View south from the eastern bank of Sandy Creek.

ABORIGINAL CULTURAL HERITAGE ASSESSMENT REPORT

COBBORA SOLAR FARM

WARRUMBUNGLE AND DUBBO LOCAL GOVERNMENT AREAS, NSW

FEBRUARY 2025

Report prepared by

OzArk Environment & Heritage

for AECOM on behalf of Cobbora Solar Farm Pty Ltd

in its capacity for the Cobbora Solar Farm Trust

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ABORIGINAL CULTURAL HERITAGE ASSESSMENT REPORT COVER SHEET

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Acknowledgement

OzArk acknowledge the traditional custodians of the area on which this assessment took place and pay respect to their beliefs, cultural heritage, and continuing connection with the land. We also acknowledge and pay respect to the post-contact experiences of Aboriginal people with attachment to the area and to the Elders, past and present, as the next generation of role models and vessels for memories, traditions, culture and hopes of local Aboriginal people.

ABBREVIATIONS AND GLOSSARY

ACHAR	Aboriginal Cultural Heritage Assessment Report. As set out in the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*, all developments where harm to Aboriginal objects is likely must be assessed in an ACHAR.
ACHCRs	*Aboriginal Cultural Heritage Consultation Requirements for Proponents.* Guidelines for conducting Aboriginal community consultation for developments where harm to Aboriginal objects is likely.
ACHMP	Aboriginal Cultural Heritage Management Plan. A requirement of SSDs. An ACHMP both manages impacts to Aboriginal cultural heritage within approved disturbance areas (AHIPs are not required), as well as management of Aboriginal cultural heritage sites and values outside of approved impact areas but within land able to be managed by a proponent.
AHIMS	Aboriginal Heritage Information Management System. Administered by the DCCEEW, AHIMS is the central register of all Aboriginal sites within NSW.
AHIP	Aboriginal Heritage Impact Permit. A permit issued by Heritage NSW under section 90 of the NPW Act to harm Aboriginal objects.
Assemblage:	All artefacts recorded at a location. In this report, assemblage refers to stone artefacts as this was the only artefact class recorded.
BP	Years before present
Code of Practice	*Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* under Part 6 NPW Act. Issued by DECCW in 2010, the Code of Practice is a set of guidelines that allows limited test excavation without the need to apply for an AHIP.
Debitage:	The term debitage refers to all the waste material produced during lithic reduction and the production of stone tools. This report uses debitage to describe the small flakes and chips produced purely as a by-product of knapping.
DCCEEW	NSW Department of Climate Change, Energy, the Environment and Water. DCCEEW contains the Environment and Heritage Group including Heritage NSW.
DPHI	NSW Department of Planning, Housing and Infrastructure. DPHI contains the Planning agency.

EIS	Environmental Impact Statement. A required document for major projects documenting all potential impacts to the environment, including heritage, that may arise due to the development.
GSE	Ground surface exposure. A measure of factors that may reveal surface artefacts such as erosion scalds.
GSV	Ground surface visibility. A measure of factors that may obscure the detection of surface artefacts such as leaf litter.
Heritage NSW	Government department tasked with ensuring compliance with the NPW Act. Heritage NSW is advised by the Aboriginal Cultural Heritage Advisory Committee (ACHAC).
NPW Act	*National Parks and Wildlife Act 1974*. Primary legislation governing Aboriginal cultural heritage within NSW.
PAD	Potential archaeological deposit. Indicates that a particular location has potential to contain subsurface archaeological deposits, although no Aboriginal objects are visible.
RAP	Registered Aboriginal Party. An individual or group who have indicated through the ACHCR process that they wish to be consulted regarding the Project.
SEARs	Secretary's Environmental Assessment Requirements issued by DPHI.
SSD	State Significant Development

EXECUTIVE SUMMARY

OzArk Environment & Heritage (OzArk) has been engaged by AECOM Australia Pty Ltd (AECOM) on behalf of Cobbora Solar Farm Pty Ltd in its capacity as trustee for the Cobbora Solar Farm Trust; the Proponent) to complete an Aboriginal Cultural Heritage Assessment Report (ACHAR) for the proposed Cobbora Solar Farm (CSF) (the Project). The Project is located approximately 20 kilometres (km) southwest of the township of Dunedoo and 55 km east of Dubbo in Central West New South Wales (NSW) within the Warrumbungle and Dubbo Regional Local Government areas.

This ACHAR has been undertaken in accordance with the Secretary's Environmental Assessment Requirements (SEARs), the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* and the *Code of Practice for the Investigation of Aboriginal Objects in New South Wales.* The Aboriginal cultural heritage assessment of the Project has followed the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*.

In 2022, pedestrian surveys of the Project area were undertaken by OzArk. Following the survey, and during the preparation of the draft ACHAR, the Project was put on hold. The Project was acquired by Pacific Partnerships Pty Ltd (PP) in June 2024. Since this time, PP has been managing the development and a number of Project updates have taken place including the re-issuing of Project SEARs, the release of the *Large Scale Solar Farm Guidelines* by the NSW Government, as well as amendments to the Project design to avoid and reduce environmental impacts.

The Project area is the area in which all impacts associated with the Project will be located. This covers approximately 3,000 hectares (ha). Since the inception of the heritage assessment for the Project, the Project area has been reduced to exclude the southernmost portion (approximately 280 ha). This area now comprises the location of the Elong Elong Energy hub as part of the Central West Orana Renewable Energy Zone (CWO REZ). Within the Project area is the development footprint, which describes the area in which all ground disturbance works will take place (approximately 1,600 ha). The disturbance footprint has been significantly reduced following the 2022 field survey, and as a result, the field survey included a larger area than the current Project area. For the purposes of this report, this larger area subject to survey is referred to as the 'surveyed area'.

Background archaeological context

There are currently 136 sites registered with the Aboriginal Heritage Information Management System (AHIMS) within the Project area. This includes 28 sites recorded by OzArk during the survey for this assessment, but not the 32 areas of potential archaeological deposit (PAD) recorded (most of these PADs are captured in the associated artefact site description).

Many of the registered sites recorded within the Project area were identified during the Environmental Resources Management Australia (ERM; 2010), and EMM (2012, 2013, 2023, 2024) assessments for the Cobbora Coal Project and the Central West Orana Renewable Energy Zone (CWO REZ) transmission line, which intersect with the Project area.

Archaeological sensitivity modelling based on the findings of the ERM (2010), and EMM (2012, 2013) assessments informed the sampling strategy and designation of 'priority survey areas' and 'secondary survey areas' within the Project area which was employed during the survey.

Results

The field survey was undertaken by OzArk with the assistance of Registered Aboriginal Party (RAP) representatives over one week from 27 June 2022 to 1 July 2022. An additional survey was undertaken on 11 and 12 August 2022 to ensure adequate sampling was completed across the 'secondary survey areas'.

During the surveys, 30 previously unrecorded Aboriginal sites were identified within the surveyed area, comprising 15 isolated finds and 15 artefact scatters. Twenty-eight of these newly identified sites are within the Project area.

At the time of the survey, there were 104 previously recorded AHIMS sites within the Project area. Forty-three of these sites were updated during the survey to more accurately reflect the location, current condition, and extent of these sites.

One AHIMS site (36-2-0224 [SAC 21]), which plots outside of the Project area on AHIMS, was found to extend into the Project area. Another AHIMS site (36-2-0237 [SAC 34]) previously plotted 1 km west of the Project area and has since been updated to reflect the correct location within the Project area. Additionally, since the survey in 2022, a further three sites (36-2-0582 [SC GG1], 36-2-0697 [SNI-AS8], and 36-2-0695 [SNI-AS48]) have been recorded within the Project area by EMM as part of the CWO REZ Project (EMM 2023, 2024).

Therefore, 137 newly recorded and previously recorded sites are located within or extend into the Project area.

A total of 33 areas of PAD were also identified, some of which were newly identified during the survey, whilst others correspond with those identified by previous investigations (ERM 2010, EMM 2012 and 2013, EMM 2023). All areas of PAD are associated with a recorded Aboriginal site, except for PAD 26. Of the 33 areas of PAD identified during the survey, 32 are within the Project area.

Executive Summary Table 1 lists the number of Aboriginal sites and PADs which are located within, or intersect with, the Project area and surveyed area.

Executive Summary Table 1: Identified Aboriginal sites and PADs within the Project area and surveyed area.

Location	Number of Aboriginal sites	Number of PADs
Project area	137	32
Surveyed area	99	33

Following the 2022 field survey the Proponent redesigned the development footprint to minimise impacts to Aboriginal cultural heritage. Of the 137 sites within the Project area, 22 sites consisting of nine isolated finds and 13 artefact scatters would be impacted by the Project, as well as discreet portions of PADs 11, 19, and 20.

Eighteen of these 22 sites are located wholly within the development footprint, while four sites partially intersect with the development footprint and would be subject to a partial loss of value. These sites are shown in **Executive Summary Table 2**.

Executive Summary Table 2. Sites that may potentially be harmed by the Project.

AHIMS ID	Site name	GDA East	GDA North	Degree of harm
36-2-0196	IF 01-Glass Flake	707665	6442776	Partial
36-2-0196	IF 05-Ground Edge Axe	711196	6438564	Total
36-2-0215	SAC 12	708835	6440629	Partial
36-2-0216	SAC 13	709063	6440727	Partial
36-2-0226	SAC 23	708747	6439446	Partial
36-2-0393	CBR - OS – 21	711220	6438390	Total
36-2-0402	CBR - OS - 13B	710043	6440884	Total
36-2-0403	CBR - OS - 13A	709311	6443235	Total
36-2-0425	CBR - IF – 01	709755	6442142	Total
36-2-0536	CSF IF03	707391	6441061	Total
36-2-0538	CSF IF05	710183	6439120	Total
36-2-0541	CSF IF09	711844	6438665	Total
36-2-0542	CSF IF10	709636	6438918	Total
36-2-0544	CSF IF12	709573	6438887	Total
36-2-0545	CSF IF13	709306	6439125	Total
36-2-0547	CSF IF14	711851	6438010	Total
36-2-0546	CSF IF15	711948	6438040	Total
36-2-0523	CSF OS5	707547	6440988	Total
36-2-0529	CSF OS11	711677	6438589	Total
36-2-0532	CSF OS14	709662	6437390	Total
36-2-0695	SNI-AS48	712703	6437140	Total
36-2-0697	SNI-AS47	712508	6437262	Total
-	PAD 11	708287	6441091	Partial
-	PAD 19	708552	6439993	Partial
-	PAD 20	708826	6439177	Partial

Management and mitigation recommendations

The Proponent has avoided harm to 115 recorded sites and 29 of the 32 PADs within the Project area through careful design of the Project components. Where the avoided sites are located within 20 metres (m) of the development footprint, they should be protected during the construction of the Project using high-visibility temporary fencing. These should also be marked as 'no-go' areas on all maps and inductions material provided to workers. The 76 sites and PADs recommended for fencing are shown in **Executive Summary Table 3**.

Executive Summary Table 3: Sites requiring fencing during construction of the Project.

AHIMS ID	Site name	Site type	GDA East	GDA North
36-2-0090	DR-ST2	Scarred Tree	708970	6445621
36-2-0165	Grinding Groove 02	Grinding Groove	709598	6439316
36-2-0168/36-1-0167. See also 36-2-0582 (SC GG1)	Grinding Groove 05/Grinding Groove 04	Grinding Grooves	Grinding Groove 04: 709311. Grinding Groove 05: 709329	Grinding Groove 04: 6437483 Grinding Groove 05:6437465
36-2-0179	Hearth 03	Hearth + Artefact Scatter + PAD	707154	6444930
36-2-0180	Hearth 04	Hearth + confirmed PAD	709160	6440657
36-2-0181	Hearth 05	Hearth + Artefact Scatter + confirmed PAD	709185	6440631
36-2-0186	Hearth 10	Hearth	709741	6439088
36-2-0210	SAC 07	Isolated Find + Hearth + PAD	707151	6444866
36-2-0212	SAC 09	Artefact Scatter + confirmed PAD	707147	6443738
36-2-0214	SAC 11	Artefact Scatter + confirmed PAD	709564	6440620
36-2-0215	SAC 12	Artefact Scatter + confirmed PAD	708835	6440629
36-2-0216	SAC 13	Artefact Scatter + confirmed PAD	709063	6440727
36-2-0218	SAC 15	Artefact scatter + PAD (updated location)	707768	6444171
36-2-0219 / 36-2-0217	SAC 14 / SAC 16	Artefact scatter + confirmed PAD	SAC 14: 707779. SAC 16: 707780	SAC 14: 6441161. SAC 16: 6441398
36-2-0223	SAC 20	Isolated find + PAD	708609	6440500
36-2-0224	SAC 21	Artefact scatter + PAD	708551	6439961
36-2-0225	SAC 22	Isolated find + PAD	708679	6439544
36-2-0230	SAC 27	Isolated find + PAD	709627	6439136
36-2-0240	SAC 37	Artefact Scatter	709522	6437251
36-2-0256	TRE 07	Modified Tree	707728	6444065
36-2-0257	TRE 08	Modified Tree	707758	6444015
36-2-0258	TRE 09	Modified Tree	707758	6443997
36-2-0259	TRE 10	Modified Tree	707797	6441048
36-2-0368	CBR-OS-33B	Artefact Scatter	709618	6443803
36-2-0369	CBR-OS-33A	Artefact Scatter	709591	6443856

AHIMS ID	Site name	Site type	GDA East	GDA North
36-2-0371/36-2-0372	CBR-OS-31E/ CBR-OS-31D	Artefact Scatter + confirmed PAD	CBR-OS-31E: 712685. CBR-OS-31D: 712785	CBR-OS-31E: 6437733. CBR-OS-31D: 6437685
36-2-0374	CBR-OS-31B	Artefact Scatter + confirmed PAD	712779	6437409
36-2-0375	CBR-OS-31A	Artefact Scatter + confirmed PAD	712670	6437545
36-2-0394	CBR-OS-20	Artefact scatter	710030	6440880
36-2-0395	CBR-OS-19	Isolated Find + PAD	710320	6440280
36-2-0400	CBR-OS-15	Artefact Scatter	709046	6442956
36-2-0401	CBR-OS-14	Artefact Scatter	709132	6443064
36-2-0404	CBR-OS-12 'WATERHOLE'	Artefact Scatter + PAD	709560	6443226
36-2-0405	CBR-OS-11	Artefact Scatter	709896	6443514
36-2-0406	CBR-OS-10	Artefact Scatter	708623	6442799
36-2-0407	CBR-OS-09 'BIG SCALD'	Artefact Scatter	708616	6443276
36-2-0408	CBR-OS-08	Artefact Scatter	708843	6442977
36-2-0409	CBR-OS-07	Artefact Scatter	708994	6442953
36-2-0410	CBR-OS-06	Artefact Scatter	709054	6442877
36-2-0416	CBR - OS - 01	Isolated Find + PAD	708780	6440890
36-2-0422	CBR-IF-04	Artefact scatter	712233	6437128
36-2-0424	CBR-IF-02	Isolated Find	708840	6442440
36-2-0427	CBR-OS-11A	Isolated Find	710218	6443582
36-2-0521	CSF OS2	Artefact Scatter	709776	6445528
36-2-0524	CSF OS6	Artefact Scatter + PAD	707205	6441177
36-2-0526	CSF OS8	Artefact Scatter + PAD	709547	6439254
36-2-0527	CSF OS9	Artefact Scatter + PAD	709971	6439065
36-2-0531	CSF OS13	Artefact Scatter	708894	6439110
36-2-0534	CSF OS4	Artefact Scatter + PAD	708476	6440932
36-2-0537	CSF IF04	Isolated Find	709574	6438965
36-2-0543	CSF IF11	Isolated Find	709211	6438808
36-2-0582	SC GG1	Grinding groove with artefact/s and PAD	709396	6437322
-	PAD 3	PAD	707129	6444869
-	PAD 5	PAD	707157	6443773
-	PAD 6	PAD	709546	6443248
-	PAD 8	PAD	707253	6441337
-	PAD 9	PAD	707775	6441440
-	PAD 10	PAD	707773	6441149
-	PAD 11	PAD	708287	6441091
-	PAD 12	PAD	708789	6440859
-	PAD 13	PAD	709012	6440728
-	PAD 14	PAD	708911	6440591
-	PAD 15	PAD	709169	6440603
-	PAD 16	PAD	709594	6440659
-	PAD 17	PAD	710349	6440282
-	PAD 18	PAD	708588	6440383

AHIMS ID	Site name	Site type	GDA East	GDA North
-	PAD 19	PAD	708552	6439993
-	PAD 20	PAD	708826	6439177
-	PAD 22	PAD	709609	6439120
-	PAD 23	PAD	709928	6439062
-	PAD 25	PAD	710431	6438887
-	PAD 26	PAD	710757	6439094
-	PAD 27	PAD	711003	6438817
-	PAD 29	PAD	711561	6438773
-	PAD 30	PAD	711492	6438644
-	PAD 31	PAD	712019	6438629
-	PAD 32	PAD	712807	6437604

Subsurface archaeological excavation of discreet areas at PAD 11 and PAD 20 is recommended at the precise locations of impacts from the proposed 33kV poles. Archaeological excavations may also be required within PAD 19 should 33 kV poles be located within the PAD. These subsurface investigations must occur prior to the construction of the 33 kV electricity line when the precise location of impacts is known to occur within areas of PAD.

No further test excavation is required within the remaining areas of PAD as the Project has avoided them. The mapping of the PAD extents in the field was generous and there is confidence that the PADs do not extend further into the Project area.

Proposed management at sites that may be harmed by the Project are shown on **Executive Summary Table 4**. The primary proposed management for these sites is the salvage of surface artefacts, either in totality or partially dependant on the degree of harm proposed. The salvage methodology would include the mapping, description, and collection of artefacts prior to impacts within a specific area.

Executive Summary Table 4. Management of sites that may potentially be harmed by the Project.

AHIMS ID	Site name	GDA East	GDA North	Degree of harm	Management
36-2-0192	IF 01-Glass Flake	707665	6442776	Partial	Mapping, description, and collection of surface artefacts within the development footprint prior to construction. The portions of the site which are not proposed to be impacted but are within 20 m of the development footprint should be fenced to ensure the site is not inadvertently harmed.
36-2-0196	IF 05-Ground Edge Axe	711196	6438564	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0215	SAC 12	708835	6440629	Partial	Mapping, description, and collection of surface artefacts within the development footprint prior to construction. The portions of the site which are not proposed to be impacted but are within 20 m of the development footprint should be fenced to ensure the site is not inadvertently harmed.

AHIMS ID	Site name	GDA East	GDA North	Degree of harm	Management
36-2-0216	SAC 13	709063	6440727	Partial	Mapping, description, and collection of surface artefacts within the development footprint prior to construction. The portions of the site which are not proposed to be impacted but are within 20 m of the development footprint should be fenced to ensure the site is not inadvertently harmed.
36-2-0226	SAC 23	708747	6439446	Partial	Mapping, description, and collection of surface artefacts within the development footprint prior to construction. A focused subsurface archaeological excavation would take place at the location of the single 33kV pole within the 36-2-0226 site extent when the finalised impact location is precisely known. The portions of the site which are not proposed to be impacted but are within 20 m of the development footprint should be fenced to ensure the site is not inadvertently harmed.
36-2-0394	CBR - OS - 20	711220	6438390	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0402	CBR - OS - 13B	710043	6440884	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0403	CBR - OS - 13A	709311	6443235	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0425	CBR - IF - 01	709755	6442142	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0536	CSF IF03	707391	6441061	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0538	CSF IF05	710183	6439120	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0541	CSF IF09	711844	6438665	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0542	CSF IF10	709636	6438918	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0544	CSF IF12	709573	6438887	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0545	CSF IF13	709306	6439125	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0547	CSF IF14	711851	6438010	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0546	CSF IF15	711948	6438040	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0523	CSF OS5	707547	6440988	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0529	CSF OS11	711677	6438589	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0532	CSF OS14	709662	6437390	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0695	SNI-AS48	712703	6437140	Total	Mapping, description and collection of surface artefact prior to construction
36-2-0697	SNI-AS47	712508	6437262	Total	Mapping, description and collection of surface artefact prior to construction
-	PAD 11	708287	6441091	Partial	A focused subsurface archaeological excavation would take place at the location of the four 33kV poles within PAD 11 when the finalised impact location is precisely known.

AHIMS ID	Site name	GDA East	GDA North	Degree of harm	Management
					To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed.
-	PAD 19	708552	6439993	Partial	A focused subsurface archaeological excavation would take place at the location of the one 33kV pole within PAD 19 when the finalised impact location is precisely known. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed.
-	PAD 20	708826	6439177	Partial	A focused subsurface archaeological excavation would take place at the location of the two 33kV poles within PAD 20 when the finalised impact location is precisely known. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed.

Recommendations concerning Aboriginal cultural values within the Project area are as follows:

1. Following the granting of development consent for the Project, the Proponent will develop an Aboriginal Cultural Heritage Management Plan (ACHMP) as per the Conditions of Approval, in consultation with the Registered Aboriginal Parties (RAPs) and NSW Department of Planning, Housing and Infrastructure (DPHI) (with input from Heritage NSW). The ACHMP would also include an unanticipated finds protocol, unanticipated skeletal remains protocol, and heritage inductions and long-term management of any Aboriginal sites being impacted. The ACHMP must be approved by the DPHI prior to salvage and construction activities occurring.
2. Twenty-two Aboriginal sites and three PADs are within or partially within the development footprint for the Project and will likely be harmed by the Project. The management measures outlined in **Section 9.2.1** should be followed for stone artefact sites and the management measures in **Section 9.2.2** should be followed for PADs 11, 19, and 20.
3. Results of any salvage work will be included in a report (within 12 months of the salvage program) to preserve the data in a useable form and an Aboriginal Site Impact Recording Form be submitted to AHIMS for all harmed sites.
4. The Proponent has avoided 115 Aboriginal sites within the Project area through a considered design of the Project components. Where sites or PAD areas are located within 20 m of the development footprint, these sites or PADs will be protected during construction of the Project through temporary fencing (**Executive Summary Table 3**). The location of the fencing will be determined on the advice of a qualified archaeologist and a representative from the RAPs.

5. The location of all Aboriginal sites and PADs will be shown on all appropriate plans to ensure that they are not inadvertently harmed.
6. All land disturbing activities will remain within the development footprint. Any works proposed outside the development footprint would require further archaeological assessment.
7. Inductions for workers will include a cultural heritage awareness procedure to ensure they recognise Aboriginal artefacts and familiarisation with the unanticipated finds protocol. (**Appendix 4**).

CONTENTS

FIGURES

CONSULTATION FIGURES

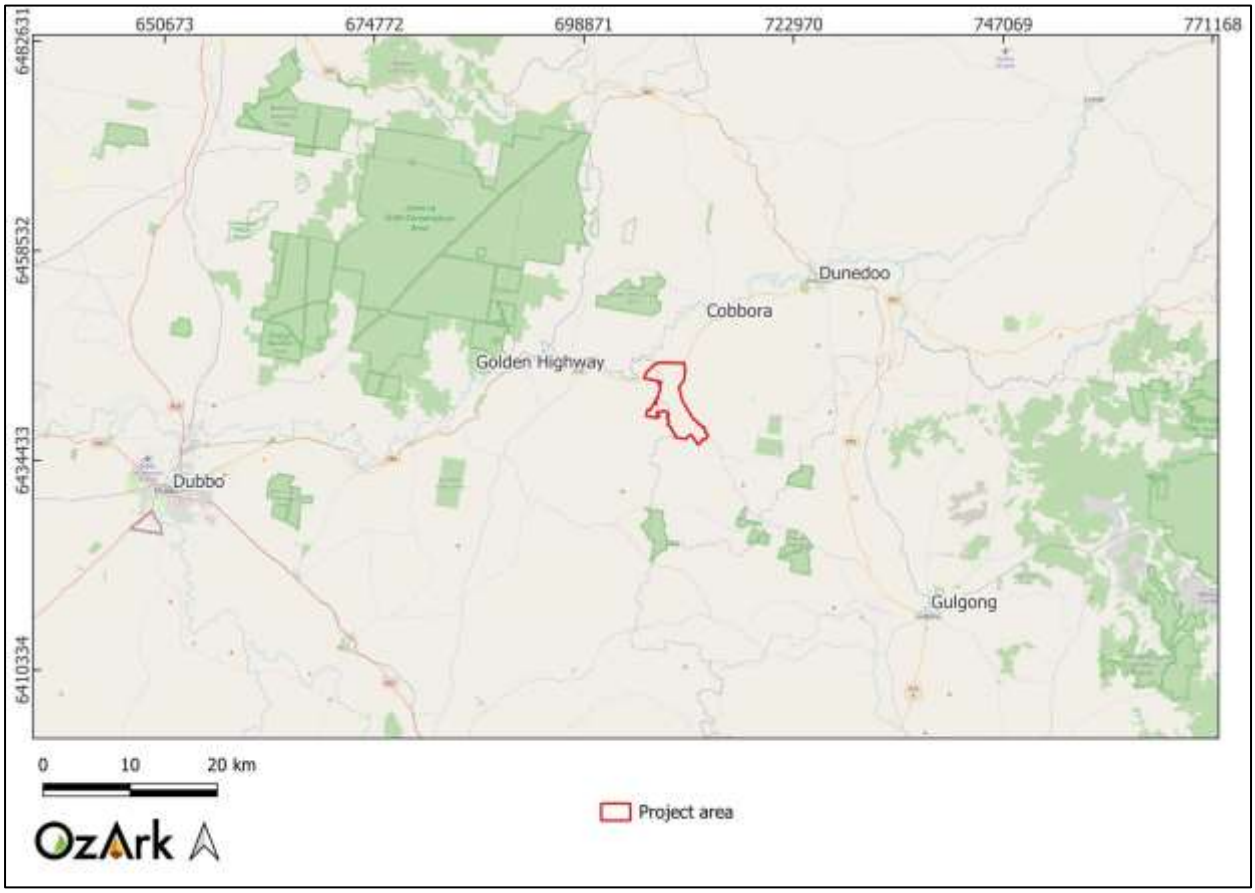
TABLES

1 INTRODUCTION

1.1 DESCRIPTION OF THE PROJECT

OzArk Environment & Heritage (OzArk) has been engaged by AECOM Australia Pty Ltd (AECOM) on behalf of Cobbora Solar Farm Pty Ltd in its capacity as trustee for the Cobbora Solar Farm Trust (a wholly owned subsidiary of Pacific Partnerships Pty Ltd [PP]; the Proponent) to complete an *Aboriginal Cultural Heritage Assessment Report* (ACHAR) for the proposed Cobbora Solar Farm (CSF) (the Project). The Project is located approximately 20 kilometres (km) southwest of the township of Dunedoo and 55 km east of Dubbo in the Central West region of New South Wales (NSW), within the Warrumbungle and Dubbo Regional Local Government Areas (LGAs) (**Figure 1-1**).

Figure 1-1: Map showing the location of the Project.



1.2 DEVELOPMENT CONTEXT

The Project has been classified as a 'State Significant Development' (SSD-29491142) under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Under the NSW planning legislation, an Aboriginal Heritage Impact Permit (AHIP) is not required for SSD projects, instead, the Minister for Planning issues consent where appropriate. This consent is informed by an adherence to the Secretary's Environmental Assessment Requirements (SEARs) issued by the Department of Planning, Housing and Infrastructure (DPHI).

The SEARs for the Project, issued on 11 November 2021 and extended on 7 November 2024, require the preparation of an Environmental Impact Statement (EIS). The assessment requirements relating to heritage include are outlined in **Section 2.1.2.3**.

1.3 PROJECT DESCRIPTION

The Project will be a large-scale solar photovoltaic (PV) generation facility with the capacity to generate up to 700 megawatts (MW) (AC) of electricity and would also include a 400 MW / 800 megawatt-hour (MWh) battery energy storage system (BESS) and associated infrastructure for its management and connection to the national electricity market (NEM).

The solar farm elements of the Project would connect to the Central West Orana (CWO) Renewable Energy Zone (REZ) grid infrastructure via up to four onsite grid substations connecting the solar farm to the Elong Elong Energy Hub, with an additional substation servicing the BESS. All infrastructure would connect to the NEM via the Elong Elong Energy Hub.

Supporting facilities and infrastructure, including internal roads, upgrades to external access roads (if required), underground and overhead cabling, waterway crossings, staff office, meeting facilities, operations and control room, workshop, amenities, temporary construction workers camp, car parking, storage facilities and fencing and landscaping.

1.4 PROJECT AREA

The Project area describes the area in which all impacts associated with the Project will be located. The Project area covers approximately 3,000 hectares (ha) (**Figure 1-2**).

The Project area is located to the south of the Golden Highway and west of Spring Ridge Road and includes part of Sandy Creek Road. Several ephemeral watercourses associated with the Talbragar River are within the Project area and follow a generally north or north-westerly direction, including the named waterways, Sandy Creek and Laheys Creek (**Figure 1-2**).

The Project area is currently used for grazing and cropping and is zoned RU1 Primary Production under both the *Warrumbungle Shire Local Environmental Plan 2013* (Warrumbungle LEP) and the *Dubbo Regional LEP 2022* (Dubbo LEP). There is also a small area which is not zoned under either of the LEPs, occurring primarily along Sandy and Laheys Creeks, as well as the roads which intersect the Project area.

Since the commencement of heritage investigations for the Project, the Project area has been reduced to exclude the southernmost portion (approximately 280 ha) (**Figure 1-3**). This southern portion now comprises the land in which the Elong Elong Energy Hub will be constructed.

1.5 DEVELOPMENT FOOTPRINT

The development footprint describes that portion of the Project area where ground disturbing activities are proposed. The development footprint encompasses an area of approximately

1,600 ha, as shown on **Figure 1-4**. The proposed development footprint has been reduced since the commencement of heritage investigations to minimise impacts on identified Aboriginal and historic heritage sites and other environmental sensitivities. (see **Section 8.1.2** for further details).

As surveys commenced prior to the reduction in the size of the Project area and development footprint, the coverage of the area subject to survey were larger than the final Project. This larger area is referred to as the 'surveyed area' (see **Figure 1-4**).

1.6 BACKGROUND

In 2022, pedestrian surveys of the Project area were undertaken by OzArk and Registered Aboriginal Party (RAP) representatives (see **Section 3.2**). Following the survey in 2022, and during the preparation of the draft ACHAR, the Project was put on hold. The Project was recently acquired by PP. Since this time, a number of Project updates have taken place including the re-issuing of Project SEARs, the release of the *Large Scale Solar Farm Guidelines* by the NSW Government, as well as amendments to the Project description.

Due to the remobilisation of the Project, the ACHAR process has been restarted, including a reinitiation of the *Aboriginal cultural heritage consultation requirements for proponents* (ACHCRs).

Figure 1-2: Aerial showing the Project area.

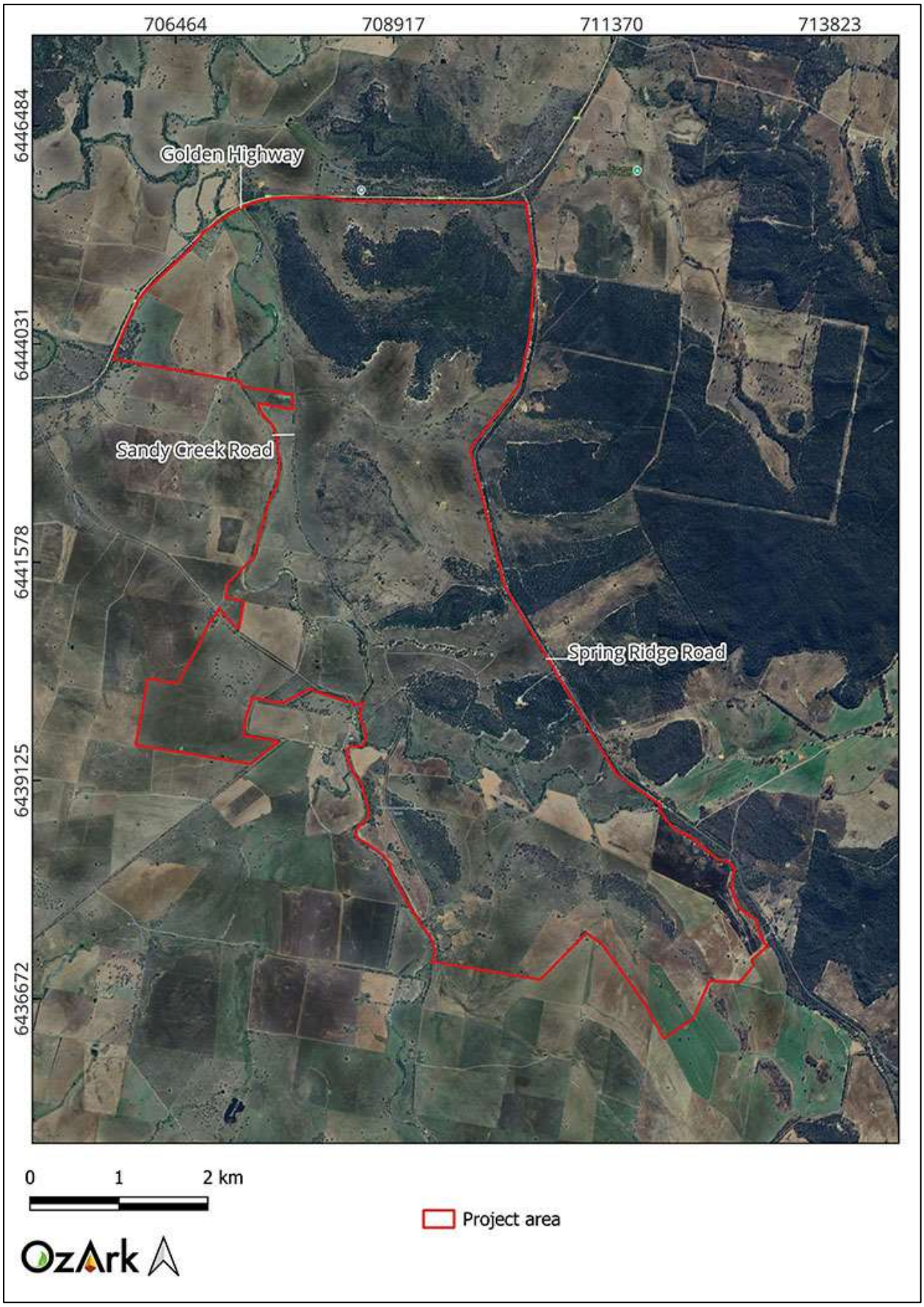
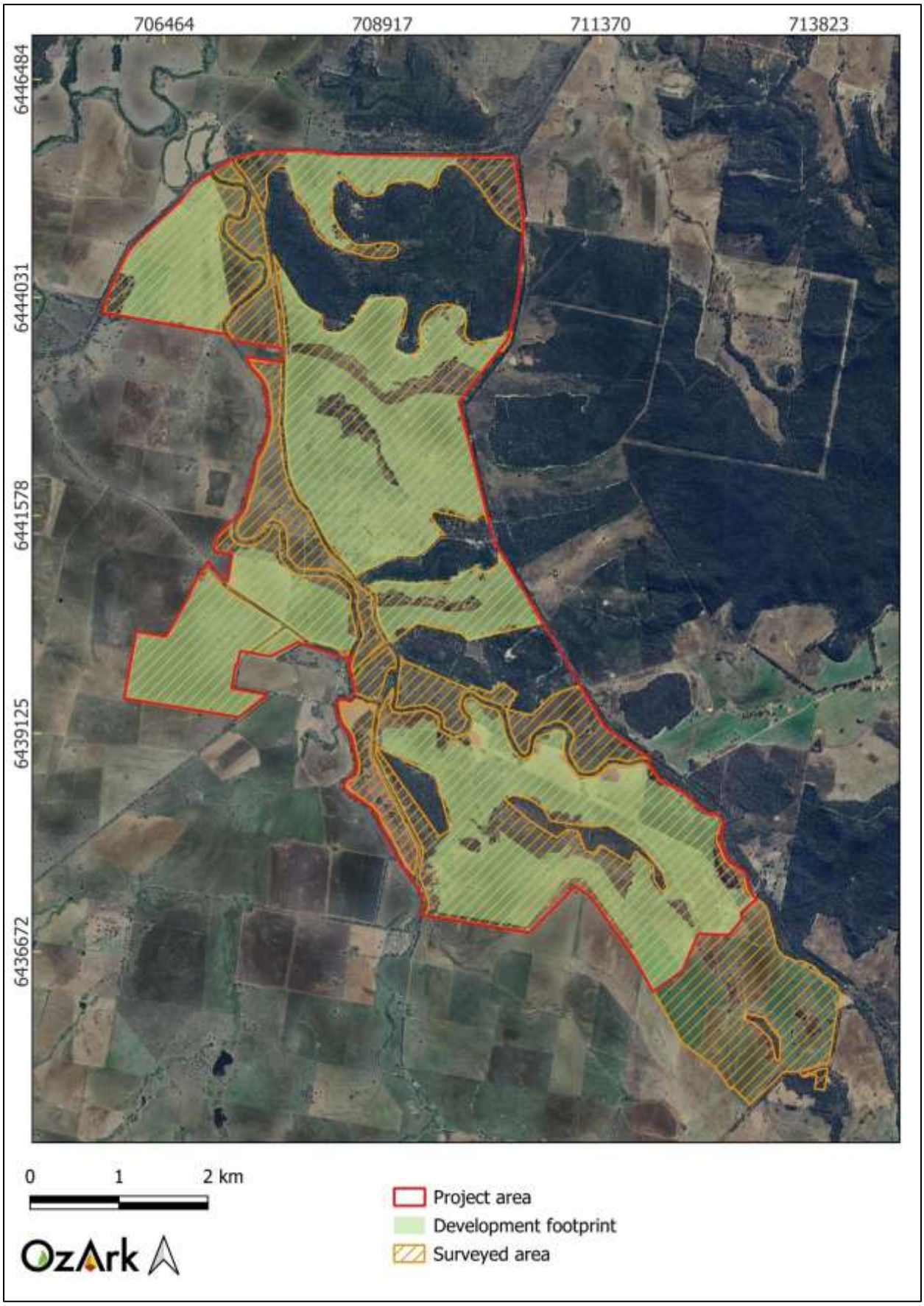


Figure 1-3: Aerial showing the reduction of the Project area.

