 years and one week, prior to start of this reporting period. Based on the timing of the commencement of operations, Condition 11 required submission of a revised CADP by 5 August 2022. A revised CADP was initially submitted to the Department by 03 August 2022, and an updated CADP provided in March 2023. The revised CADP highlighted some areas for improvement to reduce eagle risk at turbines only partially covered. The revised CADP outlined WCHPL's intention to continue operating IDF as the best technology, approach or method of reducing risk to eagles, based on the effectiveness of the system to date.

DCCEEW provided comments on the CADP and, a further update was submitted on 13 June 2025. That CADP is still with DCCEEW for review and either approval or further requirements.

The updated revised version followed 4 WTE mortalities in latter half of 2022 that highlighted the significance of vegetation screening occluding IDF viewfields, and incorporation of a 30m IDF Station as the primary mitigation measure to address the WTE risk in the woodland locality. The updated revised CADP was able to draw on almost 5 years of monitoring data and performance outcomes that show decreased risk of WTE collision. Figure 4.3 shows the performance over more than five years of operations and indicates WTE mortalities have reduced relative to earlier years and may average one or less per year from 2024 onwards.

Figure 4.3 – Review of IDF Performance August 2020 to October 2025 – Recent reduced collisions

Further improvements to the Identiflight system are under consideration by WCHPL and have potential to further enhance the system effectiveness.

4.10 Condition 12 – Maintain records of searches required by Condition 11

Condition 12 requires: "*Keep and maintain accurate records of each physical search conducted as required by Condition 11, including date, time, turbine number and research findings"* and that: *"These records must be provided to the Department on request."*

Condition 11 is not definitive on the specific monitoring requirements but requires a revised CADP that *"must include a collision monitoring programme for eagles based on a statistically valid sampling regime which applies current best practice and satisfies the requirements of EPA permit condition FF10."*

Elements of monitoring (physical searches) that are considered relevant are:

- Mortality Monitoring under EPN 10105/1 Condition FF10 and applicable to the EPBC Approval as outlined in **Section 4.7.3**, occurred for Phase 1 (weekly) and for Phase 2 (monthly) monitoring. Summaries of results, for the report period, are shown in **Tables 4.1** and **4.2**, that are derived from the more detailed records of the mortality monitoring undertaken under for Phase 2;
- IdentiFlight Eagle Tracking Records and Curtailment Details. A substantial amount of detail has been accumulated on WTE movements and other birds present within the vicinity of the CHWF wind turbines. This includes tracks of Eagle movements and behaviour. The system has the advantage of being designed to trigger turbine shut-downs where Eagles are at risk.
- Nest checking within 2km of CHWF and 2km to 10km outside CHWF site and associated records.

The 2025 reporting period aligns approximately with the fifth year of CHWF operations, for which extensive Phase 2 mortality monitoring has been continued. The monitoring has been in accordance with the BBMMP approved by Tasmanian EPA under EPN 10105/1 Condition FF10. Records of all monitoring are kept and stored in a dedicated database and can be readily retrieved and analysed as required. Summaries are provided in **Tables 4.1** and **4.2**.

The previous reporting periods have accumulated information on species present within the site, the training of the CHWF IdentiFlight Neural Network and, supported adjustment of the systems turbine curtailment criteria to optimise WTE protection and CHWF renewable energy generation.

At the end of the 2025 reporting period, the IDF system has generated approximately 60 months of data for the full operations period and nine months of partial data during commissioning and refinement of neural network.

Cumulative WTE mortalities reached nine which have occurred over 5 years of full operation. Of the nine, 8 occurred in the first 3 years and only one in the last 2 years, demonstrating the improved IDF performance. Attachment 3 of the EPN 10105/2 shows the DPEMP predicted mortalities after 5 years as 16 mortalities and the current performance is 7 below the DPEMP predicted number. Without IdentiFlight being in operation and its optimisation with the addition of IDF 17, it is anticipated that the mortalities due to collision would have been greater and potentially of the order shown in Attachment 3. The number of actual mortalities as a percentage of predicted mortalities is expected to decline going forward, due to improvements in the IDF System implementation that have been delivered or are planned in next one to two years.

4.11 Condition 13 – All wind farm roads signposted with max 40kph speed limit

Condition 13 requires:

> *"Ensure that all roads within the wind farm site are clearly signposted requiring all vehicles to travel at no more than 40 kph and ensure that this is a requirement for all drivers within the site except in an emergency."*

The Site Service Team (Operations) has responded to the Condition 13 requirement by:

- Including the requirement for 40 kph speed limit in site induction material that all site personnel are required to undertake so that they are aware of requirements;
- Placing signage around the site clearly showing the 40kph speed limit (**Plate 4.2**);
- Reminders for speed restrictions is regularly provided as part of pre-start meetings; and
- Requiring 30km per hour limit from Dusk to Dawn with signage as per **Plate 4.3.**

Plate 4.2 – 40 kmph site speed limit sign at entry

40kmph sign around site.

Regular checking and if required maintenance of the speed signs is undertaken by Site Service Team.

Plate 4.3 - 30kmph Signage Dusk to Dawn

4.12 Condition 14 – Daily checks on all wind farm roads for road-kills

Condition 14 requires that: "*Prior to construction commencing each day, ensure all roads proposed to be used that day are free of road-kill and any animal carcasses are placed in locations approved in writing by the Minister no closer than 500 metres from wind turbine generator locations.*"

The construction phase of the CHWF development is complete and was associated with a very low incidence of on-site road-kills. That was likely due to the reduced speed limit for on-site roads. While Condition 14 is not applicable for operations, records of any incidental carcasses are kept as part of the overall site management and monitoring. The service team on site report any occurrences of road-kills or incidental finds (separate to the scheduled mortality monitoring). For any such finds, they arrange collection and appropriate disposal of the carcasses or, if relevant for conservation significant native species, investigation of causes of mortality or injury.

4.13 Condition 15 – WTE monitoring as required by Permit Conditions FF4 and FF 5

EPBC Approval 2009/4839 Condition 15 requires the completion of:

"The Wedge-tailed Eagle monitoring arrangements required by the amended Tasmanian planning permit DA 2019/19, Conditions FF4 and FF5 (EPN 10105/1)."

4.13.1 Tasmanian EPN, Condition FF4 – Requirements are complete

Condition FF4 requires that:

> *"Prior to commissioning the wind farm an eagle nest search of the Central Highlands Region must be conducted by a suitably qualified and experienced person and the results submitted for inclusion in the Natural Values Atlas."*

SFM was engaged to undertake the required WTE monitoring for the Central Highlands and completed the survey and report in February/March 2018. The report was submitted to EPA on 9 April 2018 and was subsequently approved by EPA on 8 June 2018. Requirements of Condition FF 4 are complete.

4.13.2 Tasmanian EPN, Condition FF5 – Eagle Nest Productivity Monitoring (ongoing)

EPN 10105/1 Condition FF5(1) required that:

> *"Unless otherwise approved in writing by the Director, an Eagle Nest Productivity (in and around the wind farm site) Monitoring Plan must be submitted to the Director for approval 6 weeks prior to construction."*

The current EPN 10105/2 has modified conditions. Condition FF6 (1.3) now continues the FF5 provision and requires:

> *The Person Responsible to act in accordance with, the approved Eagle Nest Productivity (in and around the Wind Farm Site) Monitoring Plan.*

The CHWF Eagle Nest Productivity Monitoring Plan (ENPMP) (Condition FF5) was submitted to the EPA on 2 October 2017 and approved by the EPA on 30 October 2017, under EPN 9715/1 (currently EPN 10105/2).

While the ENPMP defines 'on-site' nests as those within 2 kilometers of turbines, a broader scope of nest checks (around the wind farm site and out to about 4km) is undertaken each year.

A summary of findings of the VDC nest check by VDC in November 2024, is provided below and includes Figures 4.4 and 4.5 extracted from the VDC memo of 01 December 2024.

Figure 4.4 shows the seventeen nests recorded on the Natural Value Atlas within 4 kilometers of the CHWF, fourteen of which are checked by VDC every year.

Nests which are not checked include:

- RND 872 on the western bank of Lake Echo,
- RND 490, a recorded nest which does not exist, and
- RND 1320, which is 3.5 kilometers outside the wind farm's northern boundary, and 4.3 kilometers from the nearest turbine.

The activity status of these nests is drawn from searches undertaken by others.

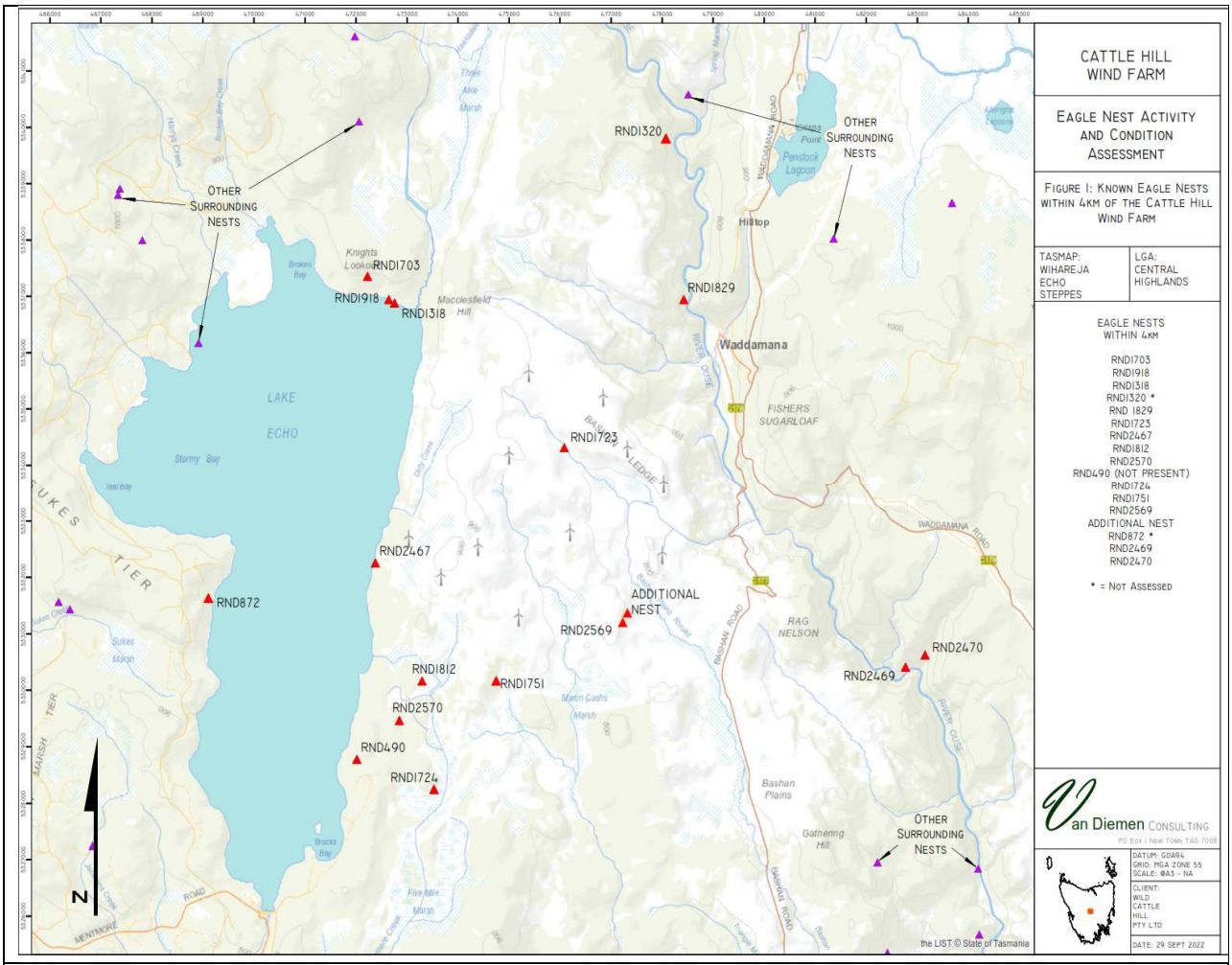


Figure 4.4 – CHWF Locality – Known nests within 4km of CHWF

Figure 4.5 shows the activity status of nests from checks undertaken in late 2024. Three nests outside the boundary of the CHWF were active in 2024, including:

- RND 1318 on the north shore of Lake Echo, a regularly active white bellied sea eagle nest,
- RND 1724, just outside the southern boundary of the CHWF,
- RND 1829, approximately 800km northwest of Waddamana, and
- RND2469, a possible new nest location near on the eastern side of the Ouse River catchment.

All four nest locations are approximately three to four kilometers from CHWF turbines.

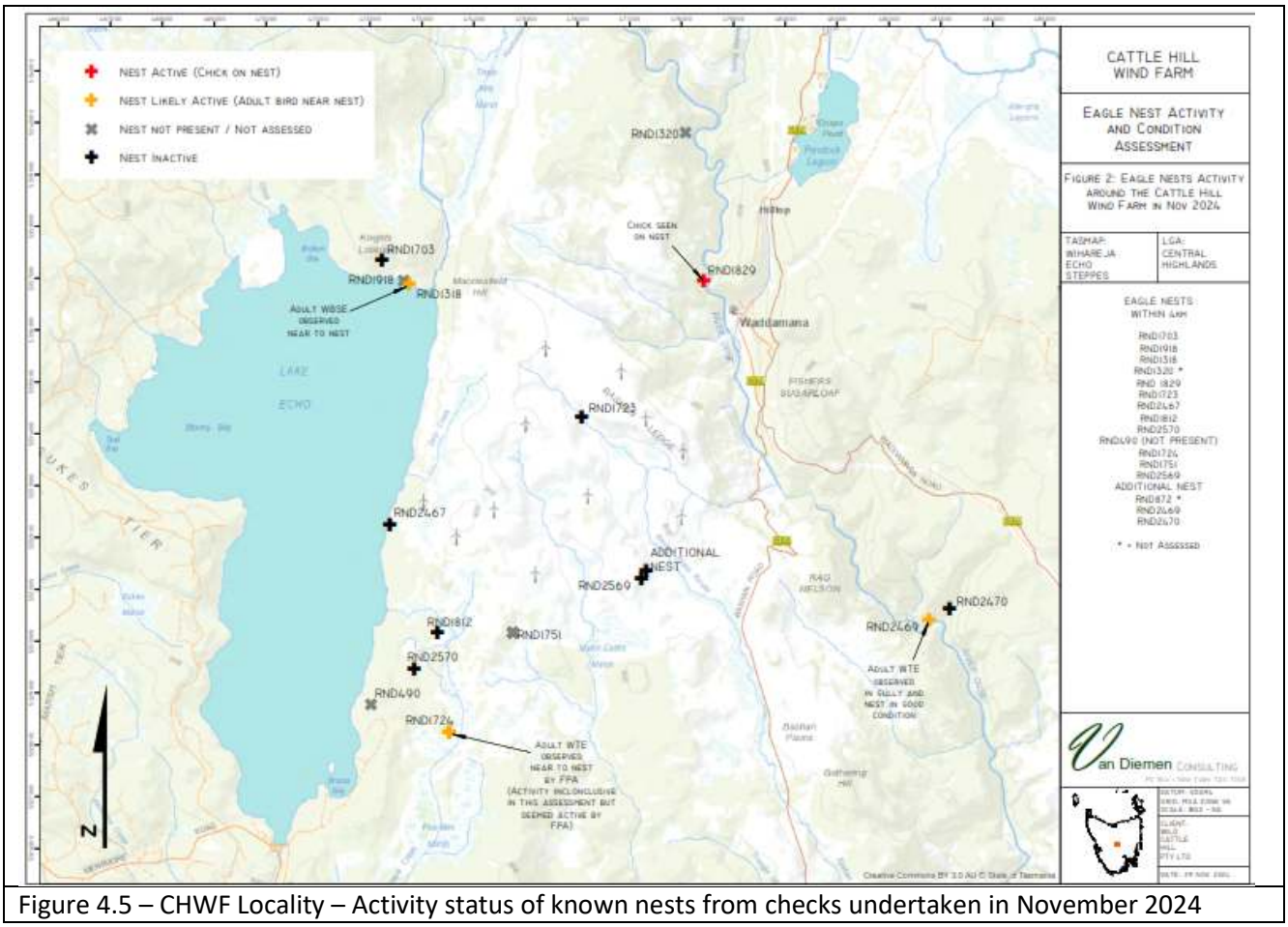


Figure 4.5 – CHWF Locality – Activity status of known nests from checks undertaken in November 2024

4.14 Conditions 16 and 17 – Funding of Research for long term conservation of WTE

Conditions 16 and 17 relates to arrangements for funding a research plan to inform the long-term conservation of WTE and commencement of funding for the research plan. Condition 16 requires the submission of the plan to the Minister for approval and the wind farm must not be commissioned until the plan is approved and implemented. Condition 17 requires commencement of implementation of the approved research plan.

