



## Biala Windfarm

Newtricity Developments Biala Pty Ltd

### Aboriginal Cultural Heritage Management Plan

25 March 2020

Project No.: 0422199

<b>Document details</b>	
Document title	Biala Windfarm
Document subtitle	Aboriginal Cultural Heritage Management Plan
Project No.	0422199
Date	25 March 2020
Version	8.0
Author	Katherine Deverson, Stephanie Moore, Joanne Woodhouse
Client Name	Newtricity Developments Biala Pty Ltd

#### Document history

Version	Revision	Author	Reviewed by	ERM approval to issue		Comments
				Name	Date	
Draft	00	K. Deverson	M. Errington	P. Douglass	13.02.2018	Draft for Client Review
Draft	01	K. Deverson	M. Errington	P. Douglass	08.05.2018	Revised per RAP comments
Final	02	K. Deverson	J. Woodhouse	P. Douglass	31.08.2018	Final
Final	03	K. Deverson	J. Woodhouse	P. Douglass	15.10.2018	Amended Final
Final	04	K. Deverson	J. Woodhouse	P. Douglass	2.11.2018	Final with additional survey areas
Final	05	K. Deverson	J. Woodhouse	M. Curtis	04.09.2019	Final with Salvage Annex
Final	06	S. Moore	J. Woodhouse	M. Curtis	19.12.2019	Final with additional survey Annex
Final	07	S. Moore	J. Woodhouse	M. Curtis	10.03.2020	Final in response to DPIE review
Final	08	S. Moore	J. Woodhouse	M. Curtis	25.03.2020	Final for submission

---

## Signature Page

25 March 2020

# Biala Windfarm

## Aboriginal Cultural Heritage Management Plan



---

Stephanie Moore  
Heritage Consultant



---

Joanne Woodhouse  
Principal Consultant



---

Murray Curtis  
Partner

Environmental Resources Management Australia Pty Ltd

Level 15, 309 Kent Street, Sydney NSW 2000

© Copyright 2020 by ERM Worldwide Group Ltd and/or its affiliates ("ERM").  
All rights reserved. No part of this work may be reproduced or transmitted in any form,  
or by any means, without the prior written permission of ERM.

## CONTENTS

<b>1.</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	Purpose and Scope .....	1
1.2	Conditions of Consent .....	1
1.3	Approved Project Components .....	5
1.4	Environmental Management Systems Overview .....	7
1.5	Approved Authors .....	7
<b>2.</b>	<b>OBJECTIVES AND PERFORMANCE TARGETS.....</b>	<b>8</b>
2.1	Objectives of the ACHMP .....	8
2.2	Performance Targets .....	8
<b>3.</b>	<b>CONSULTATION .....</b>	<b>9</b>
3.1	Department of Planning and Environment .....	9
3.2	Biodiversity Conservation Division .....	9
3.3	Aboriginal Stakeholders .....	13
3.3.1	Workshop .....	13
3.3.2	Draft ACHMP Review .....	13
3.3.3	Mitigation Measures Undertaken to date .....	14
3.4	Ongoing Aboriginal Consultation .....	15
<b>4.</b>	<b>KNOWN ARCHAEOLOGICAL RESOURCES .....</b>	<b>16</b>
4.1	Environmental Context and Landforms.....	16
4.2	Recorded Aboriginal Heritage Sites.....	16
<b>5.</b>	<b>ENVIRONMENTAL ASPECTS AND IMPACTS .....</b>	<b>28</b>
<b>6.</b>	<b>ARCHAEOLOGICAL TEST EXCAVATION AND SALVAGE PROGRAM .....</b>	<b>34</b>
6.1	Survey of Additional Impact Areas.....	35
6.2	Surface collection (Salvage) of Aboriginal Objects .....	35
6.2.1	Interpretative Context.....	35
6.2.2	Surface Collection.....	35
6.3	Test Excavation and Salvage .....	36
6.3.1	Interpretative Context.....	36
6.3.2	Test Excavation .....	36
6.3.3	Stone Artefact (Lithic) Analysis .....	37
6.3.4	Excavation Report.....	38
6.4	Archaeological Excavation.....	38
<b>7.</b>	<b>CULTURAL HERITAGE MANAGEMENT AND MITIGATION MEASURES.....</b>	<b>39</b>
7.1	Heritage Induction and Training .....	39
7.2	Unexpected Finds Procedure .....	39
7.3	Temporary Storage Location .....	48
<b>8.</b>	<b>COMPLIANCE MANAGEMENT .....</b>	<b>49</b>
8.1	Roles and Responsibilities.....	49
8.2	Monitoring and Inspection.....	49
8.3	Record Keeping and Auditing .....	51
8.4	Review and Continuous Improvement of ACHMP .....	51
<b>9.</b>	<b>REFERENCES .....</b>	<b>52</b>
D.1	Introduction .....	1
D.2	Consultation .....	1
D.3	Methodology .....	1
D.4	Known Archaeological Resources .....	1
D.5	Environmental Aspects and Impacts.....	6



E.1	Introduction .....	1
E.1.1	Limitations .....	1
E.1.2	Consultation .....	1
E.2	Methodology .....	1
E.2.1	Salvage Methodology .....	1
E.2.2	Fencing .....	2
E.2.3	Lithic Analysis .....	3
E.3	Salvage Results .....	5
E.3.1	Assemblage Qualification .....	5
E.3.2	Site Comparison .....	5
E.3.3	Raw Material Procurement and Use .....	6
E.3.4	Discussion .....	6
E.4	Long Term Management.....	7
E.5	Lithic Analysis Results .....	7
F.1	Introduction .....	1
F.1.1	Test Excavation .....	1
F.1.2	Met Mast Survey .....	1
F.2	Consultation .....	1
F.3	Methodology .....	2
F.3.1	Test Excavation .....	2
F.3.2	Survey.....	2
F.4	Results and Discussion.....	3
F.4.1	Test Excavation .....	3
F.4.2	Amended Alignment Survey .....	3
F.4.3	Met Mast Survey .....	3
F.4.4	Turbine T01 .....	3
F.5	Environmental Aspects and Impacts.....	7

<b>APPENDIX A</b>	<b>DPIE ENDORSEMENT LETTER</b>
<b>APPENDIX B</b>	<b>ONGOING CONSULTATION</b>
<b>APPENDIX C</b>	<b>STANDARD OPERATING PROCEDURE</b>
<b>APPENDIX D</b>	<b>ADDITIONAL SURVEY RESULTS</b>
<b>APPENDIX E</b>	<b>SALVAGE AND MITIGATION WORKS REPORT</b>
<b>APPENDIX F</b>	<b>TEST EXCAVATION AND ADDITIONAL SURVEY</b>

### List of Tables

Table 1.1	CoC Relating to Heritage during Construction.....	2
Table 1.2	SoC Relating to Heritage during Construction.....	4
Table 3.1	BCD Comments of the Draft ACHMP, March 2018 .....	9
Table 4.1	Aboriginal Heritage Sites Recorded within the Project Area (ERM 2016).....	18
Table 5.1	Summary of potential impact to Aboriginal Heritage Sites .....	29
Table 7.1	Management and Mitigation Measures.....	40
Table 8.1	Schedule for Monitoring, Reporting and Inspections .....	49

### List of Figures

Figure 1.1	Project Area Infrastructure Layout .....	6
Figure 6.1	Process for the Salvage and Excavation of Aboriginal Objects.....	34
Figure 7.1	Protocol for Discovery of Unknown Sites.....	46
Figure 7.2	Protocol for Discovery of Skeletal Remains.....	47

## Acronyms and Abbreviations

Name	Description
ACHMP	Aboriginal Cultural Heritage Management Plan
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit. As a State Significant Development (SSD), AHIPs are not required for impacts to Aboriginal heritage objects or places. Consent approval is obtained from DP&E through approval of this ACHMP. ASIR Forms are still applicable.
ASIR	The Aboriginal Site Impact Recording (ASIR) form must be completed after authorised impacts to AHIMS sites occur. Once completed, the form must be sent to the AHIMS Registrar. Authorised impacts include those undertaken for the purpose of complying with the Secretaries requirements issued by the Department of Planning and Environment for State Significant Development (SSD – Part 4) or State Significant Infrastructure (SSI – Part 5.1) under the Environmental Planning and Assessment Act 1979 (EP&A Act).
BBAMP	Bird and Bat Adaptive Management Plan
BCD	Biodiversity Conservation Division within the NSW Department of Planning, Industry and Environment
BJCE	Beijing Jingeng Clean Energy Company Limited
BMP	Biodiversity Management Plan
BNAC	Buru Ngunawal Aboriginal Corporation
CoC	Conditions of Consent
Developments Biala	Developments Biala Developments Biala Pty Ltd
DP&E	Department of Planning and Environment (former)
DPIE	NSW Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
EMS	Environmental Management Strategy
EP&A Act	Environmental Planning and Assessment Act 1979
ERM	Environmental Resources Management Australia Pty Ltd
Heritage item	An item as defined under the Heritage Act and/or an Aboriginal object or Aboriginal place as defined under the NP&W Act
High-density artefact concentration	The occurrence of stone artefacts at densities greater than 8 artefacts per 50 cm <sup>2</sup>
LALC	Local Aboriginal Land Council
Micro-siting	Minor relocation of the WTG in the field based on site specific requirements provided that the revised location would not result in any non-compliance with the CoC and is not located greater than 100 m from the approved location as shown in Appendix 2 of the CoC.
NP&W Act	National Parks and Wildlife Act 1974
OEH	Office of Environment and Heritage (former)
PA	Project Area
PAC	Planning Assessment Commission
PAD	Potential Archaeological Deposit
SoC	Statement of Commitments
SSD	'State significant development' (SSD) requires development consent from the Minister for Planning and Infrastructure, their delegate or the Planning Assessment Commission (PAC) under Division 4.1 of Part 4 of the Environmental Planning and Assessment Act 1979. Involves the preparation of an Environmental Impact Statement (EIS).
TMP	Traffic Management Plan
WTG	Wind turbine generators

## 1. INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) was engaged by Newtricity Developments Biala Pty Ltd (Developments Biala) to prepare an Aboriginal Cultural Heritage Management Plan (ACHMP) for the Biala Wind Farm Project. Developments Biala was acquired by a subsidiary of Beijing Jingneng Clean Energy Company Limited (BJCE) in September 2017. BJCE owns the Biala Wind Farm through its ownership of Developments Biala.

Developments Biala received planning approval for the Project by the NSW Planning and Assessment Commission (PAC), subject to Conditions of Consent (CoC), for the construction and operation of a wind farm and ancillary infrastructure in April 2017 (the Project). SSD6039 was modified in October 2018 to allow for the installation and operation of an additional wind monitoring mast (Mod 1) and again in January 2020 to allow for minor modifications to the internal electrical reticulation network (Mod 2).

The Project Area (PA) is located near the locality of Biala in the Southern Tablelands region of New South Wales (NSW). The Project is located approximately 14.5 km south-west of Crookwell and 8.5 km east of Biala and is wholly contained within the Upper Lachlan Local Government Area (LGA). The current proposed development involves an area of 1,936 hectares (ha). The development is situated along the western side of Grabben Gullen Road. Biala Wind Farm is a State Significant Development (SSD) that represents an important contribution to renewable energy generation in NSW.

The development consent for the wind farm does not include the infrastructure required to connect to the electricity network. A Development Application was submitted to Upper Lachlan Shire Council in November 2017 for an underground 33kV transmission line connection to the existing Gullen Range Wind and Solar Farm substation. Development consent DA 122/2017 was granted on 17 January 2019 by the Southern Regional Planning Panel.

The Environmental Impact Statement (EIS) (ERM 2015) and associated Aboriginal and Historic Cultural Heritage Assessment (ERM 2016) prepared by ERM for Developments Biala summarised the key findings of the heritage assessment and the potential impacts of the construction and operation of the Project on heritage.

### 1.1 Purpose and Scope

The ACHMP applies to the construction phase of the Project, excluding the transmission line which is subject to separate assessment.

The primary purpose of this ACHMP is to detail how potential impacts to Aboriginal heritage will be minimised and managed during construction of the wind farm. It presents a set of mitigation measures, monitoring procedures and protocols that:

- describe how the Project will manage and control potential risks associated with heritage during construction activities;
- address the requirements of applicable legislation;
- meet the CoC issued for the Project; and
- address the requirements of the Biala Wind Farm Environmental Impact Statement (EIS) (ERM 2015), including the Statement of Commitments (SoC).

### 1.2 Conditions of Consent

The CoC include a number of conditions relating to heritage as presented in *Table 1.1*.

**Table 1.1 CoC Relating to Heritage during Construction**

CoC	Condition (Schedule 3 Environmental Conditions)	This ACHMP
22	The Applicant must: a) ensure the development does not cause any direct or indirect impact on the Aboriginal heritage sites identified in the table in Appendix 6*, unless the Secretary agrees otherwise; and	Whole ACHMP. Avoidance is the preferred option for all sites. Only those sites that cannot be avoided will be subject to test excavations and /or salvage in accordance with this ACHMP (to be reviewed and endorsed by DPIE).
	b) minimise any impacts on BWF PAD1, and carry out detailed test excavations and salvage of potential archaeological deposits at this site if impacts cannot be avoided.	Sections 6.2 & 6.3
23	Prior to the commencement of construction, the Applicant must prepare a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must: a) be prepared by a suitably qualified and experienced person whose appointment has been endorsed by the Secretary;	Whole ACHMP
	b) be prepared in consultation with OEH (now BCD) and Aboriginal stakeholders;	Section 3
	c) include updated baseline mapping of the heritage items within and adjoining the development disturbance area;	Section 4.2
	d) include a description of the measures that would be implemented for: ▪ protecting Aboriginal heritage sites outside the development disturbance area;	Table 7.1
	▪ minimising and managing the impacts of the development on heritage items within the disturbance footprint, including: ○ test excavations and salvage (if required) of potential archaeological deposits that will be impacted by the development (including heritage item BWF PAD 1); ○ salvage of heritage items BWF 8 and BWF 18; and ○ a strategy for the long term management of any Aboriginal heritage items or material collected during the test excavation or salvage works;	Sections 6 & 7 Avoidance is the preferred option for all sites. Only those sites that cannot be avoided will be subject to test excavations and /or salvage as outlined in Table 7.1. Based on the preliminary project design presented in Figure 1.1, impacts to BWF 8 and BWF 18 can now be avoided and salvage is not required.

CoC	Condition (Schedule 3 Environmental Conditions)	This ACHMP
	<ul style="list-style-type: none"> <li>▪ a contingency plan and reporting procedure if: <ul style="list-style-type: none"> <li>○ Aboriginal heritage items outside the approved disturbance area are damaged;</li> <li>○ previously unidentified Aboriginal heritage sites are found; or</li> <li>○ Aboriginal skeletal material is discovered;</li> </ul> </li> </ul>	Section 7.2
	<ul style="list-style-type: none"> <li>▪ ensuring workers on site receive suitable heritage inductions prior to carrying out any development on site, and that records are kept of these inductions; and</li> </ul>	Section 7.1
	<ul style="list-style-type: none"> <li>▪ ongoing consultation with Aboriginal stakeholders during the implementation of the plan; and</li> </ul>	Section 3.4
	e) a program to monitor and report on the effectiveness of these measures and any heritage impacts of the project.	Section 8

\* Note: The locations of the Aboriginal heritage items referred to are included in Appendix 6 of the CoC (as modified by SSD 6039 MOD2 dated 9 January 2019) and include BWF1, BWF2, BWF3, BWF4, BWF5, BWF6, BWF7, BWF9, BWF10, BWF11, BWF12, BWF13, BWF14, BWF15, BWF16, BWF17, BWF19, BWF20, BWF21, BWF25 and BWF26.

A SoC as extracted from the EIS is provided with proposed measures for environmental mitigation, management and monitoring for the Project. Commitments relevant to heritage management during construction are listed in *Table 1.2*.



**Table 1.2 SoC Relating to Heritage during Construction**

Aspect	Commitment	This ACHMP
Training to Avoid Potential Disturbance	Personnel involved with ground disturbance activities in the PA will undertake an Aboriginal and historic heritage awareness training/induction program in order to avoid potential disturbance to Aboriginal and historic heritage objects or places during construction and operation.	Section 7.1
Previously Known Locations	During works, the location of all previously recorded Aboriginal and historic heritage sites will be clearly marked on all construction plans for the PA and site foreman informed of their presence and the need to avoid disturbance.	Sections 4 & 7
Chance Finds	If suspected Aboriginal heritage objects are found during works the Chance Find Procedures outlined in the CHA will be followed.	Section 7.2
PAD Excavations	The PAD areas within the PA that have been identified as having moderate or high potential to reveal Aboriginal cultural heritage and may be subjected to impacts (BWF2, BWF13, BWF19, BWF21, and BWF PAD1), will undergo a sub-surface testing program in accordance with the AHCHA where disturbance to these areas cannot be avoided. The sub-surface testing program will be undertaken as part of the detailed design phase of the Project during which locations of Project infrastructure components and ground disturbing activities will be confirmed, and prior to ground disturbing elements of the proposed wind farm development commencing. If the sub-surface testing program identifies significant archaeological deposits these may be subject to a salvage excavation or avoided through detailed design.	Section 6.3 Only those sites that cannot be avoided will be subject to test excavation as outlined in Table 7.1
ACHMP	An Aboriginal Cultural Heritage Management Plan (ACHMP) will be prepared and implemented to manage sub-surface testing activities and the Aboriginal heritage values within the PA. The ACHMP will include strategies to manage any Aboriginal heritage sites identified during future survey work or significant deposits found during sub-surface testing.	Whole ACHMP
Survey of Impact Areas	During detailed design and prior to the commencement of construction, any additional impact areas not previously surveyed will be surveyed by a qualified archaeologist and RAPs. Any new Aboriginal heritage sites identified within proposed impact areas as part of these surveys may be avoided as part of detailed design, fenced off and protected, or subjected to a sub-surface testing program and salvaged (if required). Detailed strategies for protection of Aboriginal heritage values identified in future survey work will be provided in the ACHMP.	Section 6.1
Avoidance of Disturbance	Where impact to sites cannot be avoided, surface collection/ salvage by Aboriginal stakeholder groups and an appropriately qualified archaeologist should be undertaken prior to the commencement of works. No archaeological constraints exist for areas that have been surveyed and identified as having no heritage sites or PADs. No ground disturbing components in the location of Aboriginal heritage sites or areas of PAD will take place until the sub-surface archaeological investigations outlined in this report have been undertaken and reported on.	Section 5
Relocation Areas	Where possible, and in consultation with Aboriginal stakeholders, conservation areas will be established for relocation of disturbed artefacts. An interpretive strategy will also be established that describes what the area is and the past use of the landscape by Aboriginal people.	Section 7.3

### 1.3 Approved Project Components

The Project consists of the following components:

- 31 Wind Turbine Generator (WTGs) with a maximum tip height of 185 m above ground level and hardstand areas for use as crane pads and assembly areas;
- central electrical substation / switchyard building including transformers, switchgear, insulators and other ancillary equipment;
- a permanent operations and maintenance building;
- up to three meteorological monitoring masts;
- underground 33 kV electrical reticulation and fibre optic cabling connecting the WTGs to the onsite substation; and
- an internal private access road network (up to a combined total length of approximately 27 km) connecting the WTGs and other proposed infrastructure to the public road network.

The following elements would also be required during construction of the Project:

- temporary concrete batching plant;
- earthworks (i.e. digging, stripping, grading and landform shaping) for access roads, WTG platforms and foundations;
- external water supply for concrete batching and construction activities;
- cleared hardstand areas for construction equipment and storage (construction laydown areas);
- temporary site offices, storage and car parking facilities; and
- the use and storage of hazardous substances within designated site facilities.

Since Project approval, the Project layout has been updated to optimise the wind resource. Micro-siting of the WTGs has been undertaken in accordance with CoC Schedule 2, Condition 7. *Figure 1.1* details the 'best-case' infrastructure layout of the Project as of 13 December 2019.

The detailed design of the above infrastructure and final layout plans (the final design) would be determined via onsite visits by Developments Biala and contractors. The final design would be prepared according to the environmental management measures detailed within this ACHMP. The final design will be submitted to DPIE.





Legend

Project Area

Met Mast

Proposed Turbine

Infrastructure Layout

Transmission Line

Cables

Source:

Turbines and Access tracks: Client Provided 2020.

Imagery - Fugro Spatial Solutions Newtricity Biala

Orthorectified Satellite Imagery captured 2 April 2014

DLPI - DCDB and DTDB, Oct 2014.

Project Area

F1.1

Drawing No: 0422199s\_BWF\_BaseMap\_G004\_R0.mxd

Date: 10/03/2020

Drawn By: VN / GR

Coordinate System: GDA 1994 MGA Zone 55

Biala Wind Farm

Drawing Size: A3

Reviewed By: KD

0 250 500m

Client: Newtricity Developments Biala

This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.

ERM



## 1.4 Environmental Management Systems Overview

This ACHMP forms a part of the environmental management framework for the Project which includes a number of Management Plans governed by the Environmental Management Strategy (EMS), and required under Schedule 3 of the CoC. These sub-plans also include a Bird and Bat Adaptive Management Plan (BBAMP), Biodiversity Management Plan (BMP) and Traffic Management Plan (TMP).

The Project Management structure and specific roles and responsibilities of personnel working within the PA during the construction and operation stages are further detailed in the EMS.

## 1.5 Approved Authors

In accordance with the requirements of CoC Schedule 3, Condition 23(a), this ACHMP has been prepared by suitably qualified and experienced persons whose appointment was endorsed by the Secretary of the NSW Department of Planning and Environment (DP&E). A copy of the endorsement letter is provided in *Annex A*.

## 2. OBJECTIVES AND PERFORMANCE TARGETS

### 2.1 Objectives of the ACHMP

**Objectives** for heritage management of the construction works include:

- identify relevant obligations and legislative requirements to be addressed during the construction phase of the Project;
- describe the specific construction heritage requirements and identify the best practice methods to be implemented;
- retain an area that preserves archaeological material in its natural context and provides an example of the type of environment occupied by Aboriginal people in the region;
- detail a program for the recording, salvage and surface collection of Sites that may not be avoided. Based on preliminary Project design, of the 27 Site records, only five Sites - BWF1, BWF11, BWF22, BWF23 and BWF24 will be impacted and as such have been subject to surface collection;
- detail a program for the recording and sub-surface testing of Sites recorded as having the potential to contain subsurface deposits that cannot be avoided. Based on preliminary Project design, a program of subsurface testing has been undertaken for BWF19;
- describe the measures that would be implemented if any unexpected finds or Aboriginal skeletal remains are discovered during the Project;
- describe the protocol for ongoing consultation and involvement of the Aboriginal community in the conservation and management of the Aboriginal heritage objects/sites;
- outline record keeping and management plan monitoring requirements; and
- define key roles and responsibilities.

### 2.2 Performance Targets

**Targets** for heritage management issues associated with the construction of the Project are:

- full compliance with the CoC and relevant legislation, regulations, and licenses that relate to the Project;
- consistency with standard industry environmental management practices implemented for construction to protect known heritage sites and manage chance finds;
- follow correct procedure and ensure notification of any Aboriginal heritage objects or sites discovered during ground disturbance activities; and
- ensure training on Aboriginal cultural heritage management is provided to relevant personnel.

### 3. CONSULTATION

Key aspects of correspondence and guidance sought by Developments Biala from relevant stakeholders during the preparation of this ACHMP are summarised below.

#### 3.1 Department of Planning and Environment

Correspondence between DPIE and Developments Biala relevant to the preparation of this ACHMP has included the following key points:

- the detailed design would be determined via onsite visits by Developments Biala and its contractors, including the final layout of turbine locations and all ancillary infrastructure including electricity transmission lines, internal roads, crane hardstands and permanent office compounds;
- the preparation of the ACHMP for the Project Area has been guided by the micro-siting restrictions (Conditions 3 and 4) and use of the 'best-case' WTG micro-siting layout and updated layouts of access tracks; and
- if the engineering and construction contractors determine that the final design is unfeasible e.g. crane hardstands are on too steep ground, then the adjustment of infrastructure would be undertaken according to the ACHMP to avoid impacts to heritage within the Project Area.

#### 3.2 Biodiversity Conservation Division

In accordance with the requirements of CoC Schedule 3, Condition 23(b), the Biodiversity Conservation Division (BCD) (formerly the NSW Office of Environment and Heritage (OEH)) were consulted about this ACHMP. An initial meeting was undertaken on the 17 January 2018 attended by both ERM and the BCD (Queanbeyan Branch). Employees of BCD in attendance included members of the planning and approval department and designated heritage experts.

A draft copy of the ACHMP was submitted to the Secretary of the DPIE for referral to BCD on 16 February 2018. BCD provided formal comments and suggested amendments to the draft management plan on 16 March 2018. A copy of all correspondence has been provided in *Annex B* and has been taken into consideration during the preparation of this management plan. *Table 3.1* below identifies how each of the BCD comments have been addressed within the management plan.

**Table 3.1 BCD Comments of the Draft ACHMP, March 2018**

Reference	BCD Comment	Addressed
General	There is not enough clarity on how recorded Aboriginal sites and any new sites that may be recorded will be protected. Stronger less ambiguous commitments need to be provided.	Refer to Table 7.1. Prior to construction activities, all known heritage sites within 150m from any proposed infrastructure or construction activity will be fenced (plus minimum 10 m buffer area) to protect them against accidental damage. This area will be fenced off for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. At the completion of construction exclusion zone fencing will be removed.



Reference	BCD Comment	Addressed
General	The access road between turbine TO 3 and TO 6 does not appear to have been archaeologically surveyed. The implications of any design changes on the Aboriginal cultural heritage assessment need to be clarified before the HMP is finalised.	Refer to Section 6.1. During detailed design and prior to the commencement of construction, any additional impact areas, such as the relocation of the WTG and/or ancillary infrastructure and access roads, will be surveyed by a qualified archaeologist and registered Aboriginal stakeholders. Any new Aboriginal heritage sites identified within proposed impact areas as part of these surveys will be managed in accordance with the requirements of this ACHMP and the results provided as an addendum to the ACHMP.
Abbreviations and Definitions	The definition of micro-siting should be included in the list of abbreviations and definitions in the HMP.	Micro-siting definition added to list of abbreviations and definitions.
	The HMP should include appropriate provisions for instances where micro-siting changes the impacts to Aboriginal heritage sites. For example, if the construction footprint changes in the future it may be necessary to revise the Aboriginal heritage impacts assessment, and subsequently, revise this HMP.	Refer to Section 1.3. In the unlikely event that design changes have the potential to increase impacts to Aboriginal heritage values (above those already approved) the Aboriginal heritage impact assessment and this ACHMP may need to be revised and updated as directed by DPIE.
Section 2.1	The CoC states that harm to sites BWF1, BWF13 and BWF19 will be avoided (Appendix 6 to the CoC). However, Section 2.1 (page 9) refers to archaeological mitigations required to address impacts at these sites.	If impacts to BWF1, BWF13 or BWF19 cannot be avoided through micro-siting of tracks and/or ancillary infrastructure, then DPIE will be notified in accordance with condition 3-22. Prior to any impact in these areas a program of subsurface testing, or surface collection would be undertaken.
Section 3.3	We understand that Peter Falk consultancy is no longer participating in cultural heritage works.	Noted and list of RAPs amended.
Section 3.3.1	The Aboriginal stakeholder consultation workshop was conducted on Friday 15 December 2017. The ACHMP states that the outcomes of the workshops are provided at Annex B and were used to develop the HMP. However, the results of this workshop have not been included in Annex B. There is no information in the ACHMP about the specific consultation outcomes. There are no responses from the Aboriginal stakeholders in this document.	Consultation log and outcomes from the workshop have been included at Annex B. A copy of the Workshop minutes were sent to the RAPs for comment on 27 April 2018. All responses received have been included in Annex B.
Figure 6.1	The figure description is incorrect; this figure is not the Methodology for Salvage and Excavation of Aboriginal Objects. It describes a process, not a methodology.	"Methodology" replaced with "Process".