Figure 1-4: Aerial showing the 2024 development footprint and the surveyed area.



2 ASSESSMENT BACKGROUND

2.1 RELEVANT LEGISLATION

Cultural heritage is managed by several pieces of state and national legislation. Baseline principles for the conservation of heritage places and relics can be found in the *Burra Charter* (Burra Charter). The *Burra Charter* has become the standard of best practice in the conservation of heritage places in Australia, and heritage organisations and local government authorities have incorporated the inherent principles and logic into guidelines and other conservation planning documents. The *Burra Charter* generally advocates a cautious approach to changing places of heritage significance. This conservative notion embodies the basic premise behind legislation designed to protect our heritage, which operates primarily at a state level.

Several Acts of parliament provide for the protection of heritage at various levels of government.

2.1.1 Commonwealth legislation

2.1.1.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), administered by the Commonwealth Department of Climate Change, Energy, the Environment and Water (Commonwealth DCCEEW), provides a framework to protect nationally significant flora, fauna, ecological communities, and heritage places. The EPBC Act establishes both a National Heritage List and Commonwealth Heritage List. These lists may include Aboriginal cultural sites or sites in which Aboriginal people have interests.

The assessment and permitting processes of the EPBC Act are triggered when a proposed activity or development is deemed likely to result in a significant impact upon matters of national environment significance listed under the Act, or upon the environment of Commonwealth land. The matters listed under the Act include impacts to National Heritage places and World Heritage places. Ministerial approval is required under the EPBC Act for actions likely to result in a significant impact to these matters.

Applicability to the Project

It is noted there are no Commonwealth or National heritage listed places within the Project area, and as such, the heritage provisions of the EPBC Act does not apply.

2.1.1.2 Aboriginal and Torres Strait Islander Heritage Protection Act 1984

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* is aimed at the protection of areas and objects that are of significance to Aboriginal Australians from injury and desecration. This legislation has usually been invoked in emergency and conflicted situations.

Applicability to the Project

It is noted there are no Commonwealth or National heritage listed places within the Project area, and as such, the heritage provisions of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* Act does not apply.

2.1.2 State legislation

2.1.2.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) establishes requirements relating to land use and planning. The main parts of the EP&A Act that relate to development assessment and approval are Part 4 (development assessment) and Part 5 (environmental assessment). The Minister responsible for the Act is the Minister for Planning and Public Spaces.

The EP&A Act provides the primary legislative basis for planning and environmental assessment in NSW.

The EP&A Act includes provisions to ensure that the potential environmental impacts of a development or activity are rigorously assessed and considered in the decision-making process.

Applicability to the Project

The Project will be assessed as SSD under Division 4.7 of the EP&A Act. As such, assessments must be undertaken for all relevant environmental matters, including those relating to heritage, in order for the Project to be granted development consent.

As the Project is a SSD, if approved, Section 4.41 of the EP&A Act would apply and therefore an Aboriginal Heritage Impact Permit (AHIP) under section 90 of the *National Parks and Wildlife Act 1974* (NPW Act) to harm Aboriginal objects would not be required. Instead, all management related to Aboriginal cultural heritage within the Project area would be governed by the policies within an approved Aboriginal Cultural Heritage Management Plan (ACHMP).

2.1.2.2 National Parks and Wildlife Act 1974

The NPW Act provides for the protection of Aboriginal objects and Aboriginal places. Under Part 6 of the NPW Act, an Aboriginal object is defined as: any deposit, object, or material evidence (not being a handicraft for sale) relating to Aboriginal habitation of the area that comprises NSW, being habitation both prior to and concurrent with the occupation of that area by persons of European extraction and includes Aboriginal remains.

An Aboriginal place is defined under the NPW Act as an area which has been declared by the Minister administering the NPW Act as a place of special significance for Aboriginal culture. It may or may not contain physical Aboriginal objects.

It is an offence under Section 86 of the NPW Act to 'harm or desecrate an object the person knows is an Aboriginal object'. It is also a strict liability offence to 'harm an Aboriginal object' or to 'harm or desecrate an Aboriginal place', whether knowingly or unknowingly. Section 87 of the Act provides a series of defences against the offences listed in Section 86, such as:

- The harm was authorised by and conducted in accordance with the requirements of an AHIP under Section 90 of the Act
- The defendant exercised 'due diligence' to determine whether the action would harm an Aboriginal object
- The harm to the Aboriginal object occurred during the undertaking of a 'low impact activity' (as defined in the regulations).

Under Section 89A of the Act, it is a requirement to notify the Secretary of the NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW) of the location of an Aboriginal object. Identified Aboriginal items and sites are registered on Aboriginal Heritage Information Management System (AHIMS), which is administered by Heritage NSW.

Applicability to the Project

All Aboriginal sites within the Project area are afforded legislative protection under the NPW Act.

The Secretary of NSW DCCEEW will be notified of the location of any Aboriginal sites recorded by sending the relevant details to the AHIMS register.

2.1.2.3 Secretary's Environmental Assessment Requirements

The SEARs for SSD-29491142 were initially issued by former Department of Planning and Environment on 11 November 2021. Extensions to the SEARs were issued for the Project on 16 October 2023 and 7 November 2024. To inform the SEARs, Heritage NSW provided input regarding Aboriginal cultural heritage. **Table 2-1** addresses the general requirements in the SEARs. **Table 2-2** outlines how Heritage NSW comments have been considered in this ACHAR.

Table 2-1: SEARs General Requirements (7 November 2024).

General requirement	Where addressed in the ACHAR
An ACHAR prepared in accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH, 2011) and the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2010), identifying, describing, and assessing any impacts to any Aboriginal cultural heritage sites or values associated with the site and adjoining haulage routes (including impacts from any proposed earthworks, construction works, and road works), and including results of archaeological test excavations (where required), undertaken in accordance with the relevant standards and requirements	The Project has undertaken an extensive field assessment (**Section 6**) in order to identify Aboriginal sites and cultural values present within the Project area. The ACHAR also assesses the cultural, scientific, aesthetic, and historic values scientific present within the Project area (**Section 7**). The potential impacts to Aboriginal cultural heritage sites or values within the Project area are assessed in **Section 8**. Test excavation has not been undertaken as the Proponent has designed the development footprint to avoid all identified potential archaeological deposits (PAD), except for discreet areas of impact at PADs 11, 19, and 20 (see **Section 8**, **Section 9.2.2**).
Evidence of consultation with Aboriginal communities in determining and assessing impacts, identifying and selecting options for avoidance of Aboriginal cultural heritage and identifying appropriate mitigation	Pedestrian survey has been conducted across the development footprint with the presence of Registered Aboriginal Party (RAP) representatives. Consultation

General requirement	Where addressed in the ACHAR
measures (including the final proposed measures), having regard to the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010) including the consultation process outlined within	with RAPs in accordance with the ACHCRS is detailed in **Section 3.**
Assess the impact to historic heritage having regard to the Guidelines for Preparing a Statement of Heritage Impact.	This ACHAR does not assess historic heritage values except if they were applicable to the Aboriginal community. Impacts to historic heritage are assessed in the *Cobbora Solar Farm Historic Heritage Impact Assessment* (OzArk 2025).

Table 2-2: Assessment recommendations from Heritage NSW for the Project.

Heritage NSW requirement	Where addressed in the ACHAR
The EIS must identify and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the *Code of Practice for Archaeological Investigation in NSW* (DECCW 2010), and be guided by the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales* (OEH 2011).	The Project has undertaken an extensive field assessment (**Section 6**) in order to identify Aboriginal sites and cultural values present within the Project area. The ACHAR also assesses the cultural, scientific, aesthetic, and historic values scientific present within the Project area. Test excavation has not been undertaken as the Proponent has designed the development footprint to avoid all identified potential archaeological deposits (PAD), except for discreet areas of impact at PADs 11, 19, and 20 (see **Section 8**, **Section 9.2.2**). All assessment has followed the Code of Practice and applicable guidelines (**Section 2.2**).
Consultation with Aboriginal people must be undertaken and documented in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the ACHAR.	The outcome of consultation with Aboriginal people is documented in **Section 3** and **Appendix 1** of this ACHAR.
Impacts on Aboriginal cultural heritage values are to be assessed and documented in the ACHAR. The ACHAR must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to Heritage NSW.	Avoidance measures are discussed in **Section 8.1**. Impacts to Aboriginal cultural heritage within the Project area is discussed in **Section 8.2**. Measures proposed to mitigation impacts to Aboriginal cultural heritage within the Project area are discussed in **Section 9**.
The assessment of Aboriginal cultural heritage values must include a surface survey undertaken by a qualified archaeologist. The result of the surface survey is to inform the need for targeted test excavation to better assess the integrity, extent, distribution, nature and overall significance of the archaeological record. The results of surface surveys and test excavations are to be documented in the ACHAR.	The results of the field survey are documented in **Section 6**. Test excavation has not taken place as all areas of PAD have been avoided, with the exception of discreet areas of PADs 11, 19, and 20. Further investigation of these areas will be undertaken when the precise location of the impact from Project infrastructure is known.
The ACHAR must outline procedures to be followed if Aboriginal objects are found at any stage of the life of the Project to formulate appropriate measures to manage unforeseen impacts.	Procedures related to any unanticipated Aboriginal objects encountered within the Project area are outlined in **Section 9.4.**
The ACHAR must outline procedures to be followed in the event Aboriginal burials or skeletal material is uncovered during construction to formulate appropriate measures to manage the impacts on this material.	A procedure for the discovery of skeletal material is outlined in **Section 9.3**

2.2 ASSESSMENT APPROACH

The archaeological assessment followed the *Code of Practice for the Investigation of Aboriginal Objects in New South Wales* (Code of Practice; DECCW 2010).

The Aboriginal cultural heritage assessment followed the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (the Guide) (OEH 2011) and the *Aboriginal cultural heritage consultation requirements for proponents* (ACHCRs) (DECCW 2010b).

2.3 PURPOSE AND OBJECTIVES

The purpose of this study is to identify and assess heritage constraints relevant to the Project.

The study will apply the Code of Practice, the Guide, and the ACHCRs in the completion of the Aboriginal cultural heritage assessment to meet the following objectives:

Objective One: Undertake background research on the surveyed area to formulate a predicative model for site location within the surveyed area

Objective Two: Identify and record Aboriginal cultural heritage values within the surveyed area. This includes intangible cultural values, Aboriginal objects and places, and any landforms likely to contain further archaeological deposits

Objective Three: To assess the significance of any recorded Aboriginal cultural values, Aboriginal objects, or sites in consultation with RAPs, as they relate to the revised Project area

Objective Four: Assess the likely impact of the Project upon Aboriginal cultural heritage values and provide recommendations to avoid, mitigate and/or manage these impacts.

2.4 REPORT COMPLIANCE WITH THE CODE OF PRACTICE

The Code of Practice establishes requirements that should be followed by all archaeological investigations where harm to Aboriginal objects may be possible. **Table 2-3** tabulates the compliance of this report with the requirements established by the Code of Practice.

Table 2-3: Report compliance with the Code of Practice.

Code of Practice Requirement	Context of the Requirement	Concordance in this report
Requirement 1a	Review previous archaeological work	**Section 5.2**, **5.3** and **5.3.2**
Requirement 1b	Review AHIMS searches	**Section 5.3.1**
Requirement 2	Review the landscape context	**Section 4**
Requirement 3	Summarise and discuss the local and regional character of Aboriginal land use and its material traces	**Section 5.4**
Requirement 4a	Develop predictive model	**Section 5.5**
Requirement 4b	Present predictive model results	**Section 5.5.3**
Requirement 5a	Archaeological survey sampling strategy	**Section 6.1**
Requirement 5b	Archaeological survey requirements	This Requirement was fulfilled during the undertaking of the survey
Requirement 5c	Archaeological survey units	**Section 4.1.1**
Requirement 6	Site definition	**Section 5.5.1** and **6.4**
Requirement 7a	Site recording information to be recorded	**Section 6.4**
Requirement 7b	Site recording: scales for photography	All artefact photographs employed a centimetre scale bar.
Requirement 8a	Geospatial information	All artefact locations were logged using a non-differential handheld GPS.
Requirement 8b	Datum and grid coordinates	All coordinates are provided in GDA Zone 55.
Requirement 9	Record survey coverage data	**Section 6.1**
Requirement 10	Analyse survey coverage	**Section 6.3**
Requirement 11	Archaeological Report content and format	This report adheres to this Requirement.
Requirement 12	Records	OzArk undertakes to maintain all survey records for at least five years.
Requirement 13a	Notifying Heritage NSW of breaches	Not applicable
Requirement 13b	Providing Heritage NSW with information	Not applicable
Requirement 14	Test excavation which is not excluded from the definition of harm	Not applicable as test excavation has not taken place.
Requirement 15a	Consultation regarding test excavation	Not applicable as test excavation has not taken place.
Requirement 15b	Developing a test excavation sampling strategy	Not applicable
Requirement 15c	Providing Heritage NSW with notification of the test excavation	Not applicable
Requirement 16a	Test excavation that can be carried out in accordance with the Code of Practice	Not applicable
Requirement 16b	Objects recovered during test excavations	Not applicable
Requirement 17	When to stop test excavations	Not applicable
Requirement 18–20	Artefact recording	The procedures for artefact recording were adhered to during the investigation.

2.5 FIELD SURVEY

The field survey for the Project was undertaken by:

- Fieldwork Director: Chelsea Jones (OzArk Senior Archaeologist, BA [Hons] the University of Queensland).
- Senior Archaeologist: Stephanie Rusden (OzArk Senior Archaeologist, BS University of Wollongong, BA University of New England)
- Archaeologist: Brendan Fisher (OzArk Archaeologist, BA Archaeology, The University of Sydney)
- Archaeologist: Barry Kerton (OzArk Project Archaeologist, BA, BSc and MA [advanced] Australian National University)
- Archaeologist: Dr Yekun Zhang (OzArk Archaeologist, B Arts Archaeology & Anthropology, M.Sc Archaeological Science, PhD Archaeology).

The field survey was undertaken between 27 June 2022 and 1 July 2022. Additional survey was undertaken over 11 and 12 August 2022 to ensure landforms within the development footprint were adequately sampled in accordance with Requirement 5a of the Code of Practice (see Section 6) and the assessment methodology (Appendix 1).

2.6 REPORTING

The reporting component of the heritage assessment was undertaken by:

- Report author: Tenae Robertson (OzArk Project Archaeologist, B Archaeological Practice, Australian National University)
- Contributing authors: Chelsea Jones, Dr Yekun Zhang, and Brendan Fisher
- Reviewer: Ben Churcher (OzArk Principal Archaeologist, BA (hons), Dip Ed.).

3 ABORIGINAL COMMUNITY CONSULTATION

3.1 INTRODUCTION TO CULTURAL VALUES

No matter who you are, we all have culture. Each person's culture is important; it's part of what makes us who we are.

australianstogether.org.au

Many Aboriginal and Torres Strait Islander people in Australia have a unique view of the world that is distinct from the mainstream. Land, family, law, ceremony, and language are five key interconnected elements of Aboriginal culture. For example, families are connected to the land through the kinship system, and this connection to land comes with specific roles and responsibilities which are enshrined in the law and observed through ceremony. In this way, the five elements combine to create a way of seeing and being in the world that is distinctly Aboriginal.

Aboriginal and Torres Strait Islander peoples are connected to Country through lines of descent (paternal and maternal), as well as clan and language groups. Territory is defined by spiritual as well as physical links. Landforms have deep meaning, and are recorded in art, stories, songs, and dance. Songlines or Dreaming Tracks, as well as kinship structures, link Aboriginal and Torres Strait Islander peoples to the territories of other groups. In the past, these links were also used for trade.

Living on this land for more than 50,000 years, Aboriginal and Torres Strait Islanders established effective ways to use and sustain resources. There was a wide range of traditional methods for gathering food including fish traps, subsistence agriculture, hunting and harvesting a wide range of natural fruits and vegetables. Some groups of people would stay in one place, while others moved around the land according to the seasons, to ensure sustainable and rich food supplies, and to fulfil their spiritual and cultural obligations.

One important aspect of the use of resources is the right of certain people to control the use of resources in a particular area, as well as cultural and spiritual values like totemism that were fundamental in resource management.

In much of eastern Australia, Aboriginal communities currently live their lives like most Australians. However, in certain crucial areas, particularly associated with family, leadership roles and caring for Country, Aboriginal lore continues, even in the most urbanised communities.

3.2 ABORIGINAL COMMUNITY CONSULTATION

A major aim of this assessment is to identify any cultural values within the landscape in which the Project is located so that those values can be recognised and incorporated into the Project's management recommendations.

This Aboriginal cultural heritage assessment has followed the ACHCRs (DECCW 2010b). A log and copies of correspondence with Aboriginal community stakeholders is presented in **Appendix 1**.

Following the field assessment and during the drafting of the ACHAR in 2022, the Project was put on hold. Due to the lapse in time between the 2022 surveys and the current ACHAR preparation, Aboriginal community consultation has been restarted from Stage 1. The following sections detail the ACHCR process undertaken in 2022 (Round 1) and 2024 (Round 2).

The ACHCRs include four main stages, as outlined below.

3.2.1 Round 1 ACHCRs

3.2.1.1 Stage 1

The aim of Stage 1 is to identify the RAPs who wish to be consulted about the Project.

An advertisement was placed in the *Dubbo Liberal* on 29 April 2022 to solicit expressions of interest (**Appendix 1 Figure 1**).

A letter seeking information from various agencies was sent on 4 May 2022 (**Appendix 1 Figure 2**). These agencies were: Office of the Registrar of the *Aboriginal Land Rights Act 1983*; Heritage NSW; National Native Title Tribunal; National Native Title Services Corporation Ltd (NTSCORP); Dubbo Local Aboriginal Land Council (LALC), Dubbo Regional Council, and the Central West Local Land Services.

Letters were sent to individuals and groups whose contact details had been provided by the government agencies, seeking expressions of interest in registering to be consulted on the Project (**Appendix 1 Figure 3**).

By the closing date for registration, the following groups or individuals registered to be consulted as RAPs:

- Dubbo LALC
- Gallangabang Aboriginal Corporation (GAC)
- Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation (TWAC)
- Stakeholder 1[1]
- Wellington Valley Wiradjuri Aboriginal Corporation (WVWAC)
- Stakeholder 2

[1] RAPs listed as 'Stakeholder 1' has requested their details not be disclosed publicly.

3.2.1.2 Stage 2

The aim of Stage 2 is to provide information about the Project to the RAPs.

Detailed Project information was provided in an assessment methodology that was issued to all RAPs for their consideration on 26 May 2022 (**Appendix 1 Figure 4** and **Appendix 2**).

3.2.1.3 Stage 3

The aim of Stage 3 was to acquire information regarding Aboriginal cultural values associated with the Project through RAP consultation and field work.

To inform the RAPs of the assessment, an assessment methodology was issued to all RAPs for their consideration on 26 May 2022 (**Appendix 1 Figure 4** and **Appendix 2**). This document provided the archaeological context of the Project area, a description of the proposed survey, and asked whether there were any cultural values that should be considered in the assessment.

RAPs were provided the required 28 days in which to review and comment on the assessment methodology as per Stage 3 of the ACHCRs. The closing date for comment was 23 June 2022. No responses were received.

The field survey was undertaken with the assistance of RAP representatives over one week between 27 June 2022 and 1 July 2022. Additional survey was undertaken on 11 and 12 August 2022.

Table 3-1 provides a log of the RAPS and their representatives who participated in fieldwork.

Table 3-1: Aboriginal community involvement in the fieldwork.

Group	Name	Date of participation						
		27/06/22	28/06/22	29/06/22	30/06/22	01/07/22	11/08/22	12/08/22
WVWAC	Bradley Bliss	Y	Y	Y	Y	Y	Y	Y
GAC	Brendan Doherty	Y	Y	Y	Y	Y	N	N
TWAC	Malcom Burns	Y	N	N	N	N	N	N
TWAC	Greg Kennedy	N	Y	Y	N	N	N	N
GAC	Brenda Waters	N	Y	Y	N	Y	N	N
GAC	Murray Clynes	N	Y	Y	N	Y	N	N
TWAC	Judy Ryan	N	N	N	Y	Y	Y	Y
Dubbo LALC	Lindy Ward	N	N	N	N	N	Y	Y

3.2.1.4 Stage 4

Stage 4 was not completed during Round 1 as the Project was placed on hold before this stage was reached.

3.2.2 Round 2 ACHCRs

3.2.2.1 Stage 1

An advertisement was placed in the *Dubbo Liberal* on 6 August 2024 to solicit expressions of interest (**Appendix 1 Figure 5**).

A letter seeking information from the previously outlined agencies (see **Section 3.2.1.1**) was sent on 6 August 2024 (**Appendix 1 Figure 6**). Letters were then sent to individuals and groups whose contact details were provided by the above agencies (**Appendix 1 Figure 7**).

By the closing date for registrations the following groups or individuals had been registered as RAPs:

- Booral Maliyan
- Brian Draper
- Dubbo LALC
- GAC
- Geoff Toomey
- George Flick
- Michael Long
- Paul Brydon
- Thomas Dahlstrom
- Tim Stubbs
- TWAC
- Sonione Wakabut Rogers
- Stakeholder 1[2]
- Stakeholder 2
- Wellington Aboriginal Action Panel
- WVWAC

[2] RAPs listed as 'Stakeholder 1' etc. have requested their details not be disclosed publicly.

- Wiradjuri Council of Elders.

Those individuals and groups who had previously registered in Round 1, but did not register for Round 2, were included in all Round 2 correspondence for transparency.

3.2.2.2 Stage 2 and 3

Detailed Project information and the methodology for the assessment was issued to all RAPs for their consideration on 27 September 2024 (**Appendix 1 Figure 8**). This letter provided the archaeological context of the Project area and a description of the previous survey and asked whether there were any cultural values that should be considered in the assessment. RAPs were provided the required 28 days in which to review and comment. The closing date for comment was 25 October 2024.

Three responses were received from Stakeholder 2, Booral Malyian, and WVWAC advising that they had reviewed and supported the methodology (**Appendix 1 Figure 9**). WVWAC requested that a figure showing the previous development footprint overlayed with the current redesigned development footprint be provided. This has been included in **Section 8.1.2**.

3.2.2.3 Stage 4

To be updated once completed.

3.3 CULTURAL VALUES IDENTIFIED THROUGHOUT THE ACHCR PROCESS

No specific cultural values have so far been identified by the RAPs regarding the Project area, however, the strong cultural values of Aboriginal communities towards landscapes and cultural heritage sites are recognised.

Should further cultural values specifical to the Project area be identified during the Stage 4 review period, they will be included here.

4 LANDSCAPE CONTEXT

An understanding of the environmental context of a Project area is requisite in any Aboriginal archaeological investigation (DECCW 2010). It is a particularly important consideration in the development and implementation of survey strategies for the detection of archaeological sites.

Natural geomorphic processes of erosion and/or deposition, as well as human-activated landscape processes, influence the degree to which the remains of material culture are retained in the landscape as archaeological sites; and the degree to which they are preserved, revealed and/or conserved in present environmental settings.

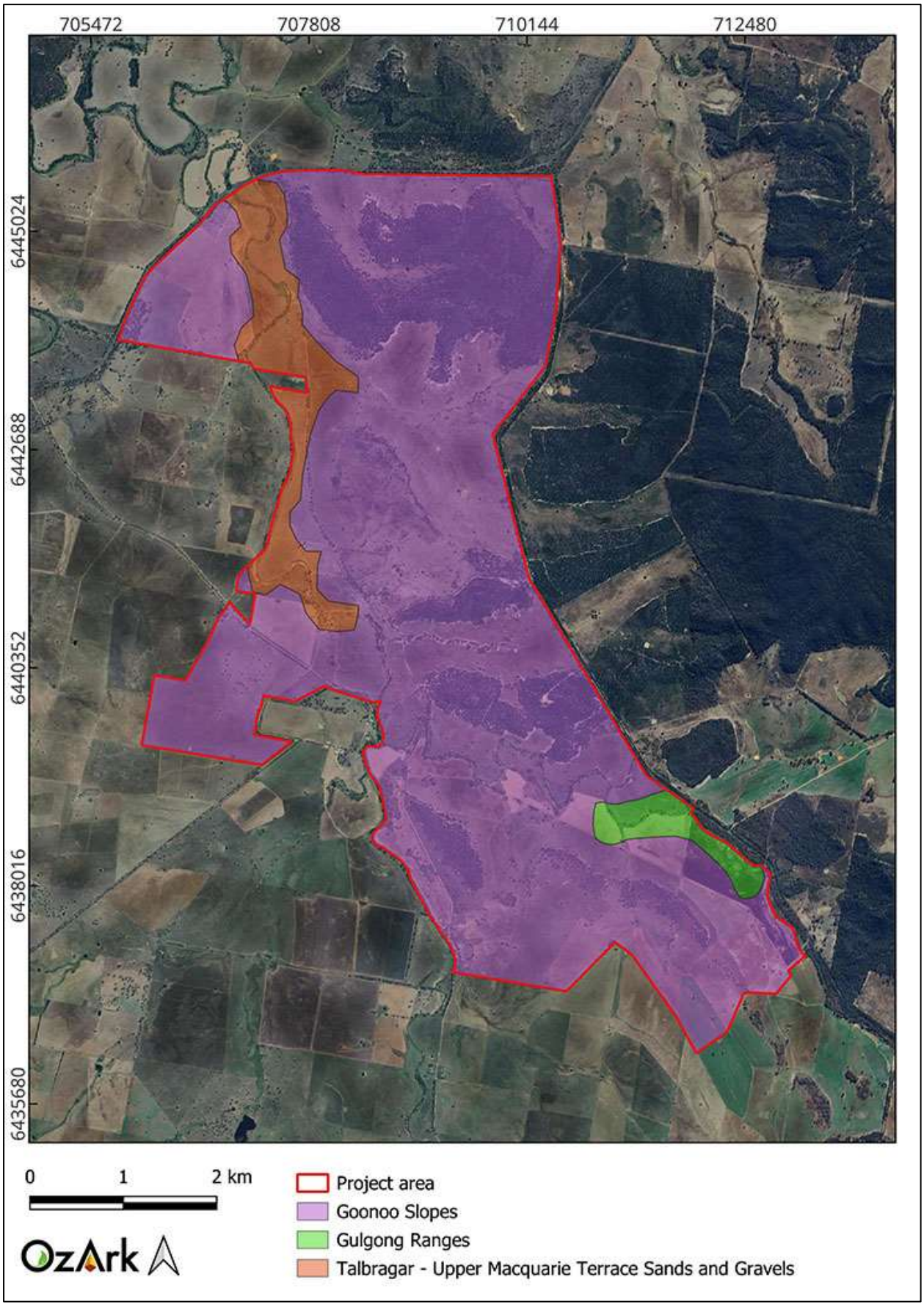
4.1 TOPOGRAPHY AND HYDROLOGY

The Project area is located within the Brigalow Belt South biogeographic region of NSW (NPWS 2003). More specifically, the Project area is located primarily within three landscape units as characterised by Mitchell (2002). **Table 4-1** provides descriptions of the characteristics for these landscape units and **Figure 4-1** shows their location in relation to the Project area.

Table 4-1: Landscape units within the Project area.

Landscape Unit	Topographic characteristics (Mitchell 2002)
Goonoo Slopes	Extensive undulating to stepped low hills with long slopes. Ridges are associated with outcropping sandstone. Elevation ranges from 300 to 500 metres (m) above sea level with 30 m local relief.
Talbrager – Upper Macquarie Terrace Sands and Gravels	Floodplains and terraces of the Talbragar River comprising sandy alluvial sediments. General elevation of 350 to 500 m above sea level with a local relied of 30 to 40 m.
Gulgong Ranges	Strike ridges with steep slopes and long debris aprons. General elevation of 550 to 980 m above sea level with a local relief of 350 m.

Figure 4-1: The Project area in relation to landscape units (Mitchell 2002).



The topography of the Project area consists predominantly of undulating sloping landforms and drainage lines, with discreet areas of crests and ridgelines. The slopes within the Project area are mostly gentle, with moderate slopes bordering local ridgelines. Elevation within the Project area is highest in the southern portion at 440 m asl, while the northern portion contains the lowest elevation at 350 m above sea level(**Figure 4-2**). The elevated southern portion is less undulating than the north, consisting largely of gentle slopes.

Digital Elevation Models of the Project area provide an indication of the characteristic terrain of gentle and moderate slopes, drainage, and crests (**Figure 4-3**). This landform modelling shows that there are few areas of extensive flat landforms and that the landscape is typically characterised by undulating slopes that are separated by U- and V-shaped valleys.

The Project area is intersected by Laheys Creek, which enters the Project area from the southeast, transecting the southern portion, and feeding into Sandy Creek as it runs north along the western boundary of the Project area (**Figure 4-4**). Several ephemeral drainage lines are also present within the Project area, many of which are tributaries to the perennial Laheys and Sandy Creeks. The nearest major waterway to the Project area is Talbragar River, located 600 m to the north. The well-watered context of the Project area is likely to have provided semi-reliable sources of water, supporting seasonal or repeated Aboriginal occupation.

Figure 4-2: Topography of the Project area.

Figure 4-3: Digital elevation modelling of the Project area.

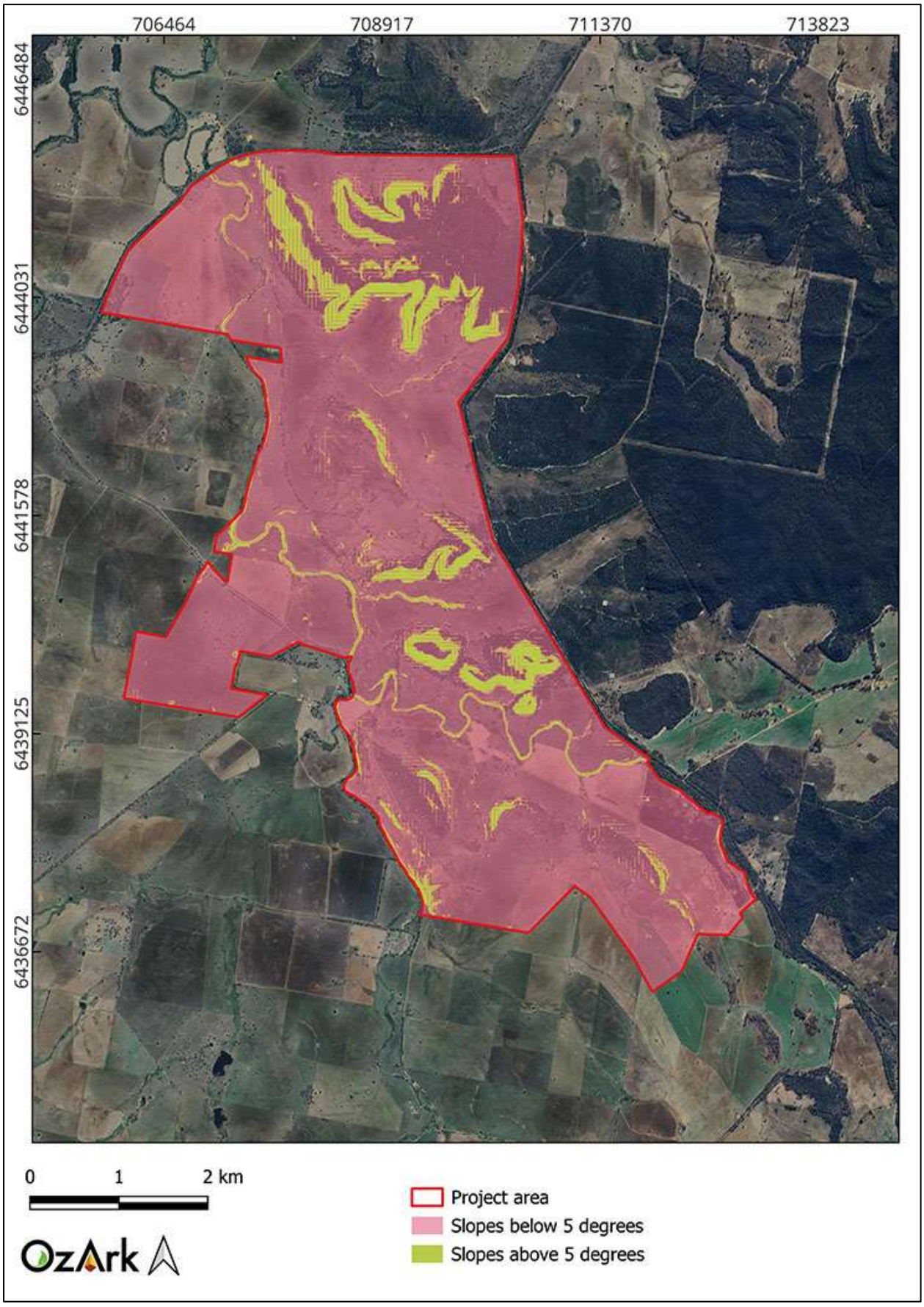


Figure 4-4: Hydrology of the Project area.

4.1.1 Survey units

Topography within the Project area consists of gentle slopes (inclines less than five degrees) and moderate slopes (inclines greater than five degrees) as per the *Australian Soil and Land Survey Field Handbook* (CSIRO 2009). Previous studies within the region (see **Section 5**) indicate that landforms with gentle gradients are more likely to contain intact sites, especially where semi-permanent and / or permanent watercourses intersect with the Project area. Given the more reliable nature of Laheys and Sandy Creeks, land within 200 m of these waterways is more likely to contain Aboriginal sites. Similarly, land within 50 m of the less reliable ephemeral drainages within the Project area may also contain sites.

The designation of survey units allows a comparison of the archaeological potential of each major topographical feature within the Project area to understand whether certain landform types are more likely to contain Aboriginal objects than others.

The Project area can be divided into four landform units that have been used as Survey Units for this assessment (**Figure 4-5**):

- Survey Unit 1: Drainage (land within 50 m of ephemeral drainage and within 200 m of named waterways)
- Survey Unit 2: Gentle slopes
- Survey Unit 3: Moderate slopes
- Survey Unit 4: Ridges and crests.