Note 1 appended to Condition 16 states that:

"The Minister may determine that a plan, strategy or program approved by the Tasmanian Government in accordance with EPA conditions FF5, FF6, FF13, FF14 and FF15 satisfies the requirements for the Plan required under conditions 16 and 17."

EPN Condition FF15 and the EPA approved Eagle Mortality Offset Plan (EMOP) included provision for Eagle Research funding and was accepted by DCCEEW, as satisfying requirements of EPBC Conditions 16 and 17.

WCHPL appointed NRM South to implement and manage a Wedge-tailed Eagle Research Fund to offset the impact of mortalities due to collisions with wind turbines at CHWF. Details of the research undertaken can be found at https://nrmsouth.org.au/project/wedge-tailed-eagle-research-fund/ and, in Appendix B. The Fund aims to support critical studies into the Tasmanian WTE sub-species and is designed to allow other proponents or organisations to contribute to it.

The first annual payment made to NRM South was provided in 2019 which administers the fund. Payments comprise CPI adjustments to the annual payment amount and, will be made on an ongoing basis for at least 10 years, or longer subject to EPBC Condition 20 review.

Table 4.4 provides the detail of WCHPL payment amounts to the Eagle Research Fund, with total contributions of $825,675.66 from 2019 to 2025 to the NRM South, Wedge-tailed Eagle Research Fund.

Table 4.4 – CHWF – WCHPL Payments for Eagle Research Funding

Date	CHWF - Project Phase	Amount paid to NRM South (incl. GST)	Cumulative amount (incl. GST)
2019	Pre-commissioning, 1st payment	$ 90,078.95	$ 90,078.95
2020	Operations (1st year)	$ 90,703.40	$ 180,782.35
2021	Operations (2nd year)	$ 94,578.94	$ 275,360.29
2022	Operations (3rd year)	$ 100,732.50	$ 376,092.79
2023	Operations (4th year)	$232,242.92	$608,335.71
2024	Operations (5th year)	$106,260.00	$714,595.71
2025	Operations (6th year)	$111,078.95	$825,675.66

WCHPL continues to comply with the requirements of Conditions 16 and 17 in respect of Eagle Research Funding, through the funding arrangements described in the EMOP approved by EPA Tasmania.

Appendix B provides a copy of the September 2025 NRM South Report on Eagle Research Fund activities.

4.15 Condition 18 – Review effectiveness of Research Plan five years after its approval

Condition 18 requires that:

"On each fifth anniversary of the approval of the research plan, or at the direction of the Minister, the person taking the action must engage a suitably qualified expert to review the effectiveness and relevance of the research plan required by condition 16. Within 90 days of each five-year anniversary, the person taking the action must provide a report to the Minister outlining any recommendations and alternative measures to offset impacts to the wedge-tailed eagle. The Minister may require the person taking the action to implement the recommendations and alternative offsetting arrangements."

A five-year time frame from the Research Plan approval (under EPN 10105/1 FF15, the EMOP) would be 21 December 2023. However, based on commencement of Research funding, which is more relevant, for a 5-year review, the timing for the review period would extend to 29 October 2024.

A qualified expert was selected (David Heaton of Ecology and Heritage Partners Pty Ltd) to undertake the required review of the research plan in accordance with this condition. The result of the review was submitted to DCCEEW on 17 October 2025. This initial 5 year review is noted as complete in this 2025 Annual Compliance Report.

A link to the NRM South website, which provides further details about the fund, is provided below:

https://www.nrmsouth.org.au/wedge-tailed-eagle-research-fund/

At the time of writing, the NRM South Eagle Research fund is in its sixth year since it was commenced (see **Section 4.14** and **Appendix B:** the NRM South, *Wedge-tailed Eagle Research Fund 2025 Annual Report*).

4.16 Condition 19 – Further funding in relation to WTE mortality or injury

Condition 19 requires that:

"*For each actual wedge-tailed eagle mortality or injured wedge-tailed eagle that cannot be released into the wild, occurring above 2 actual mortalities or injured wedge-tailed eagles that cannot be released in to the wild in any calendar year, fund a raptor or wildlife centre to rehabilitate an injured or sick wedge-tailed eagle and release that wedge-tailed eagle into the wild at an ecologically suitable location to the satisfaction of a suitably qualified expert"*

There was only one Wedge-tailed Eagle mortality during the 2024/25 reporting period. As there was only mortality the condition has not been triggered for the report period. Table 4.4 shows a total $825 k contributions over the life of the fund.

Provided in Appendix B is NRM annual report for 2025.

4.17 Condition 20 – Review of requirements after 10 years of operations (August 2030)

Condition 20 allows for the person taking the action, after 10 years of operation, if it can be demonstrated that the wind farm is not impacting the Wedge-tailed Eagle, *"to request approval from the Minister to cease implementing conditions 11 (if required) and 17."*

This is a future requirement and based on first full operations having been notified on 5 August 2020, will not be applicable until 5 August 2030.

Condition 21 has been revoked.

4.18 Condition 22 – Weed Management Strategy

Condition 22 requires that three months prior to commencement of construction, the approval holder must submit a Weed Management Strategy to the Minister for Approval and once approved, the Weed Management Strategy must be implemented. The CHWF Weed Management Plan was approved by the

Minister's delegate on 14 December 2017 as satisfying the requirements of Condition 22 of the EPBC approval covering construction activities.

In respect of implementation, the following elements have been applied for the project:

- Weed mapping and identification of relevant weeds for the site. Ecological mapping and reporting have noted and recorded weed presence.
- Employee site inductions include requirements for weed management;
- Training in Weed identification and management was provided by VDC in Oct/Nov 2018;
- Vehicle and Plant Inductions including weed free/cleanliness checks;
- Weed identification posters on Construction site notice boards;
- Periodic Weed Control Treatments by experienced contractors;
- Wash Down Trailer (Tank, Pump and Hose) at O&M Compound **Plate 4.4**;
- Rehabilitation works following construction and extending into operations has included weed control either by experienced contractors or, for formed operating areas is managed by the Service Team;
- With the transition to operations, the Service Team has taken on the requirement to monitor for weeds and control them. Service Team inductions have included information on weeds and this aspect is reinforced as part of ongoing site environmental management activities; and
- Periodic weed control treatment is implemented, as required.

The following measures were implemented during the review period in accordance with the CHWF Weed Management Strategy:

- Annual and targeted weed treatment following approved methodologies.
- Implementation of site requirements to ensure all machinery was brought onto site in a clean condition, free of weed propagules, dirt, or vegetative matter.
- Site monitoring and reporting in accordance with the EMP Operations and as applicable corrective measures.

During the period, Derwent Landscapes, CHWF's provider for treatment of weeds continued to treat weeds on roads and hardstand areas using approved methods.

Plate 4.4

Wash Down equipment on trailer maintained at O&M Compound

4.19 Condition 23 – Flora Offsets for unavoidable impacts on Native orchid species

4.19.1 Flora Offset Strategy and Flora Offset Management Plan

Condition 23 (a & b) requires that, prior to construction, the approval holder must submit a Flora Offset Strategy (FOS) to the Department for Approval. The Flora Offset Strategy was approved on 15 March 2018 prior to construction commencing. The Flora Offset Strategy sets out the approach to compensate for unavoidable impacts to the Liawenee Greenhood (48.43 ha) and Crowded Leek Orchids (32.35 ha).

Condition 23 (c) required the approval holder to also submit a Flora Offset Management Plan (FOMP) to the Department within 10 months of the Department having approved the Flora Offset Strategy. The FOMP was submitted to DCCEEW and was subsequently approved by the Department on 10 August 2019.

Both the FOS and FOMP were prepared by Van Diemen Consulting Pty Ltd (VDC) on behalf of WCHPL.

The EPBC approved Flora Offset Management Plan (FOMP) required three areas to be established to offset the project's unavoidable impacts on orchid species at the CHWF Site. The three areas are shown in **Figure 4.6** and comprise:

- one offset area on the CHWF site, referred to as '*Bashan Ledge*', and
- two offset areas external to the CHWF site, referred to as '*Wihareja*' and '*Stone Hut*'.

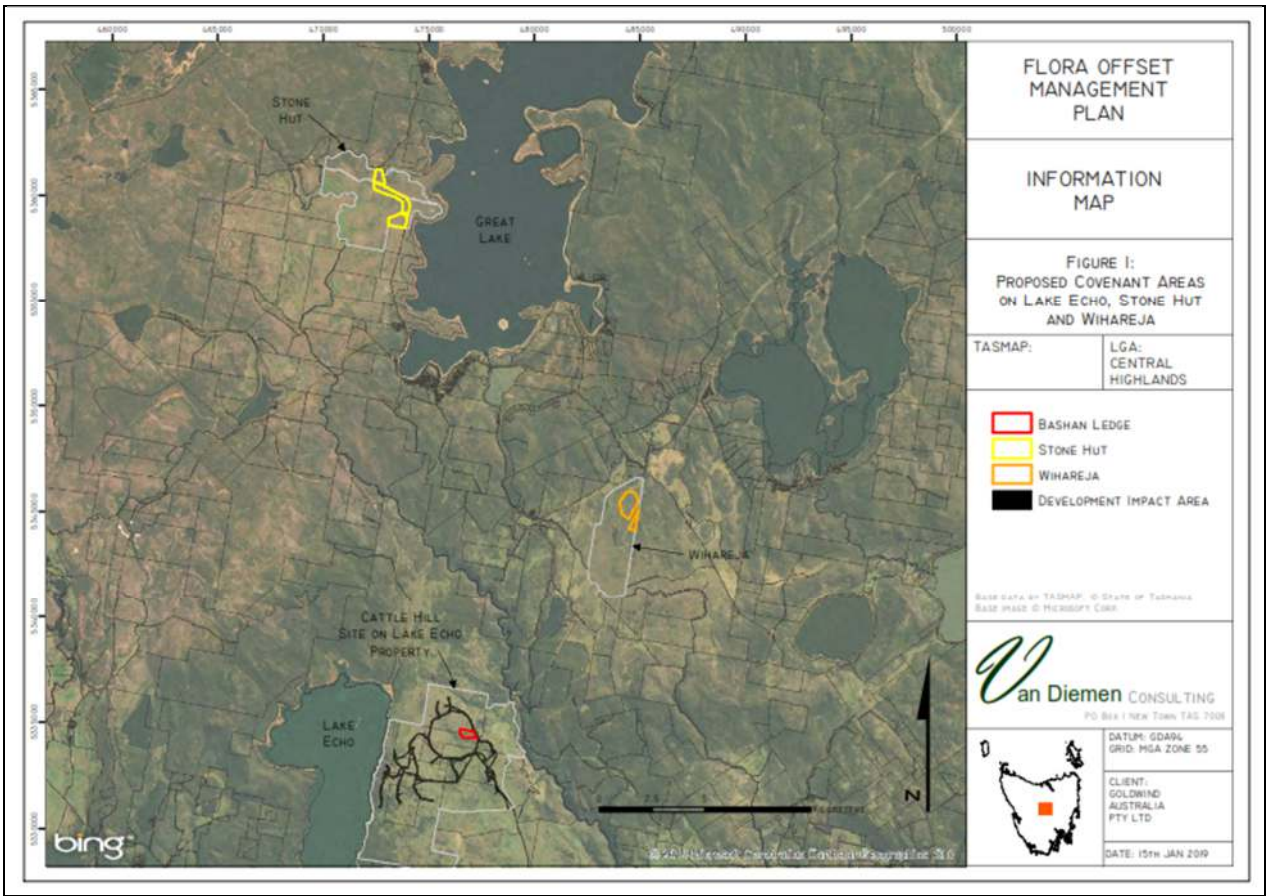


Figure 4.6 – Drawing from FOMP showing the 3 designated areas for establishing flora offsets.

4.19.2 Overview of Flora Offset area registration as part of FOMP Implementation

Implementation of the FOMP has required registration of three EPBC offset areas on titles. VDC supported preparation of Nature Conservation Plans (NCPs) by NRE, for each of the offset areas as required for establishment of nature conservation covenants in Tasmania and registration on property titles.

The process of registering the three offsets on title as protected covenants, was protracted, the first was Wihareja, registered on 13 May 2020 and the other two were subject to longer processes, with Covenant Dealings for Dungrove Land Co P/L (Stone Hut) and Tasberry Holdings (Bashan Ledge) finalized and ultimately registered on title on the 8th April 2024. Summary details of the three offset areas are provided in Table 4.5.

Table 4.5 –Details of CHWF Offset Areas required under EPBC Approval 2009/4839

Source of Requirement	Offset Area	Tas Titles Reference	Date Registered	NCP Date	Relative Location
FOMP approved 10/08/2019 Also, NCPs for each area	Wihareja CPR 10853	E20275	13 May 2020	Aug 2019	External CHWF
	Stone Hut CPR 10883	E371732	8 April 2024	27 Mar 2024	External CHWF
	Bashan Ledge CPR 10884	E371734	8 April 2024	27 Mar 2024	Within CHWF
FOMP – Flora Offset Management Plan NCP – Nature Conservation Plan					

The respective covenants are designed to protect known habitat or occurrence of the conservation significant flora species (in particular two orchid species), in perpetuity as shown in Table 4.6:

Table 4.6 Details of protected flora species for each of the registered Nature Conservation Covenants

Nature Conservation Covenant	Protected Flora Species (listed under EPBC Act)	
	Common name	**Scientific name**
Wihareja - CPR 10853	Liawenee greenhood orchid	*Pterostylis pratensis*
	Crowded leek orchid	*Prasophyllum crebriflorum*
Stone Hut - CPR 10883	Liawenee greenhood orchid	*Pterostylis pratensis*
Bashan Ledge - CPR 10884	Liawenee greenhood orchid	*Pterostylis pratensis*
	Crowded leek orchid	*Prasophyllum crebriflorum*
	Clover glycine	*Glycine Latrobeana*

Other conservation values, significant species and/or vegetation communities have been identified for each of the Nature Conservation Covenants that are unrelated to the specific species to be offset as a result of CHWF impacts and, which provide additional biodiversity value arising from establishment of the covenants.