Reference	BCD Comment	Addressed
Section 6.2.1	Only one research question has been included in the ACHMP in relation to surface collection. It would be beneficial to have some research questions included that explore aspects of Aboriginal occupation in the area. Research provides one means of mitigation against the loss of Aboriginal heritage through this project.	Additional research questions identified in Section 6.2.1. Further research questions are also addressed in Section 6.3.3.
Section 6.2.2	Clarify if surface collection is required at a site identified as potential archaeological deposit. The site type indicates sub-surface archaeological deposit, rather than surface artefacts that could be collected.  Additional detail on surface collection methodology is required. We suggest that the surface collection methodology may need to include: Flag artefacts before collection; Individually record GPS co-ordinates for the artefacts; Produce a sketch map of the distribution; Take photographs of the site area and artefact distribution; and Individually bag and tag artefacts.	Refer to Section 6.2.2 Methodology has been updated to include: <ul style="list-style-type: none"> <li>Flagging of artefacts prior to collection;</li> <li>Taking photographs of site area and artefact distribution prior to and after surface collection;</li> <li>Recording artefact positioning with GPS co-ordinates; and</li> <li>Collected artefacts will be bagged and labelled individually.</li> </ul> Note: Photography will provide context of area and a sketch of distribution would be at the discretion of the field archaeologist based on site conditions.
Section 6.3	Typographical error: please refer to Section 6.3.2 not Section 6.3 for information in relation to further finer resolution excavation.	Amended
Section 6.3.2	Typographical error: fix repetition ' <i>...and to confirm the boundaries of boundaries of known sites.</i> '	Amended
Section 6.3.2	The term study area is used in this section. We suggest consistent terminology used in the HMP. The term 'Project Area (PA)' is used throughout the remainder of the document. We suggest 'Project Area' is used at 6.3.2 (p.39) for consistency.	All instances of "study area" have been replaced with "PA".
Section 6.3.2	Additional information is required to determine what will be considered a high-density artefact concentration.	High-density artefact concentration defined as 'stone artefacts at densities greater than 8 artefacts per 50cm <sup>2</sup> '.
Section 6.3.2	Suggest the HMP explain whether soil samples will be taken and at what frequency (e.g. each spit, or each test pit).	Soil samples are not required as part of this ACHMP. Refer to Section 6.3.2
Section 6.3.2	Suggest the HMP explain how the artefacts will be recorded and stored e.g. individually bagged and tagged.	Refer to Section 6.3.2 Artefacts to be removed from site for further analysis will be individually bagged in snap-lock sample bags and labelled.
Section 6.3.3	We note that the stone artefact analysis will also address the research questions in Section 6.2.1.	Noted. Refer to Section 6.3.3
Section 6.3.3	This section includes research questions that are not detailed in Section 6.3.1. The research questions should be consistent throughout the HMP.	Research questions outlined in Section 6.3.1 are related to the cultural deposit itself, e.g. nature, age, and integrity. The research questions outlined in Section 6.3.3 relate specifically to the archaeological material recovered from the excavation to provide complimentary information.

Reference	BCD Comment	Addressed
Section 6.4	Further information is required to explain whether it is appropriate that archaeological deposits of higher research potential are excavated in 10 cm spits.	Refer to Section 6.4 Requirement 16a, Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW 2010).
Section 7.1	We suggest that the Aboriginal Heritage Induction and Training also include: Specific Project Area Information Possible Site Types Landform Aboriginal Significance of Project Area Archaeological Significance of Project Area Protocol for discovery of skeletal remains	Noted and amended as suggested. Refer to Section 7.1 and Table 7.1
Section 7.2	Typographical error: Dot point four should read registered Aboriginal parties not local Aboriginal stakeholder groups.	Amended
Section 7.2	Discovery of human skeletal material. Please refer to Requirement 25 – Aboriginal Ancestral Remains of the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales for the appropriate steps to take when human or suspected human remains are identified and update your procedure. Please ensure the HMP clearly states that the remains are not to be further disturbed or moved. The State Coroner does not need to be notified. If required that will be undertaken by NSW Police. Please include a number for BCD Environment Line 131 555. BCD must be contacted immediately if the human remains are likely to be Aboriginal Ancestral remains. The HMP should clearly state that work should not recommence at the particular location unless authorised in writing by BCD.	Refer to Figure 7.2
Section 7.2	Section 7.2 is inconsistent with Figure 7.2. We suggest that Figure 7.2 is revised, rather than repeating the information in both sections.	Refer to Figure 7.2
Section 7.3	Keeping Place is not an appropriate title for this section. Temporary Storage Location may be a more appropriate heading.	“Keeping Place” replaced with “Temporary Storage Location”.
Table 8.1	Information about when the sites need to be fenced needs to be included. This should be well before ground disturbance work commences.	Table 8.1 updated. Prior to and for the duration of the construction activities, all known heritage sites within 150m from any proposed infrastructure or construction activity will be fenced (plus minimum 10 m buffer area) to protect them against accidental damage.
Table 8.1	This table could be more useful if additional detail was included so that the table forms a “one stop” schedule for monitoring, reporting and inspections.	Table 8.1 updated.

### 3.3 Aboriginal Stakeholders

In accordance with the requirements of CoC Schedule 3, Condition 23(b), the ACHMP is required to be developed in consultation with Aboriginal stakeholders defined in the CoC as '*Aboriginal stakeholders registered for cultural heritage consultation for the development*'.

Consultation commenced in 2013 at the Project planning stage and will extend beyond the development of the ACHMP throughout Project construction as required. As detailed in the Aboriginal and Historic Cultural Heritage Assessment (ERM 2016), consultation was undertaken in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010) and resulted in the establishment of a stakeholder register. The six registered Aboriginal stakeholders for this Project include representatives from:

- Peter Falk Consultancy<sup>1</sup>;
- Pejar Local Aboriginal Land Council (LALC);
- Buru Ngunawal Aboriginal Corporation (BNAC);
- Gulgunya Ngunawal Heritage Aboriginal Consultancy (formerly Koomurri Ngunawal Aboriginal Corporation);
- Gundungurra Tribal Council Aboriginal Corporation; and
- Thunderstone Aboriginal Cultural and Land Management Services.

#### 3.3.1 Workshop

Registered Aboriginal stakeholders were invited to attend a half day workshop on Friday 15 December 2017 at the Upper Lachlan Shire Council Chambers in Gunning. Two groups, the BNAC and Gulgunya Ngunawal Aboriginal Corporation, attended the workshop, whilst Pejar LALC met with ERM after the workshop on the same day. Thunderstone Aboriginal Cultural and Land Management Services met with ERM on the following Monday 18 December 2017. During these meetings, the impacts to each cultural heritage site were discussed, as well as appropriate mitigation measures and ongoing management strategies. A copy of all correspondence and the workshop results has been provided in *Annex B* and has been taken into consideration during the preparation of this management plan.

#### 3.3.2 Draft ACHMP Review

The draft ACHMP was forwarded on 9 May 2018 to these registered Aboriginal stakeholders with a request for comment on any information on culturally sensitive areas of local traditional knowledge relating to the site.

Feedback was received from four of the RAPs, including:

- Pejar LALC;
- BNAC;
- Gulgunya Ngunawal Heritage Aboriginal Consultancy (formerly Koomurri Ngunawal Aboriginal Corporation); and
- Thunderstone Aboriginal Cultural and Land Management Services.

Pejar LALC endorsed the draft ACHMP without providing any further comments or feedback. BNAC, Gulgunya Ngunawal Heritage Aboriginal Consultancy and Thunderstone Aboriginal Cultural and Land Management Services all endorsed the draft ACHMP provided that their comments were addressed.

---

<sup>1</sup> PETER FALK CONSULTANCY IS NO LONGER ACTIVELY PARTICIPAING IN THIS PROJECT. Correspondence from OEI (now BCD) dated 16 March 2018 has confirmed that he is no longer participating in cultural heritage works.

These comments are detailed in *Annex B* and have been addressed throughout the ACHMP. Two main comments were received from these groups:

- For cultural awareness training, further consultation and notification in instances such as chance finds during project works all relevant RAPs should be contacted (not solely the LALC); and
- Buffer zones around previously identified cultural heritage sites (to be designated and fenced prior to commencement of project works) should be increased from 5 m to 10 m.

BNAC also provided the following comments:

*Cultural awareness inductions are imperative, as most work personnel really have no concept or idea what Aboriginal culture is and the importance of connection to country both from a physical and spiritual sense.*

*BNACC agrees with the overall content and direction of the ACHMP and would like to see that a strong focus is maintained on this. Although the scientific emphasis states the cultural heritage evident for this project is of a low to moderate significance, we as the traditional custodians would like to point out that all sites, objects and lands within our tribal boundary do hold and maintain a very high significant spiritual and cultural importance to us as a direct cultural heritage link to Country.*

### 3.3.3 Mitigation Measures Undertaken to date

The following mitigation measures have been undertaken in accordance with the requirements of this ACHMP. All works have been undertaken in consultation with the registered Aboriginal stakeholders:

#### October 2018 - Additional Impact Areas

In October 2018, several areas not previously surveyed were identified and required archaeological survey in accordance with the requirements of this ACHMP. ERM conducted these surveys, accompanied by Registered Aboriginal Parties (RAPs), between Thursday 11 and Wednesday 17 October 2018.

Four RAPs for this project were invited to attend the additional surveys, all groups accepted the invitation and participated in the surveys. These groups were:

- Pejar Local Aboriginal Land Council (LALC);
- Buru Ngunawal Aboriginal Corporation (BNAC);
- Gulgunya Ngunawal Heritage Aboriginal Consultancy (formerly Koomurri Ngunawal Aboriginal Corporation); and
- Thunderstone Aboriginal Cultural and Land Management Services.

Detailed methodologies and results are presented in Appendix D and the CHMP was updated in November 2018 to include the results of these additional surveys.

#### July 2019 - Fencing and Surface Collection

Between 1 July and 4 July 2019, the following salvage and mitigation works were undertaken by ERM Archaeologist, Katherine Deverson and the project RAPs at Biala Wind Farm (the PA) in accordance with this CHMP:

- fifteen (15) heritage sites that are located within 150 m from proposed infrastructure and/or construction activity were fenced (plus a minimum 10 m buffer area) to protect them against accidental damage; and
- surface collection of artefacts was also undertaken at five of the recorded heritage sites that cannot be avoided through micro-siting of WTG and/or revised access track design.

Three RAPs for this project were invited to attend the salvage and mitigation works, all groups accepted the invitation and participated in the works. These groups were:

- Pejar Local Aboriginal Land Council (LALC);
- Buru Ngunawal Aboriginal Corporation (BNAC); and
- Thunderstone Aboriginal Cultural and Land Management Services.

In accordance with CoC 3-22, BJCE also notified the DPIE on Friday 17 May 2019 (via email correspondence), identifying mitigation measures to be implemented including the proposed salvage of BWF1.

Detailed methodologies and results are presented in Appendix E and the ACHMP was updated in September 2019 to include the results of fencing and salvage.

#### November 2019 - Test Excavation Works at BWF19

ERM attended site from Monday 11 to Wednesday 13 November 2019 to complete test excavation and additional survey, in consultation with the RAPs. Test Excavation at BWF19 was undertaken along the proposed road alignment, in accordance with the methodology provided in the ACHMP. Survey along the previously unassessed portion of the alignment, and at the location of the proposed Met Mast and cable connection was also undertaken in accordance with the methodology provided in the ACHMP.

All RAPs for this project were notified of ERM's intention to complete survey and test excavation at the required locations. Three RAP groups were invited to attend the additional surveys and test excavation; however BNAC was unable to attend due to prior commitments. The two groups that accepted the invitation and participated in the surveys were:

- Pejar Local Aboriginal Land Council (LALC); and
- Thunderstone Aboriginal Cultural and Land Management Services.

In accordance with CoC 3-22, BJCE also notified the DPIE on 6 November 2019 (via email correspondence), identifying the upcoming proposed test excavations at BWF19.

Detailed methodologies and results are presented in Appendix F and the CHMP has been updated to include the results of the test excavations and additional survey.

### **3.4 Ongoing Aboriginal Consultation**

Developments Biala are committed to the continuing Aboriginal involvement in the Biala Wind Farm Project. Ongoing consultation with the Aboriginal community and registered Aboriginal stakeholders for the Project will occur during the construction of the Project. The triggers for consultation with the community during construction include:

- Any additional heritage assessments for changes in Project scope;
- The implementation of the Unexpected Finds Procedure; and
- Endorsement of the heritage information to be contained in the Project induction material.

Following approval, this ACHMP (and any updated versions) are to be provided to all stakeholders for their records.



## 4. KNOWN ARCHAEOLOGICAL RESOURCES

Interactions between people and their surroundings are of integral importance in both the initial formation and the subsequent preservation of the archaeological record. The nature and availability of resources including water, flora and fauna and suitable raw materials for the manufacture of stone tools and other items had (and continues to have) a significant influence over the way in which people utilise the landscape. Alterations to the natural environment also impact upon the preservation and integrity of any cultural materials that may have been deposited whilst current vegetation and erosional regimes affect the visibility and detectability of sites and relics. For these reasons, it is essential to consider the environmental context of the PA as a component of the heritage management process.

### 4.1 Environmental Context and Landforms

The PA is located within the South Eastern Highlands bioregion, which is characterised by Palaeozoic granites, metamorphosed sedimentary rocks and Tertiary basalts. The underlying geologies of the PA would have provided various lithic resources that would have been suitable for hunter gatherer groups to manufacture stone tools. The formations underlying the PA include lithic materials such as quartz, mudstone and chert, all of which are known resources for stone tool manufacture.

The location of the PA is within a wider region of rolling hills dissected by valley depressions. Within this setting, the Lachlan River and associated landscapes would have been a primary focus for Aboriginal subsistence activities. Several permanent and ephemeral tributaries of the Lachlan River cut through the PA and run adjacent to raised crests, ridge lines and associated hill slopes.

Soil deposits within PA's valley depressions, flats and basal slopes – especially those adjacent to creek lines – would have provided a primary focus for past Aboriginal subsistence activities. A further focus would have been elevated crests and ridges affording views of the surrounding landscape, and areas of localised provisions such as stone resources and shelter from the wind.

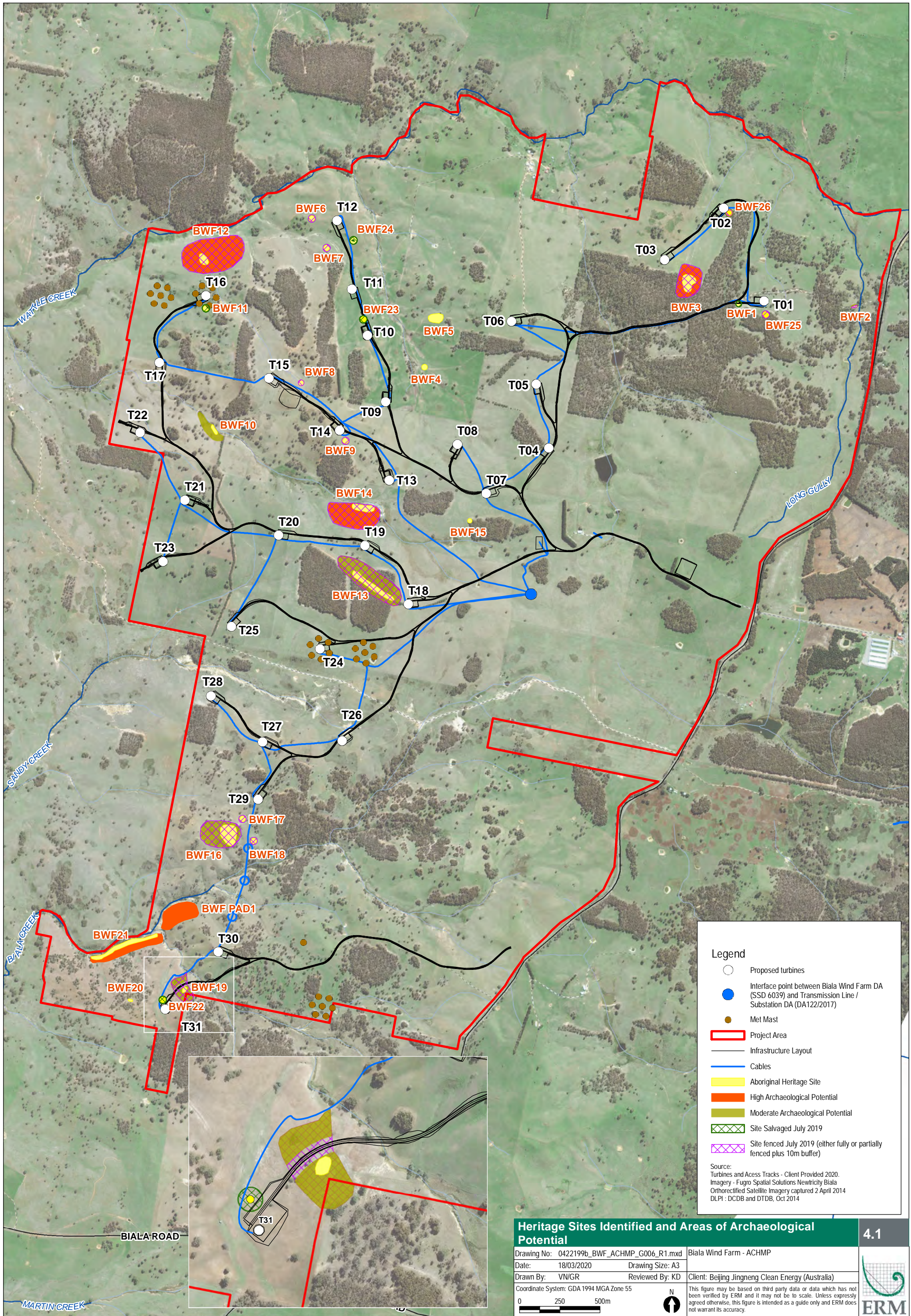
### 4.2 Recorded Aboriginal Heritage Sites

Twenty-one Aboriginal heritage sites and one Potential Archaeological Deposit (PAD) site were recorded during the field survey and reported by ERM (2016). These sites mostly comprised of stone artefacts including isolated finds or stone artefact scatters. One scarred tree was also identified. The sites have been assigned scientific significance in terms of rarity, representativeness, archaeological landscape, connectedness, integrity and condition, complexity, and archaeological sensitivity.

An additional five previously unidentified Aboriginal heritage sites were also recorded during the October 2018 field survey (BWF22, BWF23, BWF24, BWF25 and BWF26). One site that had been identified during previous surveys (BWF19) was found to cover a larger area than previously identified.



The majority of sites identified within the PA are common site types at a local and regional level, with the exception of BWF17 and BWF21. Stone artefact sites are the main site type represented in the region and those located within the PA have not demonstrated a significantly greater diversity or complexity in comparison to other known sites within the region. Refer to *Table 4.1* below for updated site descriptions and *Figure 4.1* for site locations.



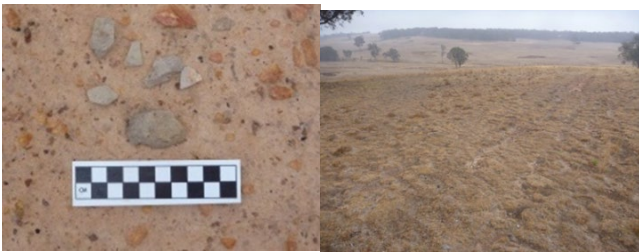

















**Table 4.1 Aboriginal Heritage Sites Recorded within the Project Area (ERM 2016)**

Site ID	Site Description	Images	Archaeological Significance*
BWF1	<p>BWF1 is an isolated artefact comprising a quartz flake with five flake scars on its dorsal surface. The flake measures 3 cm x 2.2 cm x 0.8 cm. It was located on a vehicle access track within an area of soil erosion. The exposure and surrounding area was checked for additional artefacts, though no more were identified. The soils observed at this site consisted of a deep fine light grey to yellow loam. The site is located approximately 150 m from an ephemeral water course. The site is located within a gently sloping landform set in a wider landscape context of rolling hills. The site is considered to have a low potential for further archaeological deposits due to the low number of artefacts found with a corresponding high ground surface visibility, as well as its landscape setting.</p> <p>Potential for subsurface deposit: No Co-ordinates: U55 717640 , 6171783</p>		Low
BWF2	<p>BWF2 is an artefact scatter (7 artefacts) located in a slight rise adjacent to an unsealed road. Two quartz cores were found as well as quartz and silcrete flakes. The site is situated adjacent to an ephemeral creek and is located within a slight rise overlooking this creek and the nearby surrounding landscape. This slightly raised landform is relatively flat and sheltered by surrounding elevated landscapes and represents an excellent place to sit and utilise the nearby resources (water, wildlife, vegetation). Observed soils at this location is a fine orange-yellow silty loam. Due to the artefact density, landform, soil profile and proximity to resources, it is considered that this site has a moderate potential to contain further subsurface archaeological deposits.</p> <p>Potential for subsurface deposit: Yes Co-ordinates:U55 718370, 6171769</p>		Moderate



Site ID	Site Description	Images	Archaeological Significance*
BWF3	<p>BWF3 is a moderate density and spatially large stone artefact scatter. The site was found within a cleared paddock and continued along an eroded vehicle track.</p> <p>The site consists of approximately six stone artefacts per square meter which comprise a wide range of material type and colour including a light grey silcrete, quartz, purple quartzite and brown quartzite. Various artefacts were found including quartz, quartzite and silcrete flakes and a silcrete blade. The site was located within a slightly raised plateau with views of the surrounding landscape. Artefacts were identified in areas where visibility was high due to soil erosion and minimal grass growth. Observed soils at this location were a very fine silty loam with some sandy deposits varying from a light grey to an orange colour. Land clearance has occurred at this location, and it is likely that ploughing has also occurred, disturbing the upper soil horizon. However, it is considered that there is a high potential for further subsurface archaeological deposits due to the landform, soils and high density of artefacts found at this site.</p> <p>Potential for subsurface deposit: Yes (refer to <i>Figure 4.1</i>)</p> <p>Co-ordinates: U55 717330, 6171922</p>		Moderate
BWF4	<p>BWF4 is a low density stone artefact scatter (n=2) consisting of a quartz flake measuring 1.8 cm x 1.6 cm x 0.6 cm and a broken hammerstone measuring 10.7 cm x 2.8 cm x 6.8 cm. The site was found within a cleared paddock. The site was located within a flat to gently sloping terrain within a wider landscape of rolling hills. It is situated approximately 100 m east of a first order tributary of Wattle Creek. There was some ground surface visibility within the area due to recent ploughing. Observed soils at this location were a fine silty orange/yellow loam. Land clearance has occurred at this location, and it is likely that ploughing has also occurred, disturbing the upper soil horizon.</p> <p>Potential for subsurface deposit: No</p> <p>Co-ordinates: U55 715691, 6171384</p>		Low
BWF5	<p>BWF5 is a stone artefact scatter containing six silcrete flakes. The site was found within a raised flat to gently sloping terrain within a wider landscape of rolling hills. The area affords some visibility of the surrounding landscape. The site is situated approximately 200 m east of a first order tributary of Wattle Creek. There was some ground surface visibility under trees and on vehicle tracks, and grass was relatively sparse which also afforded some visibility. Observed soils in the area were a fine compact light grey loam with stone inclusions. Land clearance has occurred at this location, and it is likely that ploughing has also occurred, disturbing the upper soil horizon.</p>		Low



Site ID	Site Description	Images	Archaeological Significance*
	Associated PAD: No Co-ordinates: U55 715768, 6171690		
BWF6	BWF6 is a low density stone artefact scatter (n=2) located within an eroded sheep track. Two quartz artefacts were found including one quartz flake measuring 4 cm x 2 cm x 1.9 cm and one quartz medial flake measuring 2.4 cm x 1.4 cm x 0.6 cm. The site was found within a gently sloping terrain, mid slope landform unit and a wider landscape of rolling hills. It is located approximately 230 m south-east of Wattle Creek. Within this location there was some ground surface visibility along sheep tracks and under nearby trees. Observed soils in the area comprise a light brown fine silty loam. Potential for subsurface deposit: No Co-ordinates: U55 714986, 6172307		Low
BWF7	BWF7 is a low density stone artefact scatter (n=3) located within a raised plateau overlooking the surrounding landscape. The site was identified in an area of minimal vegetation within a vehicle access track at a gateway and fence line. This afforded a high level of ground surface visibility. It is located approximately 300 m west of a first order tributary of Wattle Creek. The artefacts found include a quartz backed artefact measuring 2 cm x 0.6 cm x 3 cm, a quartz medial flake measuring 2.4 cm x 2.5 cm x 0.6 cm and a quartz flaked piece measuring 2.8 cm x 2.6 cm x 0.7 cm. Potential for subsurface deposit: No Co-ordinates: U55 715082, 6172126		Low
BWF8	BWF8 is a low density stone artefact scatter containing two quartzite flakes measuring 1.4 cm x 2.7 cm x 0.2 cm and 1.3 cm x 1.6 cm x 0.2 cm. The site was found within a gently sloping terrain adjacent to a valley depression. Grass was relatively sparse in the area which afforded some ground surface visibility. Observed soils comprise a fine grey compact loam which has been heavily ploughed. Potential for subsurface deposit: No Co-ordinates: U55 714925, 6151286		Low



Site ID	Site Description	Images	Archaeological Significance*
BWF9	<p>BWF9 is comprised of a single quartz core. The core measures 2.9 cm x 1.8 cm x 0.4 cm and was found within a gently sloping landform in a wider landscape of undulating terrain. The site was located near several wooded areas and a fence line. Soils in the area comprise very fine compact brown silt. There was some ground surface visibility in the area due to sparse coverage. The site is located approximately 300 m north-east of a tributary of Wattle Creek.</p> <p>Potential for subsurface deposit: No Co-ordinates: U55 715200, 6170925</p>	 	Low
BWF10	<p>BWF10 is stone artefact scatter (n=4) found within an area of soil erosion on the banks of a tributary of Wattle Creek. Water was identified within the water course at the time of the field survey. There was some ground surface visibility directly adjacent to the creek due to soil erosion; however the surrounding area has a dense grass coverage and a lower level of visibility. Observed soils in the area were a fine light brown compact silt with very few inclusions.</p> <p>Potential for subsurface deposit: Yes (refer to <i>Figure 4.1</i>) Co-ordinates: U55 714385, 6170992</p>	 	Moderate
BWF11	<p>BWF11 is a large silcrete core measuring 12 cm x 6.3 cm x 5.5 cm. The core had seven flake scars and three platforms. It was found within a grazing paddock which had been heavily ploughed and had been cleared of vegetation. Ground surface visibility was very poor in the area due to dense grass coverage. The site is situated less than 100 m from a tributary of Wattle Creek. It is located within a gently inclining mid slope landform. Observed soils in this area were a fine light brown loam which had been heavily disturbed by ploughing.</p> <p>Potential for subsurface deposit: No Co-ordinates: U55 714333, 6171750</p>	 	Low
BWF12	<p>BWF12 is a stone artefact scatter located at a confluence of Wattle Creek and one of its tributaries. One quartz core and two silcrete flakes were found at this location.</p> <p>The quartz core measures 4.3 cm x 3 cm x 1.9 cm and has two flake scars and two platforms. The silcrete flakes measure 2.9 cm x 2.2 cm x 0.4 cm and 2 cm x 0.5 cm x 0.3 cm. The site is located within a flat to gently sloping terrain above Wattle Creek and a tributary. The stone artefacts are located within an area of sparse grass coverage which afforded some ground surface visibility.</p>	 	Moderate







Site ID	Site Description	Images	Archaeological Significance*
	Soils in this location comprise a soft loose dark brown loam which has been heavily disturbed by ploughing. Potential for subsurface deposit: Yes (refer to <i>Figure 4.1</i> ) Co-ordinates: U55 714319, 6172054		
BWF13	BWF13 is a stone artefact scatter (n=5) located within a crest landform unit and identified along an eroded vehicle track. The area is located between two wooded areas and along a fence line. The area has been disturbed by agricultural activities such as grazing and ploughing and vegetation clearance. Soils observed comprise fine light brown compact silt with some stone inclusions. The site was observed within a crest landform that is situated above, and offers view to the nearby flat and gently sloping terrain along a tributary of Wattle Creek where other stone artefacts were recorded (BWF14). Silcrete and quartz artefacts were found here, including flakes and cores. Potential for subsurface deposit: Yes (refer to <i>Figure 4.1</i> ) Co-ordinates: U55 715361, 6170021		Moderate
BWF14	BWF14 is a high density stone artefact scatter (n=7) found adjacent to an ephemeral creek line and tributary of Wattle Creek. It is situated within a gently sloping terrain within a valley depression, and in a wider landscape of rolling hills. Soils were observed to be soft sandy alluvial deposits. The site is located downslope of BWF13. The area has dense grass coverage however it had a relatively high level of ground surface visibility within a large exposure with no grass coverage. It is considered that there is a high potential for additional subsurface archaeological deposits here. Potential for subsurface deposit: Yes (refer to <i>Figure 4.1</i> ) Co-ordinates: U55 715309, 6170507		Moderate