Example images of the Survey Units present within the Project area are shown on **Figure 4-6**.

Figure 4-5: Aerial of the Project area showing the location of the Survey Units.

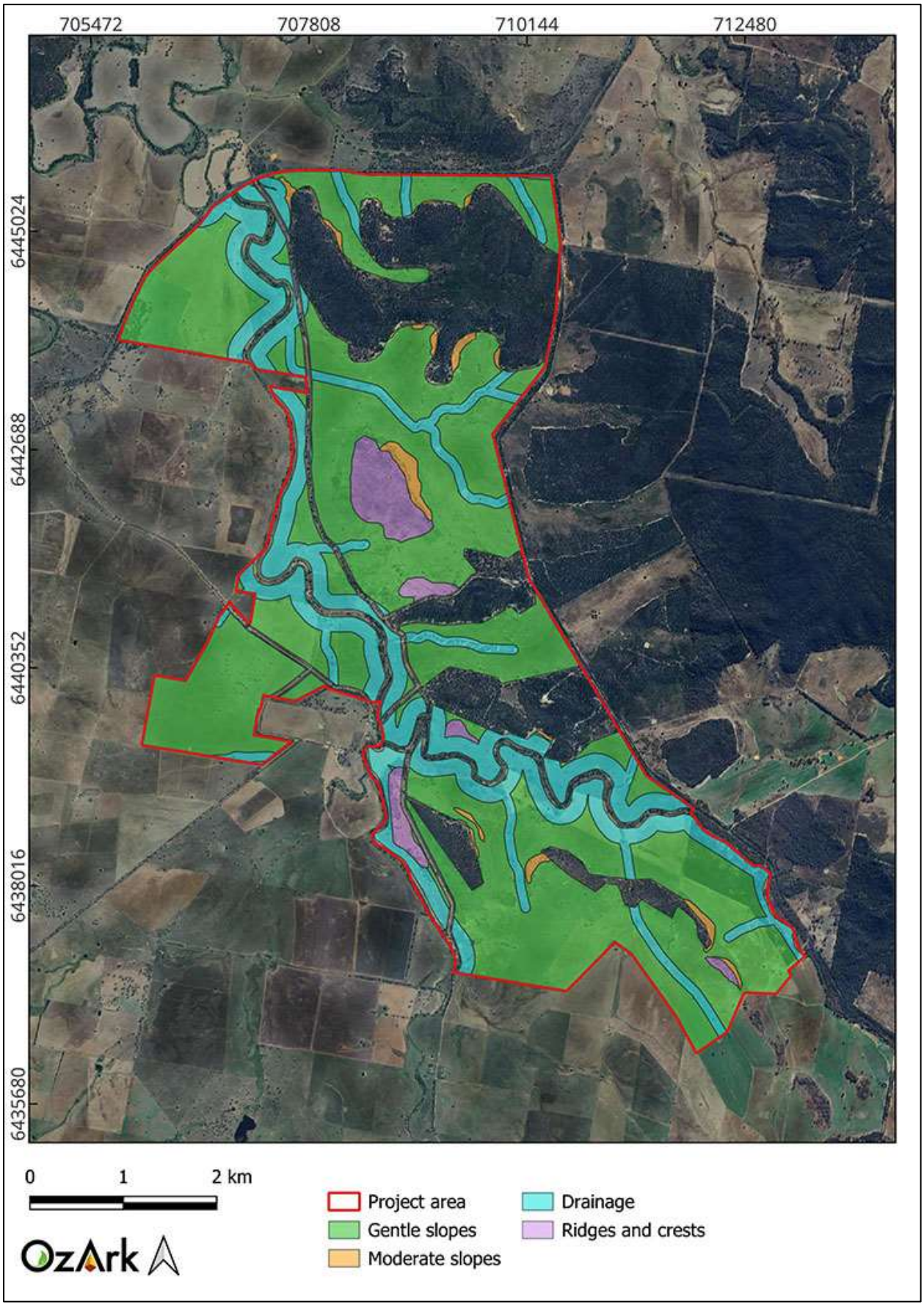


Figure 4-6: Example images of the Survey Units in the Project area.

1 Survey Unit 1: Drainage. View across Sandy Creek in the southwestern portion of the Project area.

2 Survey Unit 2: Gentle slopes. View across a gently sloping landform in the Project area.

3 Survey Unit 3: Moderate slopes. View towards a moderately sloping landform in the Project area.

4 Survey Unit 4: Ridges and crests. View across a ridge landform in the Project area.

4.2 GEOLOGY AND SOILS

The Brigalow Belt South biogeographic region, in which the Project area is situated, is comprised of horizontal bed Triassic and Jurassic (c. 250 to 150 million years ago) quartz, shale, and sandstone containing pockets of basalts or conglomerates (NPWS 2003).

The ridgelines with sandstone outcroppings and associated U- and V-shaped low valleys with waterways are likely to have attracted Aboriginal occupation. In these locations the water would have provided sufficient subsistence, whilst the outcroppings of sandstone provided shelter. This combination can present an ideal location for seasonal or long-term occupation.

Soil analysis has important ramifications for archaeological research through the potential impact of different soils on human activity (such as agricultural exploitation) and the impact of the soils on archaeological evidence (such as post-depositional movement).

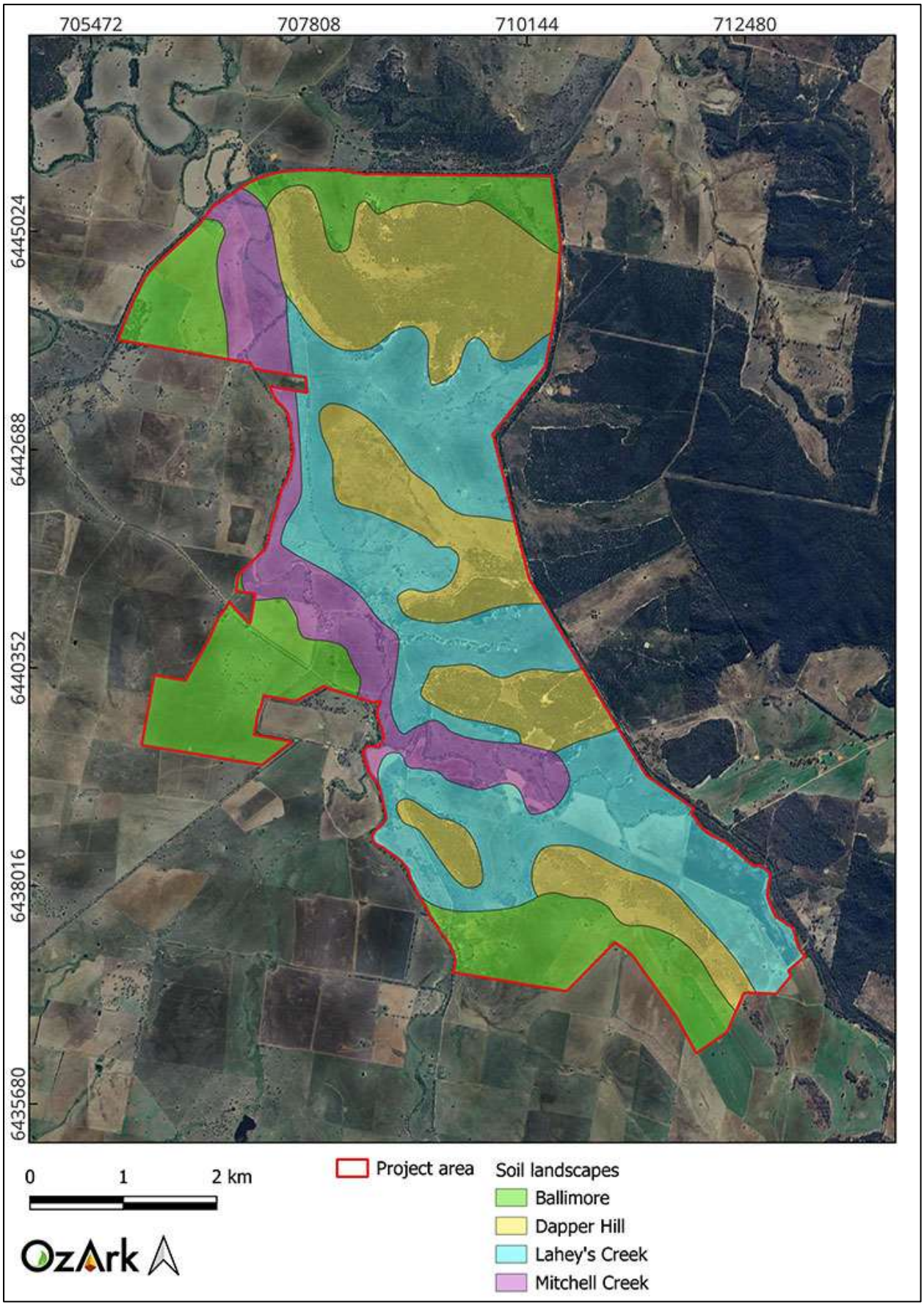
The soils of the Project area consist primarily of the Ballimore, Dapper Hill, Laheys Creek, and Mitchell Creek soil types (Murphy & Lawrie 1998) (**Table 4-2** and **Figure 4-7**).

Table 4-2: Major soil landscapes within the Project area.

Soil landscape and type	Landform pattern	Slope and relief	Geology	Soil summary	Implications for archaeology
Ballimore	Undulating low hills with elevations from 280-400 m. Slopes are gently inclined.	Relief 20 – 40 m. Slopes 3-6%	Quartz, lithic, and conglomerate sandstones, red siltstone, shale and coal.	Fine sandy loam with weak structure, sub-rounded quartz and occasional ironstone to 15-40 cm depth. Subsoils commonly consist of sandy clay or clay with sub-angular stones. Land-use includes dryland cropping and stock grazing. Native forest vegetation retained on rocky ridges and hills. Moderate sheet erosion and gully erosions. Surface soils structurally degraded through agricultural activities.	Loam and sandy soils at depth have the potential to preserve subsurface artefact deposits. This preservation may be hindered by colonial use, such as in areas where vegetation has been cleared for stock grazing and crop cultivation. These activities lead to increased soil loss and disturbance of topsoils. Therefore, if present, subsurface artefact deposits are likely to be displaced within the plough zone (<20 cm). This reduces the potential to identify stratified deposits which can yield information on occupational patterns and site use. Surface manifestations are also likely to be in secondary contexts. Additionally, vegetation clearance may remove culturally modified trees. Gully and sheet wash erosion, particularly along drainage lines, indicates that artefacts are unlikely to be identified *in situ*. Should overhanging sandstone be present on ridges, rockshelters may be present. Additionally, grinding grooves may be present within this soil landscape should suitable outcropping rock be present near to reliable water sources.
Dapper Hill	Undulating to rolling low hills, gently to moderately sloping inclines. Elevation 360 – 570 m.	Relief 20 – 80 m. Slopes 4-15%	Conglomerate, sandstone, siltstone, shale, quartz, greywacke and tuff.	Loamy sand topsoils to 30 cm depth. Subsoils consist of sandy clay loam, sandy clay, and clay extending to 60 cm. Bedrock sometimes at 50 – 70 cm. Grazing on unimproved pasture. Moderate sheet erosion, minor gully erosion.	Intact topsoils present within the Dapper Hill soil landscape have the potential to preserve intact subsurface artefact deposits. However, this likelihood decreases significantly in areas of vegetation clearing and intensive stock grazing as is present within the Project area. In these cleared areas, surface artefacts are likely to be identified within secondary contexts in disturbed areas. In areas of the Project area where native vegetation remains, particularly along hills and ridgelines, intact subsurface deposits may remain. There is potential for outcropping rock associated with the undulating and low hills of the landscape to contain rock shelter formations suitable for past Aboriginal occupation. Outcropping rocks also have potential to be used for grinding or petroglyphs if present.

Soil landscape and type	Landform pattern	Slope and relief	Geology	Soil summary	Implications for archaeology
					Quarries may also be present should outcropping rock be suitable for the procurement of stone tool material, such as outcropping quartz and certain variants of tuff and greywacke. Sheet wash and gully erosion present are indicative of accelerated soil loss and the displacement of surface and subsurface artefact sites.
Lahey's Creek	Undulating low hills with gently inclined slopes.	Relief 40-50 m. Slopes 3-10%	Conglomerate, sandstone, siltstone, shale, quartz and lithic sandstone, shale and coal, lithic greywacke and coal.	Weakly structures and hardsetting sandy loam topsoils with light clay, clay loam, and sandy clay subsoils. Grazing on native pastures, areas of cropping and grazing. Moderate sheet erosion and gully erosion common. Some areas of severe gully erosion.	Where the A-Horizons are found at depth, there is higher potential to record intact subsurface deposits if present. Higher density Aboriginal occupational sites are generally located on terraces associated with reliable or semi-reliable waterways. However, as this soil landscape is subject to flooding, Aboriginal objects can be displaced during times of inundation, reducing the likelihood of the preservation of artefacts *in situ*. Intensive cultivation and irrigation construction associated with colonial activities may lead to the removal or disturbance of site types such as culturally modified trees and artefact sites.
Mitchell Creek	Alluvial plains and terraces, levees and basins with slightly undulating long slopes.	Relief 20 m. Slopes <4%.	May contain granite (siliceous), andesite, tuff, conglomerate, keratophyre lava, spilite, slate, and limestone.	Soils are highly variable and related to adjacent soil landscapes. May include Red-brown earths, red earths, and yellow solodic soils. Streambank and gully erosion are common. Streams are often entrenched, forming steep stream banks.	Due to the low-lying landforms present within this soil landscape, the presence of outcropping sandstone suitable for shelter is unlikely. Should low-lying outcropping sandstone be located in proximity to water, grinding grooves may be present. Long slopes, plains, and terraces would have been inhabitable to Aboriginal people when in proximity to reliable or semi-reliable waters, as present within the Project area. Colonial use of the soils is likely to have resulted in long-term impacts to the landforms, including the clearing of vegetation. These impacts could have removed certain site types (such as culturally modified trees) or disturbed artefact sites through accelerated soil loss and stock trampling. Gully and streambank erosion indicate preservation of artefacts in their original depositional context is unlikely.

Figure 4-7: Soil landscapes in relation to the Project area.



4.3 VEGETATION

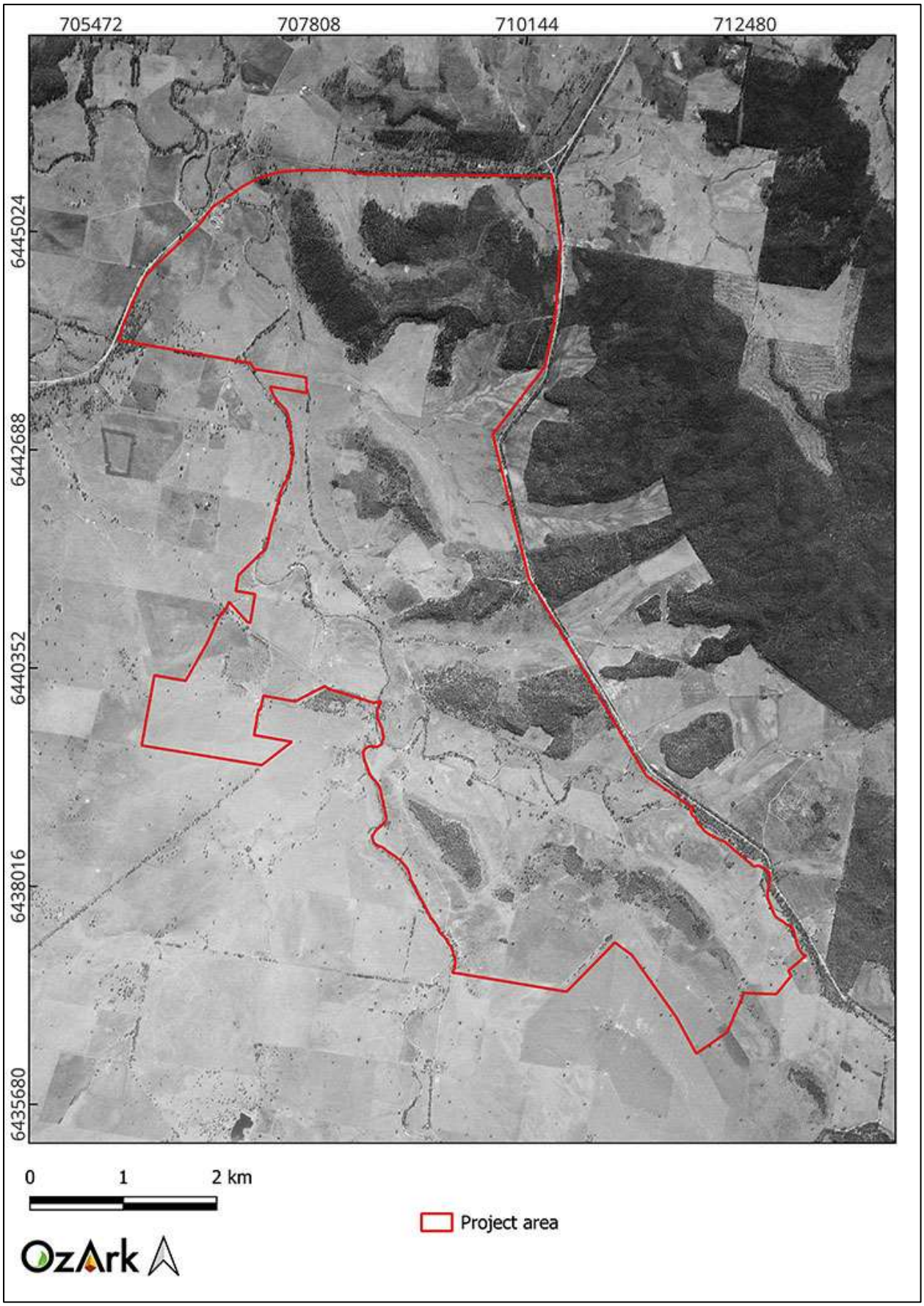
Vegetation before land clearing within the Project area would have comprised black cypress pine (*Callitris endlicheri*) and broad-leaved ironbark (*Eucalyptus fibrosa* ssp. *fibrosa*) along the ridges. The broad-leaved ironbark would have continued along the slopes, interspersed with narrow-leaved ironbark (*Eucalyptus crebra*) and red ironbark (*Eucalyptus sideroxylon*), as well as daphne heath (*Brachyloma daphnoides*), spur-wing wattle (*Acacia triptera*), fringe myrtle (*Calytrix tetragona*) and dainty Phebalium (*Phebalium obcordatum*). Further along the streams, sedge species such as knob sedge (*Carex inversa*) and tall sedge (*Carex appressa*) are likely with tree species in these areas including red ironbark, red stringybark (*Eucalyptus macrorhyncha*), Grey box (*Eucalyptus microcarpa*), fuzzy box (*Eucalyptus conica*) and Blakely's red gum (*Eucalyptus blakelyi*) (Mitchell 2002).

Such species had several utilitarian, medicinal and subsistence uses. In particular, wood from *Eucalypts* were used for dish and bowl manufacture, bark used to make shelters and canoes, oil to sooth colds, aches and fevers and as a general antiseptic and honey, nectar and manna from some species for food (Stewart & Percival 1997). Leaves from sedge varieties were often used to weave baskets and mats (Cumpston 2020). Therefore, cultural scarring may be present on remnant mature vegetation within the Project area.

4.4 LAND USE HISTORY AND EXISTING LEVELS OF DISTURBANCE

Aerial imagery (**Figure 1-2**) shows that forest and woodland areas generally occur in association with rock outcrops on the low hills and ridges. The broad flat areas which very gently slope down to the creeks have been cleared and ploughed regularly over many decades (**Figure 4-2**). The clearing of trees along watercourses has exacerbated erosion and increased salinity in some areas. Salt scalds are present in some low-lying areas in the north-western part of the Project area. An aerial photograph from 1964 (**Figure 4-8**) shows there has been little change in terms of land use over the past 60 years.

Figure 4-8: 1964 aerial with overlay of the Project area (Source: SS 2021).



4.5 CONCLUSION

The review of the environmental factors associated with the Project area allows the following conclusions to be drawn in terms of past Aboriginal occupation:

- Topography and hydrology: the gently undulating landforms which dominate the Project area would have been hospitable to Aboriginal people, especially given the well-watered nature of the Project area including the presence of Laheys and Sandy Creeks. Gently sloping elevated landforms situated along these creeks would have been an attractive environment for longer-term occupation. Crests and ridgelines may have been traversed for travelling routes or gathering specific resources.

- Geology and soils: landforms which typically comprise outcropping rock, i.e. ridges, are present within the Project area, however, they are outside the development footprint. Therefore, sources of stone procurement for tool manufacture are less likely to be present in the disturbance footprint, but materials may have been available locally. Soils present on the gentle slopes towards the creeks and ephemeral drainage lines are likely to have been affected by erosion and are poor draining. The erosional qualities of the soils present are likely to have influenced the likelihood of in situ archaeological deposits being present. Furthermore, the widespread and comprehensive use of most of the Project area for cultivation would have further promoted soil erosion and loss.

- Vegetation: the Project area would have once supported an open woodland which would have provided some resources for Aboriginal subsistence. Resources that are likely to have supported a large population of people would have been present closer to the banks of more permanent water sources including the Talbragar River. The broad-scale vegetation clearance which has taken place across the Project area for agricultural purposes reduces the likelihood that any culturally modified trees remain present, however, as aerial imagery of the Project area indicates remnant mature trees may be present particularly along moderate slopes and along drainage lines, culturally modified trees may be present.

- Land use: activities such as vegetation clearance, crop cultivation, and grazing are the dominant types of disturbance that have taken place across the Project area. These activities are likely to have displaced Aboriginal objects or removed some site types entirely (such as modified trees). Further, cultivation reduces the potential for intact subsurface archaeological material to remain. In areas where farming and agriculture are less intensive, Aboriginal objects are likely to be present in a secondary context due to slope wash.

5 ARCHAEOLOGICAL CONTEXT

5.1 ETHNO-HISTORIC SOURCES OF REGIONAL ABORIGINAL CULTURE

According to Tindale (1974), the Project area is situated within the boundaries of the *Wiradjuri* tribal and linguistic group. Wiradjuri was one of the largest language groups within NSW encompassing the districts of Mudgee, Bathurst, Dubbo, Parkes, West Wyalong, Forbes, Orange, Junee, Cowra, Young, Holbrook, Wagga Wagga, Narrandera, Griffith, and Mossgiel (Tindale 1974). Situated within the Murray Darling Basin, the Wiradjuri language group extends across three general physiographic regions: the highlands or central tablelands in the east, the riverine plains in the west, and the transitional western slopes zone in-between (White 1986). The Project area is located within the central tablelands and on the eastern margin of the Wiradjuri territory. While the area was noted to have a single basic language, the boundaries of the language group were non-static and various dialects could be found throughout the region (Tindale 2000).

The Wiradjuri social organisation underpinned kinship systems based on totem names and associations. This system governed and controlled marriage and determined ceremonial kinship obligations. Individual identity and clan affiliations were expressed partly through elaborate carvings on wooden implements and on skin cloaks (White 1986).

5.2 REGIONAL ARCHAEOLOGICAL CONTEXT

The Aboriginal occupation of Australia begins prior to 40,000 years before present (BP) and possibly earlier than 50,000 BP (O'Connell et al. 2018). Dates exceeding 20,000 years occur in almost all parts of Australia resulting in the expectation that most areas should have a Pleistocene (>12,000 BP) occupational signature. However, such dates remain relatively rare due to a range of factors, both behavioural and post-depositional. These factors include a possible low density of occupation in the Pleistocene period and poor preservation of archaeological materials (particularly dateable organic materials).

There are several broad-scale regional archaeological studies that examined areas near the Project area. These studies have been summarised below.

Pearson (1981) conducted an analysis of previously recorded sites within the Upper Macquarie region. Those sites assessed were separated into two classifications: occupation sites and non-occupation sites (including scarred or carved trees, ceremonial, grinding grooves and burial sites). The assessment of these sites was used to inform the development of a site prediction model for the region. Site distributions suggested occupation sites were more prevalent in areas in proximity to watercourses, along level ground and with adequate fuel availability. These occupation sites were generally associated with creek banks, low ridge tops, gently undulating hills and river flat landforms. Conversely, the presence of non-occupation sites depended on factors relating to site function, such as the presence of sandstone outcropping for grinding

groove sites. Scarred tree distribution correlated only generally in proximity to watercourses in areas that suited campsite locations.

Koettig (1985) conducted a series of sample surveys within 5 km of Dubbo's city limits. The investigation concluded that sites exist throughout all environmental landscapes surveyed. Artefact scatters, scarred trees and grinding grooves were the most frequently occurring site types and site location and size were determined by various environmental and social factors. Such key environmental factors included proximity to water, geological formation, and availability of food resources. Koettig indicated that all site types would occur along watercourses. His site modelling also indicated that small campsites and modified trees could occur anywhere. However, stone arrangements would occur most frequently on knolls or prominent landscape features. In addition, grinding grooves were more likely to occur where appropriate sandstone existed, and quarries were similarly dependent on the location of suitable stone sources. The model also suggested that larger campsites would occur most frequently along permanent watercourses, near springs or wetlands; but particularly in remnant native woodland communities, with campsites being smaller and more sporadic near the headwaters of creeks. Shell middens have the potential to occur anywhere along the Macquarie River.

Haglund (1985) conducted a study into the prehistoric heritage in the Mudgee Shire towards the south of the Project area. The assessment referenced that prior to colonial settlement, small groups of approximately twenty people acted independently but engaged in frequent contact with neighbouring clans. These groups moved after variable intervals, often over a short distance or within the same area, to obtain and use different resources.

Early British explorers and settlers noted considerable variation in the number of Aboriginal people that would gather for food procurement activities during different seasons of the year. This seasonality was most obvious in the case of gatherings along major rivers, and it has been suggested that during dry periods the water holes remaining in the major rivers would become focal points for the usually scattered groups (Haglund 1985: 5).

Concerning the Mudgee/Gulgong area, Haglund (1985: 3) notes that the distribution of known sites cannot be seen as accurately reflecting past Aboriginal land use or site location patterns because of site loss since colonial settlement. Those sites known to exist, however, do fit within the general pattern for the various resource zones discerned by Koettig (1985) and Pearson (1981).

In 1998, Jo McDonald Cultural Heritage Management Pty Ltd (JMCHM 1998) conducted a major linear survey for the Dubbo to Tamworth gas pipeline. Archaeological survey was conducted along the 300 km pipeline construction corridor which passes through the north-western part of the Project area. During the survey, a total of 98 Aboriginal sites were recorded including 57 artefact sites (open campsites and isolated finds), 36 modified trees, four shelters, and one axe

grinding groove. Site distribution demonstrated a strong correlation with watercourses, with 26% of sites situated less than 50 m from the closest water source and 24% between 100–200 m from the closest water source. The grinding groove site identified was also found in association with first order watercourses, but other site types were not strongly associated with a particular part of the landscape.

In 2002, the NSW National Parks and Wildlife Service (NPWS 2002) conducted an Aboriginal cultural heritage assessment across the Brigalow Belt South biogeographic region, including investigations of the Goonoo State Forest and Pilliga State Forest areas. Within the Goonoo State Forest assessment area, 107 sites were identified. These included 74 stone artefact sites, 29 modified trees, and one grinding groove site. Consultation undertaken throughout the assessment referenced the presence of burial sites within the forest area. In addition, an ochre source location was also identified. Most sites were identified within 200 m of watercourses along alluvial landforms.

In 2006, OzArk prepared an Aboriginal heritage baseline study based on the review of previous surveys and assessments conducted in the former Dubbo City LGA to inform future urban development. Five study areas comprising an approximate total area of 1,120 ha were surveyed. During the survey, eight out of 12 previously recorded sites were ground-truthed and 26 additional Aboriginal objects were identified. Scarred tree distribution adhered to the predictive model, exclusively following waterways and fence lines. However, these distributions were recognised as likely related to land clearing practices more than Aboriginal site patterning. Moreover, the number of modified trees identified was fewer than anticipated and attributed to tree clearing within the area. Consistent with the low percentage (3.6%) of grinding groove site types recorded in the region, no new grinding groove sites were recorded. Isolated finds and open sites were largely concentrated along watercourse edges and elevated terraces within 500 m of the Macquarie River and other permanent to semipermanent waterways. No significant patterning emerged in terms of site size or quality, potentially because surface manifestations of artefacts often do not adequately reflect site size or complexity.

OzArk (2020 and 2021) conducted an archaeological assessment for the Stubbo Solar Farm located approximately 30 km east of the CSF Project area. A total of 23 Aboriginal sites were identified and two previously recorded AHIMS sites were ground-truthed during the survey. The 25 Aboriginal sites identified within the assessment area consisted of twelve isolated finds (three with associated PAD), eleven artefact scatters (nine associated with PAD), one PAD, and one modified tree. Stone artefacts were mainly characterised by quartz materials (n=246, 79.6%), followed by chert (n=22, 7.1%), mudstone (n=16, 5.2%) and volcanics (n=13, 4.2%). Some lower quantities of silcrete, petrified wood, greywacke, and chalcedony were also noted across the assemblage recorded. Artefact typology included flakes (n=240, 79.6%), shatter (n=36, 11.7%),

cores (n=12, 3.9%), blades (n=9, 2.9%), backed blades (n=5, 1.6%), end scrapers (n=2), flaked pieces (n=2), ground edge hatchet heads (n=2), and a microlith (n=1).

Most sites identified were situated along ‘drainage’ landforms extending from Stubbo Creek as well as two main tributaries northwest and southwest of Stubbo Creek. In particular, the larger and higher-density sites were recorded along the confluence of Stubbo Creek. Erosion scalds throughout the area afforded better visibility and this likely influenced the identification of many of the artefact sites within these areas. The positioning of the sites along the edges of elevated terraces supports the potential for subsurface archaeological deposits where the terrace still has topsoil and A horizon soils present. The main watercourses (Stubbo Creek and its tributaries) held the highest areas of archaeological sensitivity and the remainder of the area, including the higher to mid slopes, ridgelines and crests have lower archaeological potential.

An addendum assessment for the external access tracks to Stubbo Solar Farm was undertaken by OzArk in 2021. The addendum assessment covered two eastern access easements, one western access easement and the extent of the Blue Spring Road between its intersection with Cope Road to where the eastern access easements intersect with the road. No Aboriginal objects were recorded during the addendum assessment.

Further assessment was undertaken by OzArk (2024a) immediately north of the Stubbo Solar Farm for the Narragamba Solar Project. Thirteen previously unrecorded sites were recorded, including five isolated finds, seven low density artefact scatters, and one scarred tree. While sites were predicted to occur predominantly within 50 m of drainage, a higher number of sites and individual artefacts were recorded outside of this, up to 100 m from drainage lines. This was attributed to the lower ground surface visibility along drainages as well as the erosional processes which can displace artefacts. While outcropping rock was present within crest landforms, no sites were recorded on crests as the outcropping rock was unsuitable for stone tool manufacturing. Artefacts recorded during the survey were predominantly manufactured from quartz, with chert, silcrete, mudstone, and chalcedony also present.

OzArk (2023) undertook an archaeological assessment for the Valley of the Winds Wind Farm located approximately 33 km east-northeast of the Project. The landforms assessed as part of the Valley of the Winds Wind Farm included crests and ridgelines, moderate to steep slopes, low gradient undulating landforms, and floodplains. A large portion of the survey area was within ridgeline landforms, which comprised approximately 44% of the 2,738 ha surveyed during the assessment, followed by low undulating landforms (32%), and slopes (19%). Floodplains comprised only 5% of the survey area.

As a result of the survey, five previously unrecorded Aboriginal sites were identified. Four of the recorded sites were located within the low undulating landforms; one was an isolated find, while

three comprised low density artefact scatters, two of which were associated with areas of PAD. All sites within the low undulating landforms were located within 100 m of watercourses.

Only one site was located within a crest landform (28-6-0061 [Old Farm OS-1]), which was a discreet and isolated area of outcropping quartzite with significant evidence of Aboriginal stone quarrying. Stone artefacts including flakes and large multidirectional cores were present at the site, with over 100 artefacts likely present. Other site features included six 'activity areas' where there was clear evidence of stone quarrying, such as in the form of Hertzian cones and a dense accumulation of associated artefacts. It was assessed that there was potential for subsurface archaeological deposits to be present in the immediate surrounds of the site. Old Farm OS-1 is situated approximately 700 m from the nearest named watercourse.

The assessment found that low undulating landforms are more likely to contain open artefact sites, especially when within proximity to water, however, there was no strict correlation between site density and stream order. Artefacts identified at sites not associated with Old Farm OS-1 were largely manufactured from quartz, chert, and silcrete rather than the quartzite available at the stone quarry of Old Farm OS-1. This indicates that the raw material for tool manufacture was transported into the area rather than sourced locally, while the quartzite from Old Farm OS-1 appears to have been transported out of the area.

5.3 LOCAL ARCHAEOLOGICAL CONTEXT

5.3.1 Desktop database searches conducted

A desktop search was conducted on the following databases to identify any previously recorded heritage within the Project area. The results of this search are summarised in **Table 5-1** and presented in detail in **Appendix 3**.

Table 5-1: Aboriginal cultural heritage: desktop-database search results.

Name of Database Searched	Date of Search	Type of Search	Comment
Commonwealth Heritage Listings	05/09/2024	Dubbo and Warrumbungle LGAs	No places listed on either the National or Commonwealth heritage lists are located within the Project area
National Native Title Claims Search	05/09/2024	NSW	No Native Title Claims cover the Project area.
AHIMS	28/04/2022	16 x 16 km centred on the Project area	173 sites within 16 x 16 km area centred on the Project area. 104 sites were recorded within the 2022 survey area.
	05/09/2024	10 x 10 km centred on the Project area	220 sites within a 10 x 10 km area centred on the Project area. 136 sites are located within the Project area.
Local Environmental Plan (LEP)	05/09/2024	Dubbo Regional LEP 2022 and Warrumbungle LEP of 2013	None of the Aboriginal places noted occur near the Project area.

5.3.1.1 AHIMS search results

Due to the lapse of time between the original surveys and the recommencement of the Project an additional search of the AHMIS register was undertaken. The results of these two searches are outlined below.

5.3.1.1.1 AHIMS search - 28 April 2022

A search of the AHIMS database on 28 April 2022 returned 173 records for Aboriginal heritage sites within an approximate 16 x 16 km area centred on the Project area (GDA Zone 55 Eastings: 701980–716992; Northings: 6432945–6447931) (**Appendix 3**). **Table 5-2** presents the site types and frequencies returned in the 2022 search and the location of these sites is shown on **Figure 5-1**. The results below reflect the results of the search completed in 2022 from which the predictive model for the Project was developed.

The most frequently recorded site types within the 2022 search area are artefact sites (comprising isolated finds and artefact scatters with and without PAD, as well as artefact sites of unspecified quantities), accounting for 69% of all sites. Other sites recorded include culturally modified trees, hearths, grinding grooves, with the sites recorded in lesser frequencies including habitation structures and site complexes comprising isolated finds, hearths, and PADs (see **Table 5-2**). One restricted site (36-2-0490) is located within the Project area; however, the site card shows that it is located outside of the development footprint for the Project.