4.19.3 Management, Monitoring and Reporting for the three offset areas

Management of each of the three EPBC required covenant areas, shown in Table 4.5, has included elements of fencing, changes to grazing regime, pest plant and animal control, fire regime considerations, monitoring and reporting of results including assessment of performance of the offset areas against objectives of the FOMP and relevant NCP and, as necessary considering options for corrective management. While there was a long process of formal registration of all three protective covenants on titles, only completed in April 2024, implementation of their management has progressed, with various actions occurring prior to completion of formal registrations on title.

The three covenant areas have been excluded from project staff or visitor access since 2020 but culling of feral animals and as permitted, excess native animals has continued. Initial management efforts were directed to installing and or upgrading/repairing protective fencing, where required.

The management regimes are specific to the individual covenant areas. VDC has a long record of involvement with the offset areas and prepared the Flora Offset Strategy, Flora Offset Management Plan and, supported preparation of Nature Conservation Plans by NRE Tasmania for each area. Based on that experience, WCHPL engaged VDC for the monitoring of the three offset areas, which commenced prior to all offset areas being formally registered on property titles and in total VDC has conducted monitoring of the offset areas over five years. The monitoring for the Bashan ledge, Wihareja and Stone hut offset areas has been undertaken since 2020 generally in accordance with the Flora Offset Management Plan and VDC results show improvements in the protected species status since offset establishment.

Reporting of monitoring results for the offset areas has been undertaken by VDC who proposed compiled 5-year reports for each of the offset areas to provide assessment of the offset performance over a suitable period to get a clear indication of the effectiveness of the offset management over a range of conditions and enable clear description of any need for corrective management actions. VDC's reporting of monitoring results covers a period of 5 years from 2019 to the 2023/2024 period. The reports for each of the three offset areas were submitted to DCCEEW on 10 November 2025. The results show significant positive performance in respect of the offset area objectives.

Summary details provided in this report, for each offset area include:

- Plate 4.5 compiles six representative images, two from each of the offset areas, sourced from Attachment 5 of the VDC Reports that contains images from transects. The three offset areas vary in their landscape setting and biophysical characteristics and provide a diversity of conservation values that are complementary.
- Three sections 4.19.4 to 4.19.6, one for each offset area that each show a map of the area and a graph indicating protected species plant numbers measured in transects over 5 years, as a measure of the offset status, as well as some brief explanatory notes.
- Figure 4.13 also shows variations in specific plant numbers, for individual transects and, for each of the 5 years comprising the review period (extracted from VDC monitoring reports).
- Additionally, Appendix C provides a comparative summary Table for the three offset areas that provides insights from VDC reporting for each offset area and its management.

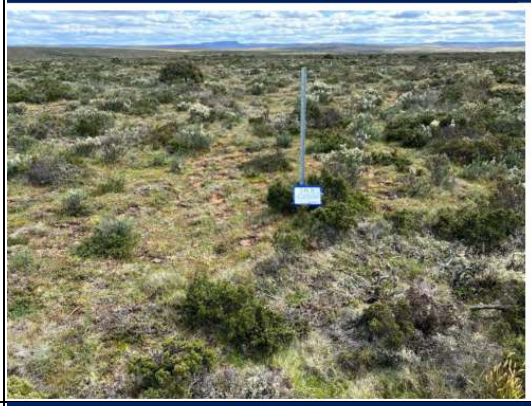
Full details of results of the monitoring results are provided in the three offset reports prepared by VDC that include discussion as to factors influencing seasonal and year to year variations in plant numbers and extent. Separately, VDC will also provide digital data sets for inclusion in the Tasmanian Natural Values Atlas.

Overall, the results indicate that the offset areas are showing positive performance and the objectives for the offset areas are being achieved. The offset areas appear well selected and to be receiving adequate management.

Looking forward, further monitoring for each EPBC offset area has already been scheduled for the 2025/2026 orchid flowering period and initial site observations commenced from 5 November 2025. Results of further monitoring (2025/26 data) will be reviewed in 2026 Q1, against the 2019 baseline data and the available 5-year monitoring reports, to assess whether conclusions of the 5-year review are confirmed or whether changes have arisen requiring formulation of improved or varied management regimes. Consideration will also be given to whether any revisions are required to the FOMP and, if so, the process to be followed for any variation to the FOMP and NCPs where applicable. Summary details for 2025/26 surveys will be provided in the 2026 Annual Compliance Report.

An additional conservation covenant was also registered on title, on 8th April 2024 for the Womans Creek Conservation Reserve on CHWF, to offset unavoidable construction impacts on the State listed Spiky anchor plant (*Discaria pubescens)*. The Womans Creek Conservation Reserve was a State requirement and not a relevant matter for this ACR 2025 and is not discussed further in this report.

Plates 4.5
Selected photo-points (2022) for each of the offset areas and specific Transects and distance on transect

	0 to 50m	50 to 100m
Wihareja Transect 3 Elevated land approximately 850m to 900m, low lying land that can be inundated, includes drains crossing the area.		
Stone Hut Transect 3 Elevated (1160m) Low height heath vegetation over large area. Main Road along eastern boundary		
Bashan Ledge Transect 2 Elevated land approximately 830m to 850m Former pasture, now fenced off. On ridge feature		

Above photos sourced from VDC Monitoring reports from each offset area
The images are from 2022 and offset area and transect as indicated)

4.19.4 Wihareja Nature Conservation Covenant

Wihareja Covenant involves two areas with a total 89.50 ha (bounded blue line) in Figure 4.7.

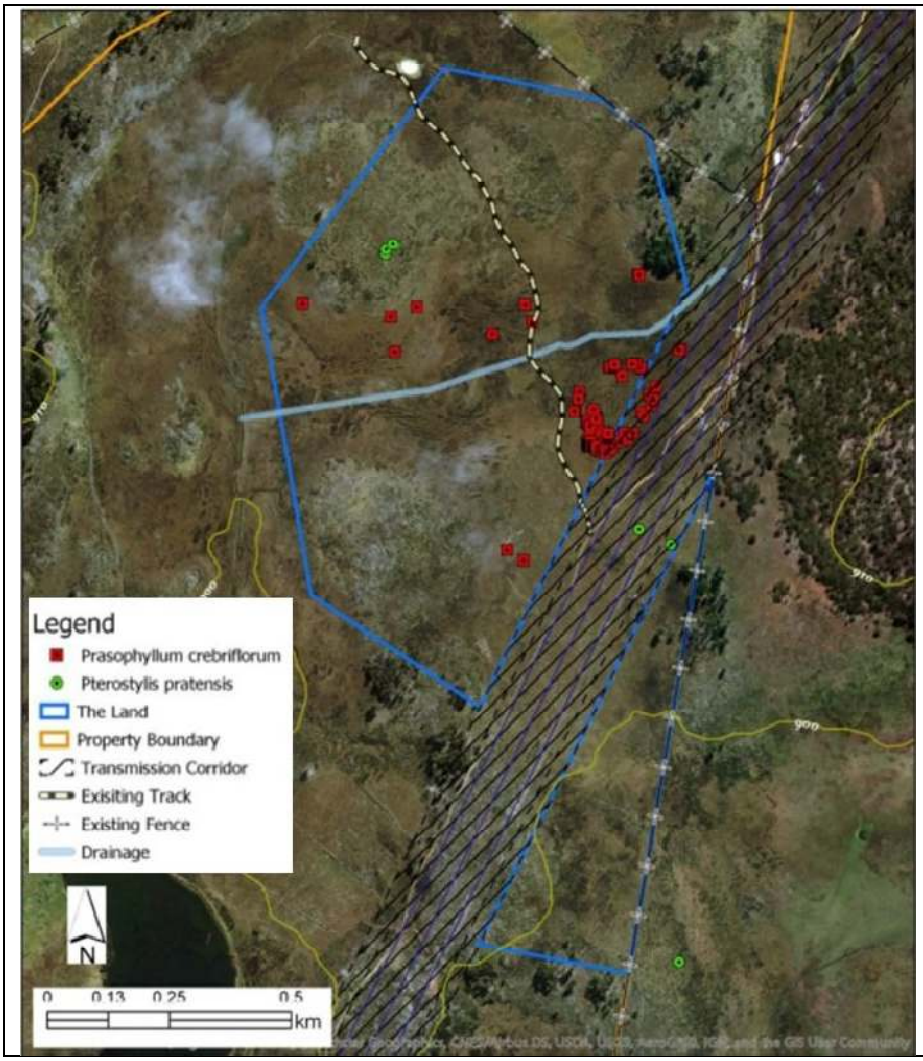


Figure 4.7

Wihareja nature conservation covenant

Comprises two areas separated by a Transmission easement

The OA supports both LG and CLO species to different degrees and for different transects.

Drainage channels evident with the covenant area.

(Source: Wihareja Nature Conservation Plan)

The status of the protected species as VDC, Monitoring Report, November 2025, indicates increased numbers of plants for both LG and CLO (Figure 4.8), however the trend overall was less than peaks of 2021 and 2022. A review of causal factors for decline in 2023 is proposed for 2025/26 survey event.

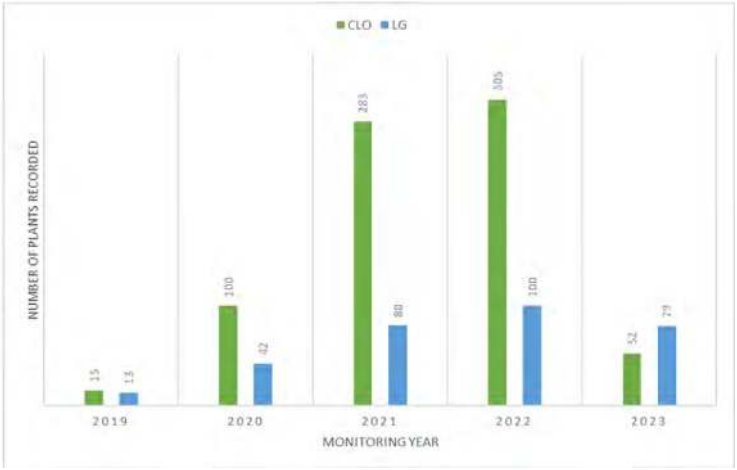


Figure 4.8 – Wihareja Plant Numbers

Increased CLO and LG over the 5 years

Peak numbers in 2021 and 2022

Numbers dropped in 2023, but still higher than in 2019. 2025/2026 survey to review causal factors for decline in Wihareja after 5 years.

4.19.5 Stone Hut Nature Conservation Covenant

Stone Hut Covenant involves two areas with a total 136.6 ha (bounded blue line) in Figure 4.9.

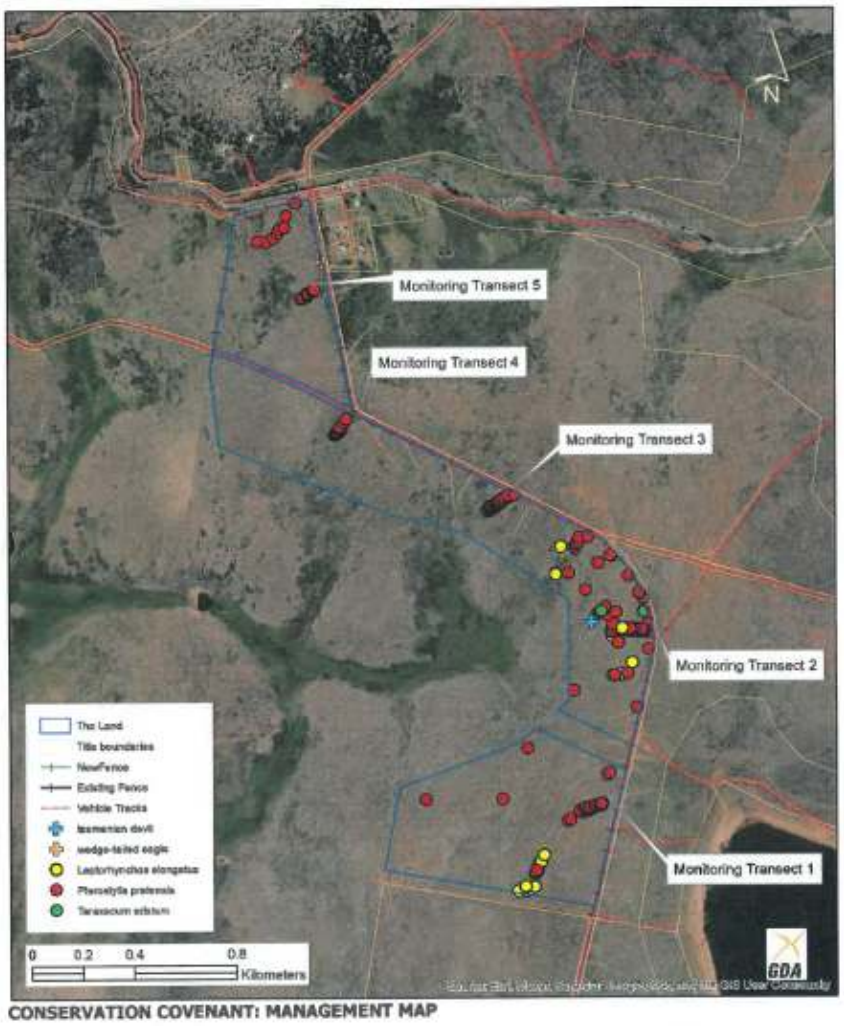


Figure 4.9

Stone Hut nature conservation covenant

Comprises a linear area separable into 3 distinct zones. The area is predominantly comprised of native species.

5 Transect zones established with 25 quadrat sites, 5 on each transect.

(Source – Stone Hut Nature Conservation Plan)

The status of the protected species Liawenee greenhood (*Pterostylis pratensis*) as per monitoring and reporting by VDC, November 2025, is indicated in Figure 4.10. with substantial increase in plant numbers since 2019.