Site ID	Site Description	Images	Archaeological Significance*
BWF15	<p>BWF15 is an isolated silcrete core found within a crest landform unit. The site is situated adjacent to a wooded area within the crest landform. This landform affords views of the surrounding landscape and overlooks the site BWF14. The site is situated approximately 170 m north of a first order drainage line, and 2.3 km south-east of the permanent water source Wattle Creek.</p> <p>Potential for subsurface deposit: No Co-ordinates: U55 715977, 6170426</p>		Low
BWF16	<p>BWF16 is a stone artefact scatter (n=6) located within a crest landform unit. The site is located approximately 60 m south-west and slightly uphill of BWF17 (a scarred tree). It is likely that these two sites are associated with a permanent or repeated use of this raised landscape above Biala Creek. Due to the high density of artefacts found at BWF16, and its association with BWF17, it is considered that there is a potential for additional subsurface artefacts to be located here. Soils in the area were fine light brown silts with numerous stone inclusions. Artefacts found included silcrete and quartz of various sizes and manufacturing stages. Artefacts were identified at a rate of approximately six per square meter.</p> <p>Potential for subsurface deposit: Yes (refer to <i>Figure 4.1</i>) Co-ordinates: U55 714453, 6168505</p>		Moderate

Site ID	Site Description	Images	Archaeological Significance*
BWF17	<p>BWF17 is a scarred tree found with a hilltop/crest landform unit in a wider landscape of rolling hills and identified by Aboriginal stakeholders Tyronne Bell (Buru Ngunawal Aboriginal Corporation) and Glen Freeman (Koomurri Ngunawal Aboriginal Corporation). Discussions with Tyronne Bell and Glen Freeman suggest that the bark removed from this tree causing this scar may have been used to make a shield or for shelter purposes. The tree was observed to be a stringy bark tree in good condition.</p> <p>The scar is high off the ground and approximately 1 m in height, and 60 cm in width (exact measurements could not be taken). The scar was located on the south-west elevation of the tree, facing the recorded site BWF16. It is located within a grazing paddock that has been mostly cleared of vegetation.</p> <p>Potential for subsurface deposit: No Co-ordinates: U55 714569, 6168570</p>		Moderate
BWF18	<p>BWF18 is a stone artefact scatter (n=5) found with raised flat landform unit above Biala Creek. The stone artefacts were identified within an area of soil erosion adjacent to a tree. The area affords views towards Biala Creek and its surroundings, and is sheltered by surrounding hills. The site is comprised of four quartz flaked pieces and one silcrete flake. Soils in the area were fine light grey silt with some stone inclusions.</p> <p>Potential for subsurface deposit: No Co-ordinates: U55 714625, 6168436</p>		Low
BWF19	<p>BWF19 is a stone artefact scatter (n=3) found within a gently sloping terrain adjacent to an ephemeral drainage line. The site is also located less than 100 m south-west of a tributary of Biala Creek in which water was identified during the field survey. The site is located approximately 400 m south-east of Biala Creek. The soils at this site were observed to be a soft, sandy alluvial loam. Two silcrete and one quartz medial flake were found at this location. The silcrete flakes measures 2 cm x 0.8 cm x 0.3 cm and 1.9 cm x 0.8 cm x 0.2 cm. The quartz medial flake measures 0.9 cm x 0.6 cm x 0.2 cm. During the 2018 survey an additional silcrete flake and four quartz flakes were located north of the previously identified site, extending the closer to the nearby creek line.</p> <p>Potential for subsurface deposit: Yes (refer to <i>Figure 4.1</i>) Co-ordinates: U55 714199, 6167504</p>		Moderate



Site ID	Site Description	Images	Archaeological Significance*
BWF20	<p>BWF20 is a stone artefact scatter containing five quartz artefacts found along an eroded sheep track. The site is situated within a gently sloping terrain mid-slope landform overlooking BWF19. Soils at the site were observed to be soft fine brown silt with minimal inclusions. The site was identified within a cleared track between wooded areas. The site is located approximately 375 m south-west of a tributary of Biala Creek (in which water was identified), and 330 m south-east of Biala Creek (a permanent water source).</p> <p>Potential for subsurface deposit: No Co-ordinates: U55 713860, 6167437</p>		Low
BWF21	<p>BWF21 is a very high density stone artefact scatter (n=7) with a high potential for further in situ archaeological deposits. The site is located adjacent to Biala Creek within soft sandy alluvial deposits. It is located within a gently sloping terrain directly adjacent to the creek. The stone artefacts were identified within exposures of sheep tracks. A sample of stone artefacts was recorded and measurements are provided in <i>Table 7.12</i>. Due to these sandy deposits and the site's proximity to Biala Creek, it is considered that there is also a potential for burial sites to be located in this area. The area had a relatively good level of ground surface visibility due to sparse grass coverage and sheep track exposures. Sparse trees covered the area. A fish trap site was also identified within Biala Creek by Tyronne Bell of Buru Ngunawal Aboriginal Corporation. This site comprises several large rocks that appear to have been stacked up and placed in the creek in linear formations at three separate intervals. A detailed inspection of this fish trap was not undertaken due to time constraints and its position outside the proposed area of impact, however the site has been registered in AHIMS and recorded as a site as part of this assessment.</p> <p>Potential for subsurface deposit: Yes (refer to <i>Figure 4.1</i>) Co-ordinates: U55 713824, 6167786</p>		Moderate
BWF22	<p>BWF22 is an artefact scatter (3 artefacts) located on a gentle slope. Two quartz flakes and one chert flake were found. The soils at this site were observed to be a soft, sandy alluvial loam.</p> <p>Potential for subsurface deposit: No Co-ordinates: U55 713952, 6167443</p>		Low

Site ID	Site Description	Images	Archaeological Significance*
BWF23	<p>BWF23 is an artefact scatter (2 artefacts) located on a gentle slope. Two chert flakes were found. The soils at this site were observed to be a soft, sandy alluvial loam.</p> <p>Potential for subsurface deposit: No</p> <p>Co-ordinates: U55 715267, 6171682</p>		Low
BWF24	<p>BWF24 is an artefact scatter (2 artefacts) located on a small hill top. Two chert flakes were found 14 m apart. The soils at this site were observed to be a soft, sandy alluvial loam.</p> <p>Potential for subsurface deposit: No</p> <p>Co-ordinates: U55 715257, 6172175</p>		Low
BWF25	<p>BWF25 is a scarred tree found approximately 150 m from an ephemeral water course, located within a gently sloping landform set in a wider landscape context of rolling hills. It was identified by Aboriginal stakeholder Tyronne Bell (Thunderstone). The tree was observed to be an apple box tree in good condition.</p> <p>The scar is approximately 1.2 m off the ground and approximately 30/40 cm m in height, and 10 cm in width (exact measurements could not be taken). The scar was located on the western elevation of the tree, facing the recorded site BWF1. It is located within a grazing paddock at the edge of a treed area.</p> <p>Potential for subsurface deposit: No</p> <p>Co-ordinates: U55 717820, 6171711</p>		Low

Site ID	Site Description	Images	Archaeological Significance*
BWF26	<p>BWF26 is a scarred tree identified by Aboriginal stakeholder Tyronne Bell (Thunderstone). Discussions with Tyronne Bell suggest that the bark removed from this tree causing this scar may have been used to make a shield or for shelter purposes.</p> <p>The scar is high off the ground (2 m) and approximately 1.5 m in height (exact measurements could not be taken). The scar was located on the south-west elevation of the tree, facing the recorded site BWF3 It is located within a grazing paddock at the edge of a treed area.</p> <p>Potential for subsurface deposit: No</p> <p>Co-ordinates: U55 717592, 6172346</p>		Low
BWF PAD1	<p>One area of PAD was identified without an associated surface expression of artefacts (BWF PAD1). This site is located at the confluence of Biala Creek and one of its tributaries. It is situated within a flat to gently sloping terrain adjacent to a watercourse, which is a landscape type which has contained the majority of sites recorded as part of this assessment (BWF2, BWF10, BWF12, BWF14, BWF19 and BWF21). The site BWF21 has similarly been recorded with a flat to gently sloping terrain also adjacent to Biala Creek. There was very poor ground surface visibility here which may have hindered the identification of stone artefacts.</p>		Moderate

\* Archaeological Significance as assessed in the Biala Wind Farm Aboriginal and Historic Cultural Heritage Assessment report (ERM 2016)



## 5. ENVIRONMENTAL ASPECTS AND IMPACTS

Potential impacts on Aboriginal cultural heritage are predominantly attributed to ground disturbance works and may occur as a result of:

- the construction of 31 WTGs including the towers, nacelles, blades and footings;
- the grading of roads and upgrading of existing access roads;
- vehicle movement across eroded tracks;
- the development of new access roads;
- trenching for the underground electrical reticulation network;
- clearance of vegetation;
- the construction of hardstands and laydown areas;
- the construction of an electrical substation and associated electrical equipment;
- for the construction period, an on-site concrete batching plant and equipment storage areas; and
- wind monitoring masts and communications equipment.

Impacts as a result of the physical infrastructure proposed within the PA will be discreet in nature and will occupy a relatively small footprint. BWF1, BWF11, BWF22, BWF23 and BWF24 will be impacted and were subject to surface collection in July 2019.

Based on updated project designs, impacts to BWF19 cannot be avoided, and subsurface testing has been undertaken accordingly. As indicated in Table 5.1, impacts to the remaining 17 sites will be avoided by Project design. Exclusion fencing and signage has been completed for a number of these sites where the infrastructure is located in close proximity. Where further design work can ensure that there is no infrastructure within 150m of a site, fencing and signage is deemed unnecessary to ensure avoidance and the “no go zones” indicated on design drawings shall suffice.

Respect for unfenced sites shall be the subject of site inductions and toolbox meetings. BWF 8 and BWF18 are listed in the CoC as requiring salvage however impacts to these sites can now also be avoided. Impact reduction and mitigation measures for each site have been developed to ensure a sound heritage outcome for the PA and a reduction in damage to heritage values. This information is based on best-case design as of 13 December 2019. Subject to further detailed design, only those sites that cannot be avoided will be subject to test excavations and /or salvage in accordance with this ACHMP.

**Table 5.1 Summary of potential impact to Aboriginal Heritage Sites**

Site ID	Archaeological Significance	Will the site be impacted?	Management Measure*	Description of Management Measure# (see Section 6 for detailed methodology and timing)
BWF1	Low	This isolated find is located on an access road that will be used during construction and operation of the wind farm.	Surface collection/salvage	BWF1 was salvaged in July 2019 in accordance with the CHMP. Detailed methodologies and results are presented in Appendix E.
BWF2	Moderate	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site. This area was fenced off in July 2019 and will be maintained for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Exclusion fencing and exclusion signage was erected around the site by Aboriginal stakeholder groups and ERM archaeologists. At the completion of construction exclusion zone fencing will be removed.
BWF3	Moderate	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site. This area was fenced off in July 2019 and will be maintained for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Exclusion fencing and exclusion signage was erected around the site by Aboriginal stakeholder groups and ERM archaeologists. At the completion of construction exclusion zone fencing will be removed.
BWF4	Low	No	Avoidance#	This site is located over 150m from any construction activities. This area will marked on all design drawings as a 'no go zone'. In the event that any construction activities are proposed within 150m of this site, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.
BWF5	Low	No	Avoidance#	This site is located over 150m from any construction activities. This area will marked on all design drawings as a 'no go zone'. In the event that any construction activities are proposed within 150m of this site, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.
BWF6	Low	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site. This area was fenced off in July 2019 and will be maintained for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Exclusion fencing and exclusion signage was erected around the site by Aboriginal stakeholder groups and ERM archaeologists. At the completion of construction exclusion zone fencing will be removed.

Site ID	Archaeological Significance	Will the site be impacted?	Management Measure*	Description of Management Measure# (see Section 6 for detailed methodology and timing)
BWF7	Low	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site. This area was fenced off in July 2019 and will be maintained for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Exclusion fencing and exclusion signage was erected around the site by Aboriginal stakeholder groups and ERM archaeologists. At the completion of construction exclusion zone fencing will be removed.
BWF8	Low	This site was avoided through revised access track design.	Avoidance*	A 10 m wide buffer zone will be maintained around the site. This area was fenced off in July 2019 and will be maintained for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Exclusion fencing and exclusion signage was erected around the site by Aboriginal stakeholder groups and ERM archaeologists. At the completion of construction exclusion zone fencing will be removed.
BWF9	Low	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site. This area was fenced off in July 2019 and will be maintained for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Exclusion fencing and exclusion signage was erected around the site by Aboriginal stakeholder groups and ERM archaeologists. At the completion of construction exclusion zone fencing will be removed.
BWF10	Moderate	No	Avoidance#	This site is located over 150m from any construction activities. This area will marked on all design drawings as a 'no go zone'. In the event that any construction activities are proposed within 150m of this site, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.
BWF11	Low	This isolated find could not be avoided during detailed design and micro siting.	Surface collection /salvage	BWF11 was salvaged in July 2019 in accordance with the CHMP. Detailed methodologies and results are presented in Appendix E.
BWF12	Moderate	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site. This area was fenced off in July 2019 and will be maintained for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Exclusion fencing and exclusion signage was erected around the site by Aboriginal stakeholder groups and ERM archaeologists. At the completion of construction exclusion zone fencing will be removed.

Site ID	Archaeological Significance	Will the site be impacted?	Management Measure*	Description of Management Measure# (see Section 6 for detailed methodology and timing)
BWF13	Moderate	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site. This area was fenced off in July 2019 and will be maintained for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Exclusion fencing and exclusion signage was erected around the site by Aboriginal stakeholder groups and ERM archaeologists. At the completion of construction exclusion zone fencing will be removed.
BWF14	Moderate	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site. This area was fenced off in July 2019 and will be maintained for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Exclusion fencing and exclusion signage was erected around the site by Aboriginal stakeholder groups and ERM archaeologists. At the completion of construction exclusion zone fencing will be removed.
BWF15	Low	No	Avoidance#	This site is located over 150m from any construction activities. This area will marked on all design drawings as a 'no go zone'. In the event that any construction activities are proposed within 150m of this site, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.
BWF16	Moderate	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site. This area was fenced off in July 2019 and will be maintained for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Exclusion fencing and exclusion signage was erected around the site by Aboriginal stakeholder groups and ERM archaeologists. At the completion of construction exclusion zone fencing will be removed.
BWF17	Moderate	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site. This area was fenced off in July 2019 and will be maintained for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Exclusion fencing and exclusion signage was erected around the site by Aboriginal stakeholder groups and ERM archaeologists. At the completion of construction exclusion zone fencing will be removed.
BWF18	Low	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site. This area was fenced off in July 2019 and will be maintained for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Exclusion fencing and exclusion signage was erected around the site by Aboriginal stakeholder groups and ERM archaeologists. At the completion of construction exclusion zone fencing will be removed.

Site ID	Archaeological Significance	Will the site be impacted?	Management Measure*	Description of Management Measure# (see Section 6 for detailed methodology and timing)
BWF19	Moderate	Realignment of an access road will impact BWF19.	Subsurface testing and salvage if avoidance is not possible.	Test Excavation at BWF19 was undertaken in November 2019 in accordance with the methodology set out in Section 6.3 of this CHMP. No Aboriginal objects were recovered during test excavation at BWF19. Based on these results, it has been determined that the road amendment can continue without further monitoring. The BWF19 PAD will remain a restricted location, to be fenced and sign posted as a restricted zone. A small construction corridor only, as cleared by the test excavation, will be provided along the amended alignment to create the new roadway.
BWF20	Low	No	Avoidance#	This site is located over 150m from any construction activities. This area will marked on all design drawings as a 'no go zone'. In the event that any construction activities are proposed within 150m of this site, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.
BWF21	Moderate	No	Avoidance#	This site is located over 150m from any construction activities. This area will marked on all design drawings as a 'no go zone'. In the event that any construction activities are proposed within 150m of this site, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.
BWF22	Low	This site is located on the proposed access road and cannot be avoided	Surface collection/salvage	BWF22 was salvaged in July 2019 in accordance with the CHMP. Detailed methodologies and results are presented in Appendix E.
BWF23	Low	This site is located on the proposed access road and cannot be avoided	Surface collection/salvage	BWF23 was salvaged in July 2019 in accordance with the CHMP. Detailed methodologies and results are presented in Appendix E.
BWF24	Low	This site is located on the proposed access road and cannot be avoided	Surface collection/salvage	BWF24 was salvaged in July 2019 in accordance with the CHMP. Detailed methodologies and results are presented in Appendix E.
BWF25	Low	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site. This area was fenced off in July 2019 and will be maintained for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Exclusion fencing and exclusion signage was erected around the site by Aboriginal stakeholder groups and ERM archaeologists. At the completion of construction exclusion zone fencing will be removed.

Site ID	Archaeological Significance	Will the site be impacted?	Management Measure*	Description of Management Measure# (see Section 6 for detailed methodology and timing)
BWF26	Low	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site. This area was fenced off in July 2019 and will be maintained for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Exclusion fencing and exclusion signage was erected around the site by Aboriginal stakeholder groups and ERM archaeologists. At the completion of construction exclusion zone fencing will be removed.
BWF PAD1	Moderate	No	Avoidance#	This site is located over 150m from any construction activities. This area will marked on all design drawings as a 'no go zone'. In the event that any construction activities are proposed within 150m of this site, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.

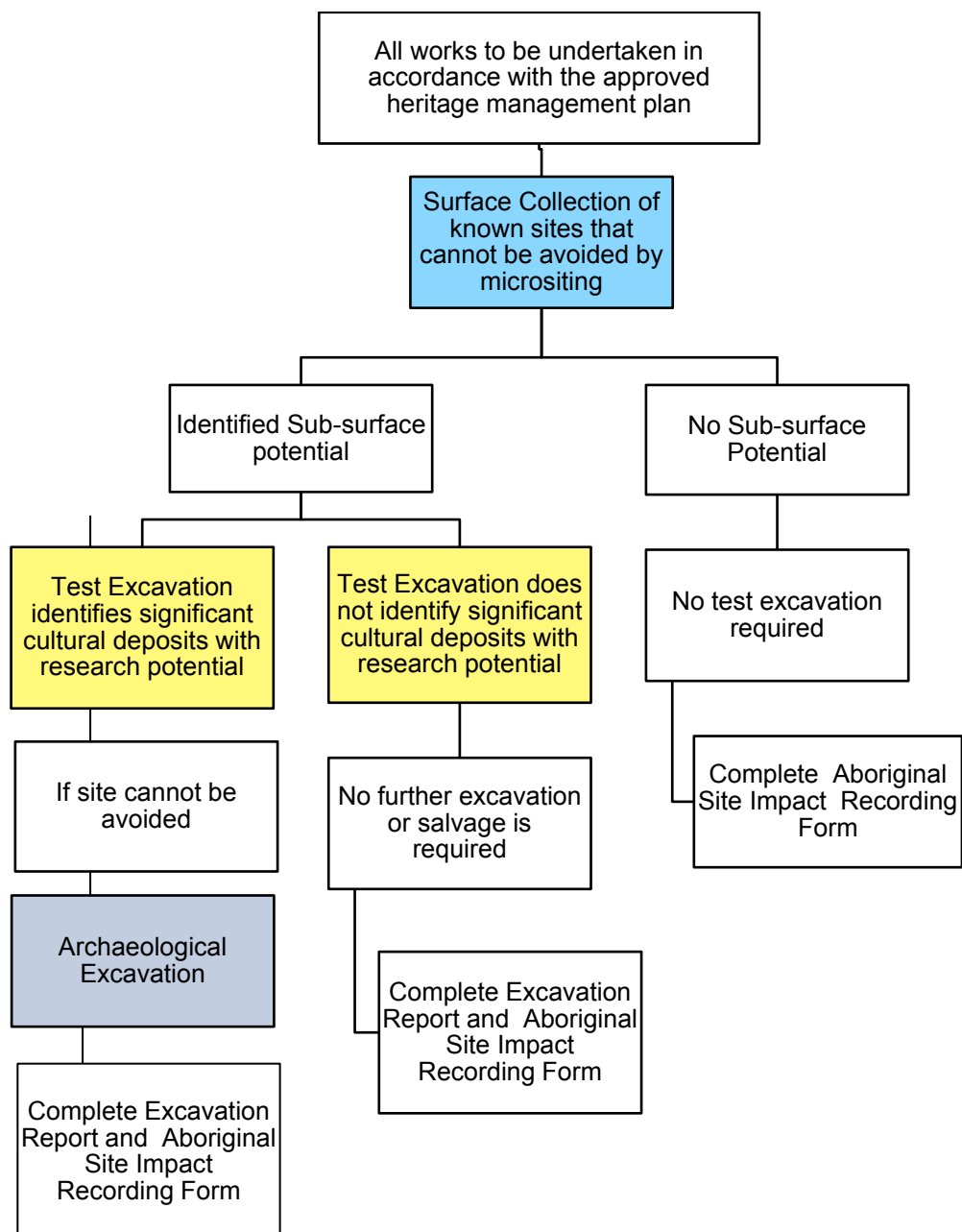
*\* Avoidance and ongoing protection of these sites is to be maintained throughout the duration of the construction, maintenance and operation of the windfarm. All vehicle movements and maintenance activities will be limited to defined access tracks and hardstand areas. No additional impact, including during operation and/or maintenance is approved unless authorised by the Secretary of DPIE in writing or via an updated and approved ACHMP.*

*# Where further design work can ensure that there is no infrastructure within 150m of a site, fencing and signage is deemed unnecessary to ensure avoidance and the "no go zones" indicated on design drawings shall suffice. Respect for unfenced sites shall be the subject of site inductions and toolbox meetings.*

## 6. ARCHAEOLOGICAL TEST EXCAVATION AND SALVAGE PROGRAM

The management and mitigation statements have been developed in consultation with BCD and the relevant Aboriginal parties. This ACHMP has been sent to the registered Aboriginal stakeholders for their review, comment and endorsement.

A simplified flow chart of the archaeological test excavation and salvage program is also shown below in *Figure 6.1*. The chart is based on the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010).



**Figure 6.1 Process for the Salvage and Excavation of Aboriginal Objects**



## 6.1 Survey of Additional Impact Areas

During detailed design and prior to the commencement of construction, any additional impact areas or any areas not previously archaeologically surveyed will be surveyed by a qualified archaeologist and registered Aboriginal stakeholders.

Any new Aboriginal heritage sites identified within proposed impact areas as part of these surveys may be avoided as part of detailed design, fenced off and protected, or subjected to a sub-surface testing program and salvaged (if required). Detailed strategies for protection of Aboriginal heritage values identified in future survey work are provided in this ACHMP.

## 6.2 Surface collection (Salvage) of Aboriginal Objects

The following draft methodology has been applied to Sites BWF1, BWF11, BWF22, BWF23 and BWF24 as impacts to these sites cannot be avoided through micro-siting of WTG and/or revised access track design. The same methodology will also be applied to any additional sites that cannot be avoided.

All of these activities will be undertaken by qualified archaeologists and in consultation (and participation) with the registered Aboriginal stakeholders. These registered stakeholders may be employed on the Project team each day or on a rostered basis.

*Note: If impacts to BWF1, BWF13 or BWF19 cannot be avoided through micro-siting of tracks and/or ancillary infrastructure, then DPIE must be notified in accordance with CoC 3-22.*

### 6.2.1 Interpretative Context

Research provides one means of mitigation against the loss of Aboriginal heritage through this project. The following research question will give context to the analysis of the sites salvaged. The sample salvage methodology below may be modified as the salvage progresses, although any major changes in methodology will require consultation with BCD and Aboriginal stakeholders.

- What is the relationship between the soil type and the visibility/density of artefacts on the surface?
- Stone reduction technology. How was the stone worked and used? Can the function of the site be inferred from the artefact assemblage? What does this tell us about Aboriginal occupation, use, settlement and activities undertaken through time in this region?
- Finished Implements. What were the finished implements used for and what can that tell us about site function(s)?
- What raw material resources were used; where did they come from; and what does this tell us about Aboriginal use of the region in the past?
- Landforms. Is it possible to differentiate between occupation of different landforms?

### 6.2.2 Surface Collection

Avoidance is the preferred option for all sites. Based on preliminary Project design, of the 27 Site records, only five Sites - BWF1, BWF11, BWF22, BWF23 and BWF24 may be impacted and as such were subject to surface collection as they cannot be avoided through micro-siting of WTG and/or revised access track design as follows:

- Flagging of artefacts prior to collection;
- Taking photographs of site area and artefact distribution prior to and after surface collection;
- Recording artefact positioning with GPS co-ordinates;
- Collected artefacts will be bagged and labelled individually;
- All surface objects recorded at each of these sites will be collected; and
- Recording of site context/condition at time of collection will be undertaken.

The analysis of artefacts recovered during the salvage program is undertaken in a transparent and replicable fashion, so as to allow for an interpretation of the PA's archaeological significance.

Artefacts recovered are initially analysed on-site to enable evidence based decisions regarding the quantity of artefacts at each archaeological site and immediate input from Aboriginal stakeholders.

Detailed (laboratory) analysis is undertaken off site and entails recording a larger number of characteristics for each individual artefact as outlined in *Section 6.3.3*.

An Aboriginal Site Impact Recording (ASIR) form will be completed and submitted to the Aboriginal Heritage Information Management System (AHIMS) Registrar as soon as practicable.

## 6.3 Test Excavation and Salvage

Subsurface potential has been identified at Sites BWF13, BWF19, and BWF PAD1. Only where impacts cannot be avoided through micro-siting of WTG and/or revised access track design, each of these sites will be subject to test excavation.

To date, subsurface testing has only been undertaken at BWF19 and is reported in Appendix F. No artefacts were recovered from this location.

The purpose of this programme of test excavation is to provide a broad understanding of Aboriginal cultural heritage within the PA. If the test excavation identifies significant cultural deposits with research potential, further finer resolution excavation would be considered as outlined in *Section 6.3.2*.

### 6.3.1 Interpretative Context

Our understanding of the distribution, nature, age and integrity of Aboriginal cultural deposits in the PA is limited and largely based on the results of surveys undertaken to inform the EIS (ERM 2016). There are therefore a number of relevant research questions that the proposed archaeological test excavation program can explore to improve our understanding of the archaeological resource within the PA.

- What are the environmental characteristics associated with the distribution of Aboriginal cultural heritage within the PA?
- Can the stratigraphic profile provide information on the nature and/or survivability of the archaeological resources?
- Are there other key factors in the distribution and extent of the material culture within the PA?

### 6.3.2 Test Excavation

The test excavation methodology is developed to provide a robust level of archaeological information to inform the management of the site during construction. It aims to test those areas of PAD that have no archaeological exposure or visibility, and to confirm the boundaries of known sites.

The test excavation is undertaken under the supervision of a core team of archaeologists and Aboriginal representatives. An integral part of the project team is Aboriginal stakeholders skilled in the identification of Aboriginal artefacts. These registered stakeholders may be employed on the project team each day or on a rostered basis.

The proposed test excavation program is completed prior to construction. Timeframes will be dependent on the site conditions and/or if the natural soil profile is considerably deeper than expected.