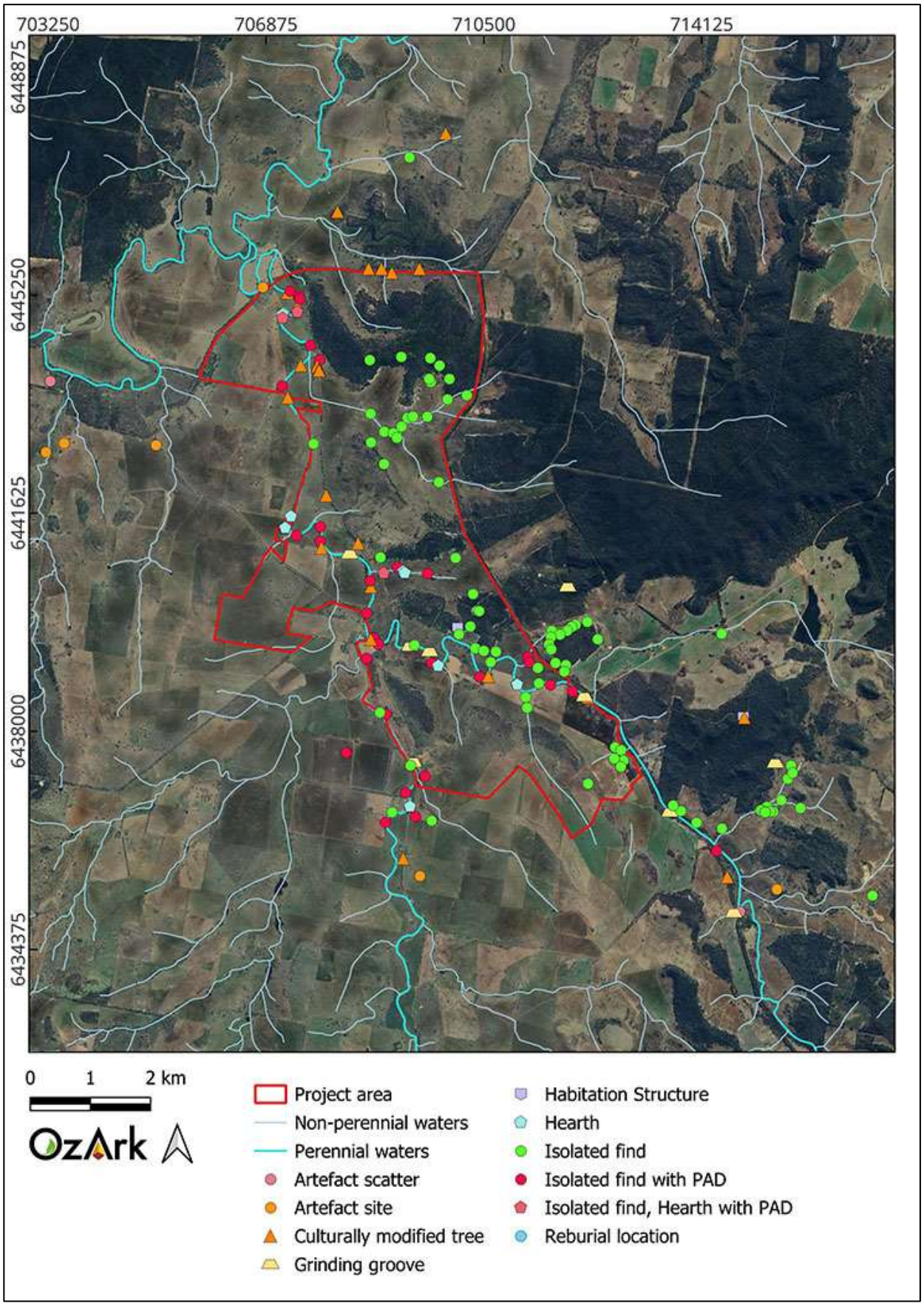
There is a general tendency for sites within the 2022 search area to be along watercourses, with particular concentrations along Laheys and Sandy Creeks. While isolated finds largely follow this trend, they have also been recorded on ridge lines over 700 m from the nearest watercourse. Modified trees tend to be located near watercourses and recorded grinding grooves tend to be located near a watercourse in areas of suitable outcropping sandstone. Where sites are located at a distance (over 300 m) from water (such as the habitation structures, grinding grooves, and culturally modified trees), they are commonly situated along ridgelines.

Table 5-2: Site types and frequencies of AHIMS (April 2022) sites in or near the Project area.

Site Type	Number	% Frequency
Isolated find	80	46.2
Isolated find & PAD	31	18
Culturally modified tree	23	13.2
Hearth	13	7.5
Grinding groove	11	6.4
Artefact site of unspecified quantity	6	3.5
Artefact scatter	3	1.7
Artefact, hearth, and PAD	3	1.7
Habitation structure	2	1.2

Site Type	Number	% Frequency
Artefact reburial location	1	0.6
Total	**173**	**100**

Figure 5-1: Previously recorded AHIMS sites (April 2022) in relation to the Project area.



Of the 173 sites in the 2022 AHIMS search, 104 registered AHIMS sites are located within the Project area. These include 46 artefact sites (isolated finds and artefact scatters), 25 artefact sites with PAD, 13 modified trees, 11 hearths, five grinding grooves, three isolated finds with hearth and PAD, and one habitation structure. Further information pertaining to these sites is included in **Section 5.3.2**.

5.3.1.1.2 AHIMS search – 5 September 2024

Due to the elapsed time since the completion of the initial AHIMS search, an additional AHIMS search was completed on 5 September 2024. Due to the change in Project area as well as the large amount of archaeological work in the vicinity, the parameters of the search were altered to two searches totalling 10 x 10 km centred on the Project area. The 2024 search (GDA Zone 55 Eastings: 704230–714168; Northings: 6436245–6446197) returned 220 results (**Appendix 3**). The location of these sites is shown on **Figure 5-2**.

The results of the 2024 search include several sites recorded as part of the Central West Orana REZ (CWO REZ) Transmission Project (EMM 2023) which have been recorded and registered since the survey for the Project, as well as the 30 sites recorded by OzArk during the survey for this assessment (see **Section 6.4**).

As indicated by the 2022 search results, artefact sites (isolated finds and artefact scatter with and without PAD) are the most commonly recorded site types in the area, comprising 78% of all sites within the search area. Site types recorded in lesser frequencies are culturally modified trees, hearths, and grinding grooves, and the reduced search area results in only one instance of a habitation structure and an artefact reburial site 36-2-0490. Site types and frequencies are tabulated in **Table 5-3**.

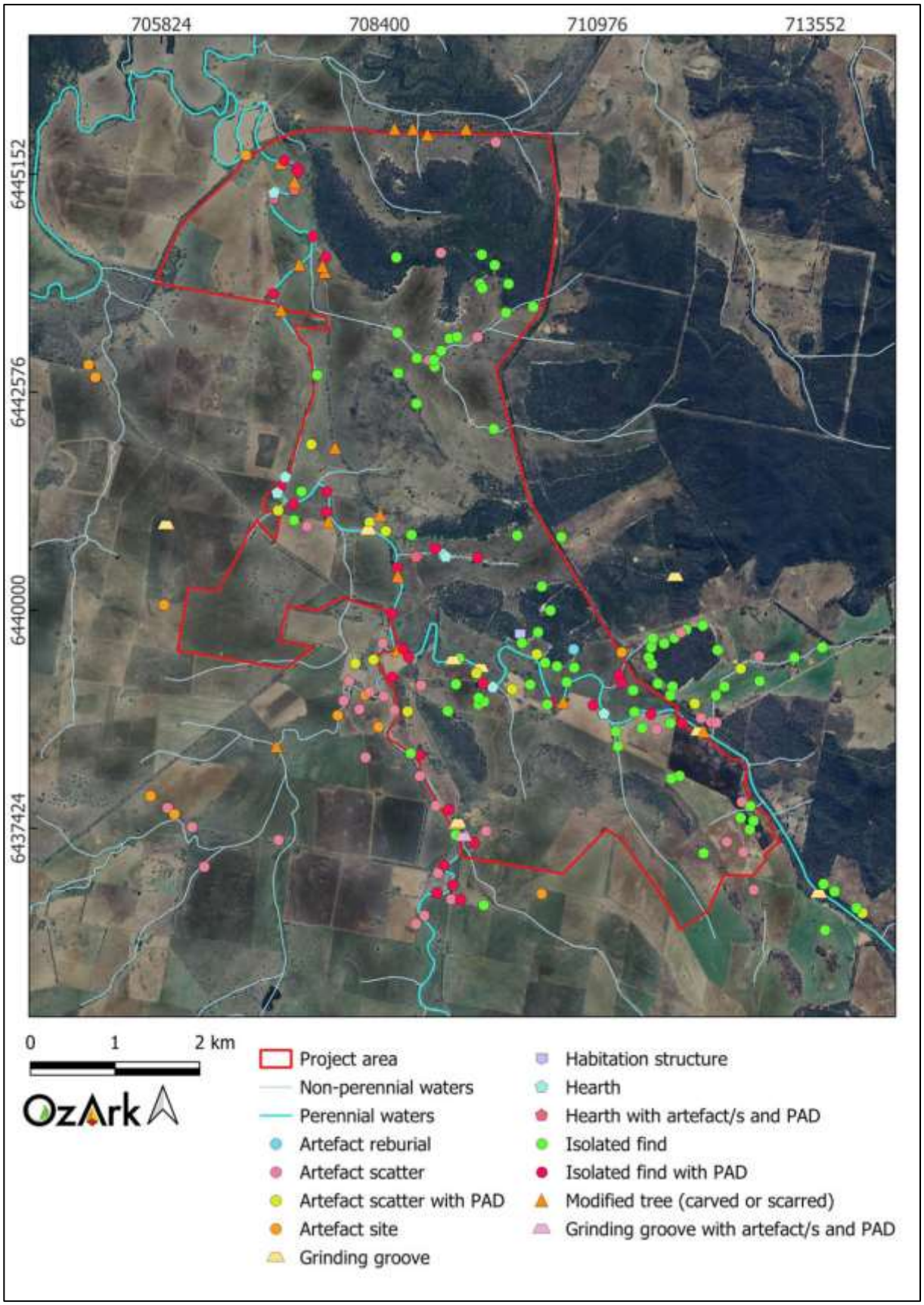
The relationship between landform and the location of sites returned in the 2024 search results largely align with the that discussed in **Section 5.3.1.1.1**, as sites are most commonly located within 200 m of watercourses, particularly more reliable waters such as Laheys and Sandy Creeks. Where open artefact sites are located at a distance from water, they largely consist of less complex low-density sites, such as isolated finds.

Table 5-3: Site types and frequencies of AHIMS sites in or near the Project area.

Site Type	Number	% Frequency
Isolated find	80	36
Artefact scatter	36	16.4
Isolated find & PAD	31	14.
Culturally modified tree	19	8.7
Artefact scatter with PAD	13	6
Hearth	13	6
Artefact site of unspecified quantity	12	5.5
Grinding groove	10	4.6

Site Type	Number	% Frequency
Artefact, hearth, and PAD	3	1.3
Habitation structure	1	0.5
Grinding grooves with artefact/s and PAD	1	0.5
Artefact reburial location	1	0.5
Total	**220**	**100**

Figure 5-2: Previously recorded AHIMS sites (September 2024) in relation to the Project area.



Excluding those recorded by OzArk during the survey, the 2024 search results show 108 registered AHIMS sites within the Project area. These sites are tabulated in **Table 5-4** and shown on **Figure 5-3** to **Figure 5-5**. Three additional sites recorded since the 2022 search are shown in a blue shade. Additionally, shown in blue is a previously recorded site (36-2-0237 [SAC 34]), the location of which has been corrected since the 2022 search and now plots within the Project area. These consist of additional grinding grooves in an area where previous grinding grooves have been recorded in the southwest of the Project area, and two artefact scatters in the southeast of the Project area where other artefact sites have been recorded. The 104 sites not shown in blue in **Table 5-4** are those which were known to be present within the Project area at the time of the 2022 survey.

Table 5-4: Previously recorded AHIMS sites within the Project area (2024).

AHIMS ID	Site name	GDA East	GDA North	Site type
36-2-0090	DR-ST2	708970	6445621	Culturally modified tree (carved or scarred)
36-2-0164	Grinding Groove 01	708268	6440939	Grinding groove
36-2-0165	Grinding Groove 02	709598	6439316	Grinding groove
36-2-0166	Grinding Groove 03	709271	6439406	Grinding groove
36-2-0167	Grinding Groove 04	709311	6437465	Grinding groove
36-2-0168	Grinding Groove 05	709329	6437483	Grinding groove
36-2-0177	Hearth 01	707395	6444963	Hearth
36-2-0178	Hearth 02	707168	6444945	Hearth
36-2-0179	Hearth 03	707154	6444930	Hearth
36-2-0180	Hearth 04	709160	6440657	Hearth
36-2-0181	Hearth 05	709185	6440631	Hearth
36-2-0182	Hearth 06	707188	6441387	Hearth
36-2-0183	Hearth 07	707190	6441386	Hearth
36-2-0184	Hearth 08	707194	6441381	Hearth
36-2-0185	Hearth 09	707289	6441571	Hearth
36-2-0186	Hearth 10	709741	6439088	Hearth
36-2-0187	Hearth 11	711050	6438776	Hearth
36-2-0188	Hearth 12	711055	6438775	Hearth
36-2-0192	IF 01-Glass Flake	707665	6442776	Isolated find
36-2-0193	IF 02-Brown Silcrete Core	710614	6439149	Isolated find
36-2-0194	IF 03-Pounding Stone	709346	6439430	Isolated find
36-2-0195	IF O4-Knife Sharping Stone	711415	6438796	Isolated find
36-2-0196	IF 05-Ground Edge Axe	711196	6438564	Isolated find
36-2-0198	IF 07-Hammer Stone	708771	6438309	Isolated find
36-2-0206	SAC 03	707278	6445312	Isolated find & PAD
36-2-0207	SAC 04	707427	6445225	Isolated find & PAD
36-2-0208	SAC 05	707438	6445182	Isolated find & PAD
36-2-0209	SAC 06	707397	6444966	Isolated find, Hearth & PAD

AHIMS ID	Site name	GDA East	GDA North	Site type
36-2-0210	SAC 07	707151	6444866	Isolated find, Hearth & PAD
36-2-0211	SAC 08	707614	6444412	Isolated find & PAD
36-2-0212	SAC 09	707147	6443738	Isolated find & PAD
36-2-0214	SAC 11	709564	6440620	Isolated find & PAD
36-2-0215	SAC 12	708835	6440629	Isolated find, Hearth & PAD
36-2-0216	SAC 13	709063	6440727	Isolated find & PAD
36-2-0217	SAC 14	707779	6441161	Isolated find & PAD
36-2-0218	SAC 15	707768	6444171	Isolated find & PAD
36-2-0219	SAC 16	707780	6441398	Isolated find & PAD
36-2-0220	SAC 17	707381	6441254	Isolated find & PAD
36-2-0221	SAC 18	707234	6441452	Isolated find & PAD
36-2-0223	SAC 20	708609	6440500	Isolated find & PAD
36-2-0225	SAC 22	708679	6439544	Isolated find & PAD
36-2-0226	SAC 23	708747	6439446	Isolated find & PAD
36-2-0227	SAC 24	711233	6439235	Isolated find & PAD
36-2-0228	SAC 25	711258	6439142	Isolated find & PAD
36-2-0229	SAC 26	710430	6438905	Isolated find & PAD
36-2-0230	SAC 27	709627	6439136	Isolated find & PAD
36-2-0231	SAC 28	711973	6438666	Isolated find & PAD
36-2-0232	SAC 29	711611	6438770	Isolated find & PAD
36-2-0238	SAC 35	708875	6438284	Isolated find & PAD
36-2-0239	SAC 36	708551	6439209	Isolated find & PAD
36-2-0240	SAC 37	709522	6437251	Isolated find & PAD
36-2-0243	Shelter 02	710064	6439711	Habitation Structure
36-2-0252	TRE 03	707235	6445287	Culturally modified tree (carved or scarred)
36-2-0253	TRE 04	707398	6445062	Culturally modified tree (carved or scarred)
36-2-0254	TRE 05	707454	6444083	Culturally modified tree (carved or scarred)
36-2-0256	TRE 07	707728	6444065	Culturally modified tree (carved or scarred)
36-2-0257	TRE 08	707758	6444015	Culturally modified tree (carved or scarred)
36-2-0258	TRE 09	707758	6443997	Culturally modified tree (carved or scarred)
36-2-0259	TRE 10	707797	6441048	Culturally modified tree (carved or scarred)
36-2-0260	TRE 11	707876	6441920	Culturally modified tree (carved or scarred)
36-2-0261	TRE 12	708408	6441125	Culturally modified tree (carved or scarred)
36-2-0263	TRE 14	708618	6440403	Culturally modified tree (carved or scarred)
36-2-0264	TRE 15	708616	6439528	Culturally modified tree (carved or scarred)
36-2-0265	TRE 16	710573	6438916	Culturally modified tree

AHIMS ID	Site name	GDA East	GDA North	Site type
36-2-0336	IF 04 - Knife Sharping Stone	711415	6438796	Isolated find
36-2-0341	CBR - RSH - 01	710275	6439740	Isolated find
36-2-0368	CBR - OS - 33B	709618	6443803	Isolated find
36-2-0369	CBR - OS - 33A	709591	6443856	Isolated find
36-2-0371	CBR - OS - 31E	712685	6437733	Isolated find
36-2-0372	CBR - OS - 31D	712785	6437685	Isolated find
36-2-0373	CBR - OS - 31C	712822	6437512	Isolated find
36-2-0374	CBR - OS - 31B	712779	6437409	Isolated find
36-2-0375	CBR - OS - 31A	712670	6437545	Isolated find
36-2-0393	CBR - OS - 21	711220	6438390	Isolated find
36-2-0394	CBR - OS - 20	710030	6440880	Isolated find
36-2-0395	CBR - OS - 19	710320	6440280	Isolated find
36-2-0396	CBR - OS - 18A	710360	6439378	Isolated find
36-2-0397	CBR - OS - 18	710500	6439336	Isolated find
36-2-0398	CBR - OS - 17	710086	6439610	Isolated find
36-2-0400	CBR - OS - 15	709046	6442956	Isolated find
36-2-0401	CBR - OS - 14	709132	6443064	Isolated find
36-2-0402	CBR - OS - 13B	709230	6443209	Isolated find
36-2-0403	CBR - OS - 13A	709320	6443229	Isolated find
36-2-0404	CBR - OS - 12 'WATERHOLE'	709560	6443226	Isolated find
36-2-0405	CBR - OS - 11	709896	6443514	Isolated find
36-2-0406	CBR - OS - 10	708623	6442799	Isolated find
36-2-0407	CBR - OS - 09 'BIG SCALD'	708616	6443276	Isolated find
36-2-0408	CBR - OS - 08	708843	6442977	Isolated find
36-2-0409	CBR - OS - 07	708994	6442953	Isolated find
36-2-0410	CBR - OS - 06	709054	6442877	Isolated find
36-2-0411	CBR - OS - 05B	709610	6444200	Isolated find
36-2-0412	CBR - OS - 05A	709126	6444221	Isolated find
36-2-0413	CBR - OS - 04	708602	6444168	Isolated find
36-2-0414	CBR - OS - 03	709764	6444076	Isolated find
36-2-0415	CBR - OS - 02	709928	6443854	Isolated find
36-2-0416	CBR - OS - 01	708780	6440890	Isolated find
36-2-0421	CBR - IF - 05	711400	6439052	Isolated find
36-2-0422	CBR - IF - 04	712233	6437128	Isolated find
36-2-0423	CBR - IF - 03	710422	6439995	Isolated find
36-2-0424	CBR - IF - 02	708840	6442440	Isolated find
36-2-0425	CBR - IF - 01	709752	6442140	Isolated find
36-2-0427	CBR - OS - 11A	710218	6443582	Isolated find
36-2-0428	CBR - OS - 18B	710703	6439321	Isolated find
36-2-0490	Cobbora artefact reburial loc	710698	6439538	Artefact reburial
36-2-0582	SC GG1	709396	6437322	Grinding groove with artefact/s and PAD

AHIMS ID	Site name	GDA East	GDA North	Site type
36-2-0695	SNI-AS48	712703	6437140	Artefact scatter
36-2-0697	SNI-AS47	712508	6437262	Artefact scatter
36-2-0237	SAC 34	709219	6437642	Isolated find with PAD

Figure 5-3: Previously recorded AHIMS sites located within the Project area (1).

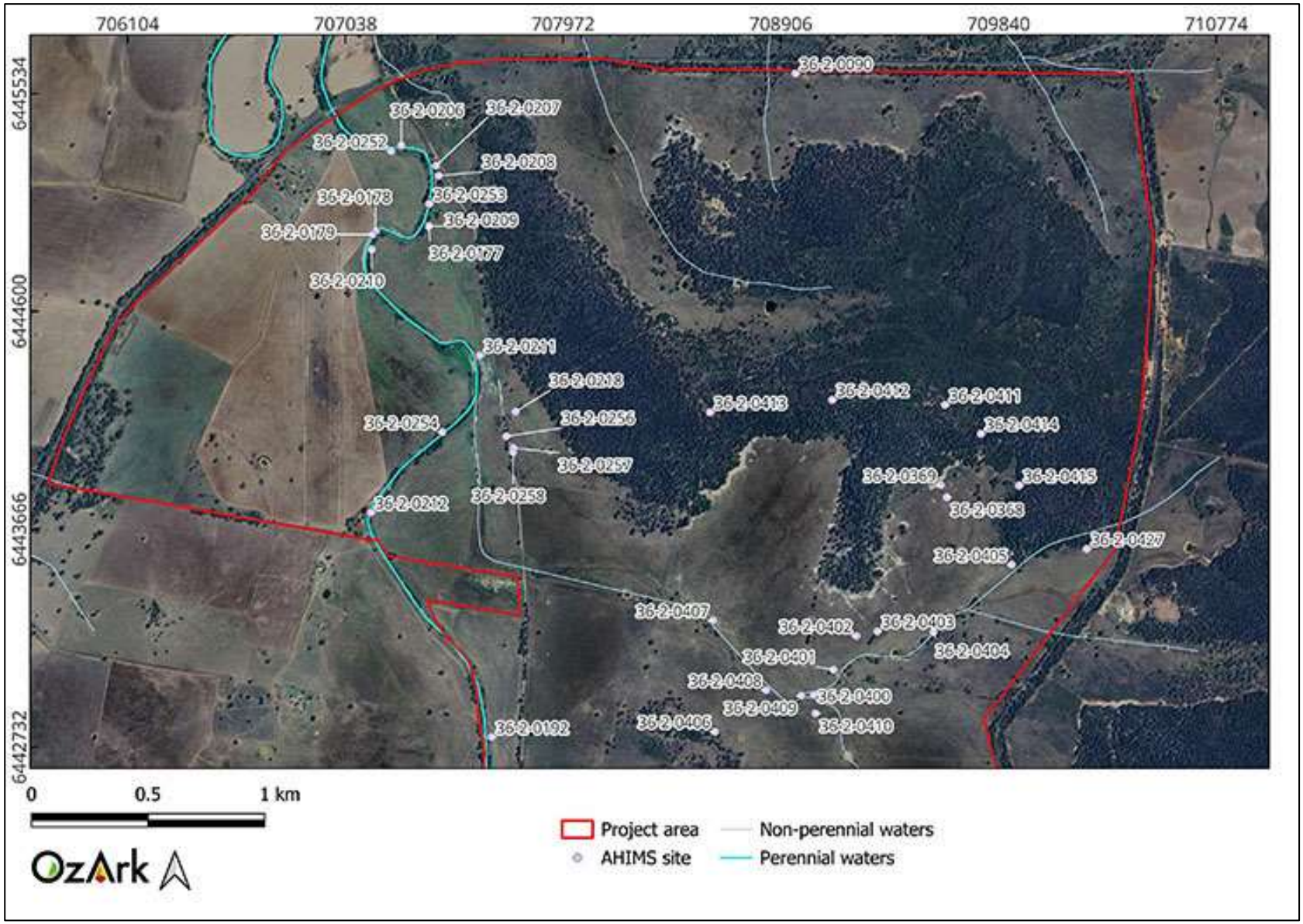


Figure 5-4: Previously recorded AHIMS sites located within the Project area (2).

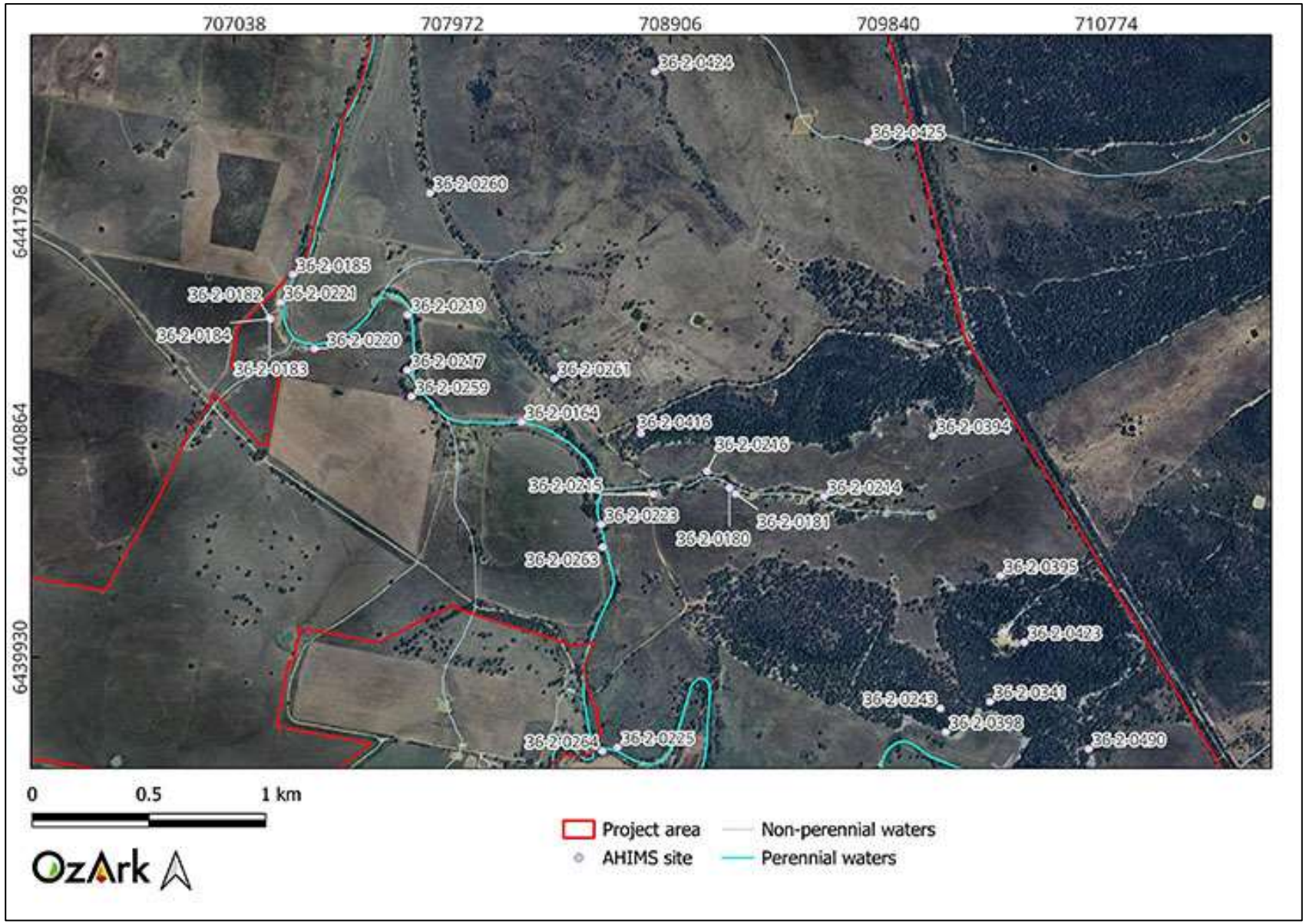
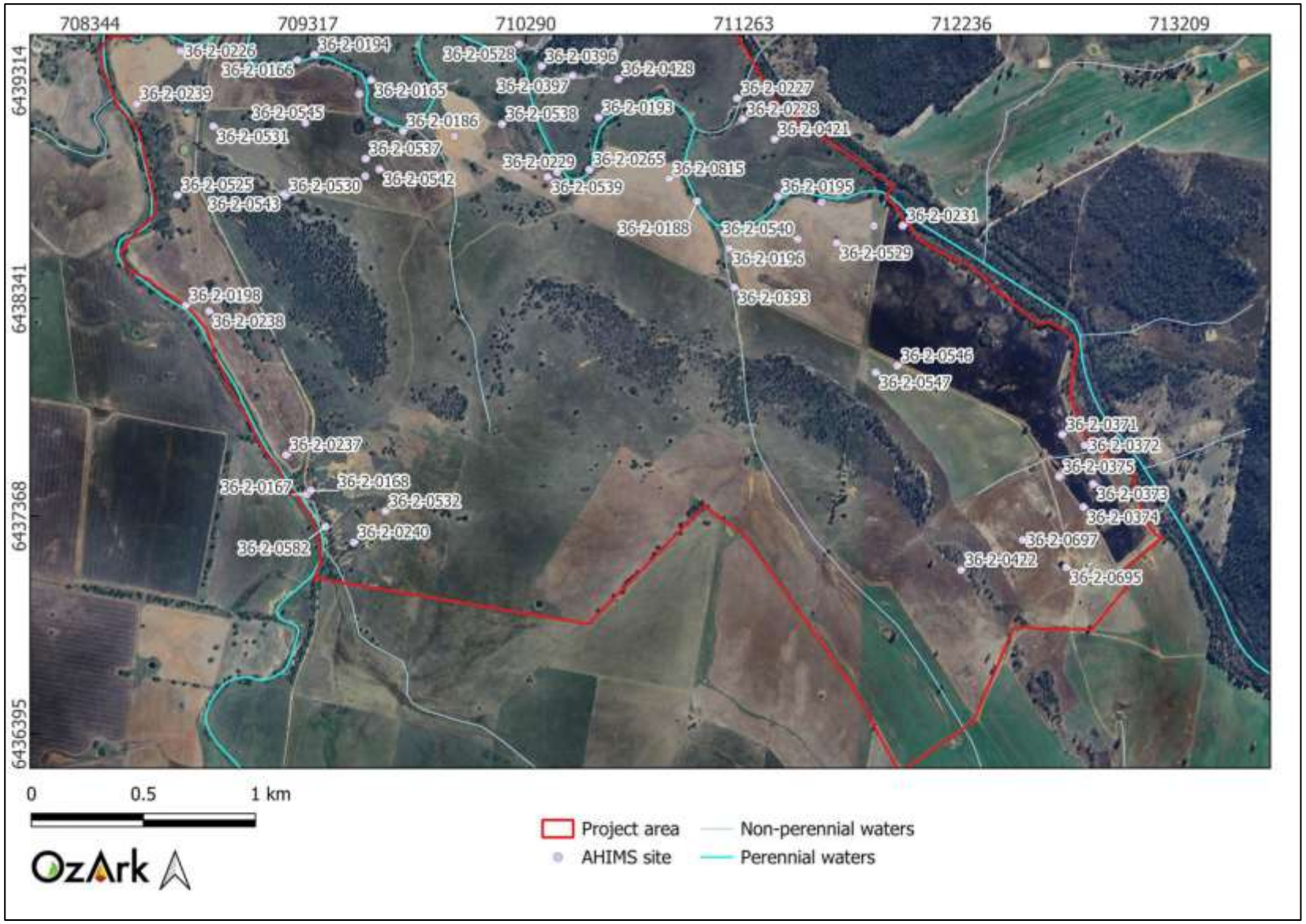


Figure 5-5: Previously recorded AHIMS sites located within the Project area (3).



5.3.2 Previous studies in or near the Project area

5.3.2.1 Cobbora Coal Project (ERM 2010, EMM 2012 & 2013)

ERM (2010) conducted an Aboriginal archaeological assessment for the Cobbora Coal Project (CCP). The CCP assessment area covered most of the eastern side of the CSF Project area. During the survey, a total of 20 scarred trees, six rock shelters, 52 artefact scatters, 17 isolated artefacts, 15 hearth features, and 16 grinding groove sites were recorded. Those sites identified were predominantly clustered around waterways and particular those major waterways within the CCP assessment area including Sandys and Laheys Creeks.

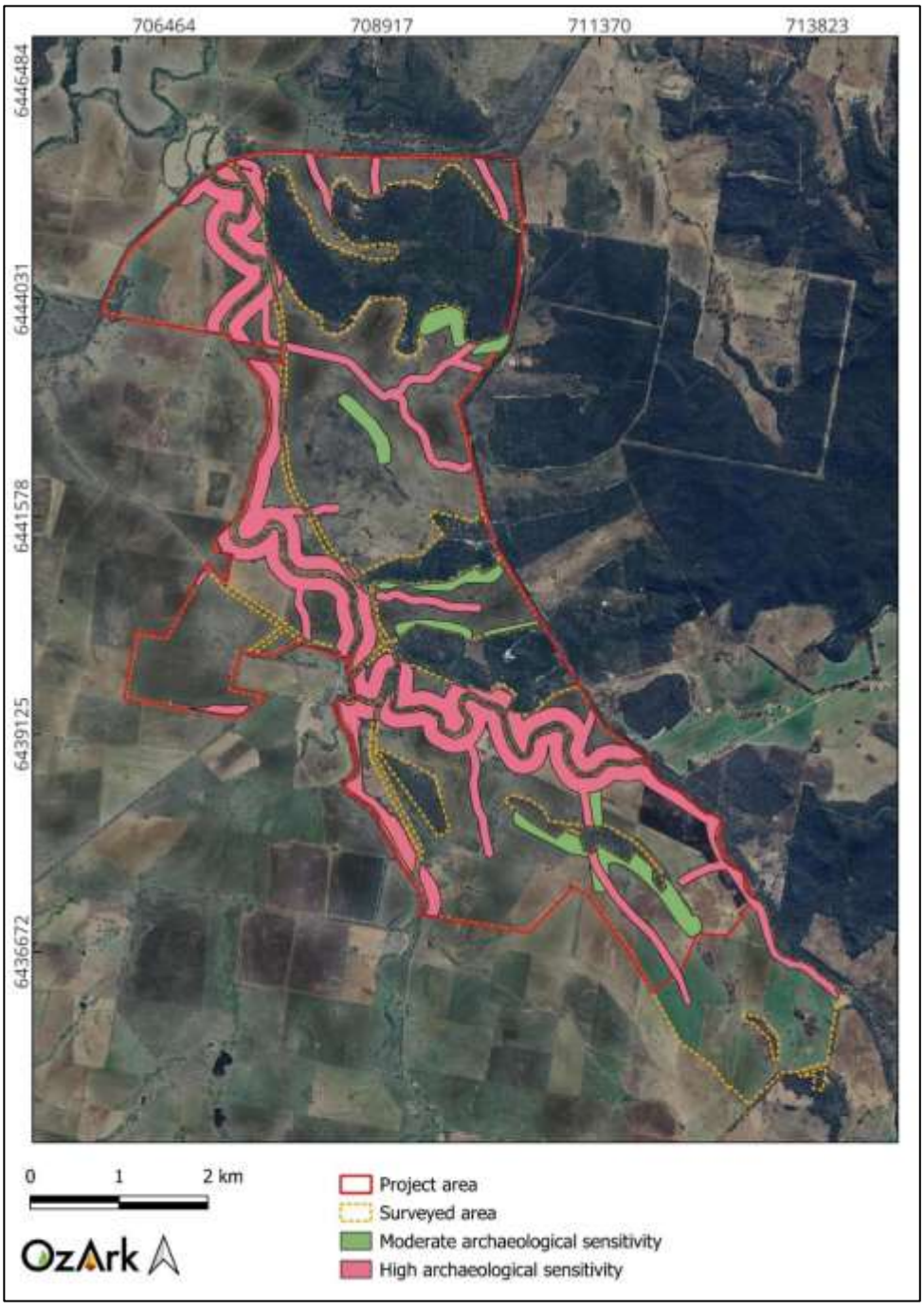
A series of 1 x 2 m test pits were mechanically excavated during the 2009–2010 fieldwork with the locations determined by where soil testing was required. Subsurface test excavation conducted recovered a total of 74 artefacts from two test pits excavated at SAC 12 (36-2-0215) along the minor tributary to Sandy Creek and 17 from a single test pit excavated at SAC 23 (36-2-0226) towards the junction of Laheys and Sandy Creeks. However, only one artefact was recovered from the testing situated 300 m from Laheys Creek. The results of the subsurface testing supported evidence of subsurface deposits associated with both the minor tributary watercourse, as well as the confluence of Sandy Creek and Laheys Creek (SAC 23).