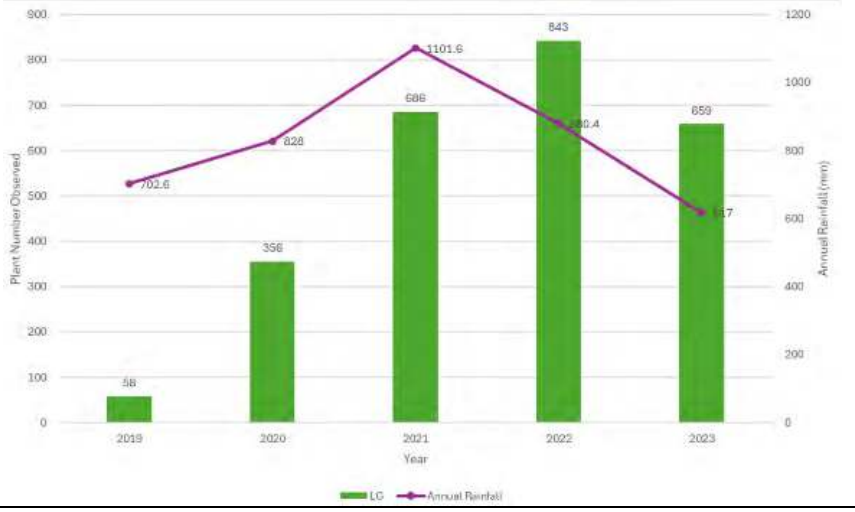


Figure 4.10 – Stone Hut Liawenee Greenhood increased plant numbers over 5 years Substantial increase beyond 2019
2023, dropped back, but still well above 2019, and similar to 2021
Rainfall is also shown for each year as the pattern of rainfall conditions can affect species performance for the year.

4.19.6 Bashan Ledge Nature Conservation Covenant

Bashan Ledge Covenant involves two areas with a total 24.43 ha (bounded blue line) in Figure 4.11.

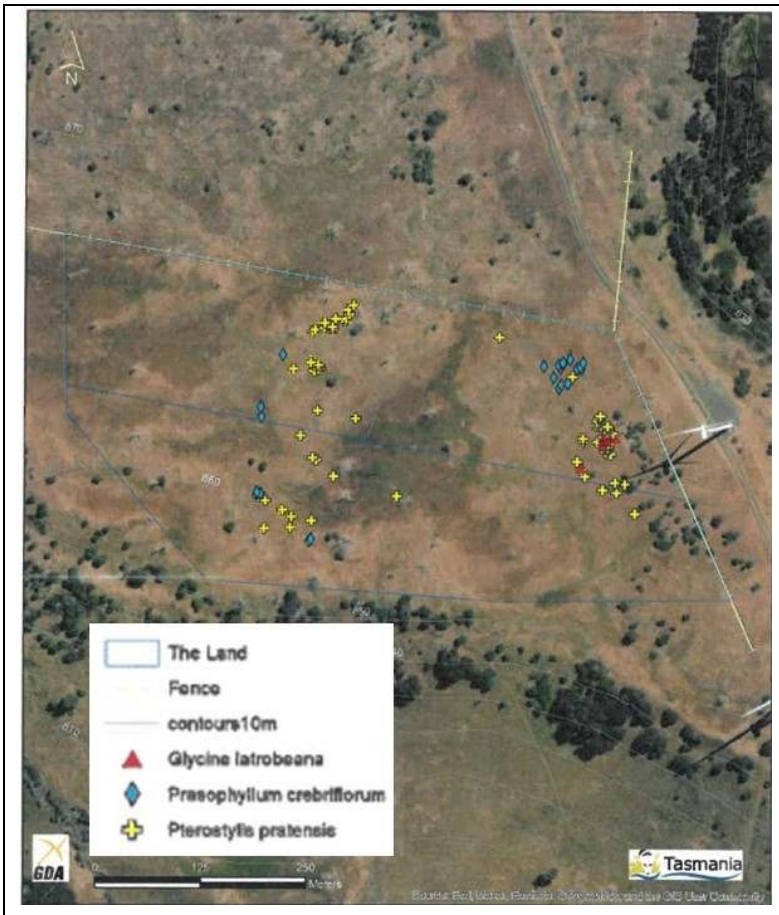


Figure 4.11

Bashan Ledge nature conservation covenant is the smallest of the three covenants. It is also within the CHWF site but is fenced off from any wind farm infrastructure. It abuts the Lake Echo Conservation Covenant immediately to the north. Locations of significant flora species are shown.

(Source – extract from Bashan Ledge Nature Conservation Plan, Map 4: Management Plan)

The status of the protected species as per monitoring and reporting by VDC, November 2025, indicates improved numbers and extent of the two protected species, Liawenee greehood (*Pterostylis pratensis*) and Crowded leek orchid (*Prasophyllum crebriflorum*) (Figure 4.12). VDC recommendations included:

- additional life stage attribute data to be collected for future monitoring events
- ongoing intensive deer culling to ensure herbivory levels in the offset area reduced and kept low
- the offset area should continue to remain livestock free.

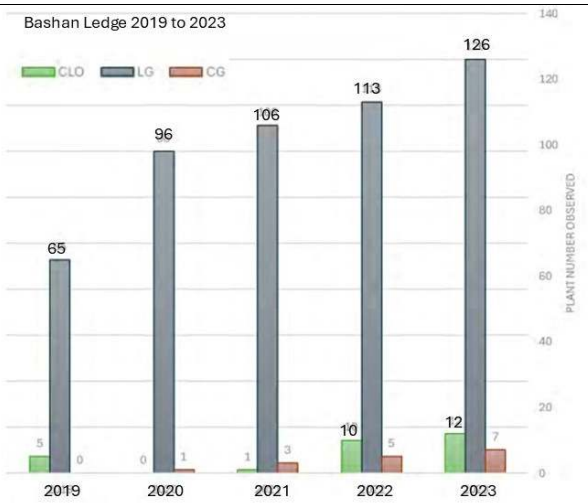


Figure 4.12 – Bashan Ledge Covenant Plant nos.

- Five-year change in number of key plants
- Liawenee Greenhood (LG) increase 65 to 126
- Crowded leek Orchid (CLO) increase 5 to 12
- Trend shows increase in number of LG and CLO
- Approximate doubling in number of plants for each of LG and CLO
- Offset area also supports Highland Poa grassland community and also habitat for clover glycine (*Glycine latrobeana*) and for Ptunara brown butterfly (*Oreixenica ptunarra*)

Figure 4.13.1 - Stone Hut – 2019 to 2023 – Number of LG for each Transect 1 to 5

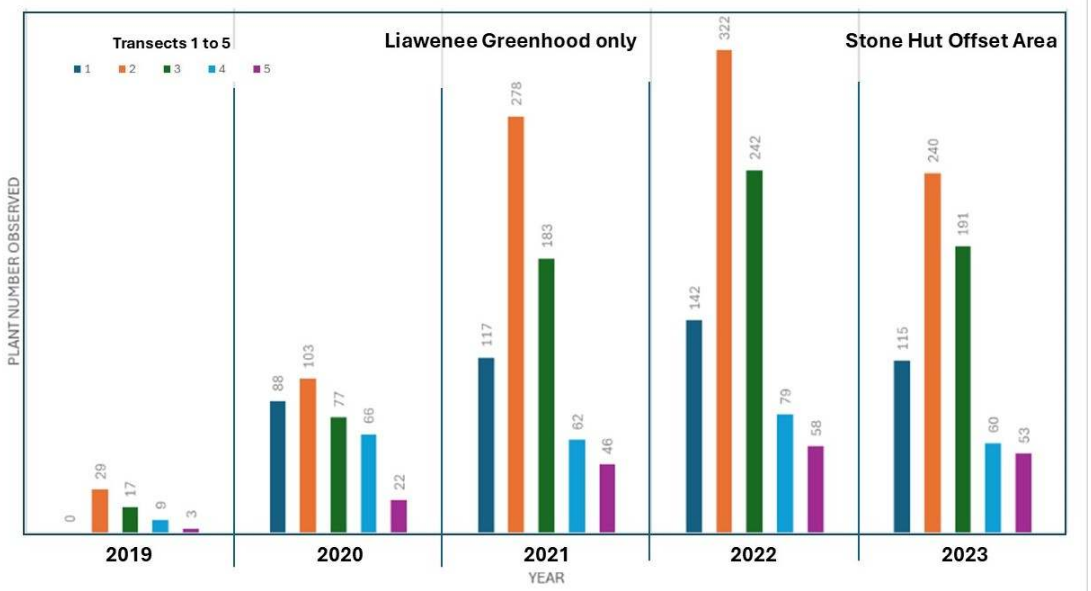


Figure 4.13.2 - Wihareja - 2019 to 2023 – Number of CLO and LG for each Transect 1 to 5

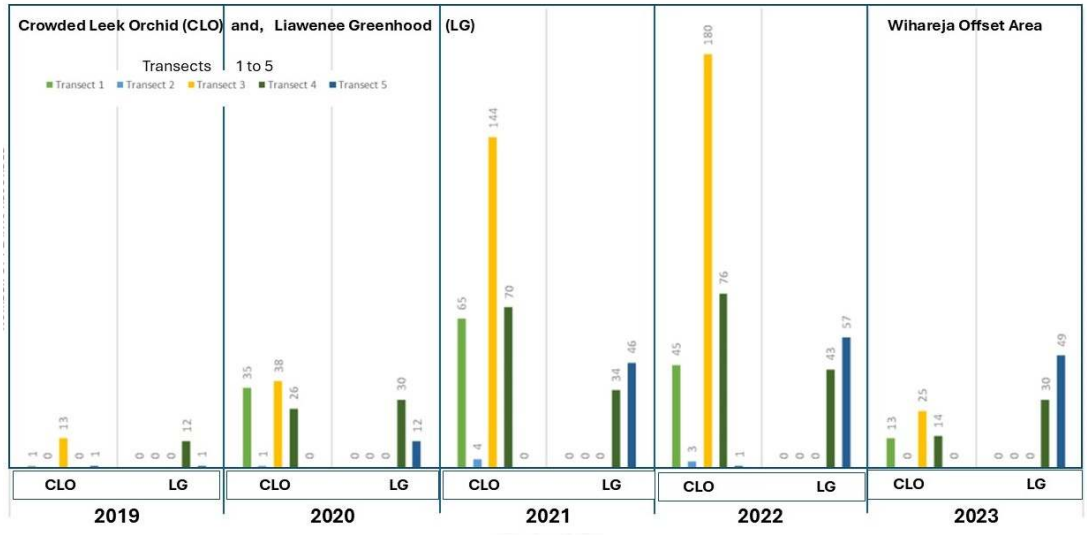
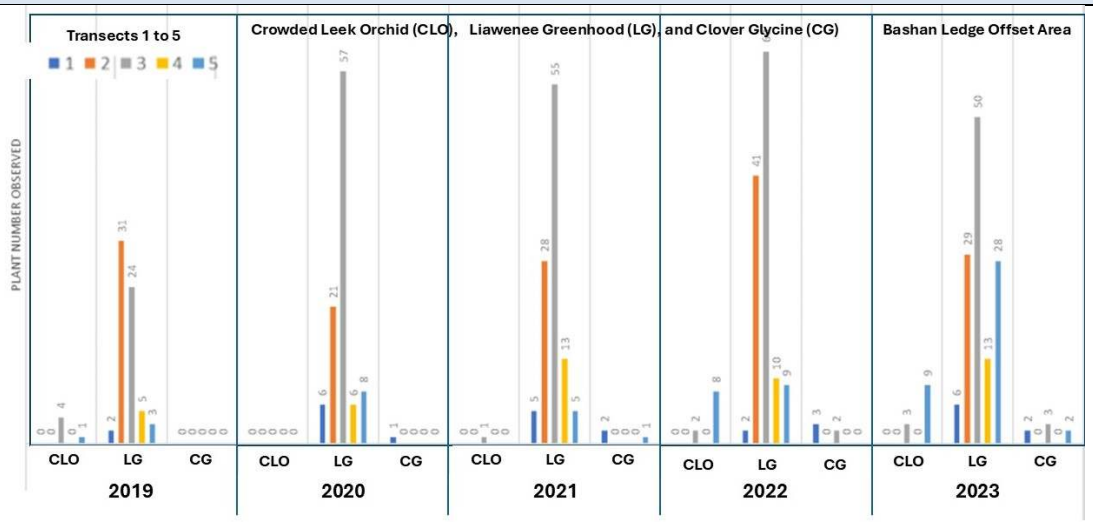


Fig 4.13.3 Bashan Ledge - 2019 to 2023 – Number of CLO, LG and CG for each Transect 1 to 5



4.20 Condition 24 – Requirement if previously unrecorded species is found

Condition 24 requires that if, during pre-construction or construction activities, a previously unrecorded threatened species is encountered, the person taking the action must immediately cease activities at the affected area. No previously unrecorded species were found during pre-construction or construction activities despite substantial additional survey work and hence there were no requirements for cessation of works and reporting in relation to Condition 24.

The requirements of Condition 24 were not triggered for the reporting period.

4.21 Condition 25 – Notifications required to be submitted to DCCEEW– All complete

Condition 25 requires that: "*The person taking the action must advise the Department in writing of the actual date of:*

- *commencement within three business days of commencement of the action;*
- *commissioning within 24 hours of commissioning, and*
- *first full operation within three business days of first full operation."*

All requirements of Condition 25 have been met in full for the 2023 review period. No further requirements of Condition 25 are applicable for any further annual compliance reports.

The Department has been periodically kept aware of the project activities at key stages of the development including updates on the project's progress. Incident reports have been submitted to DCCEEW as required and a range of other communications have occurred such that WCHPL believes that DCCEEW is well aware of CHWF site activities and their status.

4.22 Condition 26 – Records for activities in relation to EPBC Approval Conditions

Condition 26 requires that the person taking the action must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement all management plans, report and strategies required by this approval, and make them available upon request to the Department.

Records are maintained for all required activities and status is subject to periodic review. A compliance tracker is maintained for the project and updated on a regular basis.

4.23 Condition 27 – Annual Compliance Report

Condition 27 requires that within 90 days of the anniversary of commencement of the action the approval holder must:

- Publish a report on website as per link here: https://cattlehillwindfarm.com/
- Provide evidence to the Department of proof of publication (email direct to Department).

Advice obtained from the Department in email 17 May 2019 was "that the first annual compliance report required under Condition 27 should be on or before 11 November 2019.

Reporting under Condition 27 includes:

- The first annual compliance report (2019) required by Condition 27 was submitted to DCCEEW on 11 November 2019 and is on the CHWF website.
- The second report (2020) was submitted on 9 November 2020 and is on the CHWF website.
- The third report (2021) was submitted on 10th November 2021 and is on the CHWF website
- The fourth report (2022) was submitted on 10th November 2022 and is also on the CHWF website.
- The fifth report (2023) was submitted on 9th November 2023 and is on the CHWF website.

- The sixth report (2024) was submitted on 8th November 2024 and is on the CHWF website

This CHWF Annual Compliance Report 2025 and is the seventh in the series of reports. A request to post the report on the CHWF website is made when the report is finalised and is submitted to DCCEEW.

Condition 27 requires that the Annual Compliance Report requires a Chapter relating to Eagle rehabilitation in response to Condition 19. As the requirement of Condition 19 was not triggered, this report does not have a chapter addressing that issue.

4.24 Condition 28 – Independent audit of compliance with EPBC Approval Conditions

Condition 28 requires that, the person taking the action must ensure that an independent audit of compliance with the conditions of the approval is conducted and a report submitted to the Minister, if that is required by the Minister.

No such request has been received from the Minister and requirements of Condition 28 are not applicable for the current reporting period.