The following key tasks were completed at BWF19 and will be undertaken during any additional sub surface testing if required:

- a series of 0.5 m by 0.5 m test pits will be excavated in transects at no more than 10 m intervals along the length of each PAD;

- excavation will be undertaken by hand using trowels, mattocks and shovels;
- the grid will continue until no more artefacts are found in order to identify the extent of the deposit;
- the first excavation unit will be excavated and documented in 5 cm excavation units, or 'spits'. Subsequent test pits may be excavated in 10 cm spits or stratigraphical unit (whichever is smaller) and this would be at the discretion of the Supervising Archaeologist;
- all test pits will be excavated to at least the base of identified Aboriginal object bearing units and/or will cease at stiff clay or bedrock;
- all deposits will be sieved on-site using 5 mm and 8 mm nested sieves. Deposit will be sieved using dry sieving methods as appropriate to the soil type, access to PA and environmental context. Wet sieving will be used in response to damp and or heavy clay soil. Where a reduction event is suspected 3 mm sieves will be used;
- all test pits will be documented using photographic records, written descriptions and scaled drawings. If discrete high-density artefact concentrations (in excess of 8 artefacts per 50 cm square) or cultural features, such as hearths, are revealed during the test excavation, these will be also excavated beyond the 50 cm x 50 cm test pit to capture the entire site/feature and recorded;
- the sub-surface soils and sediments will be examined to identify whether the deposits are intact or disturbed or a combination of both. Soil samples will not be taken;
- artefacts recovered will be initially analysed onsite to enable evidence based decisions regarding the quantity of artefacts at each archaeological site and immediate input from Aboriginal stakeholders. Detailed (laboratory) analysis would be undertaken offsite and entail recording a greater number of characteristics for each individual artefact as outlined in *Section 6.3.3*;
- artefacts to be removed from site for further analysis will be individually bagged in snap-lock sample bags and labelled;
- test trenches/pits will be backfilled as soon as practicable; and
- following test excavation and analysis, an Aboriginal Site Impact Recording form will be completed and submitted to the AHIMS Registrar as soon as practicable (refer to *Section 6.3.4*).

### 6.3.3 Stone Artefact (Lithic) Analysis

No artefacts were recovered from BWF19.

For any additional subsurface testing that may be required, the post-excavation analysis would be designed to address the research objectives and specific research questions (*Section 6.3.1*), along with other relevant questions that may arise based on the results of the test excavation. Results of analysis would be presented in relation to comparative site data and where useful in addressing the research questions. Specifically, the analysis of the salvaged artefacts would aim to determine the following (if possible):

- What raw material resources were used; where did they come from; and what does this tell us about Aboriginal use of the region in the past?
- Stone reduction technology. How was the stone worked and used? Can the function of the site be inferred from the artefact assemblage? What does this tell us about Aboriginal occupation, use, settlement and activities undertaken through time in this region?
- Finished Implements. What were the finished implements used for and what can that tell us about site function(s)?
- Post-depositional influences. What (if any) post-depositional influences have impacted on the assemblage, and what does this tell us about the integrity and significance of the site?

- Site chronology. When was the site occupied? Was the assemblage the product of repeated occupations or a single event? Is there spatial patterning in the assemblage, and what does this tell us about repeated use, activities and/or occupation of the region through time?
- Landforms. Is it possible to differentiate between occupation of different landforms?

Field analysis would record basic data, such as landform element, soil type, artefact type, material type, number and any significant technological characteristics, such as backing or bipolar techniques; added to this would be any provenance data such as pit ID and spit number.

Detailed (laboratory) analysis would be undertaken off site and will entail recording a larger number of characteristics for each individual artefact including dimensions, raw material, cortex type/percent, along with flake and core attributes, termination, platform and other characteristics. The full artefact catalogue would be included as an appendix to the excavation report and in excel spreadsheet format.

Artefactual material will be collected, interpreted and catalogued then reburied within a portion of the PA that is to be conserved and not impacted during the development. The artefacts are to be reburied upon the completion of the test excavation and detailed (laboratory) analysis. The artefacts would be placed in a natural cloth and the location of the reburied artefacts would be agreed with registered Aboriginal stakeholders and recorded with the information forwarded to the BCD (refer to Section 7.3).

### 6.3.4 Excavation Report

Following surface collection and test excavation, as described above, an excavation report will be completed in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*. The report will include the following:

- Details of ongoing consultation with registered Aboriginal stakeholders;
- Details of the proposed development;
- Excavation and salvage methodology;
- Results of the excavation and salvage;
- Results of the analysis of recovered Aboriginal objects;
- Future management strategies for the Aboriginal objects; and
- ASIR forms will be completed for each site impacted by salvage and excavation works and will be submitted to the AHIMS Registrar.

## 6.4 Archaeological Excavation

Only where test excavation confirms significant cultural deposits with greater research potential and the site cannot be avoided through micro-siting of WTG and/or revised access track design, detailed excavation will be carried out as follows:

- The central area of the site will be expanded until sterile deposit is reached or a statistically valid sample has been retrieved and artefact numbers have diminished to a level that indicates that the main concentration of the site has been salvaged;
- Deposit will be excavated by hand in arbitrary 100 mm spits or in stratigraphic sequence as appropriate (as per Requirement 16a, *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW*);
- Evidence of bioturbation and taphonomic processes will be recorded in detail;
- Spoil will be dry sieved in 5 mm sieves. Wet sieving will be used in response to damp and or heavy clay soil. Where a reduction event is suspected 3 mm sieves will be used;
- Samples of charcoal in stratified deposits will be retained for dating purposes; and
- Artefacts collected will be handled, stored and recorded as outlined in (Section 6.3.3)



## 7. CULTURAL HERITAGE MANAGEMENT AND MITIGATION MEASURES

The management and mitigation measures have been developed in consultation with the relevant Aboriginal parties and are made in light of the results of the various field surveys, background research, predictive modelling, heritage significance assessment and relevant NSW legislation protecting Aboriginal heritage and provide due consideration to:

- the conclusions and recommendations of the EIS;
- the SoC as set out in the EIS;
- the Minister's CoC; and
- the outcomes of the stakeholder workshop.

*Table 7.1* below provides management and mitigation measures to manage impacts and potential impacts on Aboriginal heritage items.

### 7.1 Heritage Induction and Training

All employees and subcontractors will undergo environmental awareness training as part of the site induction to ensure they understand their obligations and responsibilities. This training will include basic Aboriginal heritage awareness across the following topics:

- legal responsibilities;
- summary of significant sites, including possible site types and significant landforms;
- Aboriginal and archaeological significance of the project area;
- procedures for the discovery of previously unrecorded Aboriginal objects;
- procedures for the discovery of human remains; and
- site access requirements.

It is important to note that **only information endorsed for sharing by the Aboriginal stakeholders should be included within the induction material**. Alternatively a representative of one of the RAPs that provide the service, such as Buru Ngunawal Aboriginal Corporation, Thunderstone Aboriginal Cultural and Land Management Services, or Pejar LALC could be employed to undertake an induction session for the key managers of all major contractors prior to works commencing.

### 7.2 Unexpected Finds Procedure

Protocols for chance finds are detailed in *Figures 7.1* and *7.2*.

If previously unrecorded Aboriginal heritage evidence is identified within the PA, this evidence will be subject to temporary protection, recorded and appropriate management strategies implemented, in consultation with registered Aboriginal stakeholders as follows:

- all activity in the immediate area should cease;
- and an appropriately qualified heritage professional should be consulted;
- BCD should be immediately contacted;
- registered Aboriginal Parties should be notified; and
- an appropriately qualified heritage professional should record the location and attributes of the site and determine the significance of the find.

In the event of the discovery of human skeletal material (or suspected human skeletal material) during project activities in the PA the protocol outlined in *Figure 7.2* must be followed.

**Table 7.1 Management and Mitigation Measures**

Measure	Resources needed	Responsible Party	Timing/Frequency	Performance criteria
Administrative measures				
<p>Training will be provided to all personnel involved in construction and management phases of the Project, including relevant sub-contractors and visitors on heritage requirements of this plan through inductions, toolboxes and targeted training. This training will include basic Aboriginal heritage awareness across the following topics:</p> <ul style="list-style-type: none"> <li>■ legal responsibilities;</li> <li>■ summary of significant sites, including possible site types and significant landforms;</li> <li>■ Aboriginal and archaeological significance of the project area;</li> <li>■ procedures for the discovery of previously unrecorded Aboriginal objects;</li> <li>■ procedures for the discovery of human remains; and</li> <li>■ site access requirements.</li> </ul>	<p>Induction material Toolbox training material Standard Operating Procedure (<i>Annex A</i>) Targeted training material</p>	<p>Balance of Plant (BoP) Contractor Project Manager (PM) and BoP Compliance Manager (CM)</p>	<p>Prior to construction and as required</p>	<ul style="list-style-type: none"> <li>■ Ensure all site contractors and visitors receive suitable heritage inductions prior to carrying out any development on site</li> <li>■ Training and pre-start meeting records are maintained</li> </ul>
<p>Only information endorsed for sharing by the registered Aboriginal stakeholders should be included within the induction package for all workers, alternatively a representative of one of the RAPs that provide the service, such as Buru Ngunawal Aboriginal Corporation, Thunderstone Aboriginal Cultural and Land Management Services, or Pejar LALC could be employed to undertake an induction session for the management teams of all major contractors prior to works commencing.</p>	<p>Induction material Toolbox training material Standard Operating Procedure (<i>Annex A</i>) Targeted training material</p>	<p>BoP PM and CM  Registered Aboriginal stakeholders</p>	<p>Prior to construction and as required</p>	<ul style="list-style-type: none"> <li>■ Cultural heritage information contained within the induction material has been endorsed</li> </ul>
<p>Notify regulatory authorities of any incidents relating to Aboriginal heritage management.</p>	<p>Incident notification forms. Evidence of consultation with registered Aboriginal stakeholders</p>	<p>BoP PM and CM</p>	<p>As required</p>	<ul style="list-style-type: none"> <li>■ Copies of all notifications and evidence of consultation are retained</li> </ul>

Measure	Resources needed	Responsible Party	Timing/Frequency	Performance criteria
<b>Design to avoid impact of recorded heritage site</b>				
Where possible, impacts to will be avoided through micro-siting of WTG and/or revised access track design. Micro-siting of the wind turbines is approved without consent provided that it is no more than 100 metres from the relevant GPS coordinates shown in Appendix 2 of the CoC.	Design drawings Exclusion zone plans for all work sites	BoP PM and CM	Final design and micro-siting prior to construction	<ul style="list-style-type: none"> <li>■ Impact to heritage sites avoided</li> <li>■ Final detailed design submitted to DPIE</li> </ul>
In the unlikely event that micro-siting and/or revised access track will result in additional impacts to heritage sites, or any new Aboriginal heritage sites area identified within proposed impact areas they will be managed in accordance with the requirements of this ACHMP and the results provided as an addendum to the ACHMP.	Addendum to the ACHMP	BoP PM and CM	Final design and micro-siting prior to construction	<ul style="list-style-type: none"> <li>■ Final detailed design submitted to DPIE</li> </ul>
<b>Pre-construction</b>				
Prior to and for the duration of the construction activities, all known heritage sites within 150 m from any proposed infrastructure or construction activity will be fenced (plus minimum 10 m buffer area) to protect them against accidental damage. At the request of the registered Aboriginal stakeholders, the signage will clearly identify the area as a cultural heritage site and that under the <i>National Parks and Wildlife Act</i> it is an offence to harm (destroy, deface, or damage) or desecrate an Aboriginal object or Aboriginal place, or in relation to an object, move the object from the land on which is has been situated.	Design drawings Exclusion zone plans for all work sites	BoP PM and CM  Archaeologist Registered Aboriginal stakeholders	Prior to construction	<ul style="list-style-type: none"> <li>■ Exclusion zones maintained around heritage sites</li> <li>■ Impact to heritage sites avoided</li> </ul>
Of the 27 site records, only five sites - BWF1, BWF11, BWF22, BWF23 and BWF24 will be potentially impacted and will need to be subject to surface collection <u>if they cannot be avoided by micro-siting of WTG and/or revised access track design</u> . During the surface collection:  <ul style="list-style-type: none"> <li>■ All surface objects recorded at each of these sites will be collected.</li> <li>■ The analysis of artefacts recovered during the salvage program would be undertaken in a transparent and replicable</li> </ul>	Design drawings Exclusion zone plans for all work sites	Archaeologist Registered Aboriginal stakeholders	Prior to construction	<ul style="list-style-type: none"> <li>■ Only those sites that cannot be avoided are subject to surface collection</li> <li>■ ASIR forms are submitted to AHMIS Registrar</li> </ul>



Measure	Resources needed	Responsible Party	Timing/Frequency	Performance criteria
<p>fashion so as to allow for an interpretation of the Project Area's archaeological significance.</p> <ul style="list-style-type: none"> <li>■ Artefacts recovered will be initially analysed onsite.</li> <li>■ Detailed (laboratory) analysis would be undertaken offsite.</li> <li>■ Artefactual material will be collected, interpreted and catalogued then reburied within a portion of the PA that is to be conserved and not impacted during the development.</li> </ul> <p><i>(Note: This BWF18 was also listed in the CoC as requiring salvage however based on the preliminary Project design impacts to this site can now be avoided and salvage will not be required).</i></p>				
<p>Subsurface potential has been identified at BWF13, BWF19, BWF21 and BWF PAD1. Where impacts cannot be avoided, each of these sites will be subject to test excavation. The purpose of test excavation is to provide a broad understanding of Aboriginal cultural heritage within the PA. If the test excavation identifies significant cultural deposits with research potential, further finer resolution excavation would be considered.</p>	<p>Design drawings Exclusion zone plans for all work sites</p>	<p>Archaeologist Registered Aboriginal stakeholders</p>	<p>Prior to construction</p>	<ul style="list-style-type: none"> <li>■ Only those sites that cannot be avoided are subject to test excavation</li> <li>■ ASIR forms and excavation report are completed as soon as possible</li> </ul>
<p>ASIR forms will be completed for each site impacted by salvage and excavation works and will be submitted to the AHIMS Registrar.</p>		<p>Archaeologist</p>	<p>As soon as possible following site impact</p>	<ul style="list-style-type: none"> <li>■ Only those sites that cannot be avoided are subject to surface collection/test excavation</li> <li>■ ASIR forms are submitted to the AHIMS Registrar</li> </ul>
<p>All collected artefacts will be temporarily stored securely at an agreed offsite location. Following completion of artefact analysis, the artefacts will be reburied within a portion of the PA that is to be conserved and not impacted during the development. The reburial location will be agreed upon with the registered Aboriginal stakeholders in the field (during the salvage and test excavation) and its location shared with BCD. An AHIMS site card will be submitted to the AHIMS Registrar.</p>	<p>Design drawings</p>	<p>Archaeologist Registered Aboriginal stakeholders</p>	<p>Where possible, the artefacts will be reburied within six months of collection, or as agreed with the registered Aboriginal stakeholders</p>	<ul style="list-style-type: none"> <li>■ Reburial location agreed with the registered Aboriginal stakeholders</li> <li>■ An AHIMS site card submitted to the AHIMS registrar</li> </ul>
During construction				

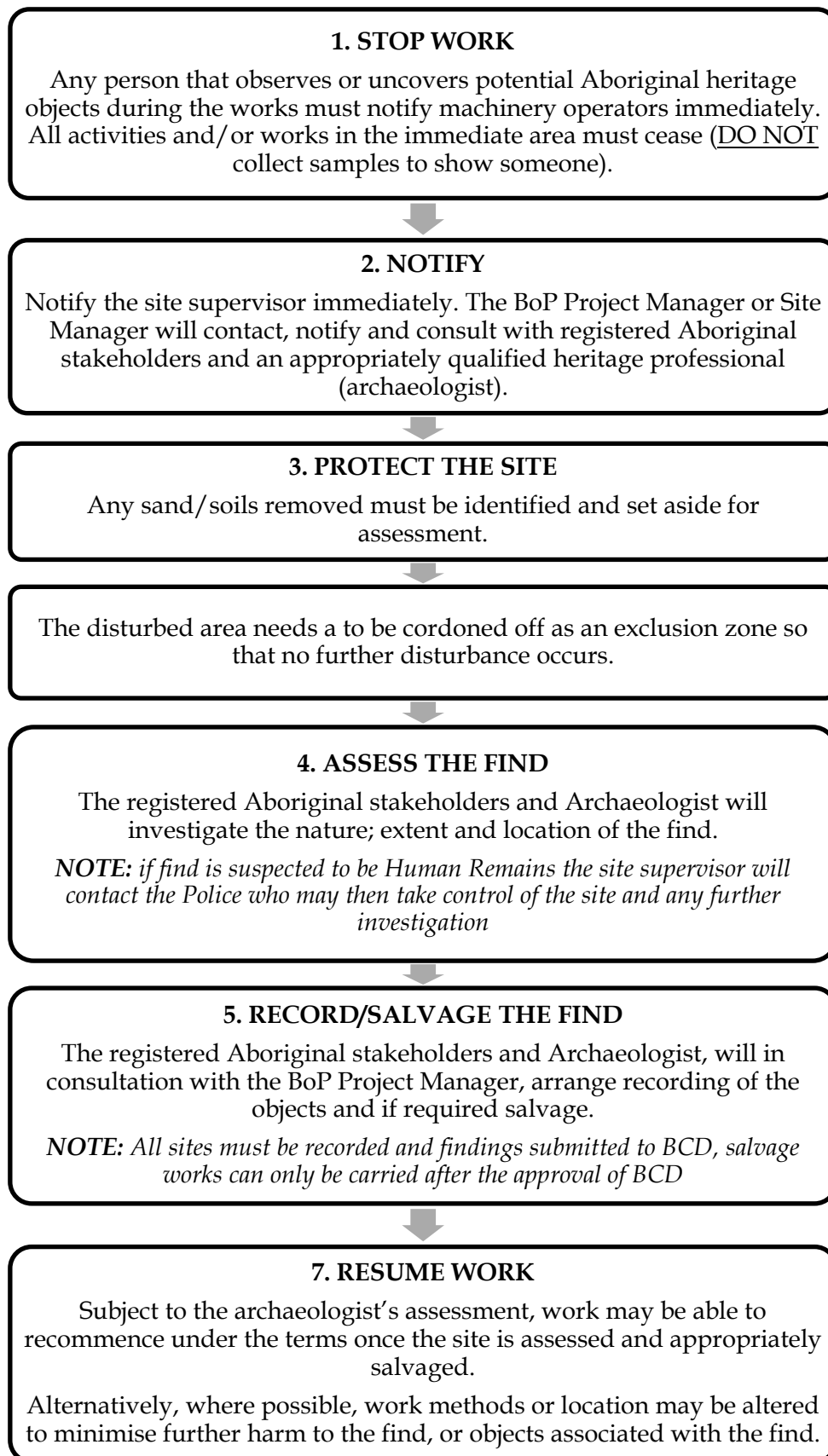
Measure	Resources needed	Responsible Party	Timing/Frequency	Performance criteria
During works, the location of all previously recorded Aboriginal and historic heritage sites will be clearly marked on all construction plans for the PA and BoP Site Manager informed of their presence and the need to avoid disturbance.	Clearly marked construction plans	BoP CM	Ongoing and as required	<ul style="list-style-type: none"> <li>■ Exclusion zones maintained around heritage sites</li> <li>■ Impact to heritage sites avoided</li> </ul>
Exclusion zone fencing and signage will be inspected on a regular basis by construction staff. The results will be recorded in the weekly inspection reports. Any damaged exclusion zone fencing and signage will be repaired as soon as practicable. At the completion of construction exclusion zone fencing will be removed.	Exclusion zone plans for all work sites	BoP CM	Weekly site inspections	<ul style="list-style-type: none"> <li>■ Exclusion zones maintained around heritage sites</li> <li>■ Impact to heritage sites avoided</li> </ul>
<p>Ongoing consultation with the Aboriginal community and registered Aboriginal stakeholders for the project will occur during the construction of the Project. The triggers for consultation with the community during construction include:</p> <ul style="list-style-type: none"> <li>■ Any additional heritage assessments for changes in project scope;</li> <li>■ Unexpected Finds Procedure;</li> <li>■ Endorsement of the heritage information to be contained in the induction package; and</li> <li>■ Representatives of one of the RAPs that provide the service, such as Buru Ngunawal Aboriginal Corporation, Thunderstone Aboriginal Cultural and Land Management Services, or Pejar LALC may be employed to undertake an induction session for all major contractors prior to works commencing.</li> </ul>		BoP CM	Ongoing and as required	<ul style="list-style-type: none"> <li>■ Maintain consultation with Aboriginal stakeholders</li> </ul>
<b>Management of previously unrecorded Aboriginal heritage</b>				
If previously unrecorded Aboriginal heritage evidence is identified within the PA, this evidence will be subject to temporary protection, recorded and appropriate management strategies implemented, in consultation with registered Aboriginal stakeholders as follows:		BoP PM and CM	As required	<ul style="list-style-type: none"> <li>■ Unexpected finds protocol is followed</li> <li>■ Only those sites that cannot be avoided are subject to surface collection/test excavation</li> </ul>

Measure	Resources needed	Responsible Party	Timing/Frequency	Performance criteria
<ul style="list-style-type: none"> <li>■ if during clearing or construction works Aboriginal artefacts are recovered a qualified archaeologist should at this time be contacted and the site recorded and assessed in consultation with the Aboriginal community;</li> <li>■ once recording has occurred salvage can be undertaken and works (with minimal disruption) can continue;</li> <li>■ all collected artefacts will temporarily be stored securely at an agreed offsite location. Following completion of artefact analysis, the artefacts will be reburied within the PA (or nearby area) that will not be impacted by the Project or any future development; and</li> <li>■ AHIMS sites cards and/or ASIR form will be completed and submitted to the AHIMS Registrar as soon as practicable.</li> </ul>				<ul style="list-style-type: none"> <li>■ An AHIMS site card submitted to the AHIMS registrar</li> <li>■ Maintain consultation with Aboriginal stakeholders</li> </ul>
Should any human skeletal remains be identified, the Developments Biala and the landowner will comply with statutory obligations and will consider the special needs of the Aboriginal community should those remains be identified as Aboriginal.		BoP PM Landowner	As required	<ul style="list-style-type: none"> <li>■ Unexpected finds protocol is followed</li> </ul>
<p>If human remains are suspected the site supervisor is to notify the NSW Police immediately. If the human remains are potentially Aboriginal Ancestral remains BCD must be notified on 131 555 as soon as practicable and provide available details of the remains and their location.</p> <p>An Aboriginal community representative must be present where it is reasonably suspected burials or human remains may be encountered.</p> <p>Works should not resume until the Police and/or BCD have given authority in writing and approved a management plan.</p>		BoP PM Landowner	As required	<ul style="list-style-type: none"> <li>■ Unexpected finds protocol is followed</li> <li>■ Only those sites that cannot be avoided are subject to surface collection/test excavation</li> <li>■ An AHIMS site card submitted to the AHIMS registrar</li> <li>■ Maintain consultation with Aboriginal stakeholders</li> </ul>

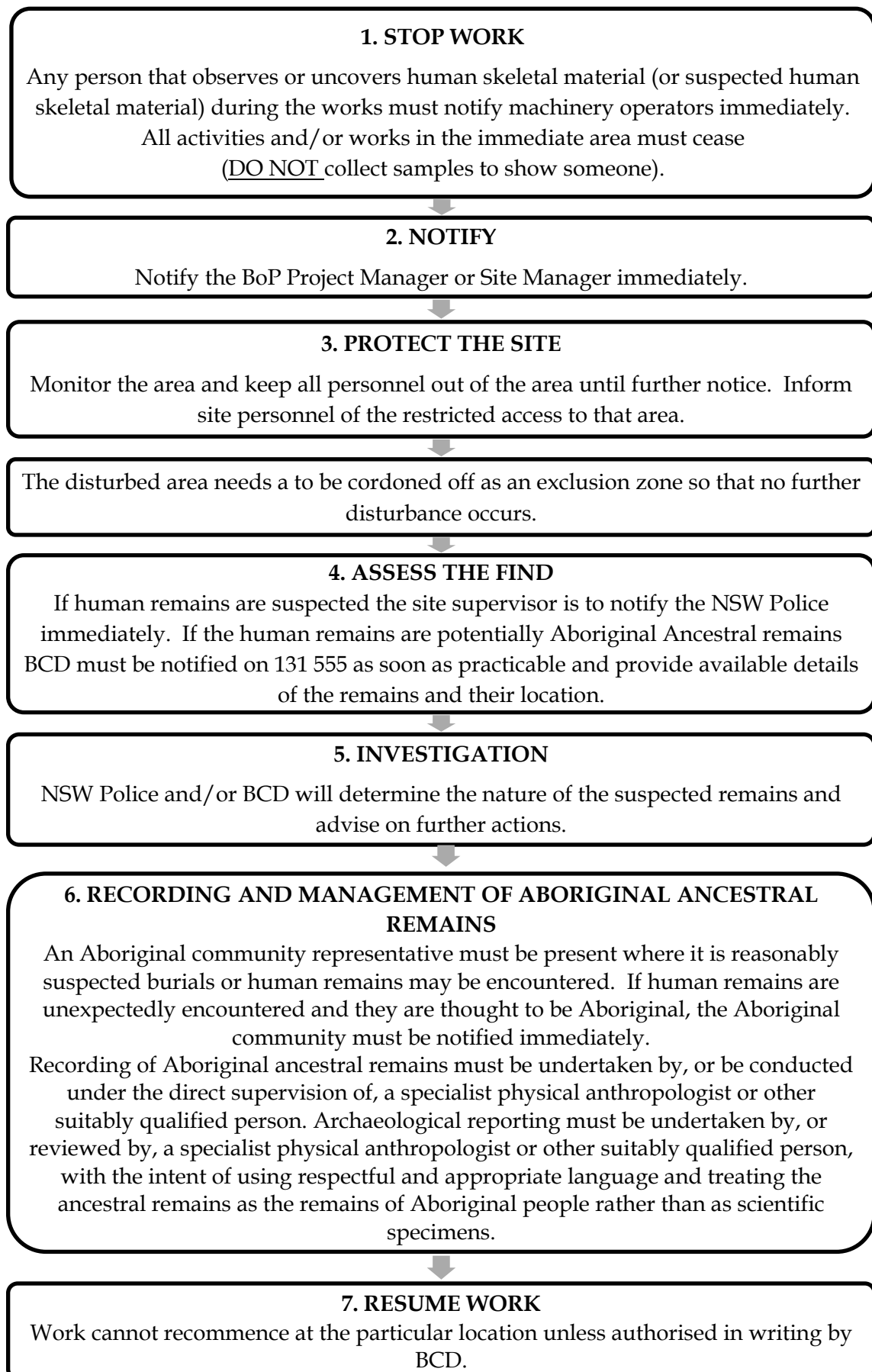


Measure	Resources needed	Responsible Party	Timing/Frequency	Performance criteria
<b>Audit and review</b>				
<p>This ACHMP should be considered a living document, with addendums to be prepared to ensure that all sites are reported and managed in accordance with this plan. In addition to the above, an internal review of this ACHMP may be conducted in response to:</p> <ul style="list-style-type: none"> <li>■ an incident recorded as a result of the operations that potentially affects any known cultural heritage site;</li> <li>■ a significant change in concept plan that may affect the implementation of this management plan;</li> <li>■ statutory requirements or directions/conditions of approvals requiring such action; or</li> <li>■ recommendations as a result of internal or external audits.</li> </ul>		BoP PM	As required	

**Figure 7.1 Protocol for Discovery of Unknown Sites**



**Figure 7.2 Protocol for Discovery of Skeletal Remains**





### **7.3 Temporary Storage Location**

All collected artefacts will be temporarily stored securely at an agreed off-site location. Following completion of artefact analysis, the artefacts will be reburied within a portion of the PA that is to be conserved and not impacted during the development. The reburial location will be agreed upon with the registered Aboriginal stakeholders and its location shared with BCD.

During the consultation workshop with registered Aboriginal stakeholders in December 2017, the need to set a timeframe on reburial was discussed. It was agreed amongst all stakeholders that a time should be agreed upon (salvage or excavation) to return artefacts to country. Six months was generally agreed as an ideal time between recovery and return to country, however it was acknowledged during the salvage works in 2018 that Project timeframes may alter this timeframe.

Artefacts recovered during salvage and excavation should be returned to country within a reasonable timeframe that is agreed amongst the registered Aboriginal stakeholders or at the completion of construction, if circumstances require that this be extended, registered Aboriginal stakeholders must be consulted and a new timeframe agreed upon.

## 8. COMPLIANCE MANAGEMENT

### 8.1 Roles and Responsibilities

The Project Management organisational structure and overall roles and responsibilities are detailed in the EMS.