Following changes to the mine plan, an additional survey was undertaken by EMM Consulting Pty Ltd. (EMM) in 2012. A total of 229 Aboriginal objects were recorded. These included 164 open stone artefact sites, 25 scarred trees, 18 grinding groove sites, 15 hearths, and seven rock shelters. Quartz was the dominant material recorded comprising approximately 95% of the artefact assemblage. To a much lesser degree, stone artefacts manufactured from volcanic materials, silcrete, quartzite, chert, chalcedony, mudstone, and sandstone were also recorded.

Aboriginal artefacts identified near watercourses during the EMM assessment consistently occurred beyond the site boundaries previously defined by ERM, to the extent that an artefact continuum along waterways could be inferred. In contrast, open artefact sites along valley floors situated further away from watercourses were more sporadic and generally associated with ecotonal boundaries. There was a greater frequency of Aboriginal objects recorded along the watercourses in contrast with other landforms. This indicated a clear correlation between Aboriginal site distribution and landform, rather than reflecting a survey bias, as drainage landforms represented only one-third of the EMM survey effort. EMM concluded that Aboriginal artefacts occur consistently along major creeks, sporadically along the edges of the valley floors and on minor creeks, and rarely on the rocky slopes, ridgelines, and minor drainage lines. These findings were used to inform a sensitivity model, which named all land within 200 m of named creeks and 30 m of unnamed drainage lines as areas of archaeological sensitivity (**Figure 5-6**). Some of these archaeologically sensitive areas were associated with subsurface potential. As such, nine isolated find sites with associated PAD were recommended for subsurface testing.

It should be noted that, while this sensitivity modelling is useful to inform the predictive model for investigations, it does not represent definitive site locations. The results of the survey for the project resulted in generous site and PAD extents, and the designated archaeological sensitivity is indicative only. The archaeological sensitivity of these landforms was further assessed during the survey, resulting in discrete landforms being identified as having archaeological potential rather than a standard 200 m from main waterways (see **Section 6.4** to **Section 6.7** for further information regarding site location, PAD identification, and discussion of survey results).

Figure 5-6: Archaeological sensitivity identified by EMM and ERM within the surveyed area.



A test excavation program was conducted by EMM in 2013 (**Figure 5-7**). The two areas which formed the focus of testing included the northern and southern banks of Laheys Creek (towards

the eastern end of the east–west portion of the creek in the Project area), and the northern and southern banks of an east–west running unnamed drainage line located 750 m north of Laheys Creek. A total of 118 test units (TU) were excavated across 45 discrete locations. These locations included 36 TUs (3 x 1 m) and nine borehole TUs (1 x 1 m). A total of 791 stone artefacts were recovered across 89 of the 118 TUs with an average frequency of 6.7 artefacts per 1 x 1 m.

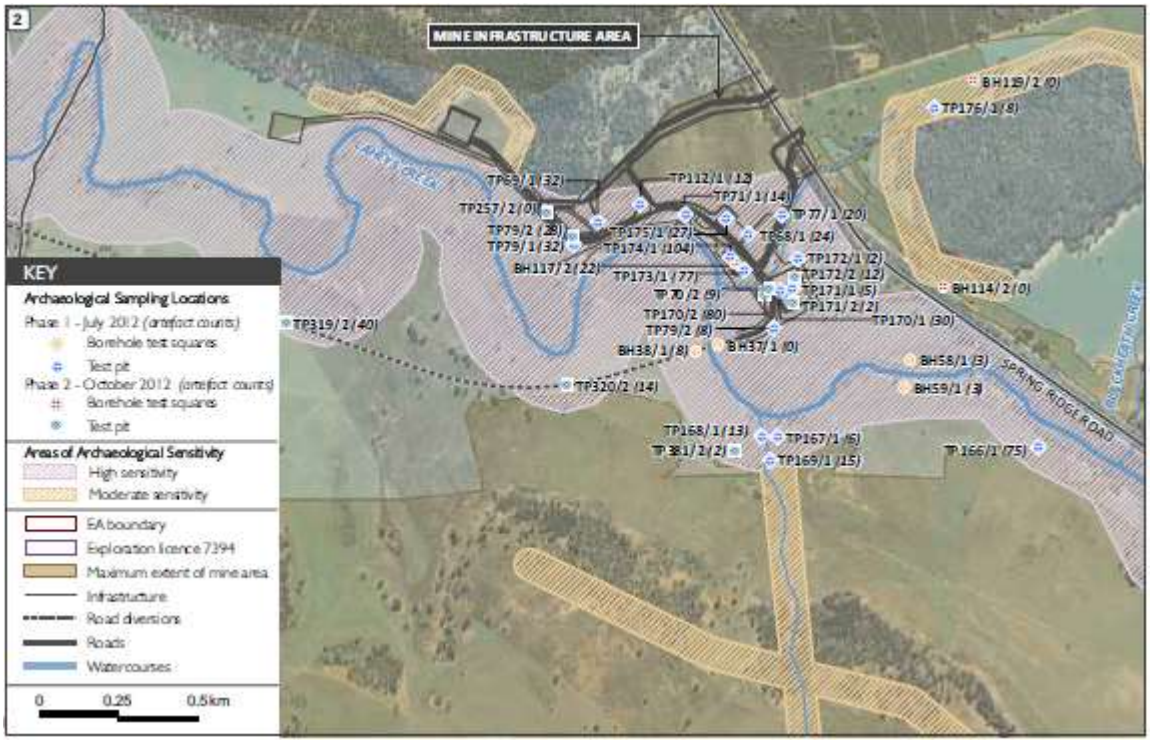
Most artefacts recorded (n=736, 93.05%) were identified within the top 20 centimetres (cm) of soil. Conversely, only 55 artefacts (6.95%) were recovered from lower depths between 20-40 cm, depending on the soil profile. The intact shallow soils of Sandy Creek included higher artefact frequencies compared to the alluvial soils encountered along the same creek line. The highest density artefact location was situated along a minor valley elevation adjacent to the confluence of Laheys Creek and a tributary drainage line.

Raw material composition of the excavated assemblage was mainly characterised by quartz flakes (n=674, 85.2%), followed by petrified wood (n=44, 5.56%), indurated mudstone tuff (IMT) (n=28, 3.54%), chert (n=25, 3.16%), silcrete (n=8, 1%), chalcedony (n=5, 0.63%), quartzite (n=5,0.63%), and volcanic materials (n=2, 0.25%). The prevalence of quartz materials suggests that the material was sourced locally. Comparatively, the high quantities of petrified wood, IMT, and chert are likely to have been imported to the area as no known outcrops of these resources exist within the Project area. Artefact typologies were dominated by flakes (n=410, 51.83%), flaked pieces (n=174, 22%), distal flakes (n=63, 7.96%), longitudinal split (n=39, 4.93%), cores (n=31, 3.92%), proximal flakes (n=31, 3.92%), medial flakes (n=25, 3.16%) and retouched flakes (n=18, 2.27%). Of the retouched artefacts identified, 17 exhibited diagnostic attributes consistent with formal tool classifications. Nine were identified as bondi points, five as scrapers, two as incomplete backed artefacts, and one as a geometric microlith.

Based on the results of the test excavation program, four sites (two hearths, one waterhole, and one artefact scatter and PAD) were recommended by EMM for salvage excavation.

The CCP was approved in 2014, with the state government planning to sell or lease the mine. However, the mine never proceeded and in 2017, the land purchased for the mine was sold to the public. As such, the management measures recommended by EMM (2013), including additional archaeological excavation, were not implemented.

Figure 5-7: Location of the test pits excavated by EMM (2013) along Laheys Creek.



5.3.2.2 *Central West Orana Renewal Energy Zone (EMM 2023 & 2024)*

Concurrent to the survey undertaken for this ACHAR, EMM (2023) undertook a survey which intersected the south-eastern portion of the surveyed area as part of the CWO REZ transmission line. The survey was conducted across 728 km of land (the construction area), comprising 3998 ha of linear pedestrian transects. Despite poor visibility and coverage (~4.5%) due to the presence of dense vegetation, 183 Aboriginal objects, sites and/or places were documented as part of the investigation. These were dominated by stone artefact scatters (n=78) and isolated stone objects (n=65), with lesser occurrences of grinding grooves (n=15) and culturally modified trees (n=14). Spatially, these were found across the construction area, but there were clear clusters primarily located within 250 m of several 2nd to 4th order creeks.

Test excavations consisted of 128 x 0.25 m^2 manually dug TUs at a small number of proposed transmission tower locations extending across the construction area to supplement and confirm the field survey findings. Overall, some 84 artefacts were recovered from the TUs, primarily between 10–20 cm below surface, with no TU exceeding 80 cm in depth. Overall, artefact densities of 2.1/m^2 were recovered. When extrapolating values from the test excavation, four TUs (and two groups of TUs) returned values of >17/m^2, which was considered to reflect above background levels of activity. These were on average ~104 m from 2nd – 4th order creek lines, with high densities recorded along Copes Creek and Sportsman Hollow Creek. The assemblage indicates a focus on extraction of raw materials potentially from these (and other) creeks, notably a milky quartz, and likely dating to the last few thousand years. All cultural materials were recovered from the upper 40 cm of the soil profile within TUs, and most of the assemblage

recovered from the upper two spits (i.e. 0–20 cm). Most of the artefacts were made from white, milky quartz (a macrocrystalline variety) (n=44), with lesser occurrences of tuff (n=26), chalcedony (n=2), and chert (n=2).

Across the construction area, incised creeks or ploughed fields typically revealed a 20–30 cm topsoil—usually a clay loam—was present above under-lying heavy clay subsoils or immediately on to a geological substrate. Sandstone exposures and outcroppings were frequently observed, especially within many of the creek lines, and its prevalence may explain in part the abundance of grinding grooves documented in the region. Few remnant trees or vegetation were observed due to historic vegetation clearance.

An addendum assessment (EMM 2024) covered an additional 254 km of field survey and recorded the results of test excavations of nine creek corridors. The addendum assessment recorded an additional 73 Aboriginal sites and places. Isolated and low-density stone artefact sites were the primary recorded site type, however, rock shelters (n=2), grinding grooves (n=2), and scarred trees (n=6) were also identified. Test excavations found that the Laheys, Sandy, and Tallawang Creeks were utilised more than others investigated, exhibiting higher density artefact deposits.

The findings demonstrate that the most significant cultural deposits appear to be primarily found along major watercourses and/or strongly influenced by other environmental factors such as the presence of sandstone outcrops and over hangs.

Two of the sites identified during survey efforts for the CWO REZ are located within the southern portion of the Project area, consisting of two low-density artefact scatters (36-2-0697 [SNI-AS7] and 36-2-0695 [SNI-AS8]). A further 20 sites were recorded in the southernmost portion of the surveyed area, comprising 12 isolated finds, seven artefact scatters, and a scarred tree with a grinding grooves and PAD. The preliminary data for these sites was provided to OzArk following the survey for the current assessment, and therefore the verification of sites, site descriptions, and further information was not available. These additional sites have yet to be registered on AHIMS and are outside of the Project area.

5.3.2.3 Dapper Solar Farm (OzArk 2024b)

OzArk (2024b) conducted an Aboriginal Cultural Heritage Assessment for the Dapper Solar Farm (DSF) located 1 km immediately south of the Project. The DSF project area included 730 ha of land comprising undulating to stepped low hills with long slopes, as well as generally elevated plains and low hills with isolated low crests. The DSF project area was bounded by Spring and Sandy Creeks, with the banks and terraces extending into the DSF project area.

Following the completion of the survey for the DSF, while the Proponent was finalising the design for the project, it was determined that sections of the DSF project area had been previously

assessed in late 2022 (EMM 2023) as part of the CWO REZ transmission project. Once the site data could be reconciled, it was determined that a total of eight Aboriginal sites had been identified within the DSF project area. The sites comprise five low-density artefact scatters (Dapper OS4, SC AS22, SNI-AS21, SNI-AS22 and SNI-AS53) and three isolated finds (Dapper IF 1, Dapper IF 2 and Dapper IF3 with PAD). Four of the sites were recorded with the potential for associated PAD. One PAD with no associated surface manifestation was identified along Spring Creek at the west of the survey area.

Quartz and volcanic materials were the predominant raw material recorded, with quartzite and fine-grained siliceous materials also present in lesser quantities. All but one site (Dapper IF1) was associated with Spring and Sandy Creeks, indicating a strong relationship between site location and presence of reliable or semi-reliable waters. No sites were identified within the crest landforms, which was attributed to the distance of this landform from waters.

5.3.2.4 Orana Wind Farm (OzArk 2024c)

In 2023 and 2024, OzArk undertook field survey for the since halted Orana Wind Farm project, which bordered the eastern boundary of the CSF Project area. The survey area for the Orana Wind Farm project comprised approximately 8,466 ha of land, including plains, gentle and moderate slopes, steep slopes and crest landforms. Based on the landform modelling, mapping of archaeological potential was produced. This indicated that steeply sloping landforms had low potential, gentle and moderate slopes within 100 m of known Aboriginal sites had moderate potential, and crest and gentle to moderate slopes in proximity to watercourses had high potential to contain Aboriginal sites.

During the survey, a total of 44 sites were recorded, including 23 isolated finds, 19 open artefact scatters, and two scarred trees. Five of the recorded artefact scatters were assessed to be associated with PAD. Additionally, 13 areas of PAD without surface manifestation were identified, with one associated with a rock shelter. All identified PADs were located in elevated landforms associated with waterways such as Blackheath and Fords Creeks. Recorded sites were largely situated near to waterways, and exclusively within flat to gently sloping landforms. Nine artefact sites and one PAD were identified in association with Blackheath Creek, a tributary to Laheys Creek which runs through the CSF Project area.

Quartz and basalt were the most commonly recorded raw materials utilised in stone tool manufacture within the study area, with quartzite, mudstone, chert, and jasper were also recorded in lesser quantities.

5.4 ARCHAEOLOGICAL CONTEXT: SUMMARY

The reviewed archaeological studies surrounding or covering the Project area, provide data that reflects a habitation model for the Aboriginal people of the area that focused on the waterways

and alluvial landforms of the region. Laheys and Sandy Creeks, which intersect the Project area, likely provided reliable transit routes through the landscape and suitable conditions for seasonal or repeat small-scale occupation.

The results of the Cobbora Coal Project studies (ERM 2010, EMM 2012, EMM 2013) and of the CWO REZ transmission line studies (EMM 2023 and 2024) demonstrate that landforms associated with Laheys and Sandy Creeks were favoured transit and habitation areas within the local region. The pattern of AHIMS sites that have been recorded within and near the Project area also suggest that the landforms distant from creek lines are less likely to be associated with subsurface archaeological deposits and artefact sites distant to water are often isolated finds or low-density scatters.

The archaeological studies surrounding the Project area as summarised in **Section 5.3.2** also indicate that:

- Stone artefact sites (isolated finds and artefact scatters) are the most frequently recorded site types in the area, with the higher density sites expected to be concentrated within 200 m of named watercourses and 50 m of ephemeral drainage lines
- Quartz is the predominant material for stone artefacts in the area, although volcanic materials (i.e. basalt), silcrete, quartzite, mudstone, chert, and chalcedony could also be present
- Modified trees are a frequently recorded site type in or near the Project area. Although large portions of the Project area have been cleared for agricultural and farming purposes. Only small clusters of mature trees remain scattered throughout the Project area and concentrated along the perimeters of Sandy Creek and Danabar Road, as well as along Sandy and Laheys Creeks
- Sites indicative of occupation and repeated use, such as hearths and grinding grooves, are largely associated with named watercourses. Hearths are generally identified in areas where A-Horizon soils are relatively undisturbed
- Further from water, sites are generally recorded along ecotone boundaries, for example, where ranges join plain landforms.

5.5 PREDICTIVE MODEL FOR SITE LOCATION

Across Australia, numerous archaeological studies in widely varying environmental zones and contexts have demonstrated a high correlation between the permanence of a water source and the permanence and/or complexity of Aboriginal occupation. Site location is also affected by the availability of and/or accessibility to a range of other natural resources including plant and animal foods, stone and ochre resources and rock shelters, as well as by their general proximity to other sites/places of cultural/mythological significance. Consequently, sites tend to be found along permanent and ephemeral water sources, along access or trade routes, or in areas that have good flora/fauna resources and appropriate shelter.

In formulating a predictive model for Aboriginal archaeological site location within any landscape it is also necessary to consider post-depositional influences on Aboriginal material culture. In all but the best preservation conditions very little of the organic material culture remains of ancestral Aboriginal communities survives to the present. Generally, it is the more durable materials such as stone artefacts, stone hearths, shells, and some bones that remain preserved in the current landscape. Even these, however, may not be found in their original depositional context since these may be subject to either (a) the effects of wind and water erosion/transport, both over short- and long-time scales, or (b) the historical impacts associated with the introduction of European farming practices including grazing and cropping, land degradation, and farm related infrastructure. Scarred trees, due to their nature, may survive for up to several hundred years but rarely beyond.

5.5.1 Site types in the region of the Project area

The site types listed in **Table 5-5** are present in the region of the Project area. The likelihood of these sites being present in the Project area is discussed in **Section 5.5.2**.

Table 5-5: Site types recorded in the region of the Project area.

Site type	Site description
Isolated finds	May be indicative of random loss or deliberate discard of a single artefact, the remnant of a now dispersed and disturbed artefact scatter, or an otherwise obscured or subsurface artefact scatter. They may occur anywhere within the landscape but are more likely to occur in topographies where open artefact scatters typically occur.
Open artefact scatters	Artefact scatters are defined as two or more artefacts, not located within a rock shelter, and located no more than 50 m away from any other constituent artefact. This site type may occur almost anywhere that Aboriginal people have travelled and may be associated with hunting and gathering activities, short- or long-term camps, and the manufacture and maintenance of stone tools. Artefact scatters typically consist of surface scatters or sub-surface distributions of flaked stone discarded during the manufacture of tools but may also include other artefactual rock types such as hearth and anvil stones. Less commonly, artefact scatters may include archaeological stratigraphic features such as hearths and artefact concentrations which relate to activity areas. Artefact density can vary considerably between and across individual sites. Small ground exposures revealing low density scatters may be indicative of a background scatter rather than a spatially or temporally distinct artefact assemblage. These sites are classed as 'open', that is, occurring on the land surface unprotected by rock overhangs, and are sometimes referred to as 'open camp sites'. Artefact scatters are most likely to occur on level or low gradient contexts, along the crests of ridgelines and spurs, and elevated areas fringing watercourses or wetlands. Larger sites may be expected in association with permanent water sources. Topographies which afford effective through-access across, and relative to, the surrounding landscape, such as the open basal valley slopes and the valleys of creeks, will tend to contain more and larger sites, mostly camp sites evidenced by open artefact scatters.
Culturally modified trees	Aboriginal scarred trees contain evidence of the removal of bark (and sometimes wood) in the past by Aboriginal people, in the form of a scar. Bark was removed from trees for a wide range of reasons. It was a raw material used in the manufacture of various tools, vessels, and commodities such as string, water containers, roofing for shelters, shields and canoes. Bark was also removed because of gathering food, such as collecting wood boring grubs or creating footholds to climb a tree for possum hunting. Due to the multiplicity of uses and the continuous process of occlusion (or healing) following removal, it is difficult to accurately determine the intended purpose for any example of bark removal. Scarred trees may occur anywhere old growth trees survive. The identification of scars as Aboriginal cultural heritage items can be problematical because some forms of natural trauma and European bark extraction create similar scars. Many remaining scarred trees probably date to the historic period when bark was removed by Aboriginal people for both their own purposes and for roofing on early European houses. Consequently, the distinction between European and Aboriginal scarred trees may not be clear.
Grinding grooves	Grinding grooves are the remnants of ground edge hatchet manufacture and sometimes from food preparation. The site is most likely to occur on flat outcrops of coarse-grained sandstone in the vicinity of water sources, however, grinding grooves have also been recorded on fine-grained granite and quartzite outcrops.

Site type	Site description
Hearths/ovens	Features used by Aboriginal people for the preparation of food and would generally be in the vicinity of available resources, such as water sources to procure fish and shellfish, and on elevated ground to avoid impact from environmental threats.
Burials	Generally found in soft sediments such as aeolian sand, alluvial silts, and rock shelter deposits. In valley floor and plains contexts, burials may occur in locally elevated topographies rather than poorly drained sedimentary contexts. Burials are also known to have occurred on rocky hilltops in some limited areas. Burials are generally only visible where there has been some disturbance of sub-surface sediments or where some erosional process has exposed them.
Bora/Ceremonial sites	Places which have ceremonial or spiritual connections. Ceremonial sites may comprise of natural landscapes or have archaeological material. Bora sites are ceremonial sites which consist of a cleared area and earthen rings.

5.5.2 Landform modelling of archaeological potential

A consideration of the landforms within the Project area enables a prediction regarding the type and distribution of sites to be made (see **Section 4** for details of landforms within the Project area).

In the region, artefact sites and modified trees will generally be recorded on flat or gently undulating landforms, often within 200 m of semi-permanent creeks and drainage lines. Artefact sites recorded along crests or ridgelines are predominantly isolated finds, suggesting that these landforms were not utilised for occupation, but rather, for such activities as resource gathering or transitory routes. In areas of moderately inclined slopes, there is a lower likelihood to identify sites as the topography was less attractive for Aboriginal people for camping activities, especially when at a distance from water, as is the case with the moderate sloping landforms within the Project area.

As a large portion of the Project area consists of gentle slopes and flat plains adjacent to creeks and drainage lines, previous findings indicate that low-density artefact scatters or isolated finds would be the most common site type to be present. Should these site types be present within the Project area, they are likely to be in a secondary context due to the long-term agricultural use of the land. Through agricultural disturbances such as clearing, stock grazing, and cultivation, the soil profile within the Project area has a very low integrity compared to its pre-1788 form. This conclusion is supported by previous studies within the Project area (see **Section 5.5.2**) that also assessed that most sites in the area are within secondary contexts, and when subsurface artefacts are present, they are within the topmost 20 cm of a soil profile where the upper soil layers have been lost. Elevated potential for Aboriginal sites to occur along the drainage line landforms accords with the sensitivity modelling predicted based on the findings of ERM (2010) and EMM (2012, 2013). Designation of ‘priority survey areas’ and ‘secondary survey areas’ informed the sampling strategy of the Project area by OzArk (**Section 6.1**).

5.5.3 Conclusion

Based on knowledge of the environmental contexts of the Project area and a desktop review of the known local and regional archaeological records, the following predictions are made

concerning the probability of landforms within the Project area to contain Aboriginal objects (**Table 5-6**), and what types of sites may be present within the Project area (**Table 5-7**).

Table 5-6: Likelihood of landforms within the Project area to contain Aboriginal objects.

Survey Unit	Landform type	Likelihood to contain Aboriginal objects
1	Drainage	Drainage landforms are an aggrading environment that are impacted by flooding and channel migration. Drainage landforms would have provided resources to encourage occupation and use in the past and previous archaeological studies have demonstrated a strong correlation between site recordings and this landform type. However, it is possible that Aboriginal objects in this landform type are in a secondary context (having been washed downslope), impacted by erosion (that tends to be prevalent around the edge of drainage systems), or potentially obscured by colluvial slope wash.
2	Gentle slopes	Slopes are a degrading landform, especially in the Project area where vegetation removal has accelerated soil loss. Given the gentle gradients of this survey unit, these slopes are still suitable for occupation and often favoured as they are more elevated. However, when distant to reliable water they are less likely to have been subject to long-term repeated occupied.
3	Moderate slopes	Slopes with steeper inclines are generally less suitable for occupation. Aboriginal objects recorded in such landforms are likely to be in a secondary context as a result of natural landform degradation or land use disturbances. The exception is in localised flat benches where occupation may have been possible.
4	Ridges and crests	The extensive study conducted by EMM (2012) demonstrates that Aboriginal sites are less likely to occur in these landforms. Additionally, due to tree clearance and long-term grazing in the Project area, soils in these landforms tend to be thin and degrading. Should Aboriginal objects be recorded in these landforms, they are likely to be surface manifestations and likely displaced from their primary depositional context.

Table 5-7: Likelihood of certain site types being present in the Project area.

Site type	Likelihood of being present in the Project area
Isolated finds	As isolated finds can occur anywhere, particularly within disturbed contexts, it is predicted that this site type could be recorded within the Project area.
Open artefact scatters	Due to the well-watered nature of the Project area, this site type is likely to be recorded, especially as previous studies which intersect the Project area (ERM 2010, EMM 2012 & 2013, EMM 2023) demonstrate that this site type is common along Laheys and Sandy Creeks. A general correlation between landform and the nature of the evidence of past Aboriginal occupation is evident with higher artefact density sites located on elevated landforms adjacent to waterways. It is expected that should artefact scatters be present at a distance to waters, they will be of a lower density. Due to the disturbances within the Project area associated with long-term agricultural use, artefact scatters are likely to be in a secondary context, if present.
Culturally modified trees	Large portions of the Project area have been cleared for agricultural and farming purposes with only small clusters of mature trees remaining scattered throughout the Project area. As such, this site type is predicted to be less common. It is also noted that this site type is less common at a regional level.
Grinding grooves	Outcropping sandstone is likely to be present within the Project area due to the underlying geology (see **Section 4.2**). Therefore, should suitable outcropping sandstone be present, especially in immediate proximity to water, grinding grooves may be recorded. Additionally, multiple grinding grooves have been identified within the Project area and immediate surrounds.
Hearths/ovens	This site type is considered possible in areas where A-Horizon soils are relatively undisturbed. As multiple instances of this site type have been recorded within the Project area and in its immediate surrounds, this site type may be present. The presence of Laheys and Sandy Creeks would have also encouraged occupation at seasonal or repeated capacities which increases the likelihood of this site type. However, given the high levels of disturbance across the Project area the likelihood of identifying this site type in situ is significantly reduced.
Burials	Although it is possible that this site type could be found within the Project area, it is considered a rare site type especially given the disturbance that has occurred within the Project area.
Bora/Ceremonial sites	This site type does not necessarily follow landform predictability and are, overall, a rare site type with a low likelihood of being present and remaining extant. These sites are generally identified through consultation with the RAPs.

5.6 RESEARCH QUESTIONS

Several research questions were applied to guide the survey of the Project area aimed at testing the predictive model (**Section 5.5.3**). These research questions included:

- What changes have occurred to the nature and integrity of the sites recorded over 20–10 years ago?
- Are areas identified as having PAD still considered to have potential to contain subsurface deposits?
- Are there landforms within the development footprint that will require test excavation to understand their archaeological potential?
- How do the raw materials and artefact types recorded within the Project area compare with those recorded in the surrounding region?
- What tasks were Aboriginal people undertaking at the sites?
- Do the findings within the Project area (if any) accord with the regional archaeological context examined in **Section 5.2** and support the predictive model set out in **Section 5.5**?

Responses to these questions, based on the results of the survey, are provided in **Section 6.7.2**.

6 RESULTS OF ABORIGINAL ARCHAEOLOGICAL ASSESSMENT

6.1 SAMPLING STRATEGY AND FIELD METHODS

Standard archaeological field survey and recording methods were employed in this study (Burke and Smith 2004).

Archaeologically sensitivity modelling based on the findings of the ERM (2010) and EMM (2012, 2013) assessments informed the designation of 'priority survey areas' and 'secondary survey areas' within the Project area (**Section 5.3.2**). Due to the number of previously recorded sites in the Project area, greater survey effort was expended on locating the previously recorded sites in the development footprint, assessing their current condition, reassessing their potential to be associated with subsurface deposits, and surveying landforms considered to have greater Aboriginal archaeological potential.

The survey strategy involved a series of pedestrian transects (~15–35 m spacing) within each of the 'priority survey areas', with broader-spaced pedestrian transects and sample survey within the 'secondary survey areas' (**Figure 6-1**).

The survey participants were divided into two teams to maximise coverage of the Project area. Team 1 (T1) included five survey participants and Team 2 (T2) included four survey participants. Transects were overall spaced evenly between the five survey participants for T1 transects and four survey participants for T2 transects, however, each team of participants clustered together to aid ground-truthing of the previously recorded AHIMS sites.

Pedestrian coverage across the survey is shown on **Figure 6-2** and **Figure 6-3**. These figures only show the tracks of one OzArk archaeologist, however, as there were up to five survey participants for each team, the actual survey coverage was greater than is indicated in the figures.

Figure 6-2 shows the survey transects in relation to the mapped landform types and **Figure 6-3** shows the survey transects in relation to the Project area.

As shown on **Figure 5-7**, previous archaeological test excavation concentrated particularly on the northeast bank of Laheys Creek. Owing to the concentrated coverage of this particular area through surface (ERM 2010 and EMM 2010) and subsurface (EMM 2012) testing previously undertaken, further survey in this area was not warranted.

Figure 6-1: Location of primary and secondary survey areas.

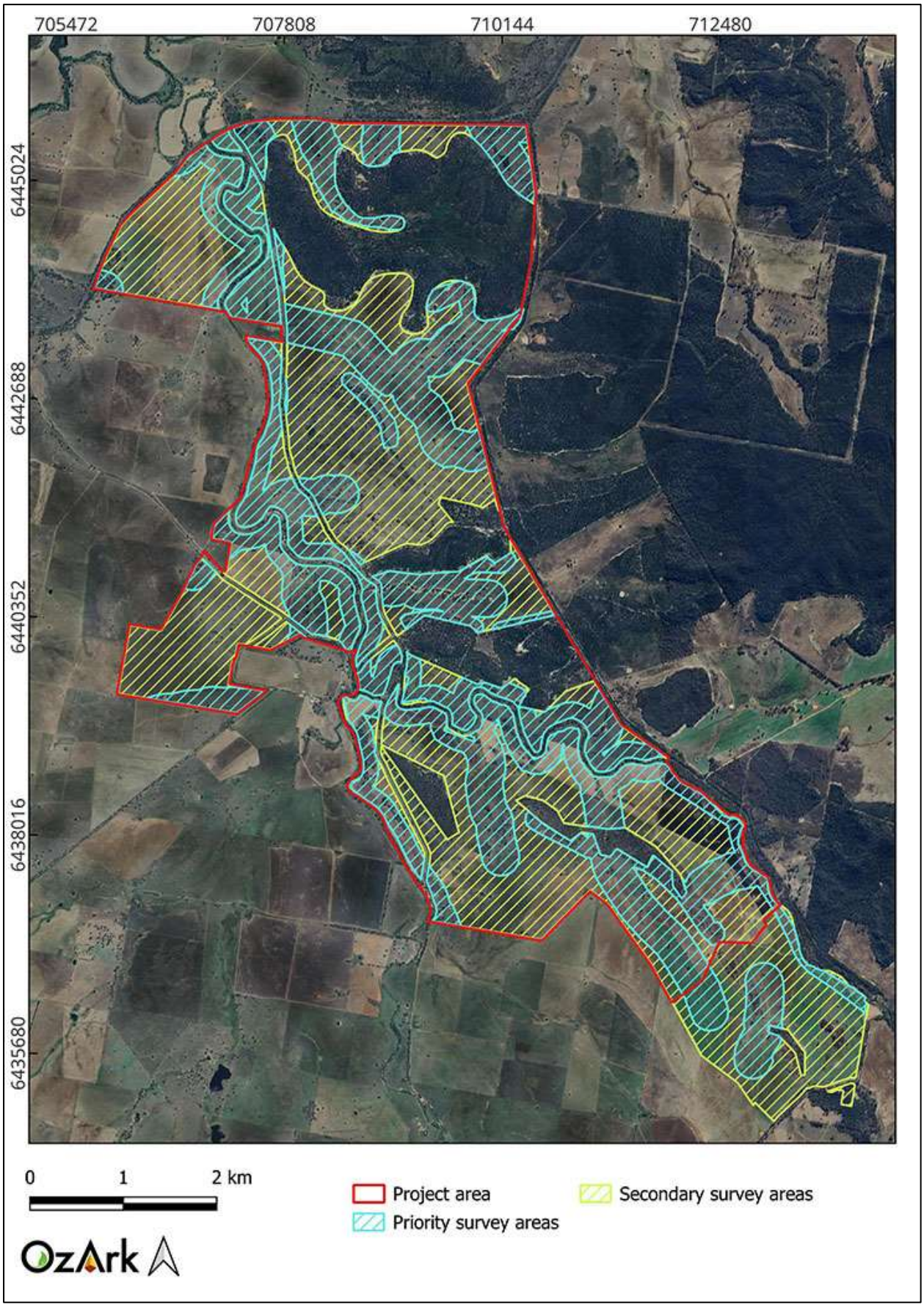


Figure 6-2: Survey coverage in relation to landforms.

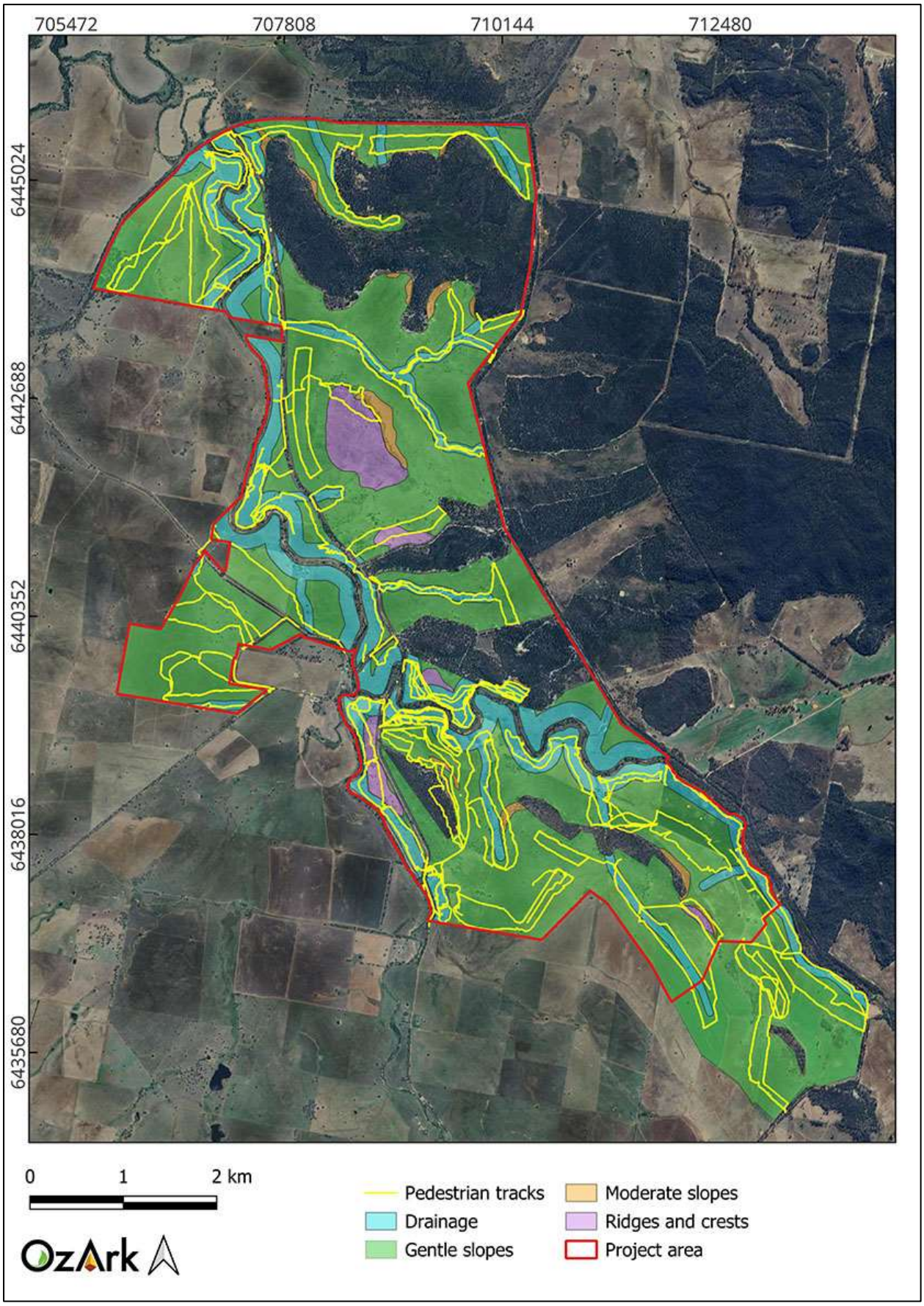
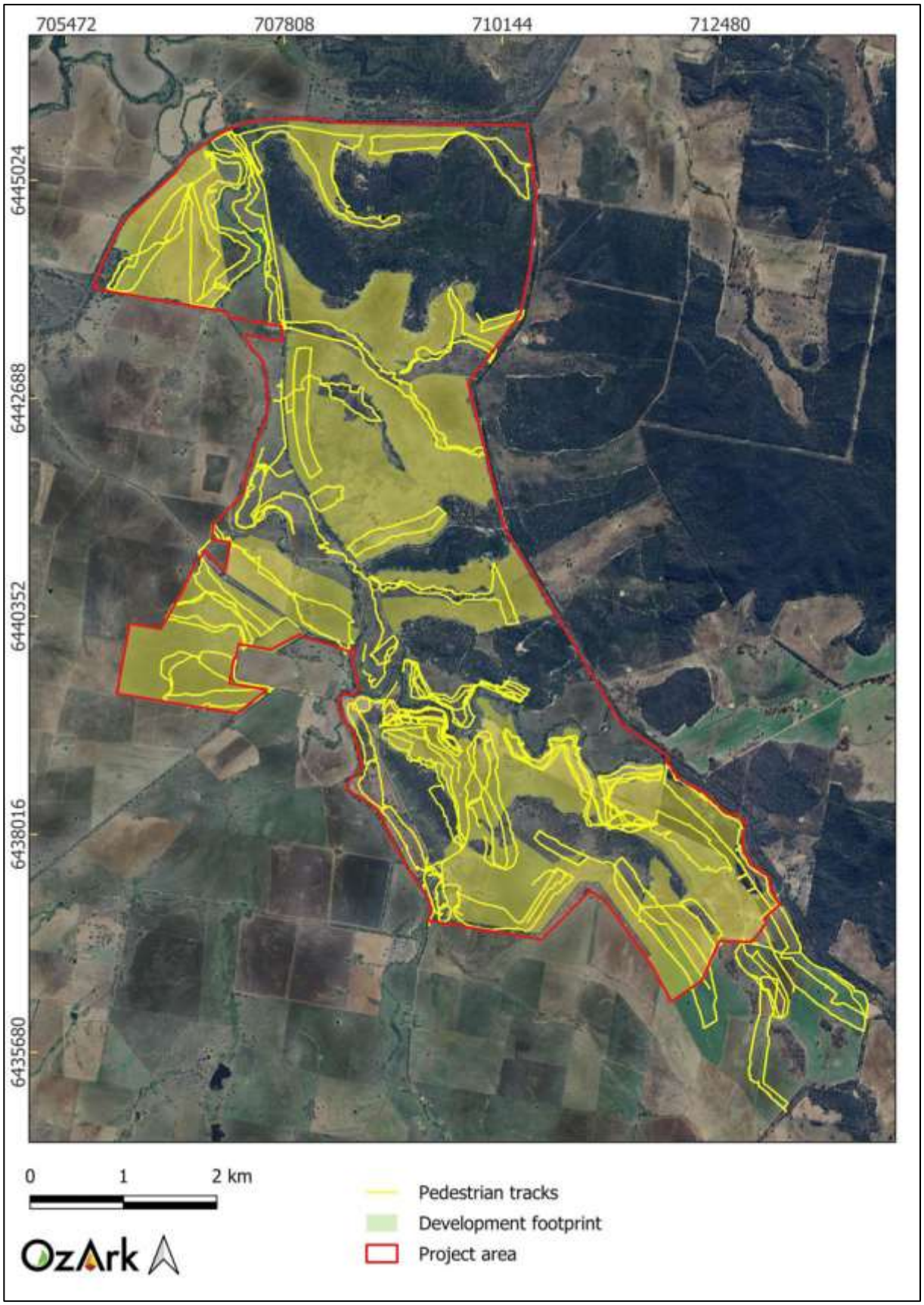


Figure 6-3: Survey coverage in relation to the disturbance footprint.