4.25 Condition 29 – Activities other than in accordance with EPBC Approval Conditions

Condition 29 requires that, if the person taking the action wishes to carry out the activity otherwise than in accordance with the management plans, reports and strategies required by this approval, as specified in the conditions, the person taking the action must submit to the Department for the Minister's written approval a revised version of that management plan, report or strategy required by the approval. The varied activity must not commence until the Minister has given written approval for the varied management plan, report or strategy.

There has been no such instance for the reporting period and Condition 29 is not applicable for the 2025 report period.

4.26 Condition 30 – Request by Minister for revised Plan, Report or strategy

Condition 30 requires that the person taking the action must comply with any request by the Minister to make specified revisions to the management plan, report or strategy specified in the conditions (if the Minister believes it necessary or convenient for the better protection of listed threatened species) and that revised document(s) are submitted for the Minister's approval.

No such requests have been received and Condition 30 is not applicable for the 2025 reporting period.

4.27 Condition 31 – Commencement of Action within 5 years of approval (Complete)

Condition 31 requires that, if the person taking the action has not substantially commenced the action within 5 years of the date of the EPBC approval, then the person must not substantially commence the action without the written agreement of the Minister.

The project commencement occurred within 5 years of the EPBC Approval and there are no further requirements of Condition 31 that are applicable to the project.

4.28 Condition 32 – Publish Records of approved Plans for the EPBC Approval Conditions

Condition 32 requires that, unless agreed to in writing by the Minister, the person taking the action must publish all management plans, reports and strategies referred to in these conditions of approval on its website, except as otherwise specified in Condition 32. An exception relates to Collision Reports required by Condition 10 (that are supplied to the Department). In the case of Collision Reports, the Department has provided advice in Letter of 12 October 2020, to the effect that the information required by Condition 10 can form part of the applicable Annual Compliance Report (for the period within which the collision

occurred), and that is required to be published on the project website. Section 4.8 provides the relevant Condition 10 information for the report period.

In response to Condition 32, the person taking the action has published the following documents on the project website (https://cattlehillwindfarm.com/).

- Condition 6A – Collision Avoidance and Detection Plan
- Condition 6C - Assessment of effectiveness of the IdentiFlight® avian detection system
- Condition 10 – Collision Report Details (a) to (e) within this ACR, as per DCCEEW letter 12/10/20
- Condition 11 – The Revised CADP is currently being updated to incorporate IDF 17 and will be added to CHWF Website once approved by the Minister
- Condition 22 – Weed Management Plan
- Condition 23 - Flora Offset Strategy and Flora Offset Management Plan
- Conditions 16 and 17 (Plans approved by Tasmanian EPA and accepted by DCCEEW as satisfying requirements of Conditions 16 and 17)
    - FF 5 - Eagle Nest Productivity Plan
    - FF 6 - Post Commissioning Eagle Utilisation Monitoring Plan
    - FF15 - Eagle Mortality Offset Plan
- Condition 27 – CHWF Annual Compliance Reports, including:
    - Annual Compliance Report, 2019
    - Annual Compliance Report, 2020
    - Annual Compliance Report, 2021
    - Annual Compliance Report, 2022
    - Annual Compliance Report 2023
    - Annual Compliance Report 2024
- This 2025 report will be published in parallel with submission to the Department.

4.29 Condition 33 –Availability of Plans, Reports and Strategies

Condition 33 requires that, the person taking the action, unless otherwise agreed in writing by the Minister, must provide a copy of each approved management plan, report or strategy referred to in the conditions of approval, to members of the public on request, except as for the exceptions described in Condition 33.

Copies of each approved management plan, report or strategy, including Annual Reports, as referred to in the conditions of approval are available on the website.

No requests were received during the reporting period and the requirements of Condition 33 were not applicable for the reporting period.

5 CONCLUSIONS

This report provides the relevant details required for satisfying requirements of Condition 27 of the EPBC Approval 2009/4839 for the period 14 August 2024 to 13 August 2025. The bulk of the information pertains to the reporting period, but some additional details are provided beyond the end of the reporting period.

The report shows the details of compliance with each relevant condition of EPBC Approval 2009/4839 for the annual reporting period to 13 August 2025. Compliance for each of the Conditions is summarised in Table 1.2, further described in Section 4 and, also systematically described in Table form in Appendix A that shows the Condition of Approval, Compliance Status and summarises relevant evidence.

WCHPL has addressed a wide range of issues for the EPBC Approval requirements. Particular aspects of note are:

- Improved performance of the Identiflight system with only one WTE mortality for the last two reporting periods, compared to eight for the previous three years. This is attributed to upgrade of the installed IDF system through installation of a 30m high IDF unit (IDF17) installed between Turbines 45 and 46 to reduce risk to WTE at a location where visual occlusion by tall woodland vegetation limited the effectiveness of the IDF system to prevent WTE collisions with turbines.
- The Collision Avoidance and Detection Plan was updated and submitted to DCCEEW in June 2025 That report was able to draw on almost five years of bird and bat mortality monitoring to review impacts and distinguish degree of risk to WTE's by turbine location and time of year. That analysis identified that in almost 5 years, WTE mortalities had only occurred at 6 of the 48 turbines and mortalities had only occurred for 5 months of the year. Conversely no mortalities had been recorded for 42 turbines and for 7 months of the year, indicating lower risk for those sites and times.
- Cumulative WTE mortalities are now well below pre-development predictions (EPN 10105/2 Attachment 3). Nevertheless, WCHPL is still considering options for further improving the IDF system performance.
- Substantial financial contribution has been made to NRM South Eagle Research Fund, now totalling $825,675.66 since commencement of payments to the fund
- Conduct of various monitoring programs have assessed avifauna presence and impacts
- Conduct of detail flora monitoring for established flora offset areas required under the EPBC Act.
- Monitoring reports obtained for each of the EPBC flora offset areas Bashan Ledge, Stone Hut and Wihareja, have been submitted to DCCEEW and NRE Tasmania.
- The monitoring reports show improvement in status of each of the protected species for each of the offset areas and also include recommendations for future improvements.

A range of other matters are dealt with by the ACR 2025, and details are provided across all matters relevant to the approval.

6 REFERENCES

CHC Permit DA 2010/19 as amended 25 October 2017

DCCEEW EPBC Approval 2009/4839 as varied on 04 November 2022.

EPA Environment Protection Notice - EPN 10105/2, Issued on 12 June 2024

Other references are referred to in the text in relation to specific aspects addressed by this report.

7 APPENDIX A - COMPLIANCE TABLE - CONDITIONS OF EPBC APPROVAL

Appendix A – Table setting out compliance status for each of the Conditions of EPBC Approval for the period 13 August 2024 to 13 August 2025.

Appendix A – Table setting out compliance status for each of the Conditions of EPBC Approval for the period 13 August 2024 to 13 August 2025

Cond No.	Condition Description	Compliance with condition	Evidence / Comments
	For the protection of the wedge-tailed eagle, the person taking the action must (:		
1	Ensure wind turbine generators are not constructed closer than 1000 metres of an eagle nest. *Note: The Approval definitions refer to a nest, constructed or used by a WTE or WBSE, known at the time of submission of the final layout (CHWF Design Report, December 2017) as shown at Appendix A (of the Approval).*	**Compliant** (complete)	Design complies - see Figure 3.1, Design Report Drawing *CHWF_DES_003_02B Exclusion Zone - Nests*. No infrastructure is located within 1,000m of a (Known) Nest. Construction complete. New nests found post Design Report and within 1,000m of turbine sites are not relevant to this Condition. (Section 4.2)
2	Ensure construction activities do not occur within 500 metres of an active eagle nest during the breeding season or within 1000 metres line of sight of an active eagle nest during the breeding season. *(As indicated above, definition of Nest refers to those known at time of final layout December 2017.)*	**Compliant** (Complete)	Design complies - see Figure 3.1, Design Report Drawing *CHWF_DES_003_02B Exclusion Zone - Nests*. No infrastructure within 1,000m of (Known) Nest. New nests found post Design Report within 1,000m of turbine sites are not relevant to this Condition. Construction, was undertaken in accordance with ANCEMP and ENUMP and, completed in early 2020 with operations from 04 August 2020 (Section 4.3 of this report)
3	Commencing twelve months prior to the commissioning of wind turbine generators at the wind farm site and for the life of wind farm operations, immediately remove all animal carcasses resulting from hunting or culling activities from within 500 metres of wind turbine generator locations and ensure they are placed in locations approved in writing by the Minister.	**Compliant** (ongoing)	The two landowners for the CHWF project area arrange for shooters to undertake hunting and culling on their properties. A system was established for the shooters to keep records of the animals shot and disposal locations. These records are periodically forwarded to WCHPL. Disposal locations were also identified and approved by the Minister. These are now covered (Section 4.4).
4	During wind farm **operations** ensure animal carcasses resulting from collisions with wind turbine generators, vehicles and/or other regular farming activities within the wind farm site are removed on the day they are discovered and are placed in locations approved in writing by the Minister no closer than 500 metres from wind turbine generator locations.	**Compliant** (ongoing)	Operations commenced 5 August 2020. Animal carcasses found on access tracks or hardstands are removed promptly and as relevant recorded in project recording forms. If involving a threatened species, then investigation and reporting is undertaken. **Phase 1** weekly monitoring commenced around operating turbines from 19 November 2019 and was discontinued on 12 July 2022.

Cond No.	Condition Description	Compliance with condition	Evidence / Comments
			Phase 2 intensive monitoring including pulse surveys has been undertaken monthly from the start of operations. Both phases involve collection of carcasses. Carcasses collected are sometimes stored for identification or use in future scavenger trials. Those not retained are disposed in the established pits (now required to be covered) (Section 4.5).
5	Conduct daily searches for dead calves during September each year and remove any carcasses from within 500 m of any wind turbine generator and ensure they are placed in locations approved in writing by the Minister. Unless otherwise agreed to in writing by the Department wind turbine generators may operate during daylight hours within 1,000 metres of paddocks where lambing is occurring.	**Compliant** (ongoing)	All Turbines have been able to operate since early August 2020 except when out for maintenance, repair or, due to IDF curtailment. The landowners are regularly active on the land managing stock. In addition, CHWF operators are regularly active around the site and are aware of the requirements for removal of carcasses. Additional regular surveys are undertaken for avifauna carcasses around turbines and collectively these activities provide a regular review of the site for identifying and removing any carcasses. (Section 4.6)
6A	Within three months following the commencement of construction, submit to the Minister for approval a Collision Avoidance and Detection Plan (CADP) containing details of the collision avoidance and detection system to be implemented (including technologies installed and practices undertaken) for monitoring WTE movements, preventing WTE collisions with turbines and recording collisions. The CADP must conform with Guidelines for its preparation which the Department must confirm at least three months prior to the commencement of construction. The CADP must include information about and comparison of relevant available technologies and practices.	**Compliant** (complete)	The CADP was first submitted to DCCEEW on 01 February 2018 and approved by DCCEEW on 29 May 2018. It has been placed on the project website. Identiflight was set up July-August 2019 and with the first units operational since 19 November 2019. Identiflight was subject to an 18-month Trial that commenced with operations from 5 August 2020. A report on effectiveness of the Identiflight system (based on the Trial) was submitted to the Department in March 2022. (Section 4.7) The CADP has been updated in 2025, to include the new Identiflight 17 unit that utilizes a 30m tower, providing better coverage above woodland in the western area and, also with the benefit of almost 5 years of monitoring data that provides an improved ability to review performance and develop ongoing management (see Condition 11, Section 4.9).

Cond No.	Condition Description	Compliance with condition	Evidence / Comments
6B	Not commission until the CADP has been approved by the Minister. The Minister will not unreasonably withhold or delay approval of the CADP.	**Compliant** (complete)	CADP Approval on 29 May 2018 well before commissioning. The proponent has ensured that operation of individual turbines was preceded by initiation of Identiflight operations described in CADP.
6C	Within 18 months of the earlier of first full operation or 1 September 2020, submit to the Minister a detailed assessment of the effectiveness of the collision avoidance and detection system, including complete records of detected Wedge-tailed Eagle collisions at the wind farm site and information about and comparison of relevant technologies and practices available at the time of preparing the report.	**Complied** Submitted 4 Feb 2022 Revised 8 March 2022 (Complete)	First full operations commenced from 05 August 2020 and represented the commencement of the 18 months period for trial and reporting of the effectiveness of the Identiflight System. Reporting for the CADP Trial was submitted to DCCEEW on 4 February 2022 (Section 4.7). Section 4.7.2 provides an overview of the Identiflight system and performance. A revised version of the report was submitted to DCCEEW on 8 March 2022. The report is posted on the CHWF website titled '*Assessment of effectiveness of the Identiflight avian detection system'*
7	Revoked on 10 May 2017	Not applicable	
8	Revoked on 10 May 2017	Not applicable	
9	Revoked on 10 May 2017	Not applicable	
10	Notify the Department by email within 24 hours of any collision between a wedge-tailed eagle or white-bellied sea eagle and a wind turbine. Within one week of the initial notification, the person taking the action must submit to the Department a detailed collision report, that at a minimum includes: a. the species of eagle, the sex and estimated age; b. the nature of injuries or mortality and cause as reported by a veterinarian; c. the nearest turbine to where the injured eagle or carcass was found (if detected by physical search); d. details of how the injury or mortality was caused and proposed response to prevent further mortalities occurring; and e. if the eagle was injured, information about its condition,	**Complied** One WTE mortality, indicated as from collision with a wind turbine. Investigation Report submitted. (Ongoing requirement)	There was one Wedge-tailed Eagle Mortality recorded during the 2025 reporting period. This followed the 2024 reporting period where there were no WTE mortalities. This represents one WTE mortality per two years (or 0.5 WTE mortality per year for CHWF) The WTE was found on 8 October 2024 near Turbine 42 and notified within 24 hours. All requirements for eagle mortality notification and reporting have been completed for the report period. A summary of incident details is provided in Section 4.8. Mitigation measures were implemented in April 2025 that improved IDF2 views to Turbine 42 and its surrounds. At the same time, mitigation measures were also implemented for IDF16/Turbine 1. The respective mitigation measures involved removal of trees that were obstructing IDF visibility and may have contributed to WTE mortalities at T42 and T1