### 8.2 Monitoring and Inspection

Inspections of sensitive areas, exclusion fencing and activities with the potential to impact Aboriginal heritage will occur for the duration of construction.

Monitoring and inspections of all heritage measures implemented during the design and construction phase would continue throughout the life of the Project as detailed in *Table 8.1* below.

**Table 8.1 Schedule for Monitoring, Reporting and Inspections**

Heritage Management Measure	Monitoring Method	Frequency	Responsible Party	Performance Criteria
Heritage Induction and Training	Environmental performance audits	As scheduled in Section 6.2 of the EMS	BoP PM and CM	<ul style="list-style-type: none"> <li>■ Ensure all site contractors and visitors receive suitable heritage inductions prior to carrying out any development on site</li> <li>■ Training and pre-start meeting records are maintained</li> <li>■ Cultural heritage information contained within the induction material has been endorsed for sharing by the registered Aboriginal stakeholders</li> </ul>
Notify regulatory authorities of any incidents	Environmental performance audits	As scheduled in Section 6.2 of the EMS	BoP PM and CM	<ul style="list-style-type: none"> <li>■ Copies of all notifications and evidence of consultation are retained</li> </ul>
Define known heritage sites and areas of constraint	Environmental performance audits	As scheduled in Section 6.2 of the EMS	BoP PM and CM	<ul style="list-style-type: none"> <li>■ Design drawings</li> <li>■ Exclusion zone plans for all work sites</li> <li>■ Impact to heritage sites avoided</li> <li>■ Final detailed design submitted to DPIE</li> </ul>
Micro-siting of WTG	Environmental performance audits	As scheduled in Section 6.2 of the EMS	BoP PM and CM	<ul style="list-style-type: none"> <li>■ Design drawings</li> <li>■ Impact to heritage sites avoided</li> <li>■ Final detailed design submitted to DPIE</li> </ul>
Prior to construction activities, all known heritage sites and any newly recorded sites within 150 m from any proposed infrastructure or construction activity will be fenced (plus	Environmental performance audits	As scheduled in Section 6.2 of the EMS	BoP PM and CM	<ul style="list-style-type: none"> <li>■ Exclusion zones maintained around heritage sites</li> <li>■ Impact to heritage sites avoided</li> </ul>

minimum 10 m buffer area).				
Monitoring of fencing during construction.	Weekly inspections	Weekly	BoP CM	<ul style="list-style-type: none"> <li>■ Exclusion zones maintained around heritage sites</li> <li>■ Impact to heritage sites avoided</li> </ul>
ASIR forms will be completed for each site impacted by salvage and excavation works.	Environmental performance audits	As scheduled in Section 6.2 of the EMS	Archaeologist	<ul style="list-style-type: none"> <li>■ Only those sites that cannot be avoided are subject to surface collection/test excavation</li> <li>■ ASIR forms are submitted to the AHIMS Registrar (each site impacted)</li> <li>■ An AHIMS site card submitted to the AHIMS registrar (reburial location)</li> </ul>
Discovery of unknown sites	Environmental performance audits	As scheduled in Section 6.2 of the EMS	BoP PM and CM	<ul style="list-style-type: none"> <li>■ Unexpected finds protocol is followed</li> <li>■ Only those sites that cannot be avoided are subject to surface collection/test excavation</li> <li>■ An AHIMS site card submitted to the AHIMS registrar</li> <li>■ Maintain consultation with Aboriginal stakeholders</li> </ul>

### 8.3 Record Keeping and Auditing

All records would be stored safely and be readily accessible for auditing. The BoP Compliance Manager is responsible for maintaining all environmental management documents as current at the point of use.

Types of records relevant to this ACHMP include:

- monitoring, inspection and compliance reports/records;
- correspondence with public authorities and registered Aboriginal stakeholders;
- induction and training records;
- reports on unexpected finds and any unexpected impacts to heritage; and
- records of complaints and follow-up action.

### 8.4 Review and Continuous Improvement of ACHMP

This ACHMP should be considered a living document, with addendums to be prepared to ensure that all sites are reported and managed in accordance with this plan. Continuous improvement of this plan will be achieved by the ongoing evaluation of heritage management performance against heritage policies, objectives and targets to identify opportunities for improvement. This ACHMP may be audited (if required) under the scope of any external environmental compliance audits.

In addition to the above, an internal review of this ACHMP may be conducted in response to:

- an incident recorded as a result of the operations that potentially affects any known cultural heritage site;
- a significant change in concept plan that may affect the implementation of this management plan;
- statutory requirements or directions/conditions of approvals requiring such action; or
- recommendations as a result of internal or external audits.

Any revisions to the ACHMP will not be implemented until the registered Aboriginal stakeholders have been provided notification of and a minimum 15 working days to comment on the proposed amendments.



## 9. REFERENCES

- Binford, L.R. (1979) Organization and Formation Processes: Looking at Curated Technologies. *Journal of Anthropological Research*, 35:255-273.
- Biosis (2005) Archaeological Sub-Surface Testing at the Proposed Crookwell II Wind Farm, NSW. Report to Gamesa Energy Australia.
- DEC. (2005) Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation.
- DECCW. (2010) Aboriginal Cultural Heritage Consultation Requirements for Proponents.
- DECCW. (2010) Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales.
- ERM (2016) Biala Wind Farm Aboriginal and Historic Cultural Heritage Assessment. Report to Developments Biala Pty Ltd.
- Hiscock, P. (1986) Raw Material Rationing as an Explanation of Assemblage Differences: A Case Study of Lawn Hill, Northwest Queensland. *Archaeology at ANZAAS*, Canberra, G.Ward (ed.), Canberra Archaeological Society, Canberra, 178-190.

## Appendix A

## DPIE ENDORSEMENT LETTER



Mr Derek Powell  
Beijing Jingneng Clean Energy Co., Ltd  
Biala Wind Farm

Via Email to: [alice.patterson@jnec.com](mailto:alice.patterson@jnec.com)

Dear Mr Powell

**Biala Wind Farm (SSD 6039)  
Approval of Experts**

I refer to your letter dated 16 November 2017, seeking the Secretary's endorsement of experts to prepare the Heritage Management Plan (HMP) for the Biala Wind Farm.

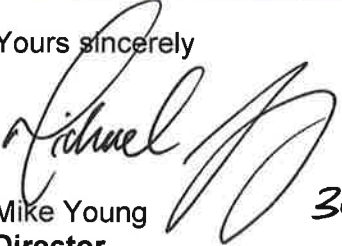
The Department has reviewed the information you provided, in consultation with the Office of Environment and Heritage (OEH), and is satisfied that the nominated experts are suitably experienced and qualified to prepare the HMP.

Accordingly, the Secretary has endorsed the following experts from Environmental Resources Management Australia (ERM):

- Erin Finnegan – Principal Consultant;
- Joanne Woodhouse – Senior Consultant; and
- Katherine Deverson – Consultant.

If you require further information, please contact Stephen Shoesmith on 9274 6164 or by email to [stephen.shoesmith@planning.nsw.gov.au](mailto:stephen.shoesmith@planning.nsw.gov.au).

Yours sincerely



30/11/17.

Mike Young  
**Director**  
**Resource and Energy Assessments**  
as nominee of the Secretary

## Appendix B

## ONGOING CONSULTATION



28 November, 2017

Peter Falk Consultancy;  
Pejar Local Aboriginal Land Council;  
Buru Ngunawal Aboriginal Corporation (BNAC);  
Gulgunya Ngunawal Heritage Aboriginal Consultancy;  
Gundungurra Tribal Council Aboriginal Corporation; and  
Thunderstone Aboriginal Cultural and Land Management Services.

*Our Reference: Biala Windfarm Cultural Heritage Workshop.docx*

**RE: BIALA WINDFARM CULTURAL HERITAGE WORKSHOP**



Environmental Resources Management Australia Pty Ltd (ERM) has been engaged by the Newtricity Developments Biala Pty Ltd (Newtricity) to prepare a Cultural Heritage Management Plan (CHMP) to guide the final design and construction of the Biala Windfarm, excluding the transmission line which is subject to separate assessment.

The windfarm is a State Significant Development project and environmental initiative that represents an important contribution to renewable energy generation in NSW. The Planning Assessment Commission (PAC) as a delegate of the Minister for Planning granted consent to the windfarm development (SSD 6039) on 12 April 2017.

Consultation for this project commenced in 2013 at the project planning stage and will extend beyond the development of the CHMP throughout Project construction as a required. Consultation was undertaken in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010) and resulted in the establishment of a stakeholder register. The registered Aboriginal stakeholders for this project include representatives from:

- Peter Falk Consultancy;
- Pejar Local Aboriginal Land Council;
- Buru Ngunawal Aboriginal Corporation (BNAC);
- Gulgunya Ngunawal Heritage Aboriginal Consultancy (formerly Koomurri Ngunawal Aboriginal Corporation);
- Gundungurra Tribal Council Aboriginal Corporation; and
- Thunderstone Aboriginal Cultural and Land Management Services.

Newtricity is committed to undertaking ongoing consultation and wishes to consult with you as part of this process. Your input into the process will ensure

that the management actions and consultation commitments are developed based on the recognised cultural heritage values of the sites.

ERM wishes to invite you to a heritage management workshop to be held on **Friday 15 December 2017**. The workshop is an opportunity for you to raise any issues or concerns that may need to be addressed as part of the project and the future management of Aboriginal heritage values within project area. The results of the workshop will feed directly into the management recommendations and communication protocols.

The half day workshop will take place at:

**Gunning Council Chambers**

123 Yass St, Gunning

Date: Friday 15 December 2017

Time: 12 noon – 3pm

ERM requests that you confirm your availability to attend the consultation workshop prior to **Friday 8 December 2017**.

Please provide feedback to **Katherine Deverson** on the following contact details:

**Post: PO Box 4160, Kingston, ACT 2604**

**Phone: 02 8584 8813 or 02 6126 5311**

**Email: [kattherine.deverson@erm.com](mailto:kattherine.deverson@erm.com)**

Yours faithfully,

for Environmental Resources Management Australia Pty Ltd

Katherine Deverson  
ERM Archaeologist

Paul Douglass  
ERM Partner

## Stage 1 – Notification of Project Proposal and Registration of Interest

### Stage 1.1 – Agencies Contacted

Body/Group	Contact Name	Contact Details	Date Sent	Comment
OEH Branch: Quenbeyan		info@environment.nsw.gov.au 02 6229 7177	26.09.2013	Follow up email sent 15.10.2013
Local Aboriginal Land Council (LALC) – Pejar (Goulburn)		Pejar1@bigpond.com	26.09.2013	Follow up email sent 15.10.2013
The Registrar, <i>Aboriginal Lands Right Act</i>	Tabatha Dantoine	adminofficer@oralra.nsw.gov.au	26.09.2013	Follow up email sent 15.10.2013
National Native Title Tribunal (NNTT)	Online Search	enquiries@nntt.gov.au	26.09.2013	Follow up email sent 15.10.2013
Native Title Services Corporation (NTS Corp)	Peter Schultz	information@ntscorp.com.au	26.09.2013	Follow up email sent 15.10.2013
Local Council : Upper Lachlan Council	Tina Dodson	council@upperlachlan.nsw.gov.au	26.09.2013	Follow up email sent 15.10.2013
Local Catchment Management Authority: Lachlan		lachlan@cma.nsw.gov.au	26.09.2013	Follow up email sent 15.10.2013
Buru Ngunawal Aboriginal Corporation	Tyrone Bell	thunderstonemg@gmail.com	N/A	Follow up email sent 15.10.2013

### Stage 1.2 – Agency Responses

Body/Group	Contact	Date of Reply	Comment
OEH Branch: Quenbeyan	Harvey Johnston 03 5021 8914	16.10.2013	List of stakeholders provided
Local Aboriginal Land Council (LALC) – Pejar (Goulburn)	Delise Freeman		
The Registrar, <i>Aboriginal Lands Right Act</i>	-		
National Native Title Tribunal (NNTT)	Search Online	1/10/13	Gundungurra Aboriginal Tribal Corporation listed
Native Title Services Corporation (NTS Corp)	-	-	-
Local Catchment Management Authority: Lachlan	-	-	-
Local Council: Upper Lachlan Council	Jacqueline Impey	17.10.2013	Stakeholder list provided

### Stage 1.3 – Newspaper Advert

Newspaper	Contact	Date Sent	Date Published
Crookwell Gazette	Kristy Page	18.10.2013	22.10.2013

### Stage 1.4 – List of Stakeholders groups Identified & Project Notification Sent

Organisation/Person	Contact	Date Sent	Request to register sent
Buru Ngunawal Aboriginal Corporation	Wally Bell walbell@bigpond.net.au 0419 425 347	18.10.2013	Sent via email
Onerwal LALC	95 Meeham Street Yass NSW 2582 <a href="mailto:Onerwal1@bigpond.com.au">Onerwal1@bigpond.com.au</a> (02) 62265346	18.10.2013	Sent via mail
Pejar LALC	Denise Freeman 80 Combermere St Goulburn NSW 2580 (02) 48223552 Pejar1@bigpond.com	18.10.2013	Sent via mail
Peter Falk Consultancy	PO Box 1018 Mittagong NSW 2575	18.10.2013	Sent via mail
Gundungurra Aboriginal Heritage Association Inc.	Sharyn Halls PO Box 31, Lawson NSW 2783	18.10.2013	Sent via mail
Gundungarra Tribal Council Aboriginal Corporation	Eddy Neumann Lawyers Level 1 255 Castlereagh Street SYDNEY NSW 2000 Phone: (02) 9264 9933 Fax: (02) 9264 9966	18.10.2013	Sent via mail
Alice Williams	3 Goonda St, Cooma NSW 2630	18.10.2013	Sent via mail



### Stage 1.5- Registered Aboriginal Parties

Organisation/Person	Contact	Date Registered	How the registration was received & any comments
Peter Falk Consultancy	Peter Falk Consultancy 0401938060 PO Box 1018 Mittagong NSW 2575	22/10/13	Email to Adam Coburn
Pejar LALC	Denise Freeman 80 Combermere St Goulburn NSW 2580 (02) 48223552 Pejar1@bigpond.com	29/10/13	Email to Adam Coburn
Koomurri Ngunawal Aboriginal Corporation	Glen Freeman Director/Contact Person Koomurri Ngunawal Aboriginal Corporation Mobile: 0451790215 Email: KoomurriNAC@hotmail.com	5/11/13	Email to Adam Coburn
Buru Ngunawal Aboriginal Corporation	Wally Bell walbell@bigpond.net.au 0419 425 347	8/11/13	Email from Wally Bell to Janene May
Gundungurra Aboriginal Tribal Corporation	Sharon Brown Eddy Neumann Lawyers 255 Castlereagh Street SYDNEY NSW 2000 Phone: (02) 9264 9933 sharonbrown@gundungurra.org.au	23-28/1/14	Follow up email to Sharon Brown on 23 Jan 2014 asking to register for project and provision of project information/field survey information Email response received 28 January registering an interest in the project and that she would get back to me with details for the field survey
Thunderstone Aboriginal Cultural and Land Management Services	Tyrone Bell <a href="mailto:thunderstonemg@gmail.com">thunderstonemg@gmail.com</a> 0407 517 844	19/2/2015	Email to Janene May

## Stage 2 – Presentation of information about the proposed project

### Stage 2.1, 2.2 and 2.3 Presentation of proposed project information, proposed assessment methodology and field survey

Aboriginal Organisation/Person	Date Sent	Date Reply	Comments, outcomes and/or issues
Peter Falk Consultancy	19/11/13		
Pejar LALC	19/11/13		
Koomurri Ngunawal Aboriginal Corporation	19/11/13		
Buru Ngunawal Aboriginal Corporation	19/11/13		
Gundungurra Aboriginal Tribal Corporation	23/1/14	Replied 28/1/14 registering interest and stating would get back to me with details	No comments received

### Stage 2.4 – Seek information from RAP on (a) the presence of Aboriginal objects of cultural value and (b) places of cultural value

RAP	Date	Cultural values identified
Peter Falk Consultancy	7/2/14 during site inspection	Comments during field survey – sites have cultural significance, Peter identified that several of the sites identified during the field survey should be subjected to subsurface testing if impacted, Aboriginal groups should be involved in all salvage, testing and should also be involved in a cultural awareness training programme
Pejar LALC	Letter requesting known cultural values sent 18/10/13 and 19/11/13, attendance of field survey on 7/2/14 – open discussion of values.	No comments so far, awaiting response to draft report
Koomurri Ngunawal Aboriginal Corporation	5/2/14 during site inspection	Area is highly significant and was occupied by Ngunawal people in the past as evidence by archaeological sites present throughout the area.
Buru Ngunawal Aboriginal Corporation	4/2/14 during site inspection	Potential fish trap site has a high level of cultural significance. High density sites also have a high level of cultural significance should be avoided where possible. Tyrone Bell identified various areas of PAD which should undergo subsurface testing prior to impacts.
Gundungurra Aboriginal Tribal Corporation	Letter sent 18/10/13, email follow up 23/1/14, 29/1/14 and 30/1/14, call made to Eddy Neumann Lawyers on 12/12/14 and to Sharon Brown on 12/12/14.	No comments so far, awaiting response to draft report.

## 2017 – Preparation of ACHMP

Organisation/Person	Contact	Contact Details	Workshop Invite Sent	Response	Notes
Peter Falk Consultancy	Peter Falk	PO Box 1018 Mittagong NSW 2575	24/11/2017	No response	Advised by OEH in April 2018 that consultancy no longer active
Pejar Local Aboriginal Land Council	Delise Freeman CEO	Pejar Local Aboriginal Land Council PO Box 289 Goulburn NSW 2580 <a href="mailto:pejar1@bigpond.com">pejar1@bigpond.com</a>	24/11/2017		Accepted invitation for attendance at workshop
Buru Ngunawal Aboriginal Corporation	Wally Bell	Buru Ngunawal Aboriginal Corporation PO Box 255, Kippax ACT 2615 0419 425 347 <a href="mailto:wally@buru-ngunawal.com">wally@buru-ngunawal.com</a>	24/11/2017	8/12/2017	Accepted invitation for attendance at workshop
Gulgunya Ngunawal Heritage Aboriginal Consultancy (formerly Koomurri Ngunawal Aboriginal Corporation)	Glen Freeman	Gulgunya Ngunawal Heritage Aboriginal Consultancy <a href="mailto:GulgunyaNHAC@hotmail.com">GulgunyaNHAC@hotmail.com</a>	24/11/2017	4/12/2017	Accepted invitation for attendance at workshop
Gundungarra Tribal Council Aboriginal Corporation	Sharon Brown	Sharon Brown <a href="mailto:ghal6522@bigpond.net.au">ghal6522@bigpond.net.au</a>	24/11/2017	No response	
Thunderstone Aboriginal Cultural and Land Management Services	Mr Tyronne Bell	Thunderstone Aboriginal Cultural and Land Management Services PO Box 6900 CHARNWOOD ACT 2615 <a href="mailto:thunderstonemg@gmail.com">thunderstonemg@gmail.com</a>	24/11/2017	4/12/2017	Accepted invitation for attendance at workshop

## 2017 –ACHMP Workshops

Organisation/Person	Attendee	Workshop location	Date and time	Notes
Pejar Local Aboriginal Land Council	Delise Freeman	Pejar Local Aboriginal Land Council Goulburn NSW	Friday afternoon 15/12/2017	
Buru Ngunawal Aboriginal Corporation	Wally Bell	Gunning Council Chamber Gunning NSW	Friday morning 15/12/2017	
Gulgunya Ngunawal Heritage Aboriginal Consultancy	Glen Freeman	Gunning Council Chamber Gunning NSW	Friday morning 15/12/2017	
Thunderstone Aboriginal Cultural and Land Management Services	Tyronne Bell	Kingston, ACT	Monday afternoon 18/12/2017	

## 2017 – ACHMP Workshops Minutes/Outcomes

Workshop	Attendees	Notes/Minutes
Workshop format and general comments from all workshops	N/A	<p>During the workshops we read through the recommendations for mitigation measures as detailed in the ACHA (ERM 2014), we also discussed the siting changes that had occurred in project plans since the ACHA was prepared. In general the recommendations from the ACHA were agreed on with some comments and additions to details, as follows:</p> <ul style="list-style-type: none"> <li>Fencing sites that will not be impacted by works so they are not disturbed by things like parking or lay down areas;</li> <li>Surface collection or salvage of sites that are likely to be impacted by things like transport;</li> <li>Subsurface testing and surface collection by sites with archaeological potential that may be disturbed below the surface. To determine the extent and nature of sites.</li> </ul>
Friday morning 15/12/2017	Wally Bell, Glen Freeman	<p>Specific outcomes of this workshop include:</p> <ul style="list-style-type: none"> <li>Access road between T30 and T31 through BWF PAD1 – recommended to use the alternate optional track;</li> <li>In relation to fencing, what type of fencing will be used? It should be permanent. Suggested that after heritage consultant and RAPS come through and put in temporary fencing, a more permanent fencing type can replace it. Given that it is a windy area;</li> <li>Signage should be put on fencing to read something like “ Protected heritage area”;</li> <li>Question: Could salvage planned on the optional access track at BWF 2 site be avoided if the optional</li> </ul>



Workshop	Attendees	Notes/Minutes
		<p>access track just be avoided?;</p> <ul style="list-style-type: none"> <li>• Salvages should include a salvage buffer and a 50 m area in all directions should be mandatory;</li> <li>• PAD and BWF 21, could alternative access track be used instead to avoid and sub-surface disturbance?;</li> <li>• For fenced areas, proposed that area to be fenced by AHIMS/survey area plus 5 m in all directions; and</li> <li>• For salvaged/collected material, if not possible to rebury straightaway, a time limit should be put on items reburial, such as 3 months and proposed that no container be used for burial to retain connection to country.</li> </ul>
Friday afternoon 15/12/2017	Delise Freeman	<p>Specific outcomes of this workshop that differed to that detailed above include:</p> <ul style="list-style-type: none"> <li>• Scar Tree BWF17 need more permanent fencing (but also at other sites); and</li> <li>• Suggest that 3 month time limit for reburial too short to allow for sufficient analysis and reporting finalisation, suggested 6 month time limit.</li> </ul>
Monday afternoon 18/12/2017	Tyronne Bell	<p>Specific outcomes of this workshop that differed to that detailed above include:</p> <ul style="list-style-type: none"> <li>• Agreed that fencing should be constructed around no go areas with signage, including at PADs etc.</li> </ul>

### 2018 – Ongoing Consultation

Date	RAP/Contact Name	Contact Made By:	Form of Contact:	Evidence of Consultation	Details.	Response/Follow up?
09/05/2018	Pejar Local Aboriginal Land Council – Delise Freeman	Katherine Deverson ERM	Email	Yes	Emailed draft ACHMP, asking for any comments by 7 June 2018.	
09/05/2018	Buru Ngunawal Aboriginal Corporation – Wally Bell	Katherine Deverson ERM	Email	Yes	Emailed draft ACHMP, asking for any comments by 7 June 2018.	

Date	RAP/Contact Name	Contact Made By:	Form of Contact:	Evidence of Consultation	Details.	Response/Follow up?
09/05/2018	Gulgunya Ngunawal Heritage Aboriginal Consultancy – Glen Freeman	Katherine Deverson ERM	Email	Yes	Emailed draft ACHMP, asking for any comments by 7 June 2018.	
09/05/2018	Thunderstone Aboriginal Cultural and Land Management Services – Tyrone Bell	Katherine Deverson ERM	Email	Yes	Emailed draft ACHMP, asking for any comments by 7 June 2018.	
09/05/2018	Gundungarra Tribal Council Aboriginal Corporation – Sharon Brown	Katherine Deverson ERM	Email	Yes	Emailed draft ACHMP, asking for any comments by 7 June 2018.	
06/07/2018	Pejar Local Aboriginal Land Council – Delise Freeman	Katherine Deverson ERM	Email	Yes	Emailed asking for any comments on draft ACHMP before final document prepared.	
06/07/2018	Buru Ngunawal Aboriginal Corporation – Wally Bell	Katherine Deverson ERM	Email	Yes	Emailed asking for any comments on draft ACHMP before final document prepared.	
06/07/2018	Gulgunya Ngunawal Heritage Aboriginal Consultancy – Glen Freeman	Katherine Deverson ERM	Email	Yes	Emailed asking for any comments on draft ACHMP before final document prepared.	

Date	RAP/Contact Name	Contact Made By:	Form of Contact:	Evidence of Consultation	Details.	Response/Follow up?
06/07/2018	Thunderstone Aboriginal Cultural and Land Management Services – Tyrone Bell	Katherine Deverson ERM	Email	Yes	Emailed asking for any comments on draft ACHMP before final document prepared.	
06/07/2018	Gundungarra Tribal Council Aboriginal Corporation – Sharon Brown	Katherine Deverson ERM	Email	Yes	Emailed asking for any comments on draft ACHMP before final document prepared.	
07/07/2018	Thunderstone Aboriginal Cultural and Land Management Services – Tyrone Bell	Thunderstone Aboriginal Cultural and Land Management Services – Tyrone Bell	Email	Yes	TB emailed to advise that he had not reviewed the ACHMP as yet but would do so.	
09/07/2018	Pejar Local Aboriginal Land Council – Delise Freeman	Pejar Local Aboriginal Land Council – Delise Freeman	Email	Yes	DF emailed to advise that she had not reviewed the ACHMP as yet but would do so.	
12/07/2018	Thunderstone Aboriginal Cultural and Land Management Services – Tyrone Bell	Thunderstone Aboriginal Cultural and Land Management Services – Tyrone Bell	Phone Call	Consultation log	<p>TB called to advised that he would submit response to ACHMP draft the following week (week of 16/07/2018). Comments on the ACHMP raised during called included advising that references to advising the PLALC of chance finds etc. should be changed to “all relevant RAPS”, and that buffer zones around known sites should be more than the stated 5 metres.</p> <p>TB advised that he had more comments.</p>	<p>TB to submit response to ACHMP draft 16/07/2018 to 20/07/2018</p> <p>20/08/2018 – KD updated that ACHMP based on the comments received over the phone.</p>

Date	RAP/Contact Name	Contact Made By:	Form of Contact:	Evidence of Consultation	Details.	Response/Follow up?
18/07/2018	Gulgunya Ngunawal Heritage Aboriginal Consultancy – Glen Freeman	Gulgunya Ngunawal Heritage Aboriginal Consultancy – Glen Freeman	Phone Call	Consultation log	GF called to provide feedback on the ACHMP draft. GF advised that PLALC may not be the best RAP to administer cultural awareness training as the project area is within Ngunnawal country and that representatives from Thunderstone Aboriginal Cultural and Land Management Services or Buru Ngunawal Aboriginal Corporation would be better placed to provide the training and that both did provide the service. GF also advised that recommendation for 5 metre buffer areas around known sites should be increased to 10 metres.	20/08/2018 – KD updated that ACHMP based on the comments received over the phone.
15/08/2018	Pejar Local Aboriginal Land Council – Delise Freeman	Katherine Deverson ERM	Email	Yes	Follow up email asking for any comments on draft ACHMP before final document prepared.	
15/08/2018	Thunderstone Aboriginal Cultural and Land Management Services – Tyrone Bell	Katherine Deverson ERM	Email	Yes	Follow up email asking for any comments on draft ACHMP before final document prepared.	
15/08/2018	Buru Ngunawal Aboriginal Corporation – Wally Bell	Katherine Deverson ERM	Email	Yes	Follow up email asking for any comments on draft ACHMP before final document prepared.	
15/08/2018	Pejar Local Aboriginal Land Council – Delise Freeman	Pejar Local Aboriginal Land Council – Delise Freeman	Email	Yes	DF emailed endorsing the ACHMP, with no further comments.	KD emailed a reply thanking DF for her response.