6.2 PROJECT CONSTRAINTS

Survey coverage was impeded by dense grass cover limiting visibility as well as heavily waterlogged soils rendering some areas inaccessible. Additional field survey was undertaken on 11 and 12 August 2022 to ensure adequate sampling of 'secondary survey areas' landforms was completed.

6.3 EFFECTIVE SURVEY COVERAGE

Two of the key factors influencing the effectiveness of archaeological survey are ground surface visibility (GSV) and ground surface exposure (GSE). These factors are quantified to ensure that the survey data provides adequate evidence for the evaluation of the archaeological materials across the landscape. For the purposes of this assessment, these terms are used in accordance with the definitions provided in the Code of Practice.

GSV is defined as:

> *… the amount of bare ground (or visibility) on the exposures which might reveal artefacts or other archaeological materials. It is important to note that visibility, on its own, is not a reliable indicator of the detectability of buried archaeological material. Things like vegetation, plant or leaf litter, loose sand, stone ground or introduced materials will affect the visibility. Put another way, visibility refers to 'what conceals'* (DECCW 2010: 39).

GSE is defined as:

> *… different to visibility because it estimates the area with a likelihood of revealing buried artefacts or deposits rather than just being an observation of the amount of bare ground. It is the percentage of land for which erosion and exposure was sufficient to reveal archaeological evidence on the surface of the ground. Put another way, exposure refers to 'what reveals'* (DECCW 2010: 37).

Table 6-1 calculates the effective survey coverage within the development footprint. In general, **Table 6-1** presents an approximation of the amount of ground surface able to be seen at any location within specific landform units. Exposures in these landforms were generally confined to the edges of drainage lines or gullies with high GSE afforded in the erosion scalds associated with the drainage landforms. However, some swampy areas limited exposure along the banks of Laheys Creek, and consistent grass cover lowered GSV and GSE within the gentle and moderate slope landforms. Crest landforms were still largely dominated by woodland vegetation limiting GSV except within eroded exposures surrounding the trees.

Table 6-1: Effective survey coverage within the surveyed area.

Survey Unit	Landform	Survey Unit Area (sq m)	Visibility %	Exposure %	Effective Coverage Area (sq m)	Effective Coverage %
1	Drainage	5,550,000	60	30	999,000	18%
2	Gentle slopes	15,230,000	40	20	1,218,400	8%
3	Moderate slopes	420,000	40	20	33,600	8%
4	Crests and ridges	670,000	40	10	26,800	4%

Table 6-2 demonstrates that although survey efficacy within Survey Units 1 and 2 was moderate–low at 18 and 8% respectively, this did not hamper the recording of sites; generally, because the available exposures were located in the most archaeologically sensitive areas (i.e. along drainage gullies and on elevated landforms above waterways).

Some artefact scatters extended between two landform units. These sites have been included below within the landform in which most of the site extent was located.

Table 6-2: Effective survey coverage and incidences of site recording.

Landform	Landform area (sq m)	Area Effectively Surveyed	% of Landform Effectively Surveyed	Number of Sites	Number of Artefacts or Features
1	Drainage	999,000	18%	16	52
2	Gentle slopes	1,218,400	8%	14	29
3	Moderate slopes	33,600	8%	0	0
4	Crests and ridges	26,800	4%	0	0

6.4 ABORIGINAL SITES RECORDED

Table 6-3 summarises the Aboriginal cultural heritage sites recorded during the survey. The locations of newly recorded sites are shown on **Figure 6-4**. Further details on each site are presented in **Sections 6.4.1** to **6.4.2** . Please note that CSF IF02 and CSF OS15 are no longer located within the Project area as it has been reduced since these sites were recorded (see **Section 1.4**).

Table 6-3: Aboriginal cultural heritage sites recorded during the survey.

AHIMS ID	Site name	Site type	Coordinates (GDA 2020 MGA Zone 55) East	Coordinates (GDA 2020 MGA Zone 55) North	SU
36-2-0535	CSF IF01	Isolated find	707480	6441401	1
36-2-0814	CSF IF02	Isolated find with PAD	713669	6436218	2
36-2-0536	CSF IF03	Isolated find	707391	6441061	2
36-2-0537	CSF IF04	Isolated find	709574	6438965	1
36-2-0538	CSF IF05	Isolated find	710183	6439120	1
36-2-0539	CSF IF06	Isolated find	710386	6438884	1
36-2-0815	CSF IF07	Isolated find with PAD	710928	6438875	1

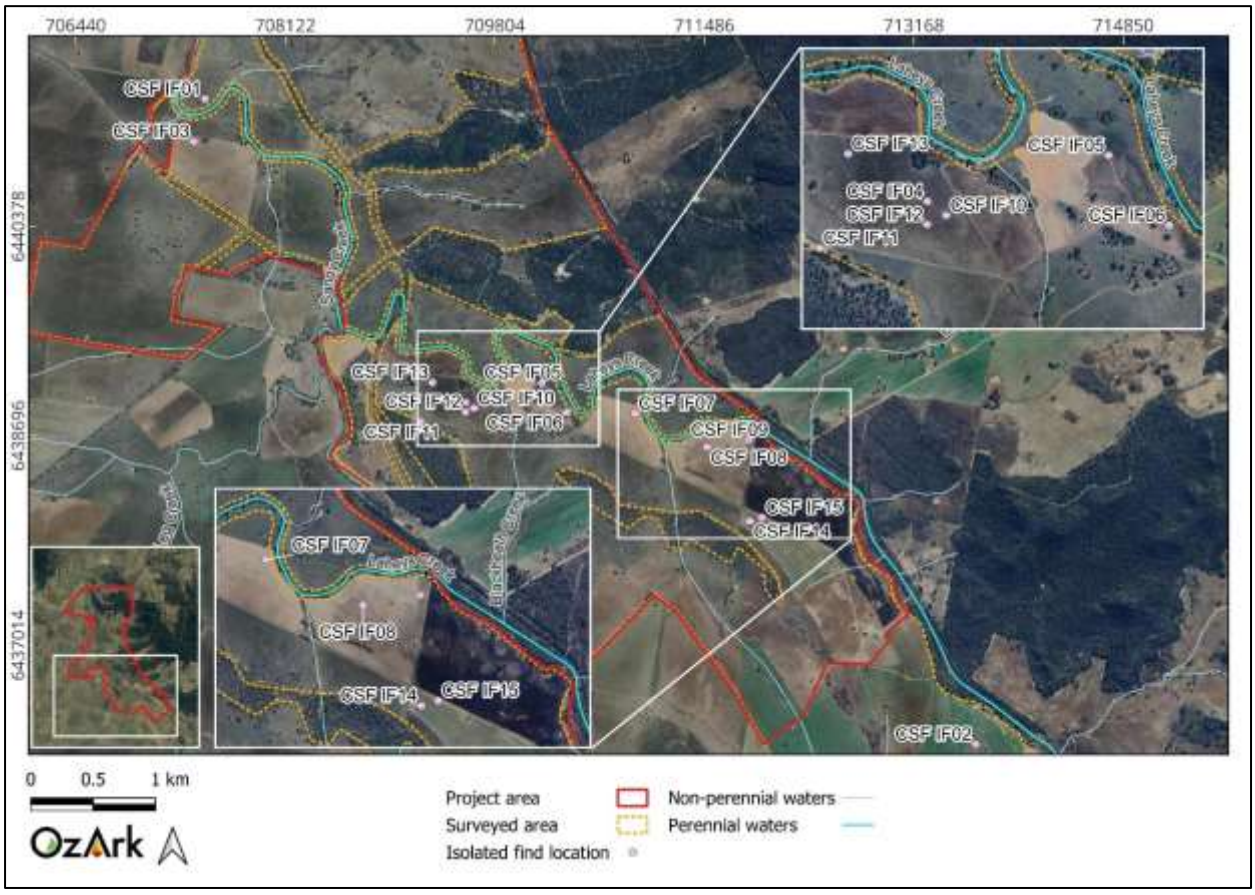
AHIMS ID	Site name	Site type	Coordinates (GDA 2020 MGA Zone 55) East	Coordinates (GDA 2020 MGA Zone 55) North	SU
36-2-0540	CSF IF08	Isolated find	711505	6438606	1
36-2-0541	CSF IF09	Isolated find	711844	6438665	1
36-2-0542	CSF IF10	Isolated find	709636	6438918	2
36-2-0543	CSF IF11	Isolated find	709211	6438808	2
36-2-0544	CSF IF12	Isolated find	709573	6438887	2
36-2-0545	CSF IF13	Isolated find	709306	6439125	2
36-2-0547	CSF IF14	Isolated find	711851	6438010	2
36-2-0546	CSF IF15	Isolated find	711948	6438040	2
36-2-0548	CSF OS1	Artefact scatter with PAD	707596	6441958	1
36-2-0521	CSF OS2	Artefact scatter	709776	6445528	2
36-2-0522	CSF OS3	Artefact scatter with PAD	708287	6441035	1
36-2-0534	CSF OS4	Artefact scatter with PAD	708476	6440932	1
36-2-0523	CSF OS5	Artefact scatter	707547	6440988	2
36-2-0524	CSF OS6	Artefact scatter with PAD	707205	6441177	1
36-2-0525	CSF OS7	Artefact scatter with PAD	708734	6438802	1
36-2-0526	CSF OS8	Artefact scatter with PAD	709547	6439254	1
36-2-0527	CSF OS9	Artefact scatter with PAD	709971	6439065	1
36-2-0528	CSF OS10	Artefact scatter with PAD	710261	6439477	1
36-2-0529	CSF OS11	Artefact scatter	711677	6438589	1
36-2-0530	CSF OS12	Artefact scatter	709216	6438799	2
36-2-0531	CSF OS13	Artefact scatter	708894	6439110	2
36-2-0532	CSF OS14	Artefact scatter	709662	6437390	2
36-2-0533	CSF OS15	Artefact scatter	712825	6436695	2

Figure 6-4: Location of newly recorded sites.

6.4.1 Isolated finds

A total of 15 isolated finds were identified within the Project area. Summaries of these sites are provided below. The locations of the isolated finds are shown on **Figure 6-5**.

Figure 6-5: Location of isolated finds recorded during the survey.



CSF IF01

Site type: Isolated find

GPS coordinates: GDA 2020 Zone 55 E 707480 N 6441401

Location of site: 4.1 km south along Sandy Creek Road from the intersection of the Golden Highway and Sandy Creek Road and 665 m west of Sandy Creek Road on the eastern bank of Sandy Creek.

Description of site: Site consists of an isolated quartz flake at a tertiary stage of reduction (**Table 6-4** and **Figure 6-6**). The artefact was identified within a large, grazed paddock extending around a large bend of Sandy Creek. GSE was low at 10% owing to consistent grass cover (**Figure 6-6**). There is no subsurface potential at CSF IF01 as it is located on a broad, undifferentiated landform which has been impacted by grazing.

Table 6-4: CSF IF01 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flaked piece	Quartz	Complete	Tertiary	40 x 3 x 12

Figure 6-6: CSF IF01.

1. Close-up of quartz flaked piece, CSF IF01.

2. View south towards Sandy Creek (tree line in background), recorded location of CSF IF01 at base of the pin flag (circled).

CSF IF02

Site type: Isolated find with PAD

GPS coordinates: GDA 2020 Zone 55 E 713669 N 6436218

Location of site: 10 km south along Spring Ridge Road from the intersection of the Golden Highway and Spring Ridge Road and 360 m southwest of Spring Ridge Road on the western side of Laheys Creek.

Description of site: CSF IF-02 is an isolated mudstone flake at a tertiary stage of reduction (**Table 6-5** and **Figure 6-7**). The site is in a flat, ploughed, and cleared paddock. Soils consist of brown, sandy soils. The GSE at the time of recording was moderate (50%) (**Figure 6-7**). The site is not considered to be associated with intact subsurface deposits as it is located on a broad, undifferentiated landform which has been impacted by cropping. However, the site is located within the extent of PAD 33 recorded by EMM concurrently to the OzArk survey (see **Section 6.5**).

Table 6-5: CSF IF02 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Mudstone	Complete	Tertiary	11 x 16 x 2

Figure 6-7: CSF IF02.

1. View east to CSF IF02 at the flag location (near the bag on the ground).

2. The recorded artefact (ventral surface) at CSF IF02.

CSF IF03

Site type: Isolated find

GPS coordinates: GDA 2020 Zone 55 E 707391 N 6441061

Location of site: 3.7 km along Sweeneys Lane from the intersection of the Golden Highway and Sweeneys Lane and 354 m northeast towards Sandy Creek.

Description of site: CSF IF03 consists of the distal portion of a retouched, quartz flake (**Table 6-6**). The site is situated within a yellow-brown sandy soil exposure with gravel inclusions along an eroded track transecting a cropped field. GSV was approximately 30% (**Figure 6-8**). There is no subsurface potential at CSF IF03 as it is located on a broad, undifferentiated landform which has been impacted by cropping.

Table 6-6: CSF IF03 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Retouched flake	Quartz	Distal fragment	Tertiary	31 x 18 x 3

Figure 6-8: CSF IF03.

1. Close-up of quartz flake at CSF IF03.

2. View north towards Sandy Creek, recorded location CSF IF03 in middle of an eroded linear track (circled).

CSF IF04

Site type: Isolated find

GPS coordinates: GDA 2020 Zone 55 E 709574 N 6438965

Location of site: 1.3 km south of Sandy Creek Road from the intersection of Sandy Creek Road and Sweeneys Lane and 787 m east of Sandy Creek Road.

Description of site: CSF IF04 consists of the distal fragment of a basalt flake situated in a broad paddock located on the southern side of Laheys Creek (**Table 6-7**). GSV was 15% with low but consistent grass cover across the entirety of the paddock (**Figure 6-9**). There is no subsurface potential at CSF IF04 as it is located on a broad, undifferentiated landform which has been impacted by cropping.

Table 6-7: CSF IF04 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Basalt	Distal fragment	Tertiary	40 x 25 x 3

Figure 6-9: CSF IF04.

1. Close-up of basalt flake recorded at CSF IF04.

2. View northeast. The recorded location of CSF IF04 is where the person stands.

CSF IF05

Site type: Isolated find

GPS coordinates: GDA 2020 Zone 55 E 710183 N 6439120

Location of site: 1.2 km south of Sandy Creek Road from the intersection of Sandy Creek Road and Sweeneys Lane and 1.4 km east of Sandy Creek Road.

Description of site: CSF IF05 consists of an isolated quartz flake at a tertiary stage of reduction located in a broad paddock on the southern side of Laheys Creek (**Table 6-8**). GSV was 15% with low but consistent grass cover across the entirety of the paddock (**Figure 6-10**). There is no subsurface potential at CSF IF05 as it is located on a broad, undifferentiated landform which has been impacted by cropping.

Table 6-8: CSF IF05 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Quartz	Complete	Tertiary	12 x 18 x 3

Figure 6-10: CSF IF05.

1. Close-up of quartz flake recorded as CSF IF05.

2. View northeast. The recorded location of CSF IF05 is where the person stands.

CSF IF06

Site type: Isolated find

GPS coordinates: GDA 2020 Zone 55 E 710386 N 6438884

Location of site: 1.3 km south of Sandy Creek Road from the intersection of Sandy Creek Road and Sweeneys Lane and 1.6 km east of Sandy Creek Road.

Description of site: The site consists of a retouched quartz flake (**Table 6-9**). CSF IF06 is situated north of a small grove of trees in a broad paddock located on the southern side of Laheys Creek. GSV was 15% with low but consistent grass cover across the entirety of the paddock (**Figure 6-11**). Retouch flaking was evident along the lateral margins of the distal end. There is no subsurface potential at CSF IF06 as it is located on a broad, undifferentiated landform which has been impacted by cropping.

Table 6-9: CSF IF06 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Retouched flake	Quartz	Complete	Tertiary	21 x 10 x 3

Figure 6-11: CSF IF06.

1. Close-up of retouched quartz flake recorded at CSF IF06.

2. View northwest. The person stands at the recorded location of CSF IF06.

CSF IF07

Site type: Isolated find with PAD

GPS coordinates: GDA 2020 Zone 55 E 710928 N 6438875

Location of site: 1.3 km south of Sandy Creek Road from the intersection of Sandy Creek Road and Sweeneys Lane and 2.1 km east of Sandy Creek Road.

Description of site: CSF IF07 is a multidirectional chert core with eight identifiable flake scars (**Table 6-10**). The site is situated in a broad paddock located on the southern side of Laheys Creek. GSE was 10% with low but consistent grass cover across the entirety of the paddock (**Figure 6-12**). Sandy soils and the partially eroded nature of the artefact exposed from the topsoil suggest the potential for subsurface deposits to occur.

CSF IF07 is located within an area of PAD 27 which also extends around previously recorded sites 36-2-0187 (a hearth) and 36-2-0188 (a hearth). PAD 27 is further discussed in **Section 6.5**.

Table 6-10: CSF IF07 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Core	Chert	Complete	40% cortex	42 x 23 x 18

Figure 6-12: CSF IF07.

1. Close-up of volcanic multidirectional core recorded as CSF IF07.

2. View north. Person stands at the recorded location of CSF IF07.

CSF IF08

Site type: Isolated find

GPS coordinates: GDA 2020 Zone 55 E 711505 N 6438606

Location of site: 3.1 km south along Spring Ridge Road from the intersection of Spring Ridge Road and Danabar Road and 640 m west of Spring Ridge Road on the southern side of Laheys Creek.

Description of site: CSF IF08 consists of an isolated quartz flake (**Table 6-11**). The site is situated in a recently cropped paddock located on the southern side of Laheys Creek. GSE was good at 80% and soils were characterised by dark brown alluvial sediment (**Figure 6-13**). There is no subsurface potential at CSF IF08 as it is located on a broad, undifferentiated landform which has been impacted by cropping.

Table 6-11: CSF IF08 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Quartz	Complete	Tertiary	30 x 20 x 3

Figure 6-13: CSF IF08.

1. Close-up of quartz flake recorded as CSF IF08.

2. View west towards the recorded location of CSF IF08 (circled).

CSF IF09

Site type: Isolated find

GPS coordinates: GDA 2020 Zone 55 E 711844 N 6438665

Location of site: 3.1 km south along Spring Ridge Road from the intersection of Spring Ridge Road and Danabar Road and 278 m west of Spring Ridge Road on the southern side of Laheys Creek.

Description of site: CSF IF09 is a retouched quartz flake located in a previously cropped paddock located on the southern side of Laheys Creek (**Table 6-12**). GSE was low at 5% and soils were characterised by dark brown alluvial sediment (**Figure 6-14**). There is no subsurface potential at CSF IF09 as it is located on a broad, undifferentiated landform which has been impacted by cropping.

Table 6-12: CSF IF09 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Retouched flake	Quartz	Complete	Tertiary	14 x 10 x 3

Figure 6-14: CSF IF09.

1. Close-up of the retouched quartz flake, CSF IF9.

2. View north towards Laheys Creek, looking across CSF IF9 (circled).

CSF IF10

Site type: Isolated find

GPS coordinates: GDA 2020 Zone 55 E 709636N 6438918

Location of site: 1.3 km south of Sandy Creek Road from the intersection of Sandy Creek Road and Sweeneys Lane and 824 m east of Sandy Creek Road.

Description of site: CSF IF10 is a unifacial quartz core with six discernible flake scars. The site is located within a grassed paddock on the southern side of Laheys Creek (**Table 6-13**). GSE was low at 5% and soils were characterised by dark brown alluvial sediment (**Figure 6-15**). There is no subsurface potential at CSF IF10 as it is located on a broad, undifferentiated landform which has been impacted by cropping.

Table 6-13: CSF IF10 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Unidirectional core	Quartz	Complete	N/A	22 x 11 x 6

Figure 6-15: CSF IF10.

1. Close-up of the quartz unifacial core, CSF IF10.

2. Person marks the recorded location of CSF IF10.

CSF IF11

Site type: Isolated find

GPS coordinates: GDA 2020 Zone 55 E 709211 N 6438808

Location of site: 1.5 km south of Sandy Creek Road from the intersection of Sandy Creek Road and Sweeneys Lane and 420 m east of Sandy Creek Road.

Description of site: CSF IF11 is a volcanic core with four discernible flake scars. Located approximately 50 m east of a fence, within a small exposure within a grassed paddock on the southern side of Laheys Creek (**Table 6-14**). GSE was low at 15% and soils were characterised by dark brown alluvial sediment (**Figure 6-16**). There is no subsurface potential at CSF IF11 as it is located on a broad, undifferentiated landform which has been impacted by cropping.

Table 6-14: CSF IF11 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Core	Volcanic	Complete	20% cortex	23 x 19 x 5

Figure 6-16: CSF IF11.

1. Close-up of volcanic core, CSF IF11.

2. Bag marks the recorded location of CSF IF11.

CSF IF12

Site type: Isolated find

GPS coordinates: GDA 2020 Zone 55 E 709573 N 6438887

Location of site: 1.25 km south of Sandy Creek Road from the intersection of Sandy Creek Road and Sweeneys Lane and 764 m east of Sandy Creek Road.

Description of site: CSF IF12 is a volcanic hammerstone with pecking evident along one surface and abrasion/percussion marks at both ends. The site is located within a grassed paddock on the southern side of Laheys Creek (**Table 6-15**). GSE was low at 5% and soils were characterised by dark brown, alluvial sediment (**Figure 6-17**). There is no subsurface potential at CSF IF12 as it is located on a broad, undifferentiated landform which has been impacted by cropping.

Table 6-15: CSF IF12 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Hammerstone	Volcanic	Complete	N/A	78 x 67 x 11

Figure 6-17: CSF IF12.

1. Close-up pecking is evident on one face of the volcanic hammerstone, CSF IF12.

2. Bag marks the recorded location of CSF IF12.

CSF IF13

Site type: Isolated find

GPS coordinates: GDA 2020 Zone 55 E 709306 N 6439125

Location of site: 1.3 km south of Sandy Creek Road from the intersection of Sandy Creek Road and Sweeneys Lane and 470 m east of Sandy Creek Road.

Description of site: CSF IF13 is a quartz flake. The site is located within a grassed paddock on the southern side of Laheys Creek, 30 m from a fence line (**Table 6-16**). GSE was low at 5% and soils were characterised by dark brown, alluvial sediment (**Figure 6-18**). There is no subsurface potential at CSF IF13 as it is located on a broad, undifferentiated landform which has been impacted by cropping.

Table 6-16: CSF IF13 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Quartz	Complete	Primary	9 x 7 x 2

Figure 6-18: CSF IF13.

1. Quartz flake, CSF IF13.

2. Person marks the recorded location of CSF IF13.

CSF IF14

Site type: Isolated find

GPS coordinates: GDA 2020 Zone 55 E 711851 N 6438010

Location of site: 3.75 km south along Spring Ridge Road from the intersection of Spring Ridge Road and Danabar Road and 970 m west of Spring Ridge Road on the southern side of Laheys Creek.

Description of site: CSF IF14 is a volcanic flake. The site is located within a grassed paddock on the southern side of Laheys Creek (**Table 6-17**). GSE was low at 10% and soils were characterised by dark brown, alluvial sediment (**Figure 6-19**). There is low subsurface potential at CSF IF14 owing to the eroded nature of the topsoil and undifferentiated landform.

Table 6-17: CSF IF14 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Volcanic	Complete	Tertiary	29 x 11 x 5

Figure 6-19: CSF IF14.

1. Close-up of volcanic flake, CSF IF14.

2. Bag marks recorded the location of CSF IF14.

CSF IF15

Site type: Isolated find

GPS coordinates: GDA 2020 Zone 55 E 711948N 6438040

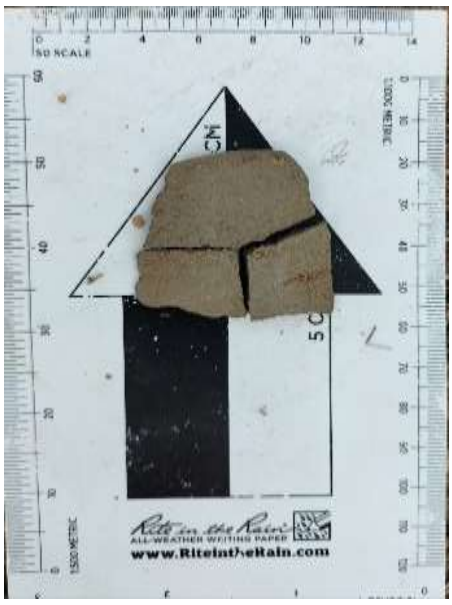
Location of site: 3.75 km south along Spring Ridge Road from the intersection of Spring Ridge Road and Danabar Road and 885 m west of Spring Ridge Road on the southern side of Laheys Creek.

Description of site: CSF IF15 is a basalt flake which has broken into three pieces. The site is located within the middle of a dirt access track, approximately 2 m from a fence line, on the southern side of Laheys Creek (**Table 6-18**). GSV was high at 80% and soils were characterised by light brown, sandy sediment (**Figure 6-20**). There is no subsurface potential at CSF IF15 as it is located on a broad, undifferentiated landform which has been impacted by cropping and the site is located along a track where the topsoil is disturbed.

Table 6-18: CSF IF15 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Basalt	Broken into three pieces (proximal)	Tertiary	21 x 15 x 3

Figure 6-20: CSF IF15.



1. Close-up of broken basalt proximal flake, CSF IF15.

2. Bag marks the recorded location of CSF IF15.

6.4.2 Artefact scatters

A total of 15 artefact scatters were identified within the Project area. Summaries of these sites are provided below, and their locations are shown on **Figure 6-21** to **Figure 6-23**.

Figure 6-21: Location and extents of the newly recorded artefact scatters (1).

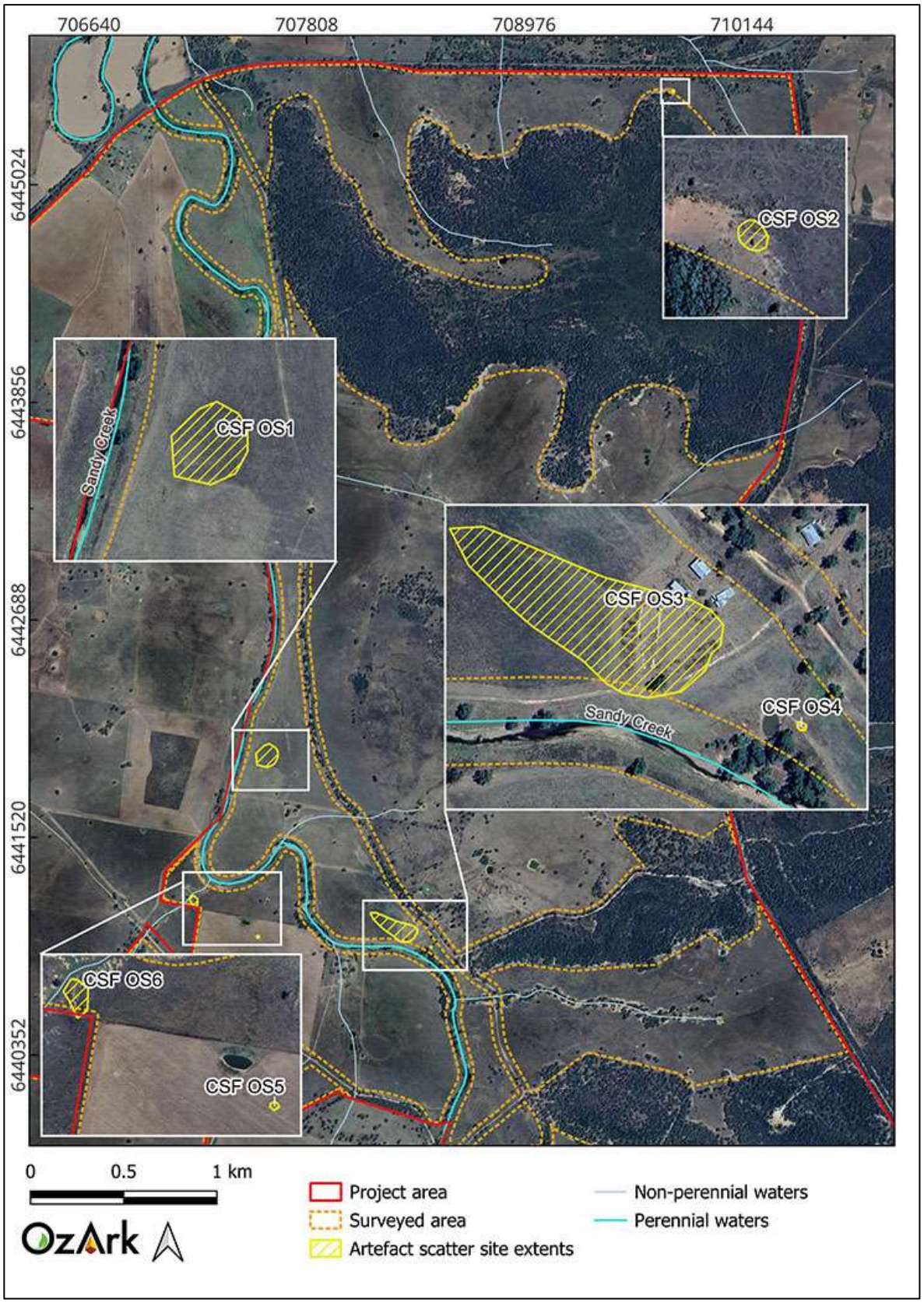


Figure 6-22: Location and extents of the newly recorded artefact scatters (2).