Cond No.	Condition Description	Compliance with condition	Evidence / Comments
	including if and how the eagle will be rehabilitated and re-released.		(Section 4.8)
11	Within 2 years following the earlier of **first full operation** or 1 September 2020, submit for the Minister's written approval a **revised CADP** containing details of the collision avoidance and detection system proposed to be subsequently implemented (including technologies installed and practices undertaken) for monitoring WTE movements, preventing WTE collisions with turbines and recording collisions. The CADP must include the results of scavenger trials required under Commitment 70 of the Tasmanian EPA Permit and information about and comparison of relevant available technologies and practices. The revised CADP must include a collision monitoring programme for eagles based on a statistically valid sampling regime which applies current best practice and satisfies the requirements of EPA permit condition FF10. The Minister will not unreasonably withhold or delay approval of the revised CADP. The person taking the action must implement the approved revised CADP.	**Complied** Initial Revised CADP Report was updated in 2025 and submitted to DCCEEW on 13 June 2025.	First Full Operation on 05 August 2020 and a revised CADP was due by 05 August 2022. A revised CADP was submitted on 03 August 2022. The revised CADP has been updated to address Department comments and include details of current mitigation measures including addition of IDF 17 and also provide an overview of almost five years performance of the Identiflight system at CHWF. The updated revised CADP was submitted to DCCEEW on 13 June 2025. No feedback has been received from DCCEEW as at end of October 2025. (Section 4.9)
12	Keep and maintain accurate records of each physical search conducted as required by condition 11, including date, time, turbine number and search findings. These records must be provided to the Department on request.	**Compliant** (Ongoing)	Reporting of scavenger trials has occurred previously as part of monitoring management plan development. Phase 1 Mortality monitoring surveys, around operating turbines, were undertaken on a weekly basis and records kept. Phase 1 surveys were phased out during the early operations period. Phase 2 monitoring has been implemented since the first operations were achieved on 05 August 2020 and records are maintained, kept and referred to in reports. (Section 4.10)
13	Ensure that all roads within the wind farm site are clearly signposted requiring all vehicles to travel at no more than	**Compliant** (ongoing)	Site rules require max 40 kph speed limit and signs are placed accordingly. Separate signage also requires a max 30 kph speed

Cond No.	Condition Description	Compliance with condition	Evidence / Comments
	40 kph and ensure that this is a requirement for all drivers within the site except in an emergency.		limit from dusk to dawn to minimise risks to nocturnal species. (Section 4.11)
14	Prior to construction activities commencing each day, ensure that all roads proposed to be used that day are free of roadkill and any animal carcasses are placed in locations approved in writing by the Minister no closer than 500 metres from wind turbine generator locations.	**Compliant** (Complete)	Construction complete. Operations for full report period. Very few instances of on-site roadkill or carcasses on access tracks (Section 4.12)
15	Complete the wedge-tailed eagle monitoring arrangements required by the amended Tasmanian planning permit DA 2010/19 conditions FF 4 and FF 5. DA 2010/19 as modified by EPN 1015/2 has updated conditions and the prior FF5 provision is continued under EPN 10105/2 Condition FF6 (1.3) for the Eagle Nest Productivity Monitoring Plan (ENPMP)	**Compliant** (FF4 Complete FF5 Ongoing)	FF4 and FF5 were conditions under DA2010/19 as modified by EPN 9715/1, subsequently EPN 10105/1 and, currently EPN 10105/2. EPN 10105/2 has a reduced set of conditions and renumbered the conditions. FF4 requirements are complete and have been reported to EPA. EPA approval letter for FF4, dated 8 June 2018 has been received. Monitoring under the FF5, ENPMP commenced in November 2020, and is ongoing. FF5 Plan provided to DCCEEW for information on 23 Nov 2017. (Refer Section 4.13). Requirements for the ENPMP are now required by EPN 10105/2 Condition FF6(1.3).
16	No less than 6 months prior to the expected commissioning of the wind farm, provide to the Minister for approval, a plan to conduct or fund research to inform the long-term conservation of the wedge-tailed eagle for example, funding research, nest productivity monitoring and mortality rates. The wind farm must not be commissioned until the plan is approved and implemented. The research plan must include but not be limited to: a. a detailed outline of proposed research activities to be undertaken or funded including, aims, methods, effort, milestones, key deliverables, reporting style, publication format and location and public accessibility of completed research;	**Compliant** (Complete)	The Department has advised that Condition 17 is satisfied (and by implication Condition 16) by Management Plans approved by EPA under the EPN 10105/1 specifically the Eagle Mortality Offset Plan (EMOP) under EPN Condition FF15 that includes provision for Eagle research funding. Letter from the Department on 8 Jan 2019 (greater than 6 months prior to commissioning) advises that Condition 17 is satisfied. Funding (Condition 17) has established through NRM South (under EPN FF15 EMOP). Payments have been made for 2019 to 2025. (Total payments by WCHPL over seven years is approximately $825,675.66, Payments are CPI adjusted annually.)

Cond No.	Condition Description	Compliance with condition	Evidence / Comments
	b. a demonstration that proposed research is consistent with published recovery objectives and will inform the long term management and conservation of the species; c. an outline of how research will be conducted in a manner which compliments or is collaborative with other research being undertaken by species experts, government, research and educational bodies; d. a breakdown of research components to be funded in annual $75 000 equivalent increments; e. funding arrangements and responsibilities; f. the qualifications and experience of persons undertaking the research or minimum qualifications and experiences required of persons proposed to undertake research; g. how research will be published and made publicly available within the life of the plan; and h. a peer review conducted by a suitably qualified expert demonstrating that the proposed research plan is consistent with the objectives at condition 16(b) and (c) and is achievable within identified timeframes and resources. Note 1: The Minister may determine that a plan, strategy or program approved by the Tasmanian Government in accordance with EPA conditions FF5, FF6, FF13, FF14 and FF15 satisfies the requirements for the Plan required under conditions 16 and 17.		(Section 4.14 and Appendix B – NRM 2025 Research Report)
17	Commence the implementation of the approved research plan prior to the commissioning of the wind farm. The person taking the action must ensure that no less than $75 000 equivalent in funding is expended annually on implementing the research plan, with the first $75 000 equivalent committed prior to commissioning of the wind farm.	**Compliant** (Ongoing, annual payments as required)	EMOP was prepared under previous EPN Condition FF15 (and approved by EPA). It addresses Condition 17 as confirmed by DCCEEW. (Condition FF15 has been removed from EPN 10105/2 and a new condition FF6 (1.1) requires WCHPL to act in accordance with the EMOP.

Cond No.	Condition Description	Compliance with condition	Evidence / Comments
			DCCEEW Letter dated 8 Jan 2019 advises that Condition 17 is satisfied. Funding arrangements have commenced. Total payments by WCHPL over seven years are approximately $825K Appendix B, NRM South Research Report September 2025 describes Research projects to date (Section 4.14)
18	On each fifth anniversary of the approval of the research plan, or at the direction of the Minister, the person taking the action must engage a suitably qualified expert to review the effectiveness and relevance of the research plan required by condition 16. Within 90 days of each five-year anniversary, the person taking the action must provide a report to the Minister outlining any recommendations and alternative measures to offset impacts to the wedge-tailed eagle. The Minister may require the person taking the action to implement the recommendations and alternative offsetting arrangements.	**Complies**	A Five-Year Review of the Wedge-tailed Eagle Research Fund was completed by Environment and Heritage Partners Pty Ltd and submitted to DCCEEW on 17 October 2025 (Section 4.15)
19	For each actual wedge-tailed eagle mortality or injured wedge-tailed eagle that cannot be re-released into the wild, occurring above 2 actual mortalities or injured wedge-tailed eagles that cannot be re-released in to the wild in any calendar year, fund a raptor or wildlife centre to rehabilitate an injured or sick wedge-tailed eagle and re-release that wedge-tailed eagle into the wild at an ecologically suitable location to the satisfaction of a suitably qualified expert. If no wedge-tailed eagle can be rehabilitated for re-release into the wild, an extra $25 000 equivalent per mortality or injury must be expended towards the implementation of the research required by conditions 16 and 17 in that calendar year. *Note 2: The Minister may determine that satisfaction of*	**Complies**	There was one WTE fatality in the 2024/2025 reporting period. As only one mortality for the 12-month period, the threshold was not triggered for additional payments.

Cond No.	Condition Description	Compliance with condition	Evidence / Comments
	Tasmanian EPA condition FF15 – 3.3 satisfies the requirements of this condition.		
20	The person taking the Action: May, if it can be demonstrated that after 10 years of operation, that the wind farm is not impacting the wedge-tailed eagle, request approval from the Minister to cease implementing conditions 11 (if required) and 17.	**Not due yet**	Not due until August 2030 (10 years after 4 August 2020) (Section 4.17)
21	Revoked on 10 May 2017		
22	For the protection of other nationally protected matters, specifically the **Liawenee Greenhood, Crowded Leek Orchid and Clover Glycine** the person taking the action must:	See below	
22	Three months prior to the commencement of construction, submit a **weed management strategy** to the Minister for approval. The strategy must include but not be limited to: a. details on how construction activities will be managed to minimise and prevent the establishment of new or spread of existing weed species, specifically where construction is to occur within or near habitat for the Liawenee Greenhood, Crowded Leek Orchid and Clover Glycine; b. weed management activities to be undertaken with reference to weed species that are known from and likely to occur at the wind farm site; c. vehicle and machine wash down protocols for all vehicles entering the site; d. weed identification programs and staff inductions; and e. measures to monitor, control and eradicate weed outbreaks that may occur on site.	**Compliant** (Focused on construction)	Weed Management Strategy - dated 4 December 2017. DCCEEW approval letter dated 14 December 2017 Training by VDC in weed management issues for site staff was arranged in Nov 2018 A range of measures were applied through construction including employee awareness of key invasive weed species, vehicle induction checks and on-site wash down facility. These measures appear to have generally been effective, but ongoing treatments are necessary. Weed control was undertaken in the reporting period around the turbine and IDF hardstand areas in accordance with the Weed Management Strategy. (Section 4.18)

Cond No.	Condition Description	Compliance with condition	Evidence / Comments
	The approved weed management strategy must be implemented.		
23 a & b	The approved **flora offset strategy** must be implemented. If offsets additional to those in the approved flora offset strategy are required as a result of previously unrecorded threatened species encountered during construction and/or pre• construction activities {as required by condition 24), a revised version of the flora offset strategy must be submitted for the written approval of the Minister within 3 months of the completion of all ground-breaking construction activities.	**Compliant** Complete	The Flora Offset Strategy was approved by DCCEEW on 15 March 2018. As no additional impacts identified no need for revised FOS has arisen. (Section 4.19)
23 c	The approval holder must submit the **offset management plan** to the Department within ten (10) months of the Department having approved the flora offset strategy. The offset management plan must include: i. details of short, and long term, management measures to maintain and improve the condition of the offset(s), including timeframes, proposed for each offset site; and ii. the short, and longer term, arrangements and responsibilities of parties involved in the management of each offset site.	**Compliant** FOMP approved Implementation ongoing	FOMP approved by the Department on 10 August 2019. Implementation arrangements for the Offset areas have required an extended timeframe to register all 3 covenants, with finalization of covenants on titles being completed on 8 April 2024. Monitoring of the offset areas has occurred over 5 years. The ecologist has reported results of monitoring over 5 years indicating changes in the status of protected species that indicates objectives of the offset areas are being achieved. Copies of reports were submitted to DCCEEW and NRE Tasmania on 10 November 2025. The 2025/2026 survey program has commenced with first site visits on 5 and 6 November 2025. Summary results will be provided in the ACR 2026. (Section 4.19)
24	If during **construction and /or pre-construction activities** a previously unrecorded threatened species is encountered, the person taking the action must immediately **cease activities at the affected area**. A report must be submitted to the Department that includes population characteristics, proposed avoidance and	**Not applicable** (Construction complete)	No new species found - No reporting required (Section 4.20)

Cond No.	Condition Description	Compliance with condition	Evidence / Comments
	mitigation measures and, where applicable, proposed offsets to compensate for unavoidable impacts. Activities in that area can only recommence when directed to in writing by the Department.		
Administrative Conditions			
25	The person taking the action must advise the Department in writing of the actual date of: • commencement within three business days of the commencement of the action; • commissioning within 24 hours of commissioning, and • first full operation within three business days of first full operation.	**Compliant** (Complete)	The required notifications have been provided to the Department. Letters to the Department advised status of: - Commencement of construction and updates on progress. - Notification of commissioning and progress updates - Notification of First Full Operations from 05 August 2020. All requirements of Condition 25 have now been completed (Section 4.21)
26	The person taking the action **must maintain accurate records substantiating all activities** associated with or relevant to the conditions of approval, including measures taken to implement all management plans, reports and strategies required by this approval, and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.	**Compliant** (Ongoing)	WCHPL has established a comprehensive record keeping system for the project compliance matters and maintenance is periodically undertaken to keep details updated. (Section 4.22) No audits required to date. Representatives of the Department have visited and inspected the site. DCCEEW has shown significant interest in the Identiflight system deployed at CHWF as an Australian first for avian protection at an Australian wind farm.
27	Within 90 days of each anniversary of the commencement of the action, the person taking the action must publish a report on its website addressing compliance with each of the conditions of this approval, including implementation of any	**Compliant** (Ongoing)	This report provides the seventh of the annual compliance reports required by Condition 27 for anniversary date of 13 August.

Cond No.	Condition Description	Compliance with condition	Evidence / Comments
	management plans as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the Department at the same time as the compliance report is published. Unless otherwise directed in writing by the Minister the report must include a chapter that outlines how each injured or sick wedge-tailed eagle was rehabilitated in accordance with the requirements of condition 19. This must include a. how the injured or sick wedge-tailed eagle was identified for rehabilitation b. the nature of injuries and/or sickness at the commencement of rehabilitation c. the actions taken to rehabilitate the wedge-tailed eagle including the location and costs of rehabilitation and qualification and experience of persons involved in rehabilitation; and d. potential survival in the wild.		A request to place the report on the CHWF project website is submitted to the website coordinator, on the same day that the report is submitted to the Department. (Section 4.23)
28	Upon the direction of the Minister, the person taking the action must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.	**Not triggered**	Audit as required by Minister - None required as yet (Section 4.24)
29	If the person taking the action wishes to carry out any activity otherwise than in accordance with any management plans, reports and strategies required by this approval as specified in the conditions, the person taking the action must submit to the Department for the Minister's written approval a revised	**Not applicable** No revision of the approved management plans	The project is being implemented in accordance with the requirements of the conditions and the management plans, reports and strategies required by the conditions of approval and as advised by the respective technical advisors.

Cond No.	Condition Description	Compliance with condition	Evidence / Comments
	version of that management plan, report or strategy required by this approval. The varied activity shall not commence until the Minister has approved the varied management plan, report or strategy required by this approval in writing. The Minister will not approve a varied management plan, report or strategy, unless the revised management plan, report or strategy, would result in an equivalent or improved environmental outcome over time. If the Minister approves the revised management plan, report or strategy, that management plan, report or strategy must be implemented in place of the management plan, report or strategy originally approved.		The Conditions of Approval have been varied on several occasions and the project complies with the most recent issue of the Project Approval. (Section 4.25)
30	If the Minister believes that it is necessary or convenient for the better protection of listed threatened species to do so, the Minister may request that the person taking the action make specified revisions to the management plan, report or strategy specified in the conditions and submit the revised management plan, report or strategy, for the Minister's written approval. The person taking the action must comply with any such request. The revised approved management plan, report or strategy must be implemented. Unless the Minister has approved the revised management plan, report or strategy, then the person taking the action must continue to implement the management plan, report or strategy originally approved, as specified in the conditions.	**Not triggered**	Minister has not required revisions to plans or strategies (Section 4.26)
31	If, at any time after 5 years from the date of this approval, the person taking the action has not substantially commenced the action, then the person taking the action must not substantially commence the action without the written agreement of the Minister.	**Compliant** (Complete)	CHWF EPBC Approval 15 December 2014 Early Works commencement from 23 March 2018 Commencement of Action from 13 August 2018 (As per DCCEEW confirmation), within 5 years of approval No further requirements of Condition 31.