Date	RAP/Contact Name	Contact Made By:	Form of Contact:	Evidence of Consultation	Details.	Response/Follow up?
15/08/2018	Buru Ngunawal Aboriginal Corporation – Wally Bell	Buru Ngunawal Aboriginal Corporation – Wally Bell	Email	Yes	WB emailed endorsing the overall content and direction of the ACHMP. Stating that: “Cultural awareness inductions are imperative, as most work personnel really have no concept or idea what Aboriginal culture is and the importance of connection to country both from a physical and spiritual sense. BNACC agrees with the overall content and direction of the ACHMP and would like to see that a strong focus is maintained on this. Although the scientific emphasis states the cultural heritage evident for this project is of a low to moderate significance, we as the traditional custodians would like to point out that all sites, objects and lands within our tribal boundary do hold and maintain a very high significant spiritual and cultural importance to us as a direct cultural heritage link to Country.”	KD emailed a reply thanking WB for his response. 20/08/2018 – KD updated that ACHMP based on the comments received in this email.
21/09/2018	Pejar Local Aboriginal Land Council – Delise Freeman	Katherine Deverson ERM	Email	Yes	Methodology and invitation to participate in the survey of additional impact areas as per the requirements of the approved management plan. Response requested by Friday 5th October. Representatives invited to attend on 15 and 16 October.	10/10/2018. ERM followed up with an email to confirm if anyone was available to attend the surveys on 15 and 16 October.
21/09/2018	Thunderstone Aboriginal Cultural and Land Management Services – Tyrone Bell	Katherine Deverson ERM	Email	Yes	Methodology and invitation to participate in the survey of additional impact areas as per the requirements of the approved management plan. Response requested by Friday 5th October. Representatives invited to attend on 15 and 16 October.	

Date	RAP/Contact Name	Contact Made By:	Form of Contact:	Evidence of Consultation	Details.	Response/Follow up?
21/09/2018	Gulgunya Ngunawal Heritage Aboriginal Consultancy – Glen Freeman	Katherine Deverson ERM	Email	Yes	Methodology and invitation to participate in the survey of additional impact areas as per the requirements of the approved management plan. Response requested by Friday 5th October. Representatives invited to attend on 11 and 12 October.	
21/09/2018	Buru Ngunawal Aboriginal Corporation – Wally Bell	Katherine Deverson ERM	Email	Yes	Methodology and invitation to participate in the survey of additional impact areas as per the requirements of the approved management plan. Response requested by Friday 5th October. Representatives invited to attend on 11 and 12 October.	10/10/2018. ERM followed up with an email to confirm if anyone was available to attend the surveys on 11 and 12 October.

### 2019 – Ongoing Consultation

Date	RAP/Contact Name	Contact Made By:	Form of Contact:	Evidence of Consultation	Details.	Response/Follow up?
14/05/2019	DPI&E	BJCE	Meeting	No	Meeting at DPI&E offices between Paul Freeman, Steve O'Donoghue, and Tim Mead (Proponent), to discuss Biala Wind Farm including infrastructure layout, disturbance footprint, and associated biodiversity and heritage impacts.	
17/05/2019	DPI&E	BJCE	Email	Yes	Notification to DPI&E that surface collection/ salvage works are proposed to be implemented at BWF1, BWF11, BWF22, BWF23, BWF24.	
23/05/2019	Pejar Local Aboriginal Land Council – Delise Freeman	Katherine Deverson ERM	Email	Yes	Proposed methodology and invitation to participate in the fencing of all known heritage sites within 150m of construction activities and the surface collection of artefacts for the five sites that cannot be avoided. Proposed methodology as per the requirements of the approved management plan. Response to methodology requested by Friday 14 June 2019. Representative invited to attend 17 – 20 June.	28/05/2019 Delise replied via email and confirmed that Pejar would attend the works. 14/06/2019 ERM sent email to confirm survey details.
23/05/2019	Buru Ngunawal Aboriginal Corporation – Wally Bell	Katherine Deverson ERM	Email	Yes	Proposed methodology and invitation to participate in the fencing of all known heritage sites within 150m of construction activities and the surface collection of artefacts for the five sites that cannot be avoided. Proposed methodology as per the requirements of the approved management plan. Response to methodology requested by Friday 14 June 2019. Representative invited to attend 17 and 18 June.	13/06/19 ERM resent the invitation to a new email address. 14/06/2019 ERM sent email to confirm if anyone was available to attend the surveys on 11 October. Wally responded via reply email and confirmed that one representative would attend.

Date	RAP/Contact Name	Contact Made By:	Form of Contact:	Evidence of Consultation	Details.	Response/Follow up?
23/05/2019	Thunderstone Aboriginal Cultural and Land Management Services – Tyronne Bell	Katherine Deverson ERM	Email	Yes	Proposed methodology and invitation to participate in the fencing of all known heritage sites within 150m of construction activities and the surface collection of artefacts for the five sites that cannot be avoided. Proposed methodology as per the requirements of the approved management plan. Response to methodology requested by Friday 14 June 2019. Representative invited to attend 19 and 20 June.	Tyronne phoned to confirm that Thunderstone would attend the works.
16/06/2019	Pejar Local Aboriginal Land Council – Delise Freeman	Katherine Deverson ERM	Email and phone call	Yes	ERM phoned and sent follow up email to confirm that site access was not available for Monday 17 June and the mitigation works would be delayed.	
16/06/2019	Buru Ngunawal Aboriginal Corporation – Wally Bell	Katherine Deverson ERM	Email and phone call	Yes	ERM phoned and sent follow up email to confirm that site access was not available for Monday 17 June and the mitigation works would be delayed.	
16/06/2019	Thunderstone Aboriginal Cultural and Land Management Services – Tyronne Bell	Katherine Deverson ERM	Email and phone call	Yes	ERM phoned and sent follow up email to confirm that site access was not available for Monday 17 June and the mitigation works would be delayed.	
24/06/2019	Pejar Local Aboriginal Land Council – Delise Freeman	Katherine Deverson ERM	Email	Yes	ERM sent follow up email to confirm that site access has been confirmed and the mitigation works would be undertaken the week commencing 1 July,	24/06/2019 Delise replied via email and confirmed that Pejar would attend the works.

Date	RAP/Contact Name	Contact Made By:	Form of Contact:	Evidence of Consultation	Details.	Response/Follow up?
24/06/2019	Buru Ngunawal Aboriginal Corporation – Wally Bell	Katherine Deverson ERM	Email	Yes	ERM sent follow up email to confirm that site access has been confirmed and the mitigation works would be undertaken the week commencing 1 July, A representative from BNAC is invited to attend on Monday 1 <sup>st</sup> and Thursday 4 <sup>th</sup> July 2019.	26/06/2019 ERM sent an email to confirm that BNAC had received the new dates.
24/06/2019	Thunderstone Aboriginal Cultural and Land Management Services – Tyronne Bell	Katherine Deverson ERM	Email	Yes	ERM sent follow up email to confirm that site access has been confirmed and the mitigation works would be undertaken the week commencing 1 July, A representative from Thunderstone is invited to attend on Tuesday 2 <sup>nd</sup> and Wednesday 3 <sup>rd</sup> July 2019.	
8/10/2019	Pejar Local Aboriginal Land Council – Delise Freeman	Stephanie Moore ERM	Email	Yes	Proposed methodology and invitation to participate in the test excavation works at BWF19 as per the requirements of the approved management plan. Works proposed 11-13 November 2019.	
8/10/2019	Buru Ngunawal Aboriginal Corporation – Wally Bell	Stephanie Moore ERM	Email	Yes	Proposed methodology and invitation to participate in the test excavation works at BWF19 as per the requirements of the approved management plan. Response to methodology requested by Friday 1 November 2019. Works proposed 11-13 November 2019.	4/11/2019 ERM sent an email to confirm if BNAC would be attending the surveys. 4/11/2019 BNAC replied and confirmed that they had prior commitments and would not be attending.



Date	RAP/Contact Name	Contact Made By:	Form of Contact:	Evidence of Consultation	Details.	Response/Follow up?
8/10/2019	Thunderstone Aboriginal Cultural and Land Management Services – Tyronne Bell	Stephanie Moore ERM	Email	Yes	Proposed methodology and invitation to participate in the test excavation works at BWF19 as per the requirements of the approved management plan. Response to methodology requested by Friday 1 November 2019. Works proposed 11-13 November 2019.	31/10/2019 Email confirmation that a representative would be attending for the three days.
6/11/2019	DPI&E	BJCE	Email and phone call	Yes	Notification to the DPI&E that test excavations are scheduled to commence on Monday 11 <sup>th</sup> November at heritage site BWF19 due to detailed design requiring an access road to be constructed through this location (not able to avoid). The works will be conducted in accordance with the approved ACHMP for Biala Wind Farm.	6/11/2019 Email follow-up clarifications from DPI&E and a phone call.
14/11/2019	DPI&E	BJCE	Email	Yes	Notification to the DPI&E that test excavations at BWF19 are complete. Investigation found no sensitive subsurface material – summary field report provided.	
25/11/2019	Pejar Local Aboriginal Land Council – Delise Freeman	Stephanie Moore ERM	Email	Yes	ERM provided a summary letter relating to the works undertaken at Biala Windfarm 11-13 November. The aim of this summary is to secure endorsement of the works undertaken, to allow Newtricity to continue construction activities while we prepare the updates to the CHMP, in line with the results of the testing and met mast location survey.	
25/11/2019	Thunderstone Aboriginal Cultural and Land Management Services – Tyronne Bell	Stephanie Moore ERM	Email	Yes	ERM provided a summary letter relating to the works undertaken at Biala Windfarm 11-13 November. The aim of this summary is to secure endorsement of the works undertaken, to allow Newtricity to continue construction activities while we prepare the updates to the CHMP, in line with the results of the testing and met mast location survey.	02/02/2019 Tyronne provided a copy of the signed endorsement page.

**From:** [Stephen Shoesmith](#)  
**To:** [Alice Patterson](#)  
**Cc:** ["Tim Mead"](#); ["Derek Powell"](#); [Nicole Brewer](#)  
**Subject:** RE: Biala Wind Farm (SSD6039) Draft Biodiversity MP endorsement request  
**Date:** Thursday, 5 April 2018 11:20:07 AM  
**Attachments:** [image001.jpg](#)  
[Biala WF management plans letter to DPE Mar 2018.pdf](#)

---

Hi Alice

Please find attached, advice received from OEH regarding the Biala BMP and HMP for consideration.

The next steps for both plans include:

1. Biala WF to update the BMP and HMP
2. Biala WF to submit the BMP and HMP for Approval to the Department
3. The Department to review the BMP and HMP and provide comments (if required)
4. The Department will approve the BMP and HMP

I note that Steps 3 and 4 will be undertaken in 30 days (not including days with Biala WF addressing the Department comments).

Regards

Steve

---

**From:** Alice Patterson [mailto:[alice.patterson@jncec.com](mailto:alice.patterson@jncec.com)]  
**Sent:** Friday, 16 February 2018 5:00 PM  
**To:** Stephen Shoesmith <[Stephen.Shoesmith@planning.nsw.gov.au](mailto:Stephen.Shoesmith@planning.nsw.gov.au)>  
**Cc:** 'Tim Mead' <[tim.mead@jncec.com](mailto:tim.mead@jncec.com)>; 'Derek Powell' <[derek.powell@jncec.com](mailto:derek.powell@jncec.com)>; Nicole Brewer <[nicole.brewer@planning.nsw.gov.au](mailto:nicole.brewer@planning.nsw.gov.au)>  
**Subject:** Biala Wind Farm (SSD6039) Draft Biodiversity MP endorsement request

Dear Stephen,

Please find attached the draft Biodiversity Management Plan prepared for the Biala Wind Farm. The attached documents include the draft MP and the embedded PDF figures. Biodiversity constraints shapefiles (as requested by OEH) are the same as the ones linked in Tim's email on the 13/2/18.

Please refer the documents to OEH for review. Thankyou for the update on the review of the Heritage Management Plan.

Should you have any issues with the documents, or need to discuss any of this, please don't hesitate to get in contact with myself or Tim.

Regards,

Alice Patterson

**Beijing Jingneng Clean Energy Co., Ltd**  
Suite 3, Level 21, No.1 York Street, Sydney, NSW 2000, Australia.  
Mobile: +61 477880544

[www.gullenrangewindfarm.com](http://www.gullenrangewindfarm.com) [www.bialawindfarm.com](http://www.bialawindfarm.com)  
[www.gullensolarfarm.com](http://www.gullensolarfarm.com)

cid:flashmail\$bLubIJWA\$1408328612\_\_0@nmmp



*This email and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, you have received this email in error and any use, dissemination, forwarding, printing or copying of this e-mail or any attachments is strictly prohibited. If you received this email in error, please immediately notify Beijing Jingneng Clean Energy Corporation Limited by telephone on + 61 2 92471943, or reply this email. Please delete the email and destroy any printed copy. You must not disclose or use in any way the information in the e-mail.*

**6. ENDORSEMENT**

If the results and recommendations presented here are correct and in keeping with the agreed principles of heritage management at the Biala Windfarm, we ask that you take this opportunity to endorse ERM's recommendations. This will allow Newtricity to continue construction in this location.

TYRONNE BELL

21/2/19

Name:

Date

Tyronne Bell

Signature:

THUNDERSTONE ABORIGINAL  
CULTURAL SERVICES  
PTY LTD

Organisation:

If you have any other comments, or do not agree with the results presented herein, please contact us as soon as possible, at the details below:

**Environmental Resources Management****ATTN: Stephanie Moore****Post: Locked Bag 3012, Australia Square, NSW 2000****Phone: 02 8584 8868****Email: [stephanie.moore@erm.com](mailto:stephanie.moore@erm.com)**

Yours sincerely,

Stephanie Moore  
Heritage Consultant

## Appendix C

## STANDARD OPERATING PROCEDURE



# Biala Windfarm Project

## CULTURAL HERITAGE PROTECTION

### Standard Operating Procedure

#### PURPOSE AND SCOPE

Cultural heritage items are places which contribute to an understanding of who we are and where we came from. They contribute to our sense of identity as individuals and our sense of continuity as a community. Aboriginal sites are a very important part of Australia's cultural heritage. To Aboriginal people, the sites provide a direct link with their traditional culture. It is important to preserve as many of them as possible. They are places which Newtricity Developments Biala Pty Ltd (Newtricity) is committed to protecting.

Aboriginal cultural heritage is primarily protected by the *National Parks and Wildlife Act 1974* (NPW Act) and consists of places and items that are of significance to Aboriginal people because of their traditions, observances, lore, customs, beliefs and history. It provides evidence of the lives and existence of Aboriginal people before European settlement through to the present. Aboriginal cultural heritage is dynamic and may comprise physical (tangible) or non-physical (intangible) elements.

Aboriginal cultural heritage includes things made and used in traditional societies, such as stone tools, art sites and ceremonial or burial grounds. It also includes more contemporary and/or historical elements such as old mission buildings, massacre sites and cemeteries. Tangible heritage is situated in a broader cultural landscape and needs to be considered in that context and in a holistic manner.

It also relates to the connection and sense of belonging that people have with the landscape and each other. It recognises that Aboriginal people understand cultural heritage and cultural practices as being part of both the past and the present and that cultural heritage is kept alive and strong by being part of everyday life.

Cultural heritage is not confined to physical sites; it also includes peoples' memories, storylines, ceremonies, language and 'ways of doing things' that continue to enrich local knowledge about the cultural landscape. It involves teaching and educating younger generations. It is also about learning and looking after cultural traditions and places, and passing on knowledge. It is enduring but also changing. It is ancient but also new. Aboriginal cultural knowledge provides crucial links between the past and present and therefore represents an essential part of the identities of Aboriginal people and all Australians.

This Standard Operating Procedure (SOP) is essentially an unexpected finds procedure which sets out the key steps that will apply to works undertaken within the Biala Windfarm Project Area should a suspected cultural heritage place, site or item, be encountered during works. It forms part of the Biala Windfarm detailed Cultural Heritage Management Plan and is designed to prevent any damage or loss to heritage or cultural places and objects which would result in loss of cultural, historic and educational value to the site and to the community. This SOP applies to all Newtricity personnel, staff and contractors, including site visitors.

#### PROCEDURE

<b>Avoidance Procedure</b>	<p>Twenty-one Aboriginal heritage sites and one Potential Archaeological Deposit (PAD) site were recorded during the field survey and reported by ERM (2016). These sites mostly comprised of stone artefacts including isolated finds or stone artefact scatters. One scarred tree was also identified. Avoidance of these heritage sites is the ideal outcome. The design of facilities and work must be sited to avoid known heritage sites where possible. Subject to further detailed design, only those sites that cannot be avoided will be subject to test excavations and /or salvage in accordance with the Biala Windfarm detailed Cultural Heritage Management Plan.</p> <p>Prior to construction activities, all known heritage sites and any newly recorded sites that will not be directly impacted by the works will be fenced (plus minimum 5 m buffer area). This area will be fenced off for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. At the completion of construction exclusion zone fencing will be removed.</p>
<b>Unexpected (chance) Finds Procedure</b>	<p>An unexpected (chance) finds procedure will be implemented for any locations subject to soil disturbance activities, including vegetation clearing. In the event that site workers identify any potential Aboriginal heritage sites, the unexpected finds procedure shall be implemented in compliance with s89 of NP&amp;W Act. The procedure is as follows:</p> <ol style="list-style-type: none"> <li>1. <b>STOP WORK IMMEDIATELY.</b> Any person that observes or uncovers potential Aboriginal heritage objects during the works must notify machinery operators immediately. All activities and/or works in the immediate area must cease (DO NOT collect samples to show someone);</li> <li>2. <b>NOTIFY.</b> Notify the site supervisor immediately. The BoP Project Manager or Site Manager will contact, notify and consult with registered Aboriginal stakeholders and an appropriately qualified heritage professional (archaeologist);</li> <li>3. <b>AVOID DISTURBANCE</b> of the area at and adjacent to the cultural finds;</li> <li>4. <b>PROTECT THE SITE.</b> Any sand/soils removed must be identified and set aside for assessment. The disturbed area needs to be cordoned off as an exclusion zone so that no further disturbance occurs (include an adequate buffer area);</li> <li>5. <b>ASSESS THE FIND.</b> The RAPs and Archaeologist will investigate the nature; extent and location</li> </ol>

	<p>of the find;</p> <ol style="list-style-type: none"> <li><b>6. RECORD/SALVAGE THE FIND.</b> The RAPs and Archaeologist, will in consultation with the BoP Project Manager, arrange recording of the objects and if required salvage. Note: salvage works can only be carried after the approval of an AHIP and at the approval of OEH; and</li> <li><b>7. RESUME WORK.</b> Subject to the archaeologist's assessment, work may be able to recommence under the terms once the site is assessed and appropriately salvaged. Alternatively, where possible, work methods or location may be altered to minimise further harm to the find, or objects associated with the find.</li> </ol>
<b>Discovery of Human Remains Procedure</b>	<p>In the event of the discovery of human skeletal material (or suspected human skeletal material) during Project activities, the following steps will be followed:</p> <ol style="list-style-type: none"> <li><b>1. STOP WORK IMMEDIATELY.</b> Any person that observes or uncovers human skeletal material (or suspected human skeletal material) during the works must notify machinery operators immediately. All activities and/or works in the immediate area must cease (DO NOT collect samples to show someone);</li> <li><b>2. NOTIFY.</b> Notify the BoP Project Manager or Site Manager immediately.;</li> <li><b>3. PROTECT THE SITE.</b> Monitor the area and keep all personal out of the area until further notice. Inform site personnel of the restricted access to that area. The disturbed area needs a to be cordoned off as an exclusion zone so that no further disturbance occurs (include an adequate buffer area);</li> <li><b>4. ASSESS THE FIND.</b> If human remains are suspected the site supervisor is to notify the NSW Police immediately. If the human remains are potentially Aboriginal Ancestral remains OEH must be notified on 131 555 as soon as practicable and provide available details of the remains and their location.;</li> <li><b>5. INVESTIGATION.</b> NSW Police and/or OEH will determine the nature of the suspected remains and advise on further actions..</li> <li><b>6. RECORDING AND MANAGEMENT OF ABORIGINAL ANCESTRAL REMAINS.</b> An Aboriginal community representative must be present where it is reasonably suspected burials or human remains may be encountered. If human remains are unexpectedly encountered and they are thought to be Aboriginal, the Aboriginal community must be notified immediately. Recording of Aboriginal ancestral remains must be undertaken by, or be conducted under the direct supervision of, a specialist physical anthropologist or other suitably qualified person. Archaeological reporting must be undertaken by, or reviewed by, a specialist physical anthropologist or other suitably qualified person, with the intent of using respectful and appropriate language and treating the ancestral remains as the remains of Aboriginal people rather than as scientific specimens.; and</li> <li><b>7. RESUME WORK.</b> Work cannot recommence at the particular location unless authorised in writing by OEH..</li> </ol>
<b>Cultural Awareness Training</b>	<p>In order to comply with best practice principles, all employees and subcontractors will undergo environmental awareness training as part of the site induction to ensure they understand their obligations and responsibilities. This training will include basic Aboriginal heritage awareness across the following topics:</p> <ul style="list-style-type: none"> <li>• legal responsibilities and statutory obligations for heritage under the NPW Act and the Heritage Act;</li> <li>• outline the location and type of archaeological sites within the Project Area and give instructions not to disturb these sites;</li> <li>• provide the detailed locations of all known Aboriginal objects within the Project Area to all relevant personnel;</li> <li>• outline the procedures for the discovery of previously unrecorded Aboriginal objects; and</li> <li>• provide training on how to identify stone artefacts and other Aboriginal heritage sites.</li> </ul> <p>Only information endorsed for sharing by the registered Aboriginal stakeholders should be included within the induction package for all workers, alternatively a representative of the Pejar LALC could be employed to undertake an induction session for the management teams of all major contractors prior to works commencing..</p>

## Appendix D

## ADDITIONAL SURVEY RESULTS

## D.1 Introduction

In Section 6.1 of this CHMP it states:

*During detailed design and prior to the commencement of construction, any additional impact areas or any areas not previously archaeologically surveyed (such as the access track between WTG03 and WTG06) will be surveyed by a qualified archaeologist and registered Aboriginal stakeholders.*

*Any new Aboriginal heritage sites identified within proposed impact areas as part of these surveys may be avoided as part of detailed design, fenced off and protected, or subjected to a sub-surface testing program and salvaged (if required). Detailed strategies for protection of Aboriginal heritage values identified in future survey work are provided in this ACHMP.*

In addition to a newly proposed access track between WTG03 and WTG06, several areas not previously surveyed were identified and required archaeological survey in accordance with the requirements of the CHMP. ERM conducted these surveys, accompanied by Registered Aboriginal Parties (RAPs), between Thursday 11 and Wednesday 17 October 2018.

## D.2 Consultation

Four RAPs for this project were invited to attend the additional surveys, all groups accepted the invitation and participated in the surveys. These groups were:

- Pejar Local Aboriginal Land Council (LALC);
- Buru Ngunawal Aboriginal Corporation (BNAC);
- Gulgunya Ngunawal Heritage Aboriginal Consultancy (formerly Koomurri Ngunawal Aboriginal Corporation); and
- Thunderstone Aboriginal Cultural and Land Management Services.

## D.3 Methodology

The archaeological survey aimed to identify all Aboriginal sites present within the footprint of the windfarm development including the identification of any PADs. All sites will be managed in accordance with the CHMP.

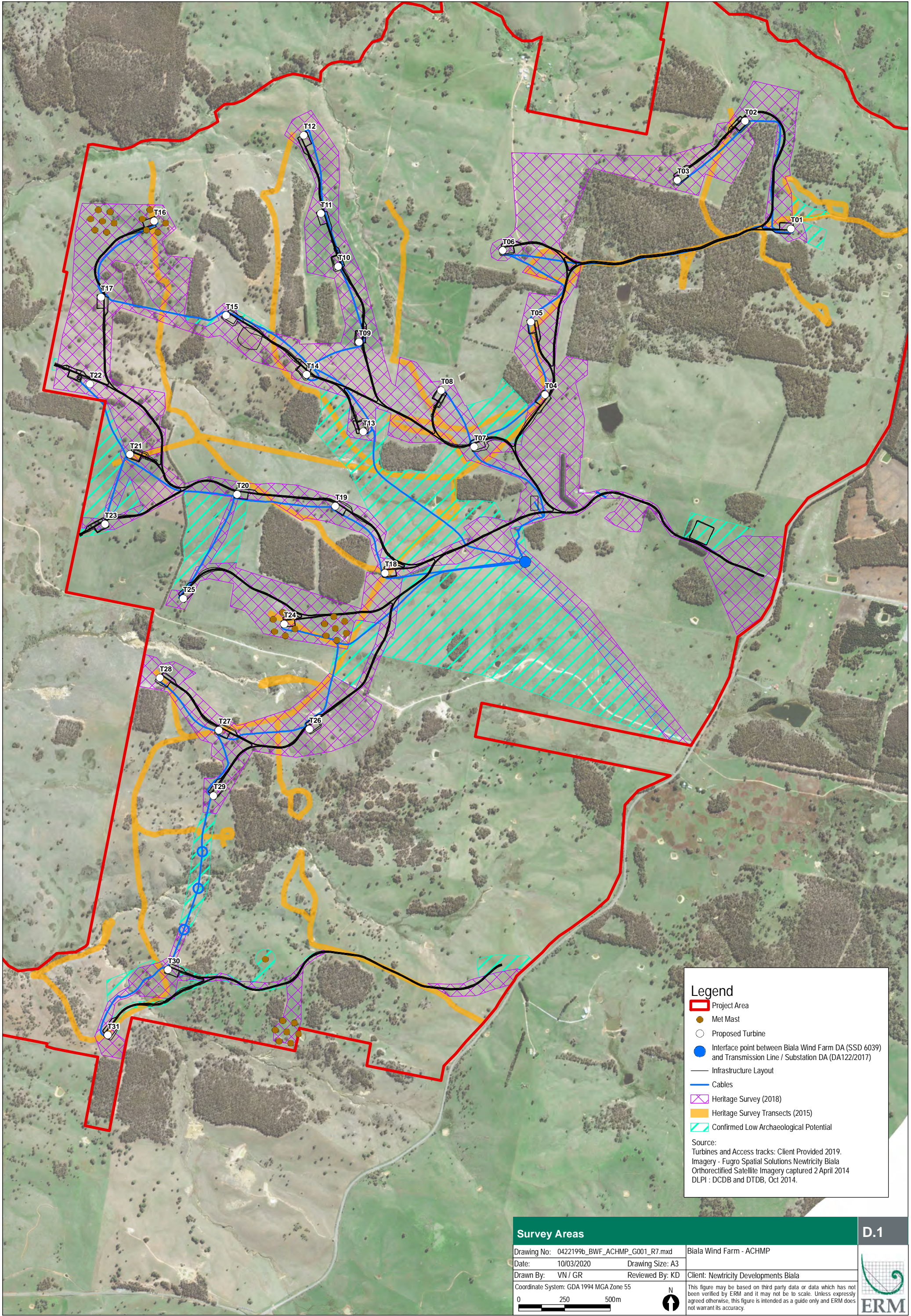
The survey was undertaken on foot where possible with RAPs in attendance and consisted of all participants traversing the identified turbine locations and access tracks using walking transects approximately 5 m apart to ensure the entire survey area was covered. Survey areas covered in the previous and recent surveys are shown in *Figure D.1*.