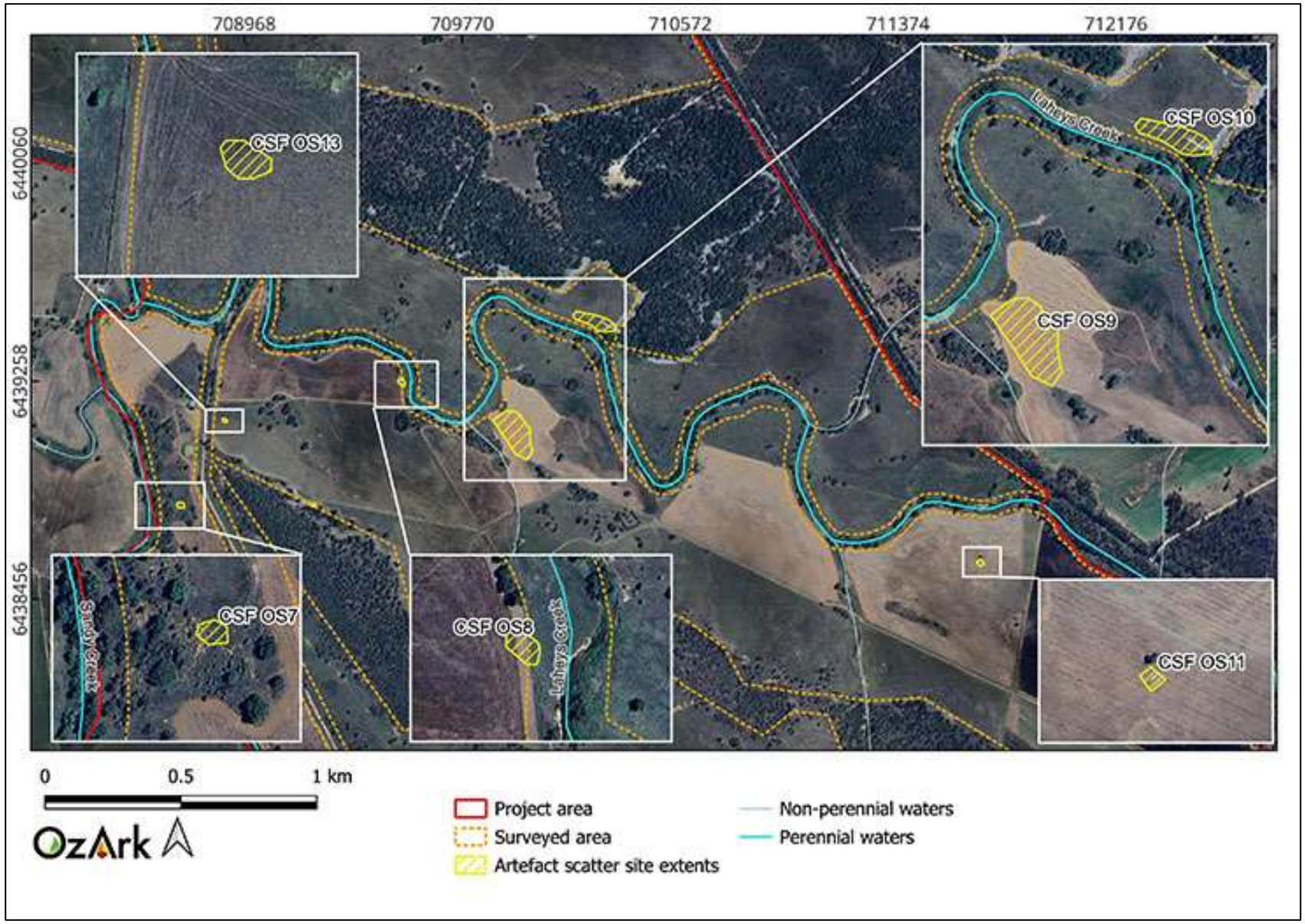
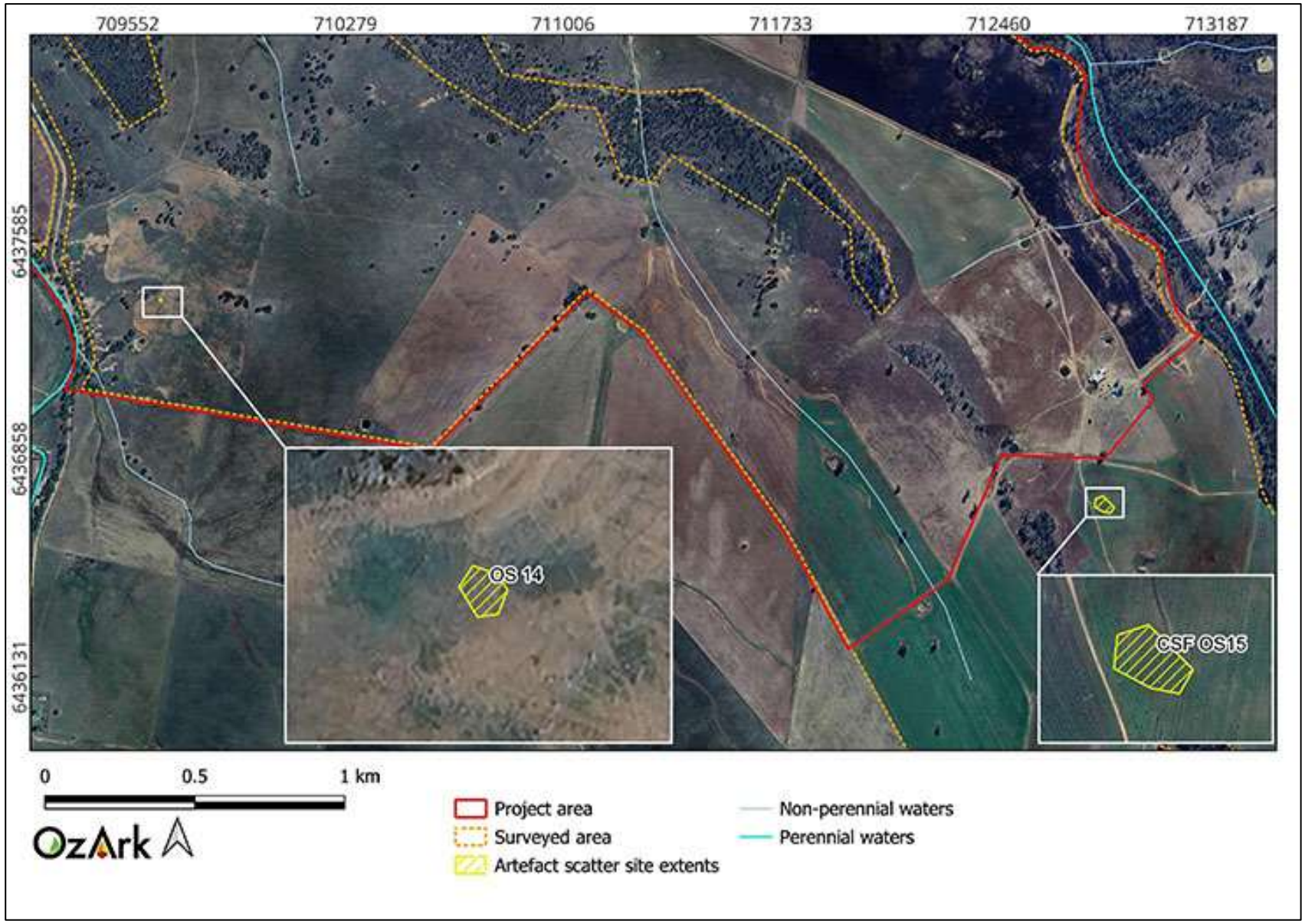


Figure 6-23: Location and extents of the newly recorded artefact scatters (3).



CSF OS1

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 707596 N 6441958

Location of site: 3.8 km south along Sandy Creek Road from the intersection of the Golden Highway and Sandy Creek Road and 220 m west of Sandy Creek Road on the eastern bank of Sandy Creek.

Description of site: This site consists of four quartz flakes and one volcanic multidirectional core located 125 m east of Sandy Creek covering an area of 170 x 120 m (**Table 6-19**). The artefacts are in a light brown, sandy soil deposit in a broad grassed paddock with GSE of less than 20%. The surrounding landform was a predominantly flat paddock, however, one of the quartz flakes was identified as partially eroded from the topsoil indicating there may be subsurface deposits associated with this artefact scatter (**Figure 6-24**). The associated PAD (PAD 7) is further discussed in **Section 6.5**.

Table 6-19: CSF OS1 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Core	Volcanic	Complete	Tertiary	20 x 27 x 10
Flake	Quartz	Complete	Tertiary	20 x 19 x 6
Flake	Quartz	Complete	Tertiary	8 x 20 x 6
Flake	Quartz	Complete	Tertiary	20 x 8 x 4
Flake	Quartz	Complete	Tertiary	20 x 8 x 4

Figure 6-24: CSF OS1.

1. Selection of artefacts from CSF OS1 including a volcanic core and three quartz flakes.

2. View west towards CSF 0S1 where people are standing.

CSF OS2

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 709776 N 6445528

Location of site: 2.5 km east from the intersection of Sandy Creek Road and the Golden Highway and 300 m south of Flyblowers Creek.

Description of site: CSF OS2 is an artefact scatter consisting of two artefacts, a fine-grained siliceous (FGS) flake and a volcanic flake. The site is located on a mid-slope landform and has an extent of 12 x 10 m (**Table 6-20** and **Figure 6-25**). Both artefacts are at a tertiary stage of reduction. The site is located along the edge of regrowth vegetation, within a large area of exposure with many rocks on the surface. Soils consist of light brown, sandy soils. GSE was moderate at 60% (**Figure 6-25**).

CSF OS2 is not considered to be associated with subsurface archaeological deposits as the site has been heavily impacted by erosion.

Table 6-20: CSF OS2 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	FGS	Complete	Tertiary	26 x 31 x 5
Flake	Volcanic	Complete	Tertiary	51 x 34 x 8

Figure 6-25: CSF OS2.

1. View south to CSF OS2 showing the slope landform.

2. View west showing the stony surface at CSF OS2.

	
3. The recorded FGS flake (ventral surface) from CSF OS2.	4. The recorded volcanic flake (ventral surface) from CSF OS2.

CSF OS3

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 708287 N 6441035

Location of site: 4.7 km south along Sandy Creek Road from the intersection of the Golden Highway and Sandy Creek Road and 85 m west of Sandy Creek Road on the eastern bank of Sandy Creek.

Description of site: This site consists of six concentrations of surface artefacts spanning an area of 250 m x 70 m. Artefacts include two cores (basalt and IMT), six quartz flakes, and one silcrete flake. Most of the surface expressions of the scatter extend south across a large paddock extending north from Sandy Creek, however, a high-density surface concentration with several partially eroded materials is centred around a bunded, disused storage/silo area to the southwest of old grain silos and associated buildings (**Figure 6-26**). Some of the artefacts are eroded from the topsoil within the area indicating there may be subsurface deposits associated with this artefact scatter. The associated PAD (PAD 11) is further discussed in **Section 6.5**.

Figure 6-26: CSF OS3.

1. Close-up of multidirectional basalt core, part of CSF OS3.

2. Close-up of IMT flake, part of CSF OS3.

3. View west towards the creek along the northern perimeter of the bunded storage area of the disused storage area associated with the southern end of CSF OS3.

4. View west towards the Sandy Creek along the southern perimeter of the bunded storage area of the disused storage area associated with the southern end of CSF OS3.

CSF OS4

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 708476 N 6440932

Location of site: 4.9 km south along Sandy Creek Road from the intersection of the Golden Highway and Sandy Creek Road and 66 m west of Sandy Creek Road on the eastern bank of Sandy Creek,.

Description of site: This site consists of a small scatter of seven artefacts located adjacent to a small dam along the eastern bank of Sandy Creek covering an area of 9 x 7 m. Quartz is the dominate material at the site with only a single example of basalt present. Most artefacts were at a tertiary stage of reduction, with a single quartz-flaked piece retaining some cortex (**Table 6-21**). GSE was high at approximately 80% along the light-yellow sandy soils of the track that extends along the eastern side of the dam (**Figure 6-27**). The eroded nature of some of the artefacts from the topsoil suggests there may be subsurface deposits associated with the artefact scatter. The associated PAD (PAD 11) is further discussed in **Section 6.5**.

Table 6-21: CSF OS4 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Quartz	Complete	Tertiary	13 x 10 x 1
Flake	Quartz	Proximal fragment	Tertiary	8 x 11 x 2
Flake	Basalt	Distal fragment	Tertiary	7 x 12 x 1
Flake	Quartz	Complete	Tertiary	23 x 13 x 2
Flake	Quartz	Distal fragment	Tertiary	20 x 22 x 3
Flake	Quartz	Distal fragment	Tertiary	34 x 20 x 3
Flaked piece	Quartz	Distal fragment	Secondary	36 x 34 x 4

Figure 6-27: CSF OS4.

1. Artefacts recorded as part of CSF OS4.

2. View northwest. Flag shows the recorded location of some of the artefacts recorded as CSF OS4.

CSF OS5

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 707547 N 6440988

Location of site: 3.9 km east along Sweeneys Lane from the intersection of the Golden Highway and Sweeneys Lane and 410 m northeast towards Sandy Creek.

Description of site: The site consists of a small scatter of two artefacts located 70 m southeast of a small dam along the southern bank of Sandy Creek. The site extent is 16 x 12 m. The artefacts include a large volcanic proximal flake fragment and a small quartz flake, both at a tertiary stage of reduction (**Table 6-22**). GSE was limited at approximately 20% with greater visibility afforded along the light sandy brown soils between the furrows of the cropped paddock (**Figure 6-28**).

CSF OS5 is not considered to be associated with subsurface archaeological deposits owing to the eroded nature of surface materials partially exposed from the topsoil.

Table 6-22: CSF OS5 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Volcanic	Proximal fragment	Tertiary	51 x 32 x 3
Flake	Quartz	Complete	Tertiary	32 x 19 x 1

Figure 6-28: CSF OS5.

1. Volcanic and quartz flakes recorded as CSF OS5.

2. View northwest towards the dam, looking across the recorded location of CSF OS5.

CSF OS6

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 707205 N 6441177

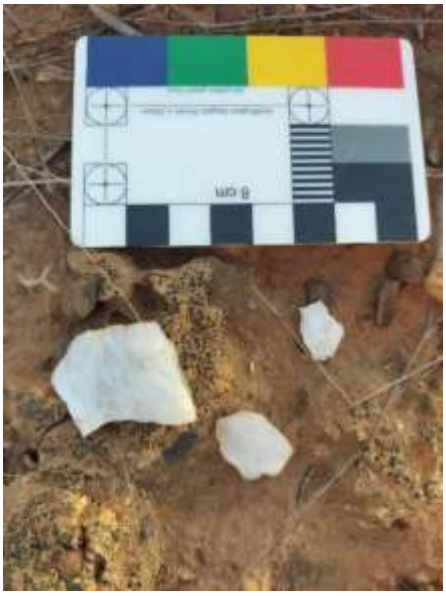
Location of site: 3.2 km east along Sweeneys Lane from the intersection of Golden Highway and Sweeneys Lane and 245 m northwest towards Sandy Creek.

Description of site: The site consists of four quartz flakes, one embedded in the soil, located along the bank of the gully with a site extent of 56 x 35 m (**Table 6-23**). The site is immediately east of an unnamed drainage line. GSE was limited at approximately 10% with some GSE afforded within exposed soil patches between the high grass. The site is within a crest landform transitioning into a slope (**Figure 6-29**). The transitional landform suggests there may be subsurface deposits associated with this artefact scatter. The associated PAD (PAD 8) is further discussed in **Section 6.5**and extends across both landforms.

Table 6-23: CSF OS6 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Quartz	Complete	Tertiary	23 x 14 x 3
Flake	Quartz	Complete	Tertiary	12 x 11 x 2
Flake	Quartz	Complete	Tertiary	12 x 10 x 1
Flake	Quartz	Complete	Tertiary	12 x 11 x 2

Figure 6-29: CSF OS6.



1. Selection of artefacts from CSF OS6.

2. View from slope looking towards the crest at the recorded location of CSF OS6.

CSF OS7

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 708734 N 6438802

Location of site: 1.4 km south along Sandy Creek Road from the intersection of Sandy Creek Road and Sweeneys Lane and 90 m west of Sandy Creek Road.

Description of site: The site consists of three quartz flakes located 119 m east of Sandy Creek covering an area of 30 x 16 m (**Table 6-24**). GSE was limited at approximately 15%, although there was better visibility in an exposure between a small grove of trees running adjacent to the creek line and Sandy Creek Road (**Figure 6-30**). The sandy, gravelly exposure along the broad crest landform suggests there may be subsurface deposits associated with this artefact scatter. The associated PAD (PAD 20) is further discussed in **Section 6.5**.

Table 6-24: CSF OS7 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Quartz	Complete	Tertiary	21 x 20 x 3
Flake	Quartz	Complete	Tertiary	11 x 12 x 2
Flake	Quartz	Complete	Tertiary	28 x 18 x 3

Figure 6-30: CSF OS7.

1. Quartz flakes recorded at CSF OS7.

2. View north. The person stands at the recorded location of CSF OS7.

CSF OS8

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 709547 N 6439254

Location of site: 700 m south along Sandy Creek Road from the intersection of Sandy Creek Road and Sweeneys Lane and 715 m east of Sandy Creek Road.

Description of site: The site consists of a low-density artefact scatter comprising two multidirectional volcanic cores, six quartz flakes, one volcanic flake, and one basalt flake within a site extent of 30 x 16 m (**Table 6-25**). The scatter was identified less than 40 m from Laheys Creek along its southern bank. GSE was limited to approximately 10% (**Figure 6-31**). The eroded nature of some of the artefacts from the topsoil and along the drainage landform suggests there may be subsurface deposits associated with this artefact scatter. The associated PAD (PAD 22) is further discussed in **Section 6.5**.

Table 6-25: CSF OS8 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Core (multidirectional)	Volcanic	Complete	Tertiary	13 x 15 x 4
Core (multidirectional)	Volcanic	Complete	Tertiary	Data record error
Flake	Quartz	Complete	Tertiary	Data record error
Flake	Quartz	Complete	Tertiary	Data record error
Flake	Quartz	Complete	Tertiary	Data record error
Flake	Quartz	Complete	Tertiary	Data record error
Flake	Quartz	Complete	Tertiary	22 x 20 x 2
Flake	Quartz	Complete	Tertiary	Data record error
Flake	Volcanic	Complete	Tertiary	Data record error
Flake	Basalt	Complete	Tertiary	Data record error

Figure 6-31: CSF OS8.

1. Close-up of proximal fragment of a quartz flake, part of CSF OS8.

2. Close-up of multidirectional volcanic core, part of CSF OS8.

	
3. View east towards Laheys Creek, pink flag marks the recorded location of CSF OS8.	4. View southeast, bag marks recorded location of CSF OS8.

CSF OS9

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 709971 N 6439065

Location of site: 1 km south along Sandy Creek Road from the intersection of Sandy Creek Road and Sweeneys Lane and 1.1 km east of Sandy Creek Road.

Description of site: The site is a low-density artefact scatter comprising four artefacts located approximately 128 m southeast of Laheys Creek. The artefacts include two volcanic cores and two quartz flakes within a site extent of approximately 150 x 90 m (**Table 6-26**). The swampy / boggy area hindered visibility, and the scatter is likely to extend beyond the approximate boundaries observed at the time of inspection (**Figure 6-32**). The eroded nature of some of the artefacts from the topsoil along the drainage landform suggests there may be subsurface deposits associated with this artefact scatter. The associated PAD (PAD 23) is further discussed in **Section 6.5**.

Table 6-26: CSF OS9 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Core	Volcanic	Complete	20% cortex	62 x 42 x 8
Core	Volcanic	Complete	30% cortex	72 x 43 x 8
Flake	Quartz	Complete	Tertiary	31 x 20 x 2
Flake	Quartz	Complete	Tertiary	22 x 16 x 3

Figure 6-32: CSF OS9.

1. Volcanic multidirectional core, part of CSF OS9.

2. Quartz flake, part of CSF OS9.

3. View northwest of the boggy area. Person is standing at the recorded location of CSF OS9.

4. View west towards the southern end of the site.

CSF OS10

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 710261 N 6439477

Location of site: 1.9 km south along Spring Ridge Road from the intersection of Spring Ridge Road and Danabar Road and 970 m west of Spring Ridge Road.

Description of site: The site consists of three basalt flakes and two quartz flakes (**Table 6-27**). The site extends in an east–west direction along an eroded scald transitioning into a rough track running adjacent to the Laheys Creek. The site extent is approximately 156 x 54 m. The site is associated with a light brown, gravelly sandy soil approximately 60 m north of Laheys Creek. GSE was 90% along the track (**Figure 6-33**). The eroded nature of some of the artefacts from the topsoil along the drainage landform suggests there may be subsurface deposits associated with this artefact scatter which extend to include previously recorded sites 36-2-0341, 36-2-0398,

36-2-0396, 36-2-0397, 36-2-0428. The associated PAD (PAD 24) is further discussed in **Section 6.5**.

Table 6-27: CSF OS10 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Quartz	Complete	Tertiary	25 x 16 x 4
Flake	Quartz	Broken (two pieces)	Tertiary	30 x 22 x 3
Flake	Basalt	Complete	Tertiary	31 x 25 x 3
Flake	Basalt	Complete	Tertiary	38 x 22 x 3
Flake	Basalt	Complete	Secondary	32 x 20 x 4

Figure 6-33: CSF OS10.

1. Close-up of quartz flake, part of CSF OS10.

2. Close-up basalt flake, part of CSF OS10.

	
3. View south of CSF OS10 towards the eroded track running adjacent to the creek line.	4. View west of CSF OS10.

CSF OS11

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 711677 N 6438589

Location of site: 3.1 km south along Spring Ridge Road from the intersection of Spring Ridge Road and Danabar Road and490 m west of Spring Ridge Road on the southern side of Laheys Creek.

Description of site: The site is a low-density scatter comprising of two artefacts located approximately 194 m south of Laheys Creek with a site extent of 22 x 18 m. Artefacts include a basalt flake and a longitudinally split quartz flake (**Table 6-28**). Both artefacts are at a tertiary stage of reduction and were identified within a previously cropped paddock, adjacent to a tractor path transecting the field (**Figure 6-34**).

CSF OS11 is not considered to be associated with subsurface archaeological deposits.

Table 6-28: CSF OS11 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Basalt	Complete	Tertiary	48 x 31 x 4
Flake	Quartz	Longitudinal break	Tertiary	20 x 4 x 2

Figure 6-34: CSF OS11.

1. Basalt flake recorded at CSF OS11.

2. Quartz flake recorded at CSF OS11.

3. View northeast towards the Laheys Creek, showing the recorded location of CSF OS11.

4. View northwest towards the Laheys Creek, showing the recorded location of CSF OS11.

CSF OS12

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 709216 N 6438799

Location of site: 1.6 km south of Sandy Creek Road from the intersection of Sandy Creek Road and Sweeneys Lane and 425 m east of Sandy Creek Road.

Description of site: CSF OS12 comprises four complete quartz flakes, one quartz distal flake fragment, one quartzite distal flake fragment, one multiplatform core, three quartz flaked pieces, and one piece of quartz shatter (**Table 6-29**). The site is located approximately 20 m from a fence line at the base of a slope. The scatter covers a total area of 16 x 15 m with two distinct artefact loci separated by approximately 10 m. B horizon soils were evident at the site indicating that the

subsurface potential at the site is low. GSE was moderate at 60% and soils were characterised by light sandy, alluvial sediment (**Figure 6-35**).

CSF OS12 is not considered to be associated with subsurface archaeological deposits as it is located on a broad, undifferentiated landform where exposed and cemented B horizon soils were observed.

Table 6-29: CSF OS12 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction
Flake	Quartz	Complete	Tertiary
Flake	Quartz	Complete	Tertiary
Flake	Quartz	Complete	Tertiary
Flake	Quartz	Complete	Tertiary
Flake	Quartz	Distal	Tertiary
Flake	Quartzite	Distal	Tertiary
Core (multiplatform)		Complete	30% cortex
Flaked piece	Quartz	Proximal	Tertiary
Flaked piece	Quartz	Proximal	Tertiary
Flaked piece	Quartz	Medial	Tertiary
Shatter	Quartz	Broken	Tertiary

Figure 6-35: CSF OS12.

1. Selection of artefacts from the first loci associated with CSF OS12.

2. Selection of artefacts from the second loci associated with CSF OS12.

	
3. Bag marks recorded location of the first surface expression associated with CSF OS12.	4. Bag marks recorded location of the second surface expression associated with CSF OS12.

CSF OS13

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 708894 N 6439110

Location of site: 1.1 km south of Sandy Creek Road from the intersection of Sandy Creek Road and Sweeneys Lane and 70 m east of Sandy Creek Road.

Description of site: The site is a low-density scatter comprising two artefacts covering an area of 16 x 12 m (Figure 6-36). Artefacts included two quartz flakes, one a possible scraper (**Table 6-30**). The site is located 10 m east of a fence in a grassed paddock with 20% GSE (**Figure 6-36**).

CSF OS13 is not considered to be associated with subsurface archaeological deposits as it is located on a broad, undifferentiated landform.

Table 6-30: CSF OS13 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Quartz	Complete	Tertiary	10 x 8 x 1
Flake (possible scraper)	Quartz	Complete	Tertiary	34 x 18 x 5

Figure 6-36: CSF OS13.

1. Quartz flake recorded as part of CSF OS13.

2. View of the recorded location of CSF OS13.

CSF OS14

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 709662 N 6437390

Location of site: 2.5 km north on Sandy Creek Road from the intersection of Sandy Creek Road and Dapper Road and 305 m east of Sandy Creek Road.

Description of site: The site is a low-density scatter comprising two artefacts covering an area 0.5 x 0.5 m. Artefacts include a basalt flake and a quartz flake (**Table 6-31**). The site is located 30 m east of the dam within a cropped paddock with 60% GSE (**Figure 6-37**).

CSF OS14 is not considered to be associated with subsurface archaeological deposits as it is located on a broad, undifferentiated landform where cropping has disturbed topsoils.

Table 6-31: CSF OS14 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Volcanic	Complete	Tertiary	20 x 18 x 3
Flake	Quartz	Complete	Tertiary	5 x 3 x 2

Figure 6-37: CSF OS14.

1. Artefacts recorded as part of CSF OS14.

2. View of the recorded location of CSF OS14.

CSF OS15

Site type: Artefact scatter

GPS coordinates: GDA 2020 Zone 55 E 712825 N 6436695

Location of site: 9.1 km east along Spring Ridge Road from the intersection of the Golden Highway and Spring Ridge Road and 680 m west of Spring Ridge Road on the western side of Laheys Creek,.

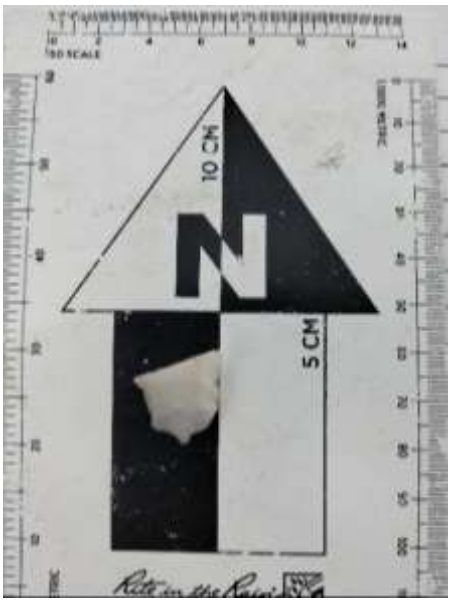
Description of site: The site is a low-density scatter comprising two quartz flakes covering an area of 67 x 35 m (**Table 6-32**). The site is located within a grassed paddock near a homestead (**Figure 6-38**).

CSF OS15 is not considered to be associated with subsurface archaeological deposits as it is located on a broad, undifferentiated landform where cropping has disturbed topsoils.

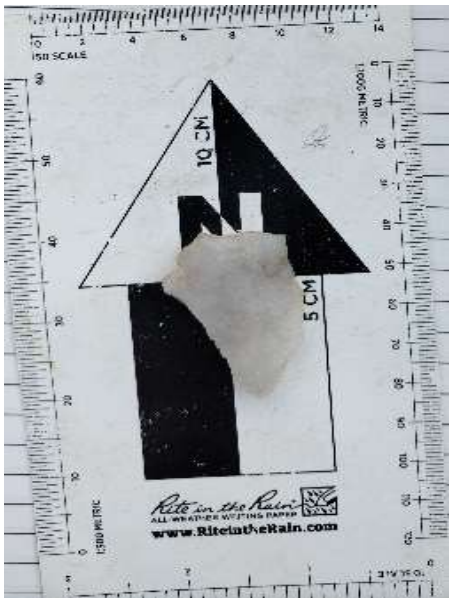
Table 6-32: CSF OS15 artefact attributes.

Artefact type	Raw material	Artefact integrity	Stage of reduction	Size (LxWxD) mm
Flake	Quartz	Distal fragment	Tertiary	14 x 12 x 2
Flake	Quartz	Complete	Tertiary	30 x 18 x 3

Figure 6-38: CSF OS15.



1. Distal fragment of a quartz flake recorded as part of CSF OS15.



2. Quartz flake recorded as part of CSF OS15.

3. View north recorded location of CSF OS15 (circled).

6.4.3 Previously recorded Aboriginal sites located

A total of 104 registered AHIMS sites were located within the Project area at the time of the OzArk field assessment in 2022. During the survey, a number of previously recorded sites which plotted outside of the surveyed area were found to extend into it, while AHIMS site 36-2-0224 (SAC 21) which plots outside of the Project area, was found to extend into the surveyed area (**Figure 6-41**). At the conclusion of the survey in 2022, a total of 43 previously recorded sites were updated, including the 16 sites that were assessed as extending into the surveyed area. The sites that

were amended for their extent are shown on **Figure 6-39** to **Figure 6-42**. Location details for these sites are shown on **Table 5-4**.

Figure 6-39: Updated site extents of previously recorded Aboriginal sites (1).

Figure 6-40: Updated site extents of previously recorded Aboriginal sites located during the survey (2).

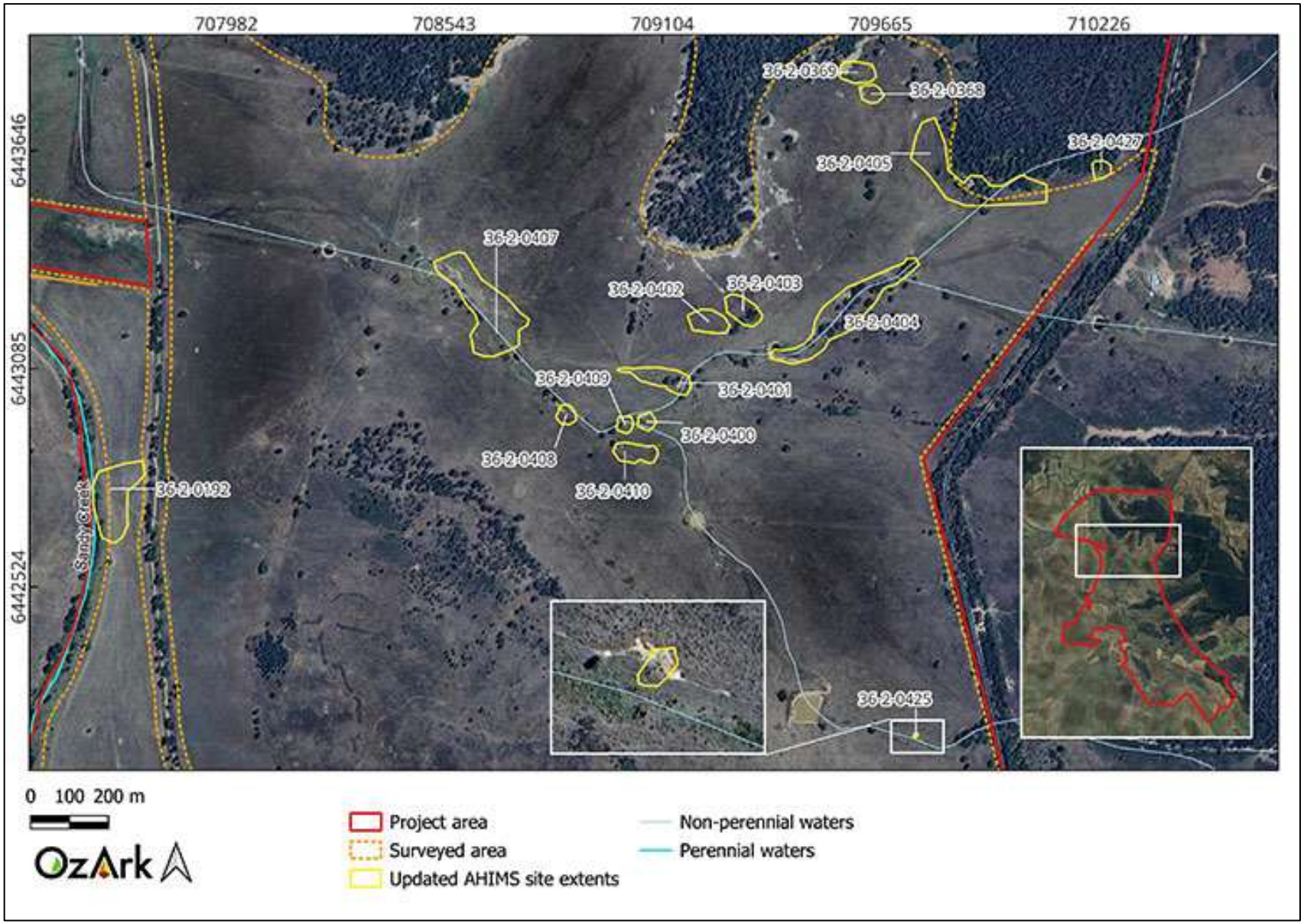


Figure 6-41: Updated site extents of previously recorded Aboriginal sites located during the survey (3).

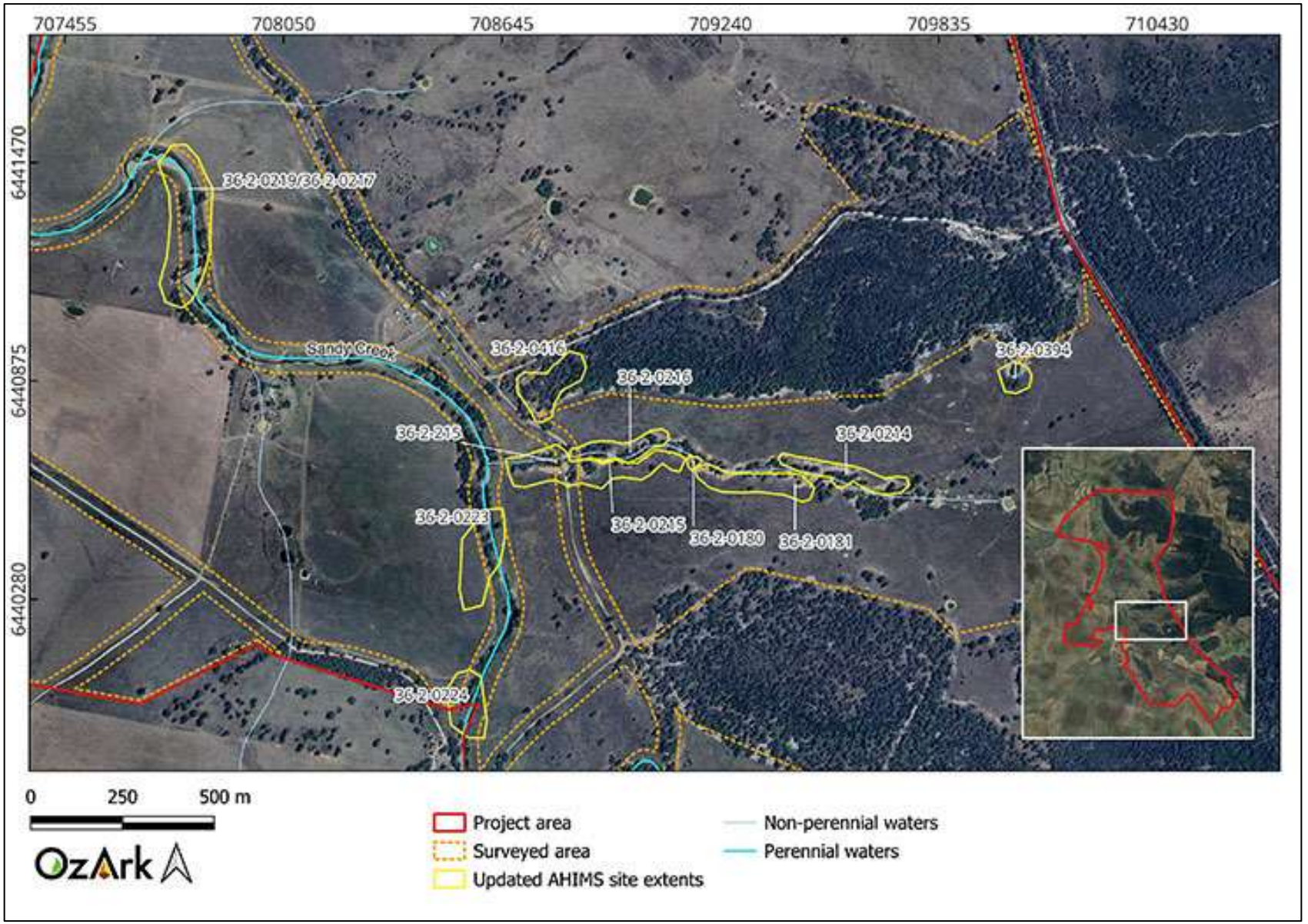
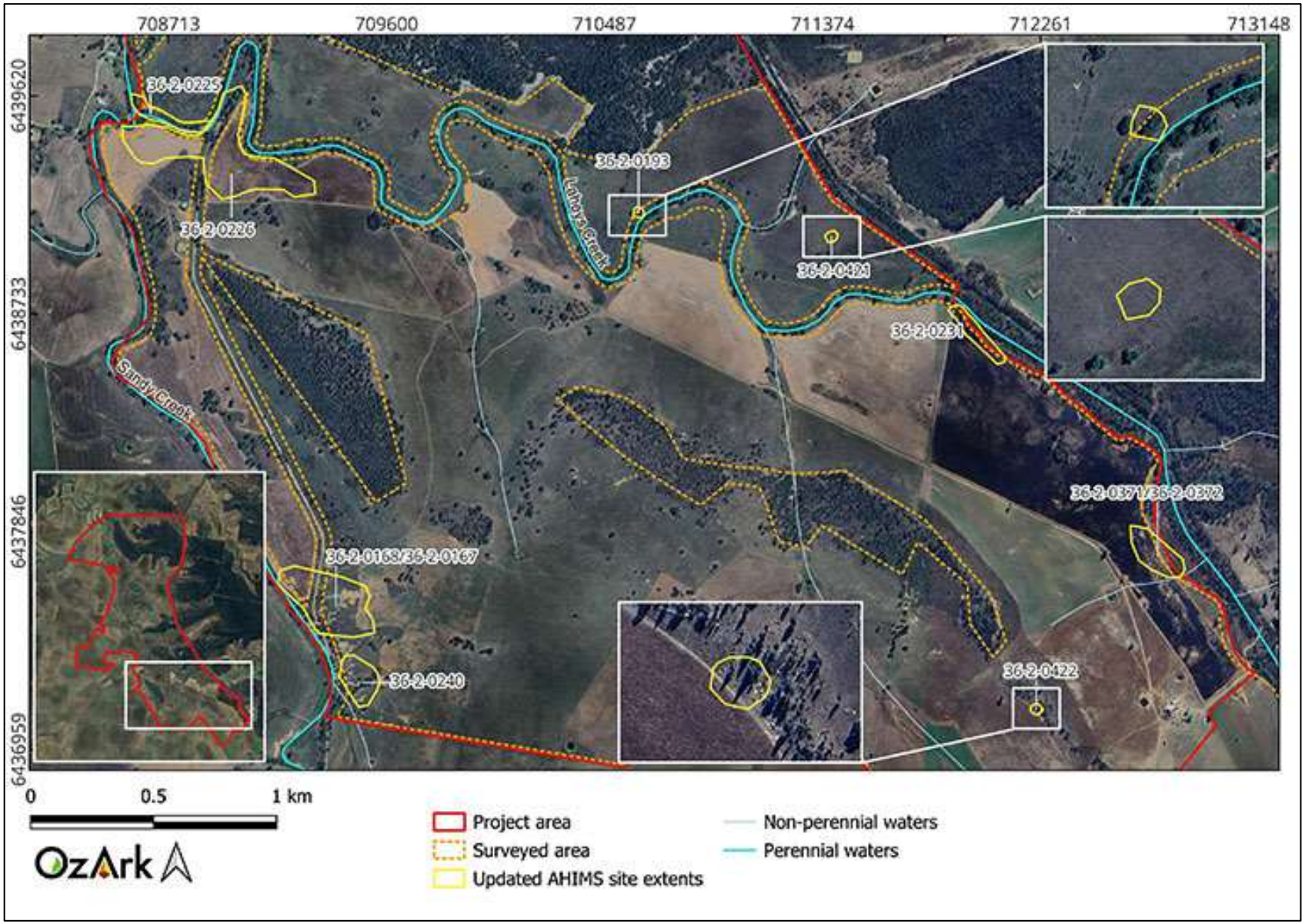


Figure 6-42: Updated site extents of previously recorded Aboriginal sites located during the survey (4).