Cond No.	Condition Description	Compliance with condition	Evidence / Comments
			(Section 4.27)

32	Unless otherwise agreed to in writing by the Minister, the person taking the action must publish all management plans, reports and strategies referred to in these conditions of approval on its website, except, for the period that the Minister agrees, those parts of these documents that the Minister agrees should not be published for commercial-in-confidence reasons. Each management plan or strategy must be published on the website within 1 month of being approved. Each report must be published on the website within 1 month of being submitted to the Minister. *(Exception - DCCEEW Letter of 12 Oct 2020 – Eagle Collision Reports required under Condition 10 do not need to be published as otherwise required under Condition 32. Information required under Condition does need to form part of the Annual Compliance Report (ACR) (under Condition 27) for the 12 month period during which the collision was detected. The ACR needs to be published on the project Website (as per Condition 27).*	**Compliant**
		
		(Ongoing)
			The following plans have been published on the project website
			• Cond 6A – Collision Avoidance and Detection Plan
			• Condition 6C – CADP Trial Report – "*Assessment of the Identiflight Avian Detection System*"
			• Condition 11 – Updated Revised CADP submitted 13 June 2025 (posting pending DCCEEW review and approval)
			• Cond 22 – Weed Management Plan (mainly construction)
			• Condition 23 - Flora Offset Strategy and Flora Offset Management Plan (See Section 4.19)
			• Conditions 16, 17 and 19
			  ○ FF 5 - Eagle Nest Productivity Plan (Annual Reviews)
			  ○ FF 6 - Post Commissioning Eagle Utilisation Monitoring Plan (Requirements complete)
			  ○ FF15 - Eagle Mortality Offset Plan (Ongoing)
			• Annual Compliance Report, 2019
			• Annual Compliance Report, 2020
			• Annual Compliance Report, 2021
			• Annual Compliance Report, 2022
			• Annual Compliance Report, 2023
			• Annual Compliance Report, 2024
			• Annual Compliance Report 2025 - (upload request *at same time as this report is submitted to the Department*)
			
			(Section 4.28)

Cond No.	Condition Description	Compliance with condition	Evidence / Comments
33	Unless otherwise agreed to in writing by the Minister, the person taking the action must provide a copy of each approved management plan, report or strategy referred to in these conditions of approval to members of the public upon request, except, for the period that the Minister agrees, those parts of these documents that the Minister agrees should not be published for commercial-in-confidence reasons. Copies must be provided within a reasonable time of the request.	**Not triggered** (Ongoing)	No requests received as yet. As per Condition 32, specific reports have been made available on the project website. (Section 4.29)

8 APPENDIX B - WEDGE-TAILED EAGLE RESEARCH FUND 2025 REPORT

Prepared by NRM South

September 2025

CHWF EPBC ACR 2025 - Appendix B

Wedge-tailed Eagle Research Fund 2025 Annual Report

Photo: Dr Adam Cisterne, NRM South

Prepared for Wild Cattle Hill Pty Ltd

Date: 7th August 2025

Contents

Glossary 3
Introduction 4
Background 4
Objective of The Fund 4
Priorities for The Fund 4
Administration of The Fund 5
Governance of The Fund 6
Achievements during 2025 7
Projects supported in 2024/2025 7
Grants awarded 7
PhD project 9
Next stage in The Fund 12
Financial statement 13
Appendix 1 14
Projects awarded support by the Fund - completed 14
Projects awarded support by the Fund – underway 14
Projects awarded support by the Fund – to commence 14

Glossary

ANU	Australian National University
DCCEEW	Commonwealth Department of Climate Change, Energy, the Environment and Water
EMOP	Eagle Mortality Offset Plan
FPA	Forest Practices Authority
NRET	State Department of Natural Resources and Environment Tasmania
TAC	Technical Advisory Committee
UTas	University of Tasmania
WTE	Wedge-tailed Eagle, *Aquila audax fleayi*

Introduction

This is the sixth Annual Report for the Wedge-tailed Eagle (WTE) Research Fund ('The Fund'). It covers the achievements since the last Annual Report in September 2024.

The Fund has been operating in accordance with requirements and is enabling the support of high-quality research on Tasmanian Wedge-tailed Eagles. It is unlikely this research would have been supported without The Fund. The projects being supported will provide valuable advances in the understanding of the WTE population in Tasmania, which will assist with achieving the conservation outcomes for the subspecies.

Background

The Cattle Hill Wind Farm was approved by Tasmanian State Regulator in 2012 and by the Commonwealth Department of Environment and Energy (now the Department of Climate Change, Energy, the Environment and Water, DCCEEW) in December 2014. A requirement of the approval of the Cattle Hill Wind Farm (as described in the relevant permit conditions) was to develop an offset plan for wedge-tailed eagles (*Aquila audax fleayi,* WTE).

An Eagle Mortality Offset Management Plan (EMOP) was developed and subsequently approved to satisfy these requirements. The EMOP comprises two components, with the second component describing the Tasmanian WTE Research Fund. The EMOP required that The Fund needed to be established and administered by an independent organisation. NRM South was selected as the administering body for The Fund and a Services Agreement was signed between NRM South and Wild Cattle Hill Pty Ltd on 23rd August 2019.

It is noted that on 17 December 2024, Atmos Renewables acquired 100% of the interests in the Cattle Hill Wind Farm and is therefore now the official owners of the asset.

Objective of The Fund

The Fund is designed to offset the impact of WTE mortalities (or injured WTE that cannot be released into the wild) due to collisions with wind turbines at the Cattle Hill Wind Farm. The Fund will only support research relating to the Tasmanian sub-species of WTE and projects based in Tasmania.

The primary purpose of The Fund is to support high quality ecological or other relevant scientific research on Tasmanian WTE, the results of which will assist with the management and protection of the sub-species. The intention is that The Fund continues for the medium term (at least 10 years), hence not all funds will be expended each year. Research will be supported that is scientifically rigorous, conducted by high quality scientists, and which is in accordance with the objectives of the Threatened Tasmanian Eagles Recovery Plan 2006-2010 or any subsequent eagle Recovery Plan.

Priorities for The Fund

Research supported by The Fund will be consistent with the published recovery objectives of the "Threatened Tasmanian Eagles Recovery Plan 2006-2010" or a subsequently approved version of the Recovery Plan. The EMOP notes that DoEE (now DCCEEW) have indicated they require The Fund to support key scientific research on the sub-species and not other activities, although the State component of The Fund may support education activities.

Suitably qualified researchers[1] will be eligible to apply for funds to support relevant research on WTE consistent with the below priorities. Critical research that can demonstrate a sound experimental design and statistical rigour will be viewed most favourably.

The initial priorities for funding support are:

- Demography of the WTE. This could include studies into the size of the state population (such as an evidence-based population census), fecundity, survival of different age classes, and immigration and emigration intra- and inter-state. Such ecological data could be used to update a Population Viability Analysis.
- The collection of data that will allow an evaluation of the sub-species conservation status against IUCN criteria.
- Quantification of anthropogenic impacts to WTE, such as collisions with vehicles, powerlines, shooting or poisoning, and the development of mitigation measures to reduce these impacts. Disturbance to nesting WTE. This includes studies into determining the anthropogenic factors that impact on breeding, and quantification of these such as the distance, duration and types of factors that result in impacts to breeding success.
- Strategies to monitor nesting behaviour of WTE. Nests are currently very difficult to monitor due to the need to limit disturbance to breeding birds, hence automated strategies to monitor nests without disturbing eagles will be supported.
- Studies into why WTE collide with wind turbines and strategies to reduce collision rates. Published studies indicate WTE actively respond to and avoid wind turbines, but occasionally collide. Any insights into why they occasionally collide may assist with strategies to minimise collisions.
- Other scientific studies where it can be demonstrated that the research will provide a demonstrable benefit to the sub-species.

The priorities for funding support may be revised by the panel following any reviews of the EMOP.

Studies on WTEs required for commercial developments (i.e. conditions of a permit, outside offsets) or studies that are the responsibility of Local, State (including Government Business Enterprises) or Commonwealth Government will not be supported.

Administration of The Fund

NRM South's role is ensure that The Fund is established and administered as described in the Eagle Mortality Offset Plan (EMOP).

Specifically, NRM South's role is to:

- Be responsible for receipt, management and audit of WTE Research Fund.

[1] Must hold a postgraduate degree in science and evidence of the successful publication of relevant, high quality research in peer-reviewed scientific journals or experience and qualifications deemed by the panel to be evidence of equivalent merit. However, proposals to support high quality Honours research will also be considered.

- Assist with the identification and selection of panel members. The Panel members selected will be agreed by the Tasmanian EPA and delegate of the Commonwealth DCCEEW.
- Host, recruit and administer/support a panel, as prescribed by the EMOP, to prioritise, assess and distribute research funds – approximately two meetings per year.
- Administer reimbursement of panel members reasonable travel costs and hourly payment for attendance at annual meetings.
- Advertise, administer and coordinate research applications, and in conjunction with the panel develop and maintain the assessment process.
- Contract and administer the research funds on behalf of the research panel, including coordination of progress and final reports.
- Provide panel advice and reports to Wild Cattle Hill Pty Ltd and any other contributors to The Fund for preparation and submission to the Regulator (if required).

Governance of The Fund

The Fund is overseen by an independent Technical Advisory Committee (TAC, referred to in the EMOP as a "Panel").

As described in the EMOP, the TAC comprises:

- A representative of the Department of NRET (as an observer, Dr Rachael Alderman, Director Threatened Species and Biodiversity).
- a representative from the administering body, NRM South (Dr Cindy Hull).
- a representative of the DCCEEW (as an observer, Dr Ivan Lawler), and
- at least two scientists experienced in wildlife ecology, with a strong background in research and publishing (Dr Phil Bell and Dr Sarah Munks, both independent consultants with extensive experience working on Tasmanian wedge-tailed eagles). These roles were filled following advertising and a competitive selection process. Both of these independent scientists had completed their first term on the TAC and are now in their second term.

The role of the Technical Advisory Committee (TAC) is to:

- Review funding applications and select those to be supported.
- Monitor the progress of grant recipients, and
- Determine whether to accept research reports (i.e. whether they fulfill the requirements of support).

Individual members of the Technical Advisory Committee are expected to:

- Actively participate in the review, monitoring and reporting of the Research Fund.
- Attend, either in person or by teleconference, twice annual meetings, and additional meetings, if required.
- Provide reliable, relevant, technical and contemporary advice.
- Comply with relevant NRM South Policies and Procedures, including the Code of Conduct, and any specific requirements of The Fund including Confidentiality; and
- Be an advocate for the research Fund's outcomes.

NRM South has also now established a Project Governance Steering Committee (PGSC) to oversee externally funded projects. The PGSC serves a crucial function in overseeing projects and providing guidance on best practice project management and governance processes, with recognition of the parameters and processes required by some funding entities. It is responsible for reviewing project progress and providing advice and recommendations on:

- Project performance (e.g. delivery against milestones and budget),
- Project risk (e.g. WHS and compliance) and
- Project management processes (including change, quality and stakeholders)

The Committee is an advisory committee to the NRM South Board (does not have delegated authority) and includes Board representation (through the Committee's Chair). The WTE Research Fund is included in the remit of the PGSC.

Achievements during 2025

The sixth year of The Fund built on the achievements of previous years.

Details of the achievements:

1. The seventh deposit (including the set-up contribution) to The Fund was received from Wild Cattle Hill Pty Ltd in October 2024.
2. The project "Investigating the spatial ecology and habitat use of Tasmanian wedge-tailed eagles in the Tasmanian Midlands using high-frequency GPS telemetry (Pay, Koch, Cameron, Wiersma, Katzner) was completed. The final payment was made following approval of the final report. (The findings of this study were presented in the 2024 Annual report).
3. A grant round was advertised in October 2024. Four applications were received, with a total of $274,273.56 being sought, which was significantly higher than that available. The TAC determined that two applications warranted funding, and agreed that allocating part of the 2025 funds as well as 2024 funds would enable both to be supported. The cost of supporting the two projects totalled $136,083, which is $36,083 over the $100,000 allocation for 2024. Hence $36,083 was allocated from the 2025 round. This resulted in a reduced amount available for 2025 and the TAC agreed that these funds would be retained and combined with the 2026 round.

Projects supported in 2024/2025

Grants awarded

1. 2024-25: Characterising the demographic history and evolutionary trajectory of Tasmanian wedge-tailed eagles using whole genomic sequencing (Ahrrens, Miller, Burridge, Weeks). To be completed in November 2025.

Project summary:

Current estimates suggest that the census population size of wedge-tailed eagles in Tasmania is approximately 1000-1500 adults. However, estimates of effective population size (number of reproductive adults; N_e) remain uncertain, but are generally orders of magnitude smaller than

census sizes and inherently difficult to quantify using traditional genetic methods. Contemporary estimates of N_e are vitally important for informing conservation, as N_e is the ultimate indicator of overall genetic health and population stability. Rapid historical losses and persistent non-natural deaths are expected to have a measurable impact on N_e by reducing the number of breeding individuals. This can expose affected populations to negative demographic processes that can adversely impact genetic health, population fitness and environmental resilience. Thus, significant reductions in N_e can have long-term consequences for population recovery and persistence.

This project seeks to build on the findings of Stojanovic (2022) to gain a more reliable and robust estimate of contemporary N_e for the TWTE population and understand how N_e and genetic variation changed through time. Our analyses based on whole genome sequencing (WGS) data will determine the impacts of historical and more recent human activities on N_e (i.e., culling practices, landscape modification and wind farm expansion). Outputs from this project are expected to provide a much-needed resource for informing future conservation management of TWTE population by providing reliable estimates of population growth trajectories (positive or negative), and uncovering reasons for differentiation between Tasmania and mainland populations of wedge-tailed eagles.

2. 2024-25: Making the surveys count: an innovative approach to convert relative abundance data to a population estimate for the Tasmanian wedge-tailed eagle, through direct measurement of detectability (Pay, Johnson, Zhang, Hawkins, Potts). To be completed in March 2027.

Project summary:

We will develop an innovative method to estimate Tasmanian wedge-tailed eagle (TWTE) population size from structured annual survey data. Such an estimate is long overdue, and will enable review of its conservation status. An empirical population estimate is necessary, since, even if the trend is stable, strategic conservation decisions will be radically affected by information on whether the population is now close to extinction or is quite large.

Researchers from the University of Tasmania, in collaboration with researchers from the Australian National University and the Bookend Trust, have been pioneering a range of innovative approaches to the population estimate. These integrate multiple novel tools and methods to enhance reliability and accuracy:

1. Territory analysis: using GPS tracking data from adult eagles to estimate how territory size varies across Tasmania and calculate the total number of territories on the island.

2. Genetic techniques: applying advanced genetic methods to determine the effective population size (work previously funded through the WTE Research Fund).

3. Detectability modelling: combining GPS tracking data with human observation records to directly measure detectability for the species and translate survey numbers into a population estimate (this application).