## D.4 Known Archaeological Resources

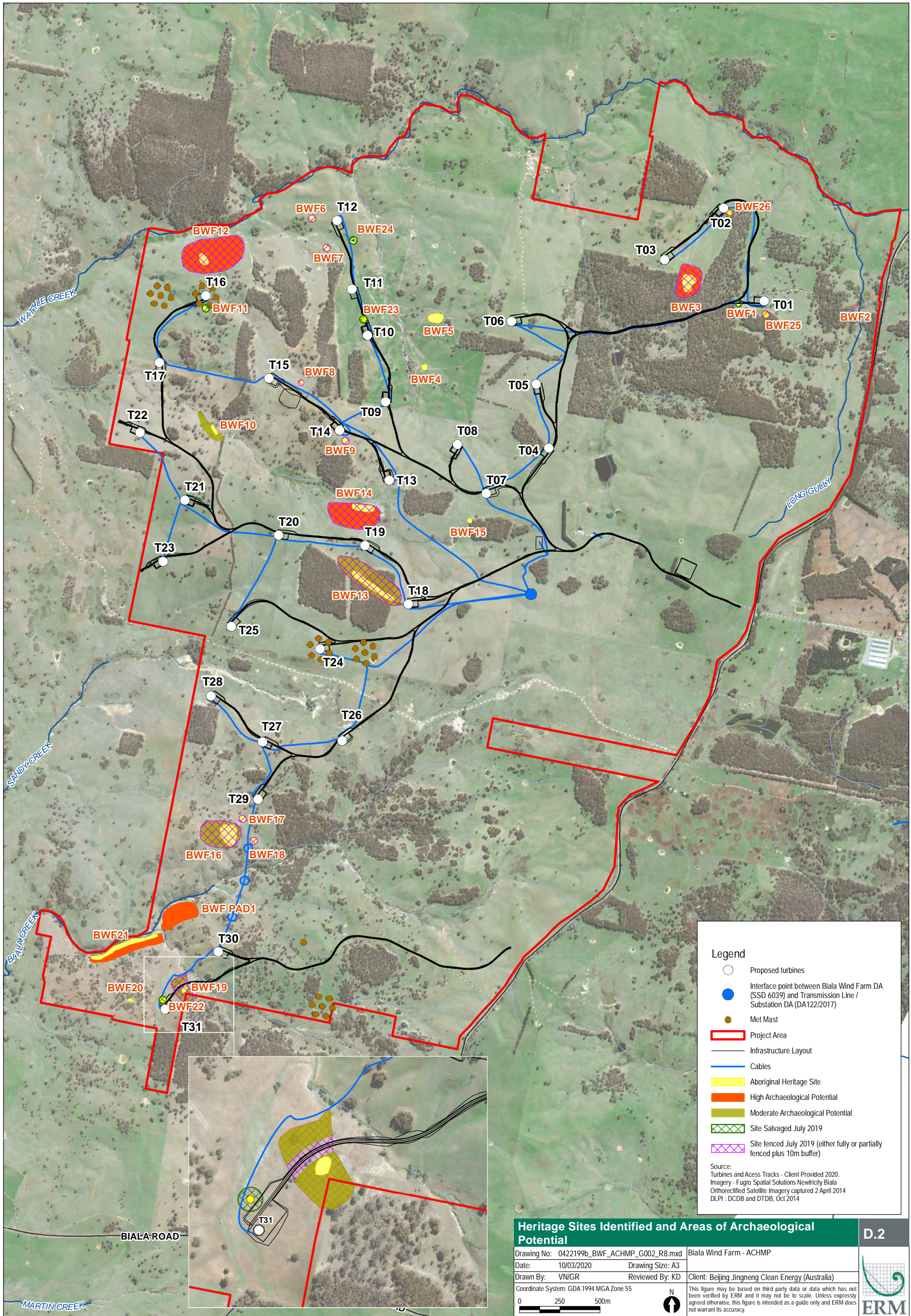
Three previously unidentified Aboriginal heritage sites were recorded during the October 2018 field survey (BWF22, BWF23, and BWF24). One site that had been identified during previous surveys (BWF19) was found to cover a larger area than previously identified. These sites mostly comprised of stone artefact scatters. Two scarred tree were also identified outside Project impact areas (BWF25 and BWF26). The sites have been assigned scientific significance in terms of rarity, representativeness, archaeological landscape, connectedness, integrity and condition, complexity, and archaeological sensitivity.

The sites identified within the PA are common site types at a local and regional level. Stone artefact sites are the main site type represented in the region and those located within the PA have not demonstrated a significantly greater diversity or complexity in comparison to other known sites within the region. Refer to *Table D.1* below for site descriptions and *Figure D.2* for site locations.














**Table D.1 Aboriginal Heritage Sites Recorded within the Project Area during 2018 Surveys**

Site ID	Site Description	Image	Archaeological Significance*
BWF19	<p>BWF19 is a stone artefact scatter (n=3) found within a gently sloping terrain adjacent to an ephemeral drainage line. The site is also located less than 100 m south-west of a tributary of Biala Creek in which water was identified during the field survey. The site is located approximately 400 m south-east of Biala Creek. The soils at this site were observed to be a soft, sandy alluvial loam. Two silcrete and one quartz medial flake were found at this location. The silcrete flakes measures 2 cm x 0.8 cm x 0.3 cm and 1.9 cm x 0.8 cm x 0.2 cm. The quartz medial flake measures 0.9 cm x 0.6 cm x 0.2 cm. During the 2018 survey an additional silcrete flake and four quartz flakes were located north of the previously identified site, extending the closer to the nearby creek line.</p> <p>Potential for subsurface deposit: Yes (refer to <i>Figure 4.1</i>)</p> <p>Co-ordinates: U55 714199, 6167504</p>		Moderate
BWF22	<p>BWF22 is an artefact scatter (3 artefacts) located on a gentle slope. Two quartz flakes and one chert flake were found. The soils at this site were observed to be a soft, sandy alluvial loam.</p> <p>Potential for subsurface deposit: No</p> <p>Co-ordinates: U55 713952, 6167443</p>		Low
BWF23	<p>BWF23 is an artefact scatter (2 artefacts) located on a gentle slope. Two chert flakes were found. The soils at this site were observed to be a soft, sandy alluvial loam.</p> <p>Potential for subsurface deposit: No</p> <p>Co-ordinates: U55 715267, 6171682</p>		Low

Site ID	Site Description	Image	Archaeological Significance*
BWF24	<p>BWF24 is an artefact scatter (2 artefacts) located on a small hill top. Two chert flakes were found 14 m apart. The soils at this site were observed to be a soft, sandy alluvial loam.</p> <p>Potential for subsurface deposit: No</p> <p>Co-ordinates: U55 715257, 6172175</p>		Low
BWF25	<p>BWF25 is a scarred tree found approximately 150 m from an ephemeral water course, located within a gently sloping landform set in a wider landscape context of rolling hills. It was identified by Aboriginal stakeholder Tyrone Bell (Thunderstone). The tree was observed to be an apple box tree in good condition.</p> <p>The scar is approximately 1.2 m off the ground and approximately 30/40 cm m in height, and 10 cm in width (exact measurements could not be taken). The scar was located on the western elevation of the tree, facing the recorded site BWF1. It is located within a grazing paddock at the edge of a treed area.</p> <p>Potential for subsurface deposit: No</p> <p>Co-ordinates: U55 717820, 6171711</p>		Low
BWF26	<p>BWF26 is a scarred tree identified by Aboriginal stakeholder Tyrone Bell (Thunderstone). Discussions with Tyrone Bell suggest that the bark removed from this tree causing this scar may have been used to make a shield or for shelter purposes.</p> <p>The scar is high off the ground (2 m) and approximately 1.5 m in height (exact measurements could not be taken). The scar was located on the south-west elevation of the tree, facing the recorded site BWF3 It is located within a grazing paddock at the edge of a treed area.</p> <p>Potential for subsurface deposit: No</p> <p>Co-ordinates: U55 717592, 6172346</p>		Low

## D.5 Environmental Aspects and Impacts

As discussed in Section 5 of this ACHMP, potential impacts on Aboriginal cultural heritage are predominantly attributed to ground disturbance works and may occur as a result of:

- the construction of 31 WTGs including the towers, nacelles, blades and footings;
- the grading of roads and upgrading of existing access roads;
- vehicle movement across eroded tracks;
- the development of new access roads;
- trenching for the underground electrical reticulation network;
- clearance of vegetation;
- the construction of hardstands and laydown areas;
- the construction of an electrical substation and associated electrical equipment;
- for the construction period, an on-site concrete batching plant and equipment storage areas; and
- wind monitoring masts and communications equipment.

Impacts as a result of the physical infrastructure proposed within the PA will be discreet in nature and will occupy a relatively small footprint. Based on the preliminary Project design presented in *Figure 1.1*, of the six sites recorded during the 2018 surveys, four sites - BWF19, BWF22, BWF23, and BWF24 will be potentially impacted and will need to be subject to surface collection and/or test excavation if they cannot be avoided through micro-siting of WTG and/or revised access track design.

As indicated in *Table D.2*, impacts to the remaining two sites will be avoided by Project design. Exclusion fencing and signage has been proposed for these sites where the infrastructure as currently presented in *Figure 1.1* is in close proximity. Where further design work can ensure that there is no infrastructure within 150 m of a site, fencing and signage is deemed unnecessary to ensure avoidance and the “no go zones” indicated on design drawings shall suffice. Respect for unfenced sites shall be the subject of site inductions and toolbox meetings. Subject to further detailed design, only those sites that cannot be avoided will be subject to test excavations and /or salvage in accordance with this ACHMP.

**Table D.2 Summary of Potential Impact to Aboriginal Heritage Sites identified in Additional 2018 Surveys**

Site ID	Archaeological Significance	Will the site be impacted?	Management Measure*	Description of Management Measure# (see Section 6 for detailed methodology and timing)
BWF19	Low	Potential for impact. This site and associated PAD may be impacted by the access road that will be used during construction and operation of the wind farm, although it may be avoided through revised access track design.	Subsurface testing and salvage if avoidance is not possible.	<u>Avoidance is the preferred option for this site.</u> If this site cannot be avoided, a program of subsurface testing should be undertaken by Aboriginal stakeholder groups and an appropriately qualified archaeologist to determine the extent and nature of this site prior to the commencement of works at this location.
BWF22	Low	Potential for impact. This site is located on, or immediately adjacent to the proposed access road although it may be avoided through revised access track design.	Surface collection/salvage	<u>Avoidance is the preferred option for this site.</u> If this site cannot be avoided, surface collection/salvage by Aboriginal stakeholder groups and an appropriately qualified archaeological prior the commencement of works at this location. If avoidance* is possible a 10 m wide buffer zone will be maintained around the site and the identified area of archaeological potential. This area will be fenced off for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Prior to construction commencing, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.
BWF23	Low	Potential for impact. This site is located on, or immediately adjacent to the proposed access road although it may be avoided through revised access track design.	Surface collection/salvage	<u>Avoidance is the preferred option for this site.</u> If this site cannot be avoided, surface collection/salvage by Aboriginal stakeholder groups and an appropriately qualified archaeological prior the commencement of works at this location. If avoidance* is possible a 10 m wide buffer zone will be maintained around the site and the identified area of archaeological potential. This area will be fenced off for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Prior to construction commencing, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.
BWF24	Low	Potential for impact. This site is located on, or immediately adjacent to the proposed access road although it may be avoided through revised access track design.	Surface collection/salvage	<u>Avoidance is the preferred option for this site.</u> If this site cannot be avoided, surface collection/salvage by Aboriginal stakeholder groups and an appropriately qualified archaeological prior the commencement of works at this location. If avoidance* is possible a 10 m wide buffer zone will be maintained around the site and the identified area of archaeological potential. This area will be fenced off for the duration of the construction works and marked in the field and on all



Site ID	Archaeological Significance	Will the site be impacted?	Management Measure*	Description of Management Measure# (see Section 6 for detailed methodology and timing)
				design drawings as a 'no go zone'. Prior to construction commencing, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.
BWF25	Low	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site and the identified area of archaeological potential. This area will be fenced off for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Prior to construction commencing, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.
BWF26	Low	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site and the identified area of archaeological potential. This area will be fenced off for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Prior to construction commencing, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.

\* Avoidance and ongoing protection of these sites is to be maintained throughout the duration of the construction, maintenance and operation of the windfarm. All vehicle movements and maintenance activities will be limited to defined access tracks and hardstand areas. No additional impact, including during operation and/or maintenance is approved unless authorised by the Secretary of DPIE in writing or via an updated and approved ACHMP.

# Where further design work can ensure that there is no infrastructure within 150 m of a site, fencing and signage is deemed unnecessary to ensure avoidance and the "no go zones" indicated on design drawings shall suffice. Respect for unfenced sites shall be the subject of site inductions and toolbox meetings.

## Appendix E

## SALVAGE AND MITIGATION WORKS REPORT

## E.1 Introduction

In Section 6.2 Surface Collection (Salvage) of this CHMP it states:

*The following draft (salvage) methodology will be applied to Sites [...] if impacts to these site cannot be avoided through micro-siting of WTG and/or revised access track design. All of these activities will be undertaken by qualified archaeologists and in consultation (and participation) with the registered Aboriginal stakeholders.*

Table 7.1 also includes a pre-construction mitigation measure states that:

*Prior to and for the duration of the construction activities, all known heritage sites within 150 m from any proposed infrastructure or construction activity will be fenced (plus minimum 10 m buffer area) to protect them against accidental damage.*

Between 1 July and 4 July 2019, salvage and mitigation works mentioned above were undertaken by ERM Archaeologist, Katherine Deverson and the project RAPs at Biala Wind Farm (the PA) in accordance with this CHMP.

### E.1.1 Limitations

Sections of the PA had been subject to erosion in previous months which affected the number of artefacts visible on the surface compared with previous surveys. Grass cover at some locations also hindered ground surface visibility.

### E.1.2 Consultation

Three RAPs for this project were invited to attend the salvage and mitigation works, all groups accepted the invitation and participated in the works. These groups were:

- Pejar Local Aboriginal Land Council (LALC);
- Buru Ngunawal Aboriginal Corporation (BNAC); and
- Thunderstone Aboriginal Cultural and Land Management Services.

In accordance with CoC 3-22, BJCE also notified the DPIE on Friday 17 May 2019 (via email correspondence), identifying mitigation measures to be implemented including the proposed salvage of BWF1.

## E.2 Methodology

### E2.1 Salvage Methodology

The salvage works were carried out from 1 July to 4 July 2019 and included collection of all surface artefacts within the impact areas. All survey participants traversed the sites using walking transects approximately 1 m apart or in a random meander to ensure the entire survey area (subject to surface visibility) was covered and all artefacts in the identified impact area were salvaged.

The sites that were fully or partially harmed are outlined in Table E.1.

**Table E.1 Salvaged Sites**

Site ID	Site Type
BWF1	Isolated Find
BWF11	Isolated Find
BWF22	Artefact Scatter
BWF23	Artefact Scatter
BWF24	Artefact Scatter

**E.2.1.1 Artefact Recording**

The analysis of artefacts recovered during the salvage program was undertaken in a transparent and replicable fashion so as to allow for an interpretation of the PA's archaeological significance.

Artefacts recovered were initially analysed on-site which enabled evidence based decisions regarding the quantity of artefacts at each archaeological site and immediate input from Aboriginal stakeholders.

Detailed (laboratory) analysis was undertaken off site and entailed recording a larger number of characteristics for each individual artefact. The methodology is provided in *Section E.2.3* and the detailed analysis is outlined in *Section E.5*.

**E.2.1.2 Care and Control of Aboriginal Objects**

All collected artefacts are temporarily stored at the ERM Canberra Office.

**E.2.2 Fencing**

Prior to and for the duration of the construction activities, all known heritage sites within 150 m from any proposed infrastructure or construction activity were fenced (plus a minimum 10 m buffer area) to protect them against accidental damage. Signage was attached to all fencing indicating that the enclosed was a heritage area and that entrance was not permitted.

The sites that were fully or partially fenced are outlined in *Table E.2*.

**Table E.2 Fenced Sites**

Site ID	Site Type
BWF2	Artefact Scatter
BWF3	Artefact Scatter
BWF6	Artefact Scatter
BWF7	Artefact Scatter
BWF8	Artefact Scatter
BWF9	Isolated Find
BWF12	Artefact Scatter
BWF13	Artefact Scatter
BWF14	Artefact Scatter
BWF16	Artefact Scatter
BWF17	Scarred Tree
BWF18	Artefact Scatter
BWF19	Artefact Scatter



Site ID	Site Type
BWF25	Scarred Tree
BWF26	Scarred Tree

### E.2.3 Lithic Analysis

Analysis of the recovered assemblage was undertaken in order to provide some interpretation of the type of activities being undertaken within the site and the significance of the site in relation to the surrounding landscape and the regional context of archaeological sites.

The features recorded for artefacts are provided in *Table E.3* and *Table E.4* below.

**Table E.3 Artefact Analysis (flakes)**

Artefact Analysis (flakes)	
Artefact Class	Artefact class is a technological category reflecting the mechanical processes which resulted in the physical form of the artefact at the time of recording. Classes used will include flakes, broken flakes, retouched flakes, flaked pieces, cores, flake-cores, hammerstones, grindstones, ground-edge axes, heat-shattered fragments, and non-diagnostic fragments.
Raw Material	The material resource with which artefacts are made. Raw materials expected to be present include silcrete, chert, quartz, rhyolite.
Artefact Weight	Artefact weight were measured for all recovered artefacts to one tenth of a gram.
Dimensions	Percussive dimensions measure the length of the flake in the direction of force application from the point that force was applied. In this regard it relates to the length of core face that was removed during the manufacture of the artefact. Width is oriented across the face of the flake from the mid-point of length, and thickness from the mid-point of length and width of the ventral to the corresponding point on the ventral.
Cortex	Cortex refers to the outer weathered surface of a rock. The amount of cortex as a percentage of surface area was measured on all artefacts (in relation to flakes, cortex can, by definition only occur on the dorsal, termination and platform surfaces). The type of cortex will vary depending on where the raw material was sourced. Cortex type is described in terms of thickness, hardness and texture and was recorded in all instances where cortex is present.
Knapping Type	Three main knapping methods are used in the production of flakes, resulting in flakes with distinctive characteristics. The first is freehand percussion, where the objective piece is held in the hand and struck with a hard hammer (e.g. a hammerstone), resulting in 'classic' flakes with a single bulb, and a ringcrack/Point of Force Application (PFA). The second is bipolar, where the objective piece is rested against an anvil and struck. This results in flakes that have straight sheer faces and crushing at both ends. The third is pressure flaking, where an indenter is placed against the edge from which the flake is to be removed and force is applied. The resulting flakes have a characteristically diffuse bulb, with no errature scar and no PFA.
Artefact Type	Artefact type is a formal (e.g. less strictly technological), nominal category, similar to artefact class. Artefact types expected to be located include Bondi points, backed blades, eloueras, grindstones, geometric microliths, scrapers, and adzes.
Breakage	At a basic level, flakes break in six different ways. Three are transverse (at 90° to the direction of percussion) – proximal, medial, distal; two are longitudinal (along the plane of percussion) – left, right (oriented from the ventral view); and one ambiguous – marginal (where dorsal and ventral can be clearly distinguished, but the margin from which the piece has detached is uncertain). All such breaks was recorded.

### Artefact Analysis (flakes)

Heat Treatment	Heat will affect artefacts in different ways, depending on the way it has occurred. Most heat affected flakes on fine-grained material will reveal a greasy surface lustre on newly flaked surfaces and some discoloration (e.g. silcrete turns from grey or tan to red), however as heat becomes excessive signs such as pot-lidding (the 'popping' of small plate-like pieces off the flake) or crazing (multiple fracture lines in multiple directions across the face of the flake) will occur. The presence of any of these features was recorded.
Platform	<p><i>Dimensions</i></p> <p>The platform is the surface into which force is applied in the formation of a flake. Platform width is measured across the platform in the same direction as flake width, while platform thickness follows flake thickness.</p> <p><i>Type</i></p> <p>Platform surface was recorded as one of the following: cortical, single flake scar, multiple flake scars, or faceted.</p> <p><i>Overhang removal</i></p> <p>Frequently prior to the detachment of a flake from a core, the thin overhanging 'lip' of the core was removed in order to stop 'crushing' or force dissipation at the point of force application. This process is known as overhang removal.</p>
Dorsal Scars	<p><i>Count</i></p> <p>The dorsal face of a flake provides a partial record of previous flaking episodes to have occurred down the core face at or near the same point. The number of flake scars on the dorsal surface of a flake which can be oriented relative to their direction of percussion and which are clearly discernable was recorded.</p> <p><i>Aberrantly terminating dorsal scars</i></p> <p>Number of flake scars terminating as steps and hinges.</p> <p><i>Number of parallel dorsal scars</i></p> <p>A basic count of the number of parallel flake scars.</p> <p><i>Parallel arrises</i></p> <p>Arrises or dorsal ridges are a way of controlling artefact morphology. Flakes struck down an existing ridge will tend to follow the direction that the ridge takes. This attribute will involve noting the presence or absence of dorsal ridges that run parallel to the length of the flake.</p> <p><i>Dorsal Scar Rotation</i></p> <p>As a core is reduced it may be turned or rotated to provide new platforms or overcome problems with increasing platform angles. As a result, flakes may be detached which cut across old flake scars. The result should be apparent as dorsal scars in different direction to the direction of percussion of the flake being recorded.</p>
Termination	Termination refers to the way in which force leaves a core during the detachment of a flake. Every complete flake has a termination. There are patterns in the form terminations will take, with the four major categories being: feather, hinge, step, and outrepasse (or plunging).
Retouch	<p>Retouch is the term given to alterations made to a flake by the striking of subsequent flakes from its surface. Retouching may be done either to alter artefact form or to rejuvenate (resharpen) dulled edges, and possibly both. Degree/amount of was recorded as presence/absence.</p> <p><i>Retouch Type</i></p> <p>Retouch type is a technological attribute relating the way in which retouch was carried out. Categories to be used are steep, acute, unifacial, bifacial, tranchet and/or used as core.</p> <p><i>Retouch Location</i></p> <p>Each flake was divided into eight segments: proximal end, proximal left, proximal right, marginal left, marginal right, distal left, distal right, and distal end; with the presence or absence of retouch in each to be recorded.</p>

**Table E.4     Artefact Analysis (cores)**

<b>Artefact Analysis (cores)</b>	
Artefact Class	Artefact class is a technological category reflecting the mechanical processes which resulted in the physical form of the artefact at the time of recording. Classes used will include flakes, broken flakes, retouched flakes, flaked pieces, cores, flake-cores, hammerstones, grindstones, ground-edge axes, heat-shattered fragments, and non-diagnostic fragments.
Raw Material	The material resource with which artefacts are made. Raw materials expected to be present include silcrete, chert, quartz, rhyolite.
Artefact Weight	Artefact weight was measured for all recovered artefacts to one tenth of a gram.
Dimensions	Maximum length, width and thickness was measured on all cores. 'Length' will arbitrarily be measured along the longest plain, with width the longest of the plains at 90° to length, and thickness measured at 90° to both.
Cortex	Cortex refers to the outer weathered surface of a rock. The amount of cortex as a percentage of surface area was measured on all artefacts (in relation to flakes, cortex can, by definition only occur on the dorsal, termination and platform surfaces). The type of cortex will vary depending on where the raw material was sourced. Cortex type is described in terms of thickness, hardness and texture and was recorded in all instances where cortex is present.
Percentage of Artefact Flaked	This attribute involves an estimate of the percentage of the outer surface of the core which has had flake scars removed from it.
Number of Flake Scars	All scars over the length of 10 mm was measured (there are usually large numbers of flake scars between 10-3 mm, which relate more to platform preparation than flake production).
Number of Rotations	As a core is reduced it may be turned or rotated to provide new platforms or overcome problems with increasing platform angles. As a result, flakes may be detached which cut across old flake scars. The result should be apparent as dorsal scars in different direction to the direction of percussion of the flake being recorded.
Aberrantly Terminating Dorsal Scars	Number of flake scars terminating as steps and hinges.
Number of Parallel Dorsal Scars	A basic count of the number of parallel flake scars.

## E.3     Salvage Results

The data for this analysis includes all artefactual material collected during the salvage works between 1 and 4 July 2019. Analysis was undertaken in accordance with the definitions provided in *Table E.3* and *Table E.4*.

### E.3.1     Assemblage Qualification

The total assemblage recovered from the salvage works consisted of eight stone artefacts. The assemblage composition as recorded is shown in *Figure E.1* below.

### E.3.2     Site Comparison

Artefacts were recovered from 4 of the 5 sites; no artefacts were recovered from BWF11. One large silcrete core measuring 12 cm x 6.3 cm x 5.5 cm was identified and recorded at BWF11 on 6 February 2014; this artefact was not located after a thorough search on 3 July 2019. The site was located within a grazing paddock which had been heavily ploughed and cleared of vegetation. Ground surface visibility was very poor in the area due to dense grass coverage.

Eight artefacts were recovered during salvage works (refer to *Table E.5*): One quartz flake was recovered from BWF1, three Quartz flakes were recovered from BWF22, BWF23 yielded one chert flake, and BWF24 two chert flakes and one quartz flake. The majority of sites were recorded on gently sloping or flat terrain. The assemblage generally has an average maximum length of 20.62 mm, indicating that the artefacts in the assemblage are quite small.

**Table E.5 Artefact Count by Site**

Site	Flakes	Cores	Site Total
BWF1	1	0	1
BWF11	0	0	0
BWF22	3	0	3
BWF23	2	0	2
BWF24	3	0	3
<b>Total Artefacts Recovered</b>			<b>8</b>

### **E.3.3 Raw Material Procurement and Use**

The artefacts recovered during the salvage works were quartz (5) and chert (3) (refer to *Table E.6*). The material was generally fine grained and of good to fair flaking quality, and sources for chert are known to occur within the local region. Raw quartz material has been recorded with the PA.

Silcrete quarries are known to occur in the Southern Tablelands, including one on the shores of Lake George (Byrne and Smith 1998). No chert quarries have been found within the direct vicinity of the PA.

Five quartz flakes recovered during the salvage (refer to *Table E.6*). Biosis (2005) note that discussions with RAPs on site suggested that abundance of reasonable flaking quality quartz must have been a resource to Aboriginal people in the past. Cobbles were probably collected when encountered by chance during other activities, in line with Binford's (1979) definition of an 'encounter' procurement strategy. Cobbles would then be taken away and flaked elsewhere. Quartz found in the PA during the salvage works was of fair flaking quality with some internal cracking.

The amount of cortex present on artefacts and artefact size can be used to determine whether or not raw materials have been sourced locally or whether they have been imported from another area. Generally, the further away a stone gets from a raw material source, the greater it is curated resulting in a distance decay of size and cortex (Hiscock 1986). Cortex was present on 1 flake (5% coverage).

The remaining artefacts had no cortex, suggesting that most materials were probably brought into the PA from external stone sources, which have been found to be present elsewhere across the Southern Tablelands region (Byrne and Smith 1988).

Based on the low amount of cortex found on artefacts and the small maximum dimensions of the assemblage suggests that later stages of raw material reduction were occurring at these sites, and that lithic sources utilised may be situated at greater distances. Although it should be noted that the number of artefacts recovered is too small to represent an adequate sample to make inferences about the local area and region.

### **E.3.4 Discussion**

Given that the Project through careful consideration of works locations and micro-siting will avoid impact at the majority of sites and that the assemblage recovered was small and from sites that were isolated finds or sparse artefact scatters, it is unlikely that those artefacts recovered are a representative example of the local area.



It is likely that only sparse and very limited archaeological deposits (if any) would be recovered from subsurface excavation at the remaining sites.

#### **E.4 Long Term Management**

In accordance with Requirement 26 of the Code of Practice, artefacts recovered from these Salvage Works were collected, interpreted and catalogued and will be reburied within the PA in a location that will not be impacted by the proposed works.

The location of the reburial was discussed with RAPs during the salvage activities. The location of the reburied artefacts will be recorded and this information will be forwarded to the BCD once completed (date and location are yet to be confirmed).

#### **E.5 Lithic Analysis Results**

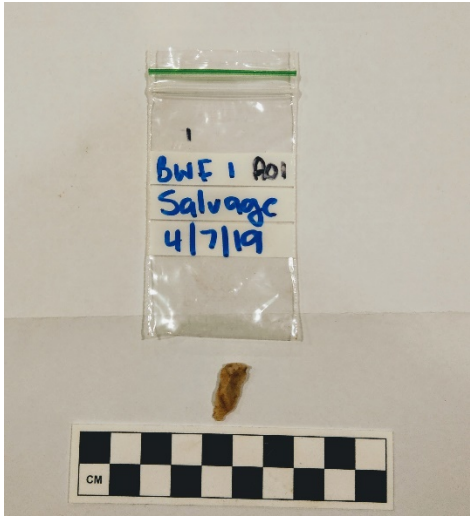
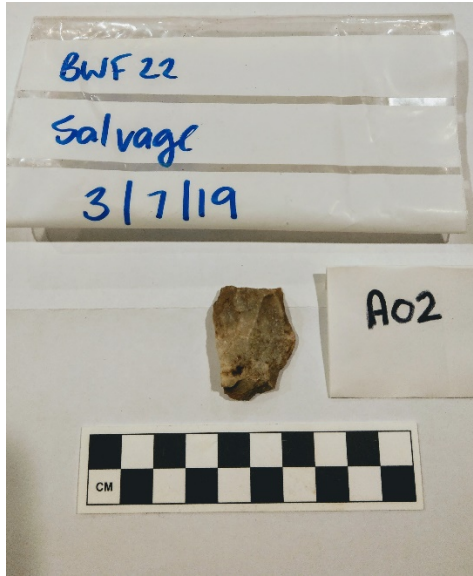
Detail results from the salvage works are shown below in *Tables E.5* and *E.6*.