6.5 IDENTIFICATION OF PADS

Assessment of the landforms present across the surveyed area assisted in the identification of several areas considered to have subsurface archaeological potential. A total of 33 PADs (PAD 1–33) are recorded within the surveyed area as shown on **Figure 6-43** to **Figure 6-45**. These corresponded with some previously identified PADs and some newly identified PADs. All areas of PAD, except PAD 26 corresponded with a previously identified or newly recorded site. Several of the PADs listed in **Table 6-33** are those identified by ERM (2010) and EMM (2012. 2013) (**Section 5.3.2**).

During the survey in 2022, previously recorded PADs were inspected to determine whether they are considered to have potential to contain subsurface deposits. Re-inspection of the previously recorded PAD associated with sites 36-2-0240 and 36-2-0168 demonstrated that the topsoil at these locations has now totally eroded, exposing a cemented B horizon erosion scour. As such, these sites are no longer considered to be associated with PAD.

The previously identified PADs confirmed as having subsurface deposits through test excavation (EMM 2013) were not inspected. This relates to PAD 28 and the eastern portions of PAD 24 and PAD 29. Test excavation at these locations recorded a variable density of subsurface artefacts with one or two high density locations of subsurface artefacts (**Figure 5-7**).

The PADs identified are generally associated with recorded surface artefact manifestations and have been recorded in relation to creek banks, gullies, crests, spurs, and ridgeline landforms as reflected in the previous site descriptions. Most PADs identified are adjacent to the semi-permanent creek lines within the Project area (Sandy and Laheys Creeks), with the second largest area of PAD (PAD 20) situated at the confluence of those two waterways. A single 3 x 1 m TU was excavated in the north-eastern portion of the SAC 23 site extent associated with PAD 20 (ERM 2010). This TU resulted in the recording of 17 artefacts, supporting evidence of further subsurface deposits within the PAD 20 extent.

The largest area of PAD recorded within the surveyed area is PAD 33, recorded as part of the assessment undertaken by EMM (2023). Preliminary details of the PAD 33 recording were provided to OzArk following the survey for this assessment. PAD 33 is to the south of the Project area, to the west of Laheys Creek, and has since been excluded from the Project area. One isolated find (CSF-IF2) recorded by OzArk during the survey is located within the extent of PAD 33.

Figure 6-43: Location of recorded PADs within the surveyed area (1).

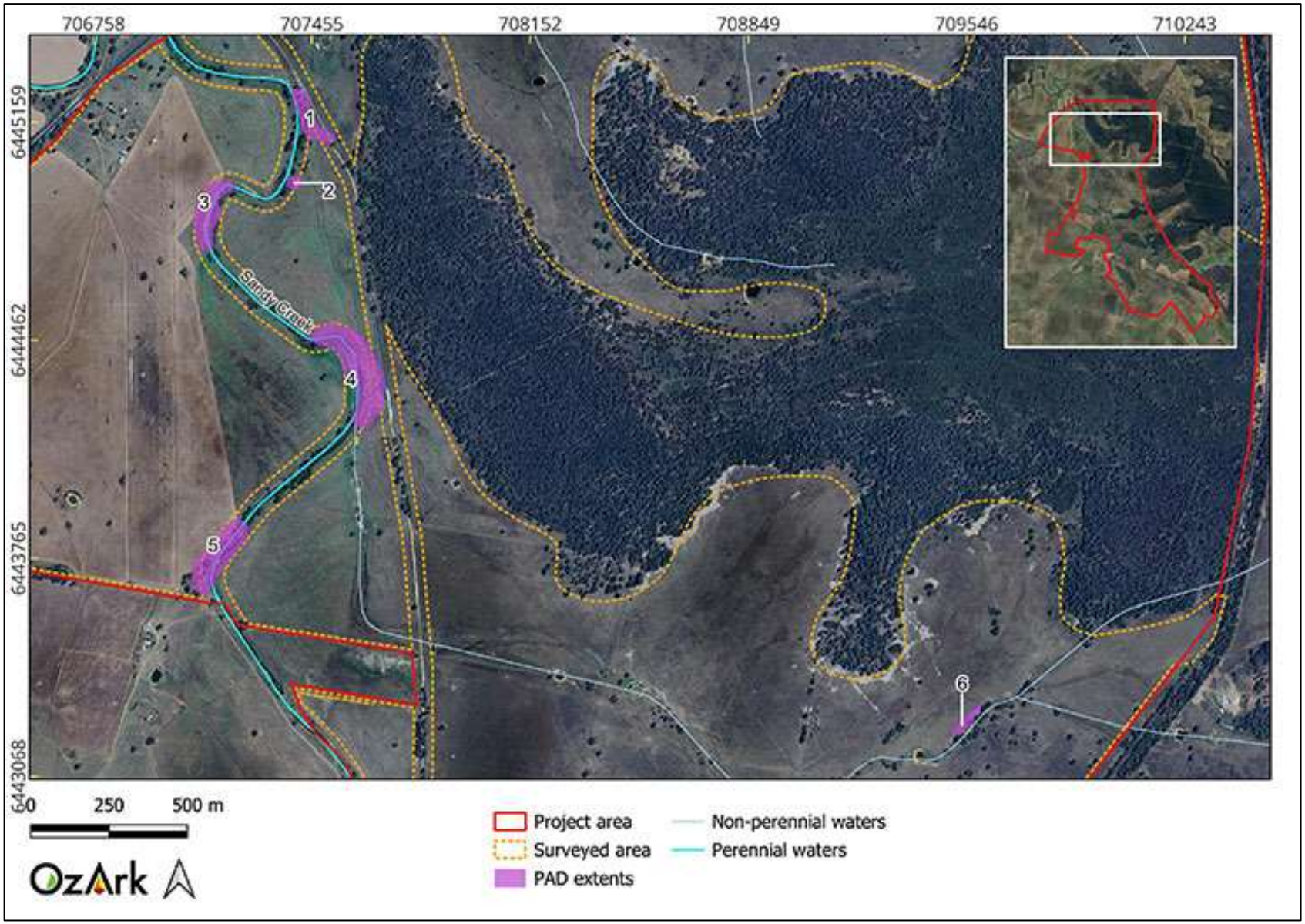


Figure 6-44: Location of recorded PADs within the surveyed area (2).

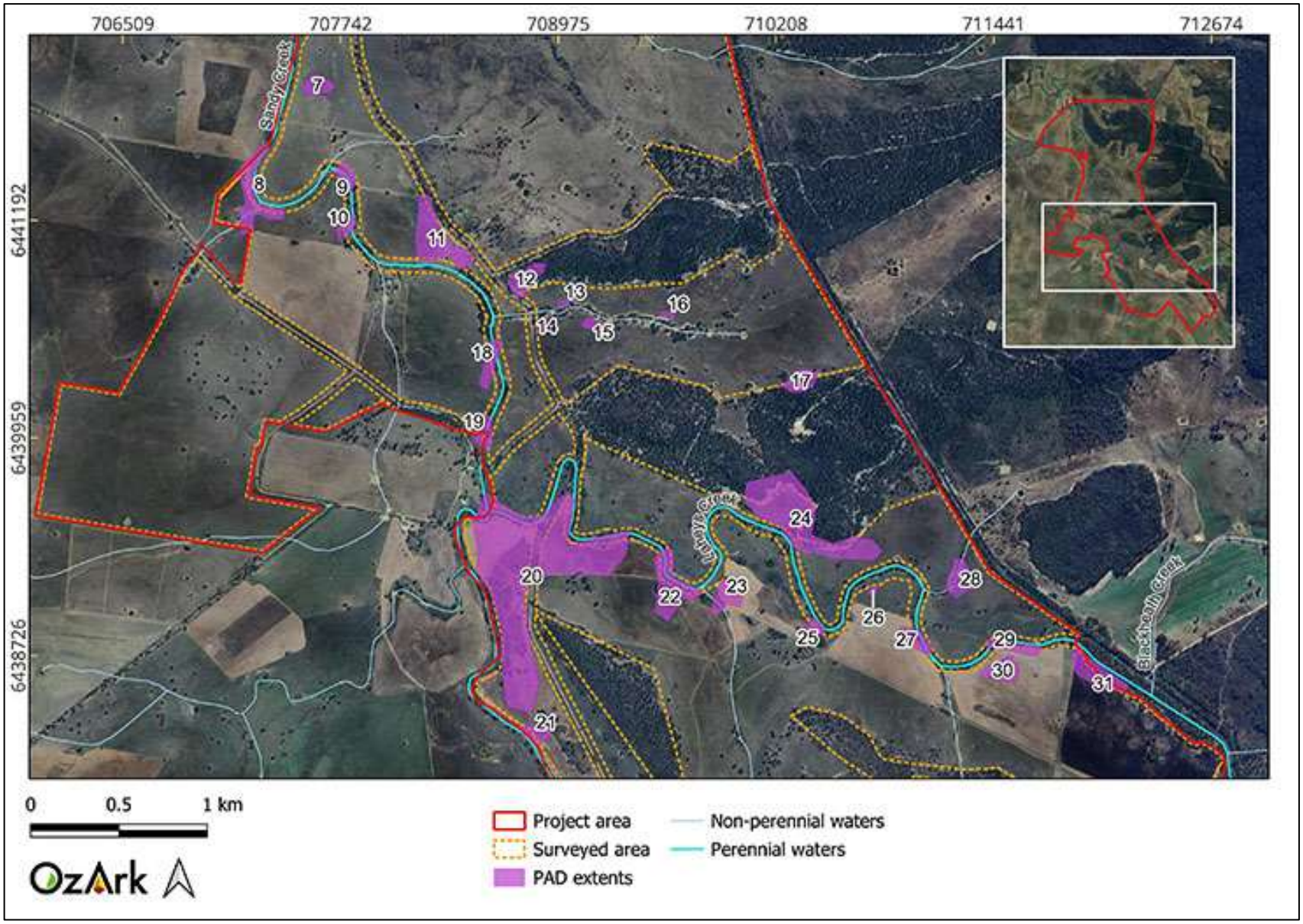


Figure 6-45: Location of recorded PADs within the surveyed area (3).

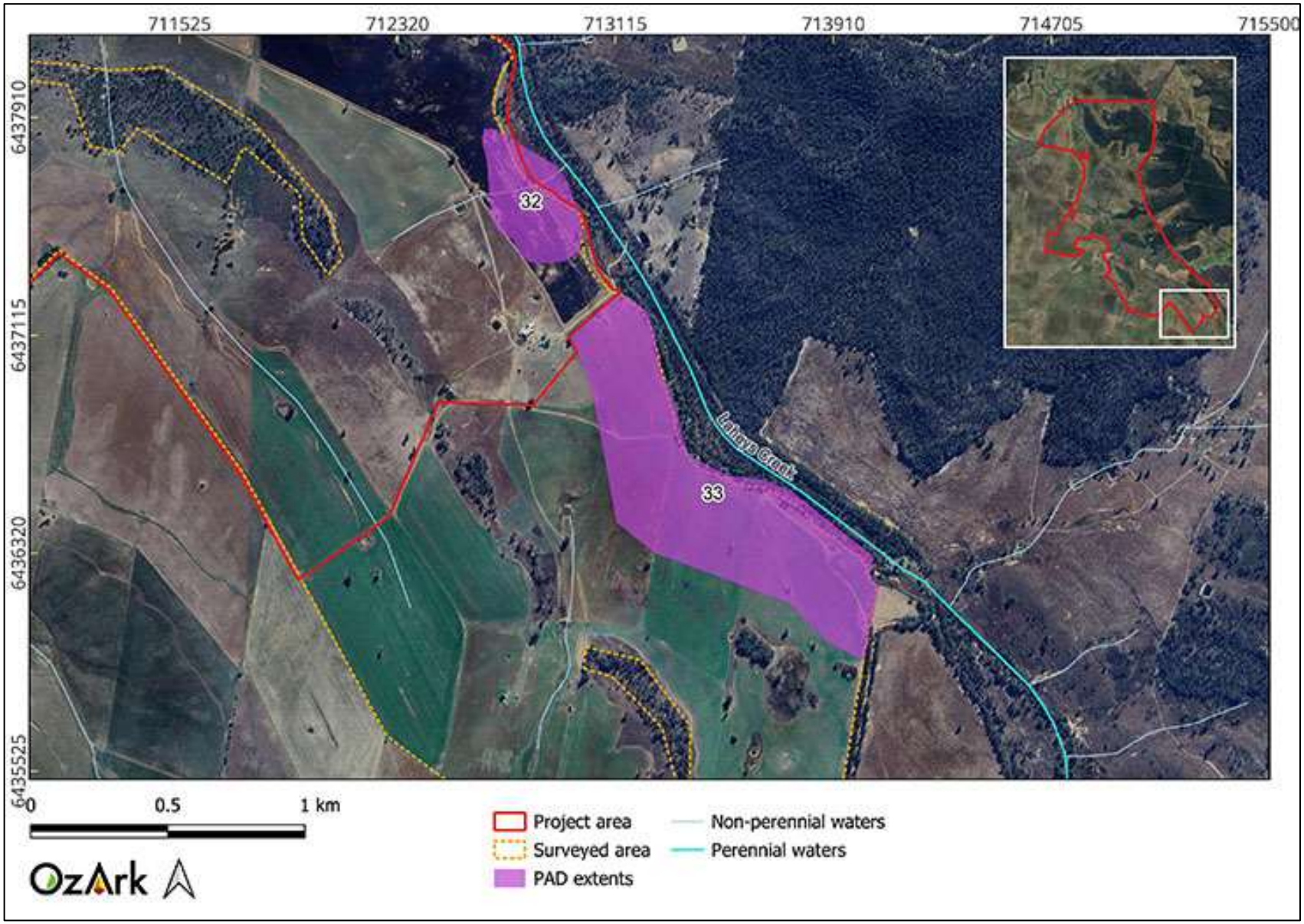


Table 6-33: Details of PADs identified.

Name	Zone	Easting	Northing	Area (m^2)	Associated sites	Survey unit	Justification
PAD 1	GDA 2020 Zone 55	707449	6445171	9,782	36-2-0207/36-2-0208	1	Drainage landform along Sandy Creek with observable soil depth along creek line.
PAD 2	GDA 2020 Zone 55	707399	6444966	1,919	36-2-0209/36-2-0177	1	Drainage landform along Sandy Creek with observable soil depth along creek line.
PAD 3	GDA 2020 Zone 55	707129	6444869	14,970	36-2-0178/36-2-0179/36-2-0210	1	Drainage landform along Sandy Creek with observable soil depth along creek line.
PAD 4	GDA 2020 Zone 55	707598	6444371	35,130	36-2-0211	1	Drainage landform along Sandy Creek with observable soil depth along creek line.
PAD 5	GDA 2020 Zone 55	707157	6443773	20,073	36-2-0212	1	Drainage landform along Sandy Creek with observable soil depth along creek line.
PAD 6	GDA 2020 Zone 55	709546	6443248	3,135	36-2-0404	1	Drainage landform along Sandy Creek with observable soil depth along creek line.
PAD 7	GDA 2020 Zone 55	707613	6441956	15,008	CSF OS1	1/2	Transitional landform including drainage, slope and crest landforms along Sandy Creek.
PAD 8	GDA 2020 Zone 55	707253	6441337	47,112	36-2-0185/36-2-0221/36-2-0182/36-2-0184/36-2-0220/CSF OS6	1	Drainage landform along Sandy Creek with observable soil depth along creek line.
PAD 9	GDA 2020 Zone 55	707775	6441440	11,943	36-2-0219	1	Drainage landform along Sandy Creek with observable soil depth along creek line.
PAD 10	GDA 2020 Zone 55	707773	6441149	8,546	36-2-0217	1	Drainage landform along Sandy Creek with observable soil depth along creek line.
PAD 11	GDA 2020 Zone 55	708287	6441091	63,260	CSF OS3/CSF OS4	1/2/4	Transitional landform including drainage, slope and crest landforms along Sandy Creek.
PAD 12	GDA 2020 Zone 55	708789	6440859	20,460	36-2-0416	1	Drainage landform along Sandy Creek with observable soil depth along creek line.
PAD 13	GDA 2020 Zone 55	709012	6440728	2,425	36-2-0216	1	Drainage landform along unnamed drainage line with observable soil depth.
PAD 14	GDA 2020 Zone 55	708911	6440591	7,198	36-2-0215	1	Drainage landform along unnamed drainage line with observable soil depth.
PAD 15	GDA 2020 Zone 55	709169	6440603	6,506	36-2-0181	1	Drainage landform along unnamed drainage line with observable soil depth.
PAD 16	GDA 2020 Zone 55	709594	6440659	2,648	36-2-0214	1	Drainage landform along unnamed drainage line with observable soil depth.
PAD 17	GDA 2020 Zone 55	710349	6440282	18,150	36-2-0395	2	Moderate lope landform with observable soil depth.
PAD 18	GDA 2020 Zone 55	708588	6440383	18,184	36-2-0223/36-2-0263	1	Drainage landform along Sandy Creek with observable soil depth along creek line.
PAD 19	GDA 2020 Zone 55	708552	6439993	16,005	36-2-0224	1	Drainage landform along Sandy Creek with observable soil depth along creek line.

Name	Zone	Easting	Northing	Area (m^2)	Associated sites	Survey unit	Justification
PAD 20	GDA 2020 Zone 55	708826	6439177	414,863	36-2-0225/36-2-0264/36-2-0226/36-2-0194/36-2-0166/36-2-0239/CSF OS7	1/2/4	Transitional landform including drainage, slope and crest landforms along Laheys Creek.
PAD 21	GDA 2020 Zone 55	708849	6438289	11,466	36-2-0238/36-2-0198	1/2/3	Transitional landform including drainage, slope and crest landforms along Laheys Creek.
PAD 22	GDA 2020 Zone 55	709609	6439120	52,417	36/20165/CSF OS8/36-2-0230/36-2-0186/CSF IF04	1/2/4	Transitional landform including drainage, slope and crest landforms along Laheys Creek.
PAD 23	GDA 2020 Zone 55	709928	6439062	20,945	CSF OS9	1	Drainage landform along Laheys Creek with observable soil depth along creek line.
PAD 24	GDA 2020 Zone 55	710350	6439505	152,465	CSF OS10/36-2-0341/36-2-0398/36-2-0396/36-2-0397/36-2-0428	1	Transitional landform including drainage, slope and crest landforms along Laheys Creek.
PAD 25	GDA 2020 Zone 55	710431	6438887	6,562	CSF IF08/36-2-0229	1	Drainage landform along Laheys Creek with observable soil depth along creek line.
PAD 26	GDA 2020 Zone 55	710757	6439094	2,038	-	1	Small anomalous rise within broader undifferentiated drainage landform.
PAD 27	GDA 2020 Zone 55	711003	6438817	15,550	CSF IF07/36-2-0187/36-2-0188	1	Drainage landform along Laheys Creek with observable soil depth along creek line.
PAD 28	GDA 2020 Zone 55	711251	6439160	24,557	36-2-0227/36-2-0228	1/4	Transitional landform including drainage, slope and crest landforms along Laheys Creek.
PAD 29	GDA 2020 Zone 55	711561	6438773	14,991	36-2-0232/36-2-0336/36-2-0195	1	Drainage landform along Laheys Creek with observable soil depth along creek line.
PAD 30	GDA 2020 Zone 55	711492	6438644	21,174	CSF IF08	1/2	Transitional landform including drainage, slope and crest landforms along Laheys Creek.
PAD 31	GDA 2020 Zone 55	712019	6438629	35,899	36-2-0231/36-2-0343	1	Drainage landform along Laheys Creek with observable soil depth along creek line.
PAD 32	GDA 2020 Zone 55	712807	6437604	116,991	36-2-0371/36-2-0372/36-2-0375/36-2-0373/36-2-0374	1/2/4	Transitional landform including drainage, slope and crest landforms along Laheys Creek.
PAD 33	GDA 2020 Zone 55	713467	6436545	528,393	CSF IF02	1/2/4	South of the Project area - Transitional landform including drainage, slope and crest landforms along Laheys Creek.

6.6 ABORIGINAL COMMUNITY COMMENTS ON THE SURVEY

The confluence of Sandy and Laheys Creeks were noted to hold cultural significance to the local Aboriginal community.

The Project area was noted to represent an archaeologically dense area with a variety of site complexes that holds cultural significance to the local Aboriginal community (B. Bliss *pers comm* 29 June 2022).

6.7 SUMMARY OF SURVEY RESULTS

A total of 30 previously unidentified Aboriginal sites were identified during the survey, including 15 isolated finds and 15 artefact scatters.

Additionally, 43 AHIMS sites registered prior to the survey were located and their descriptions updated to reflect the current condition of the sites following reassessment during the survey.

A total of 33 areas of PAD were recorded within the surveyed area, 32 of which are located within the Project area. These corresponded with some previously identified PADs and some newly identified PADs. All areas of PAD, except PAD 26 corresponded with a previously or newly recorded Aboriginal site.

Inspection at sites 36-2-0240 and 36-2-0168 identified completely eroded topsoil exposing a cemented B horizon erosion scour and it was concluded that the previously recorded PAD at these sites is no longer valid.

Most sites were identified within the drainage landform survey unit (SU1, n=45) followed by the slope landform unit (SU2, n=24), with the smallest number of sites identified along the crest landform (SU3, n=5). The remainder of the sites (n=6) extended across the transition between one or more survey units.

6.7.1 Discussion

Consistent with previous studies within and surrounding the Project area, the frequency and density of Aboriginal heritage sites were more prevalent near waterways. While the apparent distribution pattern of sites in relation to waterways may have been biased by the survey strategy targeting the ‘priority survey areas’ which included all landforms within 200 m of a watercourse, it is noted that previous assessments such as EMM 2012 also noted this distribution pattern. Additionally, survey of the ‘secondary survey areas’ resulted in significantly less site recordings. Therefore, there is confidence that this is an actual distribution pattern and not one derived from a survey bias.

Limited GSV associated with the consistent and often thick grass cover within gentle and moderate slope landforms also may have hindered the identification of artefacts. However, the

low number of sites identified in these landforms is more likely due to the fact that these landforms, being generally distant to water, did not present preferable camping locations.

Many of the sites recorded within the Project area represent site complexes with one or more site types encompassed within the area. Where artefact sites, hearths, grinding grooves, and modified trees exist within the same site context, this reflects the use of the area for a campsite and suggests semi-permanent, if not permanent occupation of the area. The large and complex scatters adjacent to waterways, such as at 36-2-0226 (SAC 23) also support continued utilisation of this area.

Artefact sites, and some other associated site types, were the most dominant site type recorded. The material composition of artefacts recorded was predominantly quartz. The crystalline structure of quartz impedes direct or 'clean' fracture mechanics of the material during the knapping process, and this renders rough and sometimes indistinct artefact attributes. Quartz materials were consistently observed throughout the entirety of the surveyed area, however, only those materials with an identifiable flake or core fracture diagnostics were recorded as Aboriginal artefacts. Other materials such as chert, mudstone, volcanic, greywacke, silcrete, and petrified wood were also observed in lesser quantities.

Although most artefact typologies were characterised by flakes and flaked pieces, some formalised tools such as axe blanks, backed blades, and hatchet heads support stone tool manufacture on site. This is supported by the presence of grinding grooves along Sandy and Laheys Creeks. The presence of cores, hammerstones, flakes, and grinding grooves indicate that tool manufacture likely occurred onsite. Hatchets were likely utilised for the purpose of removing wood and bark from trees for the purposes of construction of shelters, shields, canoes, and coolamons, forming scars on the trees such as those recorded on site. Grinding grooves also indicate food processing practices, as did the hearths recorded throughout the Project area. The concentration and complexity of sites, variety of resources available, and evidence of rock shelters within and nearby the area are indicative of utilisation of the area beyond transient resource gathering. This indicates at least semi-permanent occupation of the area.

Each of the PADs identified were generally associated with recorded surface artefact expressions and in relation to creek banks, gullies, crests, spurs, and ridgeline landforms. Many of the PADs identified were situated along the transition between different landform types or associated with sandy, alluvial soils of drainage landforms suggesting that the PADs may well contain artefacts in a secondary context. Contrary to the EMM and ERM identification of PAD, the eroded scalds associated with the artefact concentrations of 36-2-0168 and 36-2-0240 (at southern end of Sandy Creek within the Project area) exhibited compacted B-Horizon soil horizons and it was therefore concluded that these areas no longer have subsurface archaeological potential. It should be noted, however, that all PADs, except discreet areas within PADs 11, 19, and 20, have now been excluded from the development footprint.

Based on the inspection of those previously recorded sites within the development footprint, the nature and integrity of sites since the initial assessment in 2014 has been largely retained. For those previously recorded artefact sites where not all recorded materials could be ground-truthed, the indication is that this may relate to post depositional erosional or fluvial movements, or simply increased ground coverage and boggy conditions hampering identification of the materials.

6.7.2 Responses to the research questions

In **Section 5.6** several research questions were advanced to guide the survey of the Project area. Following the survey, responses to these research questions are set out below.

- What changes have occurred to the nature and integrity of the sites recorded over 10 years ago?
    - The nature and integrity of sites over the last 10 years has been largely retained. For those artefact sites where all previously recorded material could not be ground-truthed it is likely that erosional or fluvial movement have shifted materials and grass cover has limited visibility.
- Are areas identified as having PAD still considered to have potential to contain subsurface deposits?
    - Each of the PADs identified was generally associated with recorded surface artefact manifestations and noted in relation to creek banks, gullies, crests, spurs, and ridgeline landforms. However, contrary to the EMM and ERM identification of PAD, the eroded scalds associated with the artefact concentrations of 36-2-0168 and 36-2-0240 (at southern end of Sandy Creek within the Project area) exhibited compacted B soil horizons and it was therefore concluded that these areas no longer have subsurface archaeological potential.
- Are there landforms within the development footprint that will require test excavation to understand their archaeological potential?
    - Yes, 33 areas of PAD were identified during the survey. PADs were largely identified on elevated landforms above semi-reliable sources of water, such as Sandy and Laheys Creeks. Due to the reduction in size of the Project area, only 32 remain within the Project area. All PADs, except discreet areas at PADs 11, 19, and 20, have now been excluded from the development footprint. A focused subsurface excavation at the precise disturbance footprint of the proposed 33 kV power poles within PADs 11, 19, and 20 would be required to ensure the soil profile that could be harmed by the works would be archaeologically excavated.
- How do the raw materials and artefact types recorded within the Project area compare with those recorded in the surrounding region?
    - The material composition of the artefacts recorded predominantly comprised of quartz. Other materials such as chert, mudstone, volcanic, greywacke, silcrete, and petrified wood were also observed in lesser quantities. Although most artefact typologies were characterised by flakes and flaked pieces, however, some formalised tools such as axe blanks, backed blades, and hatchet heads

support stone manufacture on site. The materials and tool types are consistent with those identified in the Project area and broader region.

- What tasks were Aboriginal people undertaking at the sites?
    - The presence of cores, hammerstones and flakes and grinding grooves indicate that tool manufacture likely occurred onsite. Hatchets would likely have been utilised for the purpose of removing wood and bark from trees for the purposes of construction of shelters, shields, canoes, and coolamons, forming scars on the trees such as those recorded on site. Grinding grooves also indicate food processing practices as with hearths throughout the Project area. As discussed in **Section 6.7.1**, these results indicate at least semi-permanent occupation of the area.
- Do the findings within the Project area (if any) accord with the regional archaeological context examined in **Section 5.2** and support the predictive model set out in **Section 5.5**?
    - Yes. As discussed above, the material composition and tool types of the newly recorded artefacts are consistent with those previously identified within the local area and the broader region. Additionally, the higher quantity of sites recorded in association with more reliable water sources supports the predictive model set out in **Section 5.5**.

7 SIGNIFICANCE ASSESSMENT

7.1 INTRODUCTION TO SIGNIFICANCE ASSESSMENT

7.1.1 Identifying cultural significance

The concept of cultural significance is used in Australian heritage practice and legislation to encompass all the cultural values and meanings that might be recognised in a place. The Burra Charter's definition of cultural significance is broad and encompasses places that are significant to Indigenous cultures.

The Burra Charter definition of 'place' is also broad and encompasses Indigenous places of cultural significance. 'Place' includes locations that embody spiritual value (such as Dreaming places, sacred landscapes, and stone arrangements), social and historical value (such as massacre sites), as well as scientific value (such as archaeological sites). In fact, one place may be all these things or may embody all these values at the same time.

In some cases, the find-spot of a single artefact may constitute a 'place'. Equally, a suite of related locations may together comprise a single 'place', such as the many individual elements that make up a Songline. These more complex places are sometimes called a cultural landscape or cultural route.

The Guide notes that cultural significance is comprised of an assessment of social values, scientific values, aesthetic values, and historic values. These values are described below.

7.1.1.1 Social or cultural value

Social or cultural value refers to the spiritual, traditional, historical, or contemporary associations and attachments the place or area has for Aboriginal people. Social or cultural value is how people express their connection with a place and the meaning that place has for them (Articles 1.1, 1.2, 1.12, 5, and 8–11: Burra Charter).

Places of social or cultural value have associations with contemporary community identity. These places can have associations with tragic or warmly remembered experiences, periods, or events. Communities can experience a sense of loss should a place of social or cultural value be damaged or destroyed.

There is not always consensus about a place's social or cultural value. Because people experience places and events differently, expressions of social or cultural value do vary and, in some instances, will be in direct conflict. When identifying values, it is not necessary to agree with or acknowledge the validity of each other's values, but it is necessary to document the range of values identified.

Social or cultural value can only be identified through consultation with Aboriginal people. This could involve a range of methodologies, such as cultural mapping, oral histories, archival

documentation, and specific information provided by Aboriginal people specifically for the investigation.

Cultural value involves both traditional links with specific areas, as well as an overall concern by Aboriginal people for their sites generally and the continued protection of these. This type of value may not be in accord with interpretations made by the archaeologist: a site may have low archaeological value but high social value, or vice versa.

7.1.1.2 Scientific (archaeological) value

Scientific (archaeological) value refers to the importance of a landscape, area, place or object because of its rarity, representativeness, and the extent to which it may contribute to further understanding and information (Articles 1.2, 5, and 8: Burra Charter).

Assessing a site in this context involves placing it into a broader regional framework, as well as assessing the site's individual merits in view of current archaeological discourse. This type of value relates to the ability of a site to answer current research questions and is also based on a site's condition (integrity), content and representativeness.

The overriding aim of cultural heritage management is to preserve a representative sample of the archaeological resource. This will ensure that future research within the discipline can be based on a valid sample of the past. Establishing whether a site can contribute to current research also involves defining 'research potential'. Questions regularly asked when determining significance are: can this site contribute information that no other site can? Is this site representative of other sites in the region?

Information about scientific values will be gathered through any archaeological investigation undertaken. Archaeological investigations must be carried out according to Heritage NSW's Code of Practice.

Often scientific values are informed by social values that allow a contemporary understanding of the archaeological data to be understood.

7.1.1.3 Aesthetic value

Aesthetic value refers to the sensory, scenic, architectural, and creative aspects of the place (Articles 1.12 and 8: Burra Charter). It is often closely linked with the social values. It may consider form, scale, colour, texture and material of the fabric or landscape, and the smell and sounds associated with the place and its use.

7.1.1.4 Historic value

Historic value refers to the associations of a place with a historically important person, event, phase, or activity in an Aboriginal community. Historic places do not always have physical evidence of their historical importance (such as structures, planted vegetation or landscape

modifications). They may have 'shared' historic values with other (non-Aboriginal) communities (Articles 1.12–1.16: Burra Charter).

Places of post-contact Aboriginal history have generally been poorly recognised in investigations of Aboriginal heritage. Consequently, the Aboriginal involvement and contribution to important regional historical themes is often missing from accepted historical narratives.

7.2 ASSESSED SIGNIFICANCE OF THE RECORDED SITES

Table 7-1 presents a summary of the significance assessment of Aboriginal cultural heritage sites recorded during this assessment. Further details of each of the assessment criteria are provided below.

Social or Cultural Value

Cultural and social values can only be determined by the local Aboriginal people. Generally, however, all sites hold value to the Aboriginal community. The confluence of Sandy Creek and Laheys Creek were noted to hold cultural significance to the local Aboriginal community.

The variety of Aboriginal heritage site complexes within the Project area are held to retain cultural value in terms of the intergenerational value of landscapes (in general) and knowledge sharing in relation to the artefacts and other features themselves. In particular, such features as grinding grooves represent cultural significance through their educational value.

As such, all newly recorded sites have been provisionally assessed as having high social or cultural value.

If further information regarding the cultural significance of the sites is provided during the Stage 4 review period, it will be provided here.

Archaeological/Scientific Value

The research potential of the surface Aboriginal heritage sites recorded is considered low. Recording the 15 additional isolated finds, 15 artefact scatter, and updates or extensions to the 43 previously identified AHIMS contributes to broader site modelling for the region. Those materials and site types recorded are largely consistent with local and broader archaeological record, with only a few significant 'formal tool' types recorded. These 'formal tool' exceptions include 36-2-0407 (CBR-OS-09 'BIG SCALD') which was recorded as a 'burren adze' which is normally found in western NSW, a hatchet head blank at 36-2-0401 (CBR-OS-14), and a ground-edge hatchet head at 36-2-0196 (IF 05-Ground Edge Axe) (EMM 2012). In terms of representation and research value, site 36-2-0226 (SAC 23) represents moderate archaeological value owing to the extensive and rich artefact assemblage observed.

Further investigation of the 33 PADs identified presents research value to inform an understanding of the archaeological nature of the area. The significance of the PADs is not

something that can be determined prior to subsurface investigation of these areas. As all PADs, except for discreet areas within PADs 11, 19, and 20, have been excluded from the development footprint, test excavation has not taken place. Additionally, as the test excavation required for PADs 11, 19, and 20 will be localised to discreet areas of impact for proposed power