Each offers significant advantages over the previous approaches, but also has inherent limitations. By synthesising these diverse, independent methods, we aim to leverage their complementary strengths and mitigate weaknesses, ultimately producing the most robust and comprehensive

population estimate, collect and analyse field data on detectability through standardised surveys near GPS-tagged eagles. With sufficient field data, we anticipate that we will be able to accurately model the proportion of surveys which miss a tagged eagle, against its distance from the observers. This will allow us to estimate the population size by combining the resulting detection function with ongoing WWW survey data.

PhD project

"How is TWTE habitat selection affected by human activities and land-use intensity?"

The project will be housed in the School of Natural Sciences at Utas, and supervised by:

- Dr James Pay, University of Tasmania (Supervisor)
- Professor Chris Johnson, University of Tasmania (Supervisor)
- Associate Professor Chris Burridge, University of Tasmania (Supervisor)
- Dr Catherine Young, NRM South (Advisor) – to ensure the project remains focussed on the WTE Research Fund objectives.

The funding covers a 3.5 year stipend, plus top up bursary, mandatory paid leave, relocation allowance and fieldwork costs.

This project will commence in October 2025. A student been selected and signed on. The scholarship will be paid in 4 stages, commencing upon the enrolment of the student.

Brief project outline

This PhD project will investigate how TWTEs respond to a range of human activities. The project will have a particular focus on using existing datasets (including GPS-tracking data from 41 adult and 25 pre-adult TWTEs) as well as carrying out field experiments to assess effects of disturbance on behaviour and breeding success of eagles.

The project will aim for a broad understanding of the ways in which eagles respond to human activities and a variety of land uses. In doing so it will answer several questions relating to specific disturbances that are most likely to be influential. The list of questions the project could address includes:

1. **How is TWTE habitat selection affected by human activities and land-use intensity? Including:**
    - **How does operation of helicopters affect the behaviour of TWTEs?**
    - **How is the behaviour of TWTEs, including time spent at the nest during breeding, affected by vehicle traffic?**
2. **What is the relationship between nest attendance, revealed by GPS tracking, and nest success?**

A summary of the context for each question, along with potential strategies for addressing them, is included below. Outputs from each of these project components can be synthesised using a vulnerability analysis to discover what levels of disturbance could be sufficient to cause population-level effects.

Summary of proposed project components

LITERATURE REVIEW: What are the current methods available for monitoring wildlife disturbance?

During the first year of the PhD program, the candidate will conduct a comprehensive review of the contemporary literature on monitoring wildlife disturbance. This review will encompass an exploration of the latest technologies currently at our disposal and update information provided in previous reviews on the topic (e.g., Cox et al., 2012; Cutler and Swann, 1999; Preisler et al., 2006). Conclusions from this review may offer innovative ideas and strategies for subsequent inclusion in the data chapters of the PhD thesis.

1. **How is TWTE habitat selection affected by human activities?**

Human activities can change the way animals use the landscape. For example, at a fine-scale animals can avoid anthropogenic activities (Barker et al., 2023; Suraci et al., 2019), or at a broadscale anthropogenic activities could increase or reduce the size of the area used by individuals (Perona et al., 2019). Understanding these dynamics has relevance to conservation management. The increasing temporal resolution of modern GPS-tracking technologies, together with advances in statistical techniques, are facilitating a more detailed understanding of animal behaviour alongside habitat use. By incorporating spatial information on human activities, modern habitat selection modelling methods can provide insight into how human activities affect wildlife movement. The project can incorporate the GPS data collected from TWTEs into models that assess how particular sources of human disturbance (for which spatial data are available, e.g., roads, land use change, fuel reduction burns) affect the spatial ecology of TWTEs.

- **How does operation of helicopters affect the behaviour of TWTEs?**

Aerial nest surveys are carried out by a number of industries in Tasmania, both to search areas for TWTE nests and to check if TWTE nests are being used in any given breeding season. Furthermore, helicopter traffic associated with various other purposes is also commonplace across the state (e.g., fire management, tourism, construction work, infrastructure surveys). There is little information on how the behaviour of TWTEs is affected by these aircraft. Helicopter flight path data are recorded by industries, which includes information on the time, location, altitude, and speed of the aircraft. These data include flights that have been carried out across territories where adult eagles were being GPS-tracked over the last four years. By combining these existing datasets, the project can investigate this question by assessing if and how eagle flight behaviour and nest attendance is affected by helicopter flights, and how any affects are linked to the flight path characteristics of the aircraft (e.g., speed, altitude, direction).

- **How is the behaviour of TWTEs, including time spent at the nest during breeding, affected by vehicle traffic?**

A large number of TWTE nests are situated within 1 km of roads or vehicle tracks. Current guidelines, adapted from forestry practices (limiting activities within 500 m - 1 km line-of-sight), are employed to mitigate potential impacts from road-based vehicle use during the breeding season. However, there is a lack of information regarding how TWTEs respond to vehicle traffic at the distances of current recommendations. Consequently, it is uncertain whether these guidelines need adjustment, either to enhance conservation or to reduce industry costs. The project can use traffic counters to assess how the frequency and type of vehicle movements affects the behaviour of breeding GPS-

tracked TWTEs (e.g., time spent at the nest). This could also include an experimental component, whereby vehicle movements are introduced at sites where breeding TWTEs are being monitored.

2. **What is the relationship between nest attendance, revealed by GPS tracking, and nest success?**

GPS-tracking can be used to provide valuable information on the breeding behaviour of birds (Murgatroyd et al., 2023; Schreven et al., 2021). However, it is essential to align GPS-derived movement data, such as nest visit durations, with on-site nest surveys for validation. This validation ensures that conclusions drawn from GPS data regarding breeding season timing and nest outcomes are substantiated. By comparing survey data with GPS data from breeding TWTEs, the project can obtain information on how movement characteristics relate to observed breeding events. This will provide an assessment of the utility and limitations of movement data for monitoring TWTE breeding behaviour. Results will contribute to existing work on the TWTE aiming to use GPS-data to inform population models and assess the impacts of disturbance during breeding.

References

Barker, K.J., Cole, E., Courtemanch, A., Dewey, S., Gustine, D., Mills, K., Stephenson, J., Wise, B., Middleton, A.D., 2023. Large carnivores avoid humans while prioritizing prey acquisition in anthropogenic areas. J. Anim. Ecol. 1–12. https://doi.org/10.1111/1365-2656.13900

Cox, W.A., Pruett, M.S., Benson, T.J., Chiavacci, S.J., Thompson III, F.R., 2012. Development of Camera Technology for Monitoring Nests, Digital Commons University of Nebraska. Lincoln.

Cutler, L., Swann, E., 1999. Using Remote Photography in Wildlife Ecology: A Review. Wildl. Soc. Bull. 27, 571–581. https://doi.org/3784076

DPIPWE, 2011. Final report - Alternatives to 1080 program. Department of Primary Industries, Parks, Water and Environment, Hobart.

Murgatroyd, M., Tate, G., Amar, A., 2023. Using GPS tracking to monitor the breeding performance of a low-density raptor improves accuracy, and reduces long-term financial and carbon costs. R. Soc. Open Sci. 10. https://doi.org/10.1098/rsos.221447

Perona, A.M., Urios, V., López-López, P., 2019. Holidays? Not for all. Eagles have larger home ranges on holidays as a consequence of human disturbance. Biol. Conserv. 231, 59–66. https://doi.org/10.1016/j.biocon.2019.01.010

Preisler, H.K., Ager, A. a., Wisdom, M.J., 2006. Statistical methods for analysing responses of wildlife to human disturbance. J. Appl. Ecol. 43, 164–172. https://doi.org/10.1111/j.1365-2664.2005.01123.x

Schreven, K.H.T., Stolz, C., Madsen, J., Nolet, B.A., 2021. Nesting attempts and success of Arctic-breeding geese can be derived with high precision from accelerometry and GPS-tracking. Anim. Biotelemetry 9, 1–13. https://doi.org/10.1186/s40317-021-00249-9

Suraci, J., Clinchy, M., Zanette, L., Wilmers, C.C., 2019. Fear of humans as apex predators has landscape-scale impacts from mountain lions to mice. Ecol. Lett. 22, 1578–1586.

Next stage in The Fund

The next round of grants will be advertised in 2026 and will include that year's allocation plus the residual funds from 2025.

Financial statement

A summary of the financial statement is provided below:

Details	***August 2024 - August 2025***		
	Contribution	***Costs***	***Commitments***
Funds received (incl. GST) 2024	$109,147.50	-	-
Bank interest	$2,330.97	-	-
Ongoing administration	-	$7,938	-
Grant Advertising	-	$50	-
Contractor costs (TAC)	-	$550	-
Carried forward	$181,737.49	-	-
Final milestone payment – Midlands GPS	-	$16,372.40	-
Genomic sequencing	-	First Milestone payment – $53,930.00	Final payment - $35,953.00
First Milestone payment – Eagle detectability	-	First Milestone payment – $27,720.00	Final payment - $18,480.00
Funds retained for PhD stipend	-	-	$176,166.00
Total	$293,215.96	$106,560.40	$230,599.00

Given the current financial commitments to projects, including that the 2025 funds were allocated in the 2024 round, the next round of grants will be advertised in 2026. Residual funds from 2025 will be combined with the 2026 allocation.

Appendix 1

Projects awarded support by the Fund - completed

- 2020: Investigating the spatial ecology and habitat use of the Tasmanian wedge-tailed eagle in unmodified landscapes using high-frequency GPS telemetry (Cameron, Pay, Katzner, Koch, Wiersma).
- 2021: Estimating the population size of the Tasmanian wedge-tailed eagle (*Aquila audax fleayi*) using modern genetic techniques (Stojanovic, Cisterne, Pay, Burridge, Young, Clarke and Butler).
- 2021: Monitoring wedge-tailed eagle population trends (Hawkins and Potts).
- 2022: Investigation the spatial ecology and habitat use of Tasmania wedge-tail eagles in the Tasmanian Midlands using high-frequency GPS telemetry (Pay, Koch, Cameron, Wiersma, Katzner).
- 2023: Comprehensive analysis of the ecotoxin threat to Tasmanian Wedge-Tail Eagles (Stojanovic, Pay, Cisterne).

Projects awarded support by the Fund – underway

- 2024-25: Characterising the demographic history and evolutionary trajectory of Tasmanian wedge-tailed eagles using whole genomic sequencing (Ahrrens, Miller, Burridge, Weeks). To be completed in November 2025.
- 2024-25: Making the surveys count: an innovative approach to convert relative abundance data to a population estimate for the Tasmanian wedge-tailed eagle, through direct measurement of detectability (Pay, Johnson, Zhang, Hawkins, Potts). To be completed in March 2027.

Projects awarded support by the Fund – to commence

PhD project: How is TWTE habitat selection affected by human activities and land-use intensity? To commence in October 2025.

9 APPENDIX C – COMPARATIVE SUMMARY TABLE - EPBC OFFSET AREAS

(Refer Section 4.19)

CHWF FOMP – 5 Year (2029 to 2023) Monitoring Reports – Summary Table with Comparative review of Conclusions and Recommendations – 8 Nov 2025

Aspect	Bashan Ledge	Stone Hut	Wihareja
A - Conclusions			
	Seasonal Fluctuations (Rain and Temp) affect cover dominance of native and exotic grasses and herbs) Variations haven't impacted increasing annual abundance of SFS and CG Objectives met.	Vegetation is high quality and flora species diverse No change in number of flora species – Objectives met	Native vegetation predominates, Low component of non-native grasses and herbs. Status maintained – Objectives met. Numbers of CLO and LG increased beyond 2019 benchmarks. Further surveys to assess extent of 2023 decline, relative to prior years in 2021 and 2022
	Flowering of LG and CLO does not always reach seed set In future confirm seed set Recruitment considered likely due to the spread of plants over 5 years of high-accuracy GPS location CG is present and represents a significant population for the central highlands. Numbers increased over 5-year period.	Significant increase in LG but not all appear to set seed; success of flowering seems to be related to desiccation from periods of lower rainfall and/or high temperatures or general evapotranspiration rates caused by the relationship between wind (intensity and duration), rainfall and temperature. LG with some wind protections were observed to perform better in drier periods – this is observational, without any supporting spatial data relative to vegetation height/exposure.	CLO and LG flowering regular annual event but do not always reach seed set Recruitment likely with increased extent
	SFS – LG and CLO increased in number and extent Objectives met	Numbers and spatial extent of LG increased Objective met	SFS – CLO and LG have increased in extent Objectives Met
B - Recommendations			
	Continue annual monitoring during peak flowering period of SFS (late Dec/early Jan) for further three years and possibly up to 5 years. Review results against 2019 status. Quadrat, transect, drone, annual meander flora survey and photo-points each year.	Continue annual meander surveys, drone imagery and photo-points (Dec-early Jan) Frequency of transect - detailed quadrat could be changed to each 3 years and perhaps 5 years – Next Jan 2026 or Jan 2027? – Review against 2019	Continue annual meander surveys, drone imagery and photo-points (Dec-early Jan) Frequency of transect - detailed quadrats could be changed to each 3 years and perhaps 5 years – Next Jan 2026 or Jan 2027? – Review against 2019
Additional monitoring	Additional monitoring for future consideration	Additional monitoring for future consideration	Additional monitoring for future consideration
Additional attributes to record during quadrat-based monitoring events for future consideration	(i) Reproductive status (ii) Vegetative status (iii) Assess seed set (Jan/Feb) general review, not detailed data	(i) Reproductive status (ii) Vegetative status (iii) Assess seed set (Jan/Feb) general review, not detailed data	(iv) Reproductive status (v) Vegetative status (vi) Assess seed set (Jan/Feb) general review, not detailed data
Herbivore monitoring	Use of wildlife cameras to assess herbivore composition and numbers (native versus feral) Installation of total herbivore exclusion cages to assess seed set of LG and CLO	Nil; to be reviewed post annual meander survey	Nil; to be reviewed post annual meander survey
Additional fauna or flora specific surveys	Additional fauna survey for Ptunarra brown butterfly (PBB) *(Oreixenica ptunarra)* with surveys targeted to optimal conditions, >18°C, sunny days, low winds and best between 10am and 3pm	Nil, consider any increase in areas of bare soil that occur in places within the Covenant, overall minor but prudent to assess whether any increase in extent	Nil proposed but analysis of next survey against data to date, to explain lower CLO in 2023, compared to 2021 and 2022.
Land Management			
Stock management	No change; apply NCP stipulations	No change; apply NCP stipulations	No change; apply NCP stipulations – confirm stocking rate
Fencing	Maintain fences in good order	Maintain fences in good order	Maintain existing fences in good order, install new fences if grazing regimes change (regimes are provided in the NCP)
Culling	Intensive culling of deer (and rabbits and possums – permits need to be sought for native animals and deer) pre flowering periods (Sept to Dec); best conducted with wildlife camera usage to monitor animal behaviour in the presence of a shooting program	None at this stage; to be reviewed after annual flora survey	None at this stage; to be reviewed after annual flora survey
Fire regime	Consider offseason grazing or small ecological burns	None proposed – maintain fire exclusion	None proposed – Review existing property fire regime