**Table E.5    Flakes Analysis**

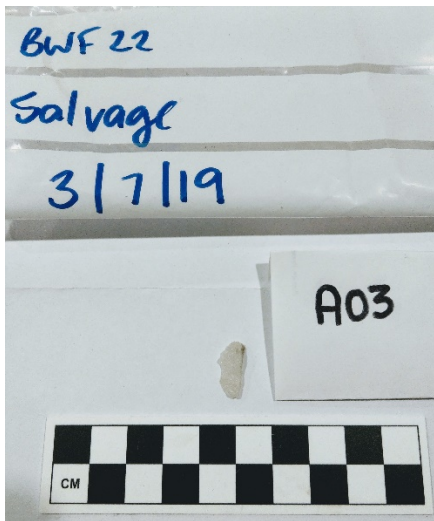
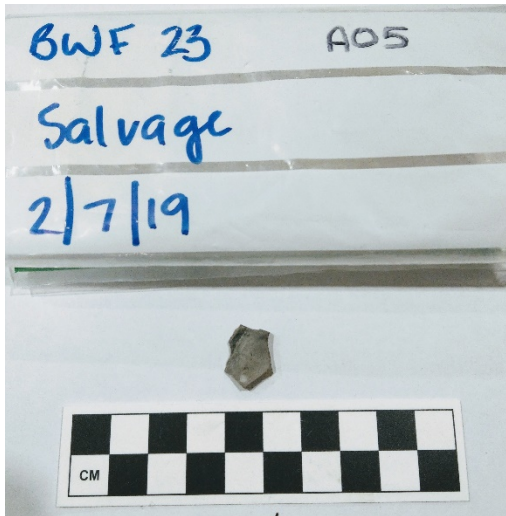

Artefact ID	A01	A02	A03	A04	A05	A06	A07	A08
Site	BWF1	BWF22	BWF22	BWF22	BWF23	BWF24	BWF24	BWF24
Artefact Class	Flake	Flake	Flake	Flake	Flake	Flake	Flake	Flake
Date	4/7/19	3/7/19	3/7/19	3/7/19	2/7/19	2/7/19	2/7/19	2/7/19
Raw Material	Quartz	Quartz	Quartz	Quartz	Chert	Chert	Chert	Quartz
Weight (g)	0.4	11	0.2	0.5	1	8	0.4	0.1
Length (mm)	21	36	16	14	18	28	20	12
Width (mm)	8	26	7	13	13	29	9	8
Thickness (mm)	5	10	3	7	3	11	2	3
Cortex	No	No	No	No	No	Yes 5%	No	No
Knapping Type	Freehand Percussion	Freehand Percussion	Freehand Percussion	Freehand Percussion	Freehand Percussion	Freehand Percussion	Freehand Percussion	Freehand Percussion
Artefact Type	Flake	Flake	Flake	Flake	Flake	Flake	Flake	Flake
Breakage	No	Proximal	No	Distal	Proximal and Distal	No	No	No
Heat Treatment	No	No	No	No	No	No	No	No
Platform Length (mm)	8	N/A	5	N/A	N/A	24	8	2
Platform Width (mm)	4	N/A	3	N/A	N/A	11	2	2
Platform Type	Single	N/A	Single	N/A	N/A	Single	Single	Single
Overhang Removal	No	N/A	No	N/A	N/A	No	No	No
Dorsal Scars	3	2	2	2	1	4	2	2
Dorsal Aberrantly Terminating	1	0	0	0	0	1	0	0

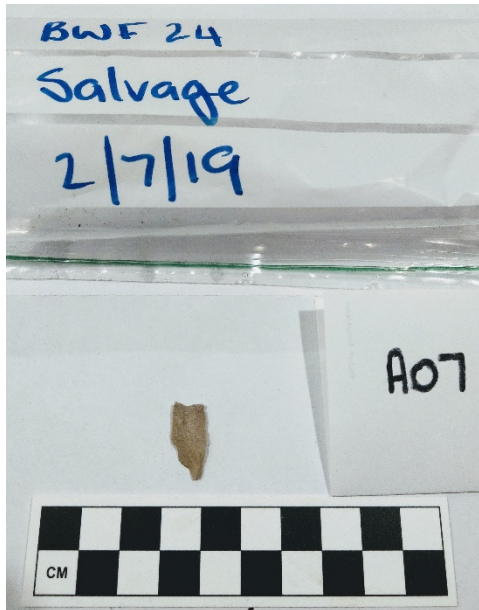
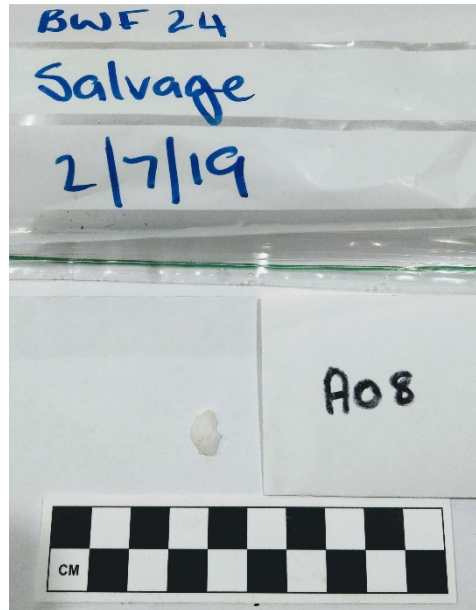
Artefact ID	A01	A02	A03	A04	A05	A06	A07	A08
Dorsal Parallel Scars	2	2	2	2	0	3	2	2
Dorsal Parallel Arrises	1	2	1	1	0	2	1	1
Dorsal Scar Rotation	No	No	No	No	No	No	No	No
Termination	Hinge	Hinge	Hinge	Hinge	N/A	Hinge	Hinge	Hinge
Retouch Present?	No	No	No	No	No	No	No	No
Retouch Type	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Retouch Location	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**Table E.6 Photo Log**

Artefact ID	Photograph	Artefact ID	Photograph
A01		A02	



Artefact ID	Photograph	Artefact ID	Photograph
A03		A04	
A05		A06	

Artefact ID	Photograph	Artefact ID	Photograph
A07		A08	

## Appendix F

## TEST EXCAVATION AND ADDITIONAL SURVEY

## F.1 Introduction

In June 2019, Developments Biala notified ERM of their intention to modify the alignment of an access road in proximity to BWF19, within the southern portion of the Project Area. Developments Biala advised that the modified alignment would place the access road within the PAD identified at BWF19. In addition to the test excavation, a short survey of the proposed alignment, within an area previously unassessed, was required.

Developments Biala also provided the location of a proposed Met Mast, which would require additional assessment. As per the CHMP (see *Section F.1.2* below), additional survey at the location of the proposed Met Mast, and a 60 m buffer, was provided.

During the course of survey and test excavation, Developments Biala also noted an area around the proposed location of Turbine T01 that would require additional assessment to allow for micro-siting of infrastructure and construction laydowns.

### F.1.1 Test Excavation

In *Section 6.3* of this CHMP it states:

*Subsurface potential has been identified at Sites BWF13, BWF19, and BWF PAD1. Only where impacts cannot be avoided through micro-siting of WTG and/or revised access track design, each of these sites will be subject to test excavation.*

*The purpose of this programme of test excavation is to provide a broad understanding of Aboriginal cultural heritage within the PA. If the test excavation identifies significant cultural deposits with research potential, further finer resolution excavation would be considered as outlined in *Section 6.3.2*.*

### F.1.2 Met Mast Survey

Additionally, in *Section 6.1* of the CHMP it states:

*During detailed design and prior to the commencement of construction, any additional impact areas or any areas not previously archaeologically surveyed (such as the access track between WTG03 and WTG06) will be surveyed by a qualified archaeologist and registered Aboriginal stakeholders.*

*Any new Aboriginal heritage sites identified within proposed impact areas as part of these surveys may be avoided as part of detailed design, fenced off and protected, or subjected to a sub-surface testing program and salvaged (if required). Detailed strategies for protection of Aboriginal heritage values identified in future survey work are provided in this ACHMP.*

ERM attended site from Monday 11 to Wednesday 13 November 2019 to complete test excavation and additional survey, in consultation with the RAPs. Test Excavation at BWF19 was undertaken along the proposed road alignment, in accordance with the methodology provided in the CHMP. Survey along the previously unassessed portion of the alignment, and at the location of the proposed Met Mast and cable connection, was also undertaken at this time.

## F.2 Consultation

All RAPs for this project were notified of ERM's intention to complete survey and test excavation at the required locations. Two RAP groups were invited to attend the additional surveys and test excavation; both groups accepted the invitation and participated in the surveys. These groups were:

- Pejar Local Aboriginal Land Council (LALC); and
- Thunderstone Aboriginal Cultural and Land Management Services.

## F.3 Methodology

### F.3.1 Test Excavation

Test Excavation at BWF19 was undertaken in accordance with the methodology set out in *Section 6.3* of this CHMP, and as provided to the RAPs prior to the commencement of works. This methodology included the following key tasks:

- 0.5 m by 0.5 m test pits will be excavated in transects at no more than 10 m intervals along the length of each PAD;
- excavation will be undertaken by hand using trowels, mattocks and shovels;
- the first excavation unit will be excavated and documented in 5 cm excavation units, or 'spits'. Subsequent test pits may be excavated in 10 cm spits or stratigraphical unit (whichever is smaller) and this would be at the discretion of the Supervising Archaeologist;
- all test pits will be excavated to at least the base of identified Aboriginal object bearing units and/or will cease at stiff clay or bedrock;
- all deposits will be sieved on-site using 5 mm and 8 mm nested sieves. Deposit will be sieved using dry sieving methods as appropriate to the soil type, access to PA and environmental context;
- all test pits will be documented using photographic records, written descriptions and scaled drawings;
- the sub-surface soils and sediments will be examined to identify whether the deposits are intact or disturbed or a combination of both. Soil samples will not be taken;
- artefacts recovered will be initially analysed on-site to enable evidence based decisions regarding the quantity of artefacts at each archaeological site and immediate input from Aboriginal stakeholders. Detailed (laboratory) analysis would be undertaken off site and entail recording a greater number of characteristics for each individual artefact as outlined in *Section 6.3.3*;
- artefacts to be removed from site for further analysis will be individually bagged in snap-lock sample bags and labelled;
- test trenches/pits will be backfilled as soon as practicable; and
- following test excavation and analysis, an Aboriginal Site Impact Recording form will be completed and submitted to the AHIMS Registrar as soon as practicable (refer to *Section 6.3.4*).

A total of 8 test excavation units were excavated at BWF19, situated on a 10 m offset grid across the amended alignment. The location of the amended alignment and all excavated pits is shown in *Figure F.1*.

### F.3.2 Survey

Archaeological survey of the amended road alignment, the proposed Met Mast location and associated cable route, and the area surrounding T01 consisted of pedestrian transect survey. ERM personnel and the RAPs walked at 2-5m intervals (as appropriate) across the amended road alignment, and within a 60m buffer of the Met Mast location.

Survey areas covered in the previous and recent surveys are shown in *Figure F.1*.



## **F.4 Results and Discussion**

### **F.4.1 Test Excavation**

No Aboriginal objects were recovered during test excavation at BWF19.

A total of eight test excavation units were excavated, to depths between 30 cm and 50 cm. All test excavation units contained similar shallow, sandy topsoils, overlying sandy clay and clay. Pits on the eastern side of the PAD showed evidence of disturbance, in the form of European objects within test pits. The area immediately to the east of the test excavation appeared to consist of an historical rubbish dumping location. This was confirmed by the landowner during the course of the excavation.

Based on these results, it has been determined that the road amendment can continue without further monitoring. The BWF19 PAD will remain a restricted location, to be fenced and sign posted as a restricted zone. A small construction corridor, as cleared by the test excavation, will be provided along the amended alignment to create the new roadway.

### **F.4.2 Amended Alignment Survey**

No Aboriginal objects or areas of interest were identified during the pedestrian survey of the proposed amended alignment.

The amended alignment extends north-east from BWF19, crosses the creek, and continues roughly north-east up a hillslope, before re-joining the approved roadway. The slope has a significant gradient, suggesting it would not have been most suitable for habitation. Additionally, had Aboriginal objects been deposited in this location, they are likely to have migrated towards the creekline over time, due to erosion and other natural factors.

Ground surface visibility was generally low, with thick grass coverage across the area. Areas of exposure were targeted during the survey, although no finds were identified. Large quartz deposits are found throughout the landscape, often in the form of large rocks on the surface. Many of these were identified within the amended alignment survey area.

Based on these results, the proposed amendment has been cleared for construction (see *Figure F.1*)

### **F.4.3 Met Mast Survey**

No Aboriginal objects or areas of interest were identified during the pedestrian survey of the proposed Met Mast location, or the associated cable route (*Figure F.2*).

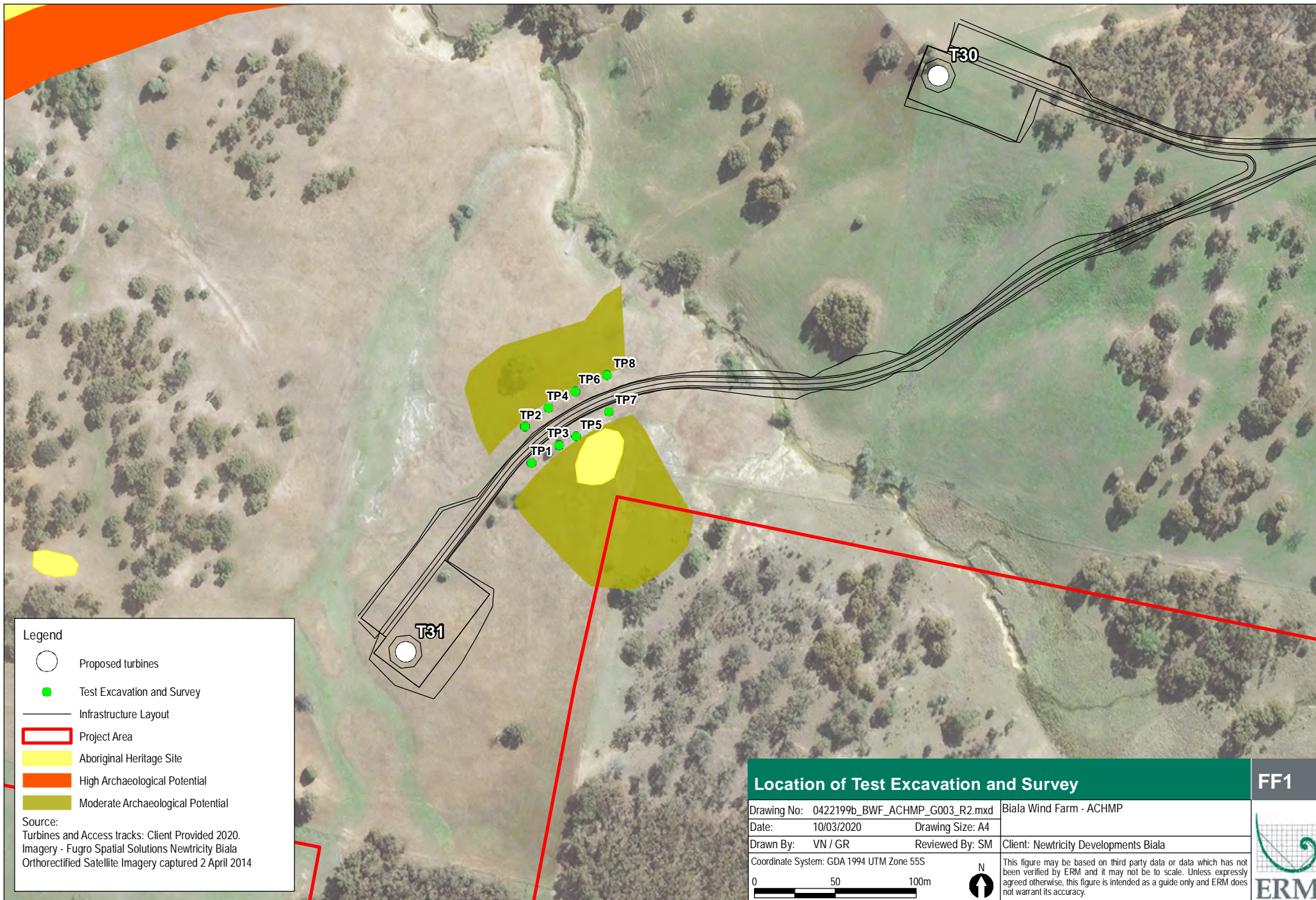
Pedestrian survey was undertaken in 5 m transects, beginning approximately 30 m south west of the proposed Met Mast location and moving east. An area of approximately 60 sqm around the centre point, to provide an area for construction and cable stays.

Ground surface visibility was generally low, with thick grass coverage across the area. Areas of exposure were targeted during the survey, although no finds were identified. Large quartz deposits are found throughout the landscape, often in the form of large rocks on the surface. Many of these were identified within the Met Mast survey area.

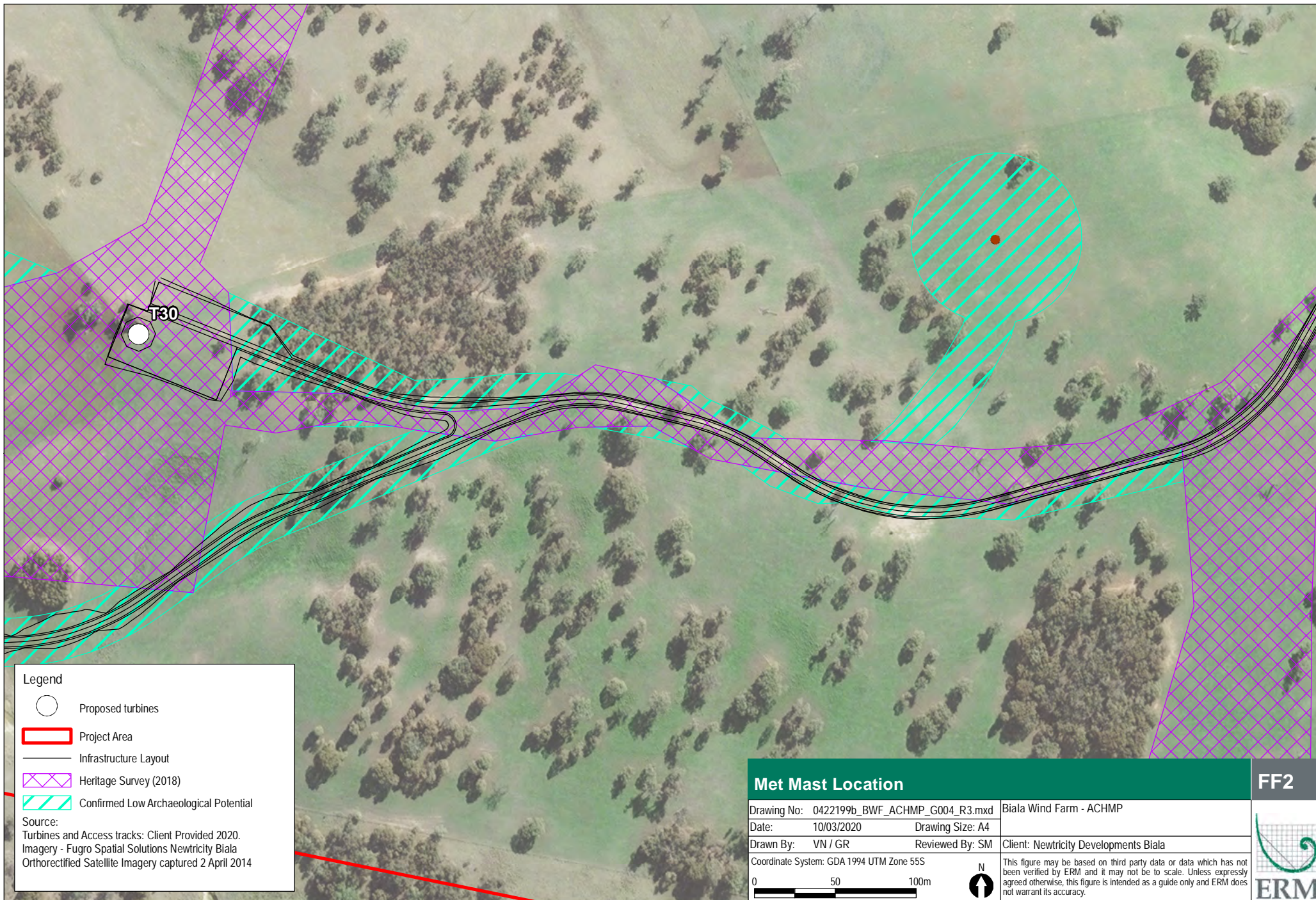
### **F.4.4 Turbine T01**

No Aboriginal objects or areas of interest were identified during the pedestrian survey of the area surrounding Turbine T01 (*Figure F.3*).

Pedestrian survey was undertaken in 5 m transects, working west to east across the proposed amendment area. Ground visibility was moderate, with short grass present across the area, interspersed with large patchy exposures. Minimal raw material was noted on the surface throughout this area.







**Legend**

- Proposed turbines
- Project Area
- Infrastructure Layout
- Heritage Survey (2018)
- Confirmed Low Archaeological Potential

Source:  
 Turbines and Access tracks: Client Provided 2020.  
 Imagery - Fugro Spatial Solutions Newtricity Biala  
 Orthorectified Satellite Imagery captured 2 April 2014

Met Mast Location		FF2
Drawing No: 0422199b_BWF_ACHMP_G004_R3.mxd		Biala Wind Farm - ACHMP
Date: 10/03/2020	Drawing Size: A4	
Drawn By: VN / GR	Reviewed By: SM	Client: Newtricity Developments Biala
Coordinate System: GDA 1994 UTM Zone 55S		 This figure may be based on third party data or data which has not been verified by ERM and it may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and ERM does not warrant its accuracy.





FF3



## F.5 Environmental Aspects and Impacts

As discussed in *Section 5* of this ACHMP, potential impacts on Aboriginal cultural heritage are predominantly attributed to ground disturbance works and may occur as a result of:

- the construction of 31 WTGs including the towers, nacelles, blades and footings;
- the grading of roads and upgrading of existing access roads;
- vehicle movement across eroded tracks;
- the development of new access roads;
- trenching for the underground electrical reticulation network;
- clearance of vegetation;
- the construction of hardstands and laydown areas;
- the construction of an electrical substation and associated electrical equipment;
- for the construction period, an on-site concrete batching plant and equipment storage areas; and
- wind monitoring masts and communications equipment.

Impacts as a result of the physical infrastructure proposed within the PA will be discreet in nature and will occupy a relatively small footprint. Based on the preliminary Project design presented in *Figure 1.1*, of the six sites recorded during the 2018 surveys, four sites - BWF19, BWF22, BWF23, and BWF24 will be potentially impacted and will need to be subject to surface collection and/or test excavation if they cannot be avoided through micro-siting of WTG and/or revised access track design.

Based on updated project designs, impacts to BWF19 cannot be avoided, and subsurface testing has been undertaken accordingly.

*Table 5.1* below provides a summary of impacts to known sites within the PA. This table has been amended to reflect changes at BWF19. That portion of BWF19 within the proposed amended road alignment will be impacted by works; however, the remainder of the PAD will remain off limits and fencing and signage will remain in place. Respect for unfenced sites shall be the subject of site inductions and toolbox meetings. Subject to further detailed design, only those sites that cannot be avoided will be subject to test excavations and /or salvage in accordance with this ACHMP.



**Table F.1 Summary of Potential Impact to Aboriginal Heritage Sites identified in Additional 2018 Surveys**

Site ID	Archaeological Significance	Will the site be impacted?	Management Measure*	Description of Management Measure# (see Section 6 for detailed methodology and timing)
BWF19	Low	Potential for impact. This site and associated PAD may be impacted by the access road that will be used during construction and operation of the wind farm, although it may be avoided through revised access track design.	Subsurface testing and unexpected finds	<p>BWF19 will be subject to impact from the proposed road alignment. Subsurface testing of the portion of the site to be impacted was undertaken in November 2019. No artefacts were recovered. Based on this, the road alignment has been cleared for impact.</p> <p>The remainder of the PAD will be fenced off for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Prior to construction commencing, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.</p>
BWF22	Low	Potential for impact. This site is located on, or immediately adjacent to the proposed access road although it may be avoided through revised access track design.	Surface collection/salvage	<p><u>Avoidance is the preferred option for this site.</u> If this site cannot be avoided, surface collection/salvage by Aboriginal stakeholder groups and an appropriately qualified archaeological prior the commencement of works at this location.</p> <p>If avoidance* is possible a 10 m wide buffer zone will be maintained around the site and the identified area of archaeological potential. This area will be fenced off for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Prior to construction commencing, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.</p>
BWF23	Low	Potential for impact. This site is located on, or immediately adjacent to the proposed access road although it may be avoided through revised access track design.	Surface collection/salvage	<p><u>Avoidance is the preferred option for this site.</u> If this site cannot be avoided, surface collection/salvage by Aboriginal stakeholder groups and an appropriately qualified archaeological prior the commencement of works at this location.</p> <p>If avoidance* is possible a 10 m wide buffer zone will be maintained around the site and the identified area of archaeological potential. This area will be fenced off for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Prior to construction commencing, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.</p>
BWF24	Low	Potential for impact. This site is located on, or immediately adjacent to the proposed access road although it may	Surface collection/salvage	<p><u>Avoidance is the preferred option for this site.</u> If this site cannot be avoided, surface collection/salvage by Aboriginal stakeholder groups and an appropriately qualified archaeological prior the commencement of works at this location.</p>

Site ID	Archaeological Significance	Will the site be impacted?	Management Measure*	Description of Management Measure# (see Section 6 for detailed methodology and timing)
		be avoided through revised access track design.		If avoidance* is possible a 10 m wide buffer zone will be maintained around the site and the identified area of archaeological potential. This area will be fenced off for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Prior to construction commencing, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.
BWF25	Low	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site and the identified area of archaeological potential. This area will be fenced off for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Prior to construction commencing, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.
BWF26	Low	No	Avoidance*	A 10 m wide buffer zone will be maintained around the site and the identified area of archaeological potential. This area will be fenced off for the duration of the construction works and marked in the field and on all design drawings as a 'no go zone'. Prior to construction commencing, exclusion fencing and exclusion signage will be erected around the site by Aboriginal stakeholder groups and an appropriately qualified archaeologist. At the completion of construction exclusion zone fencing will be removed.

\* Avoidance and ongoing protection of these sites is to be maintained throughout the duration of the construction, maintenance and operation of the windfarm. All vehicle movements and maintenance activities will be limited to defined access tracks and hardstand areas. No additional impact, including during operation and/or maintenance is approved unless authorised by the Secretary of DPIE in writing or via an updated and approved ACHMP.

# Where further design work can ensure that there is no infrastructure within 150 m of a site, fencing and signage is deemed unnecessary to ensure avoidance and the "no go zones" indicated on design drawings shall suffice. Respect for unfenced sites shall be the subject of site inductions and toolbox meetings.

---

**ERM has over 160 offices across the following  
countries and territories worldwide**

Argentina	The Netherlands
Australia	New Zealand
Belgium	Norway
Brazil	Panama
Canada	Peru
Chile	Poland
China	Portugal
Colombia	Puerto Rico
France	Romania
Germany	Russia
Ghana	Senegal
Guyana	Singapore
Hong Kong	South Africa
India	South Korea
Indonesia	Spain
Ireland	Sweden
Italy	Switzerland
Japan	Taiwan
Kazakhstan	Tanzania
Kenya	Thailand
Malaysia	UAE
Mexico	UK
Mozambique	US
Myanmar	Vietnam

**ERM's Sydney Office**

Level 15  
309 Kent Street  
Sydney NSW 2000

T: +612 8584 8888

F: +612 8585 8800

[www.erm.com](http://www.erm.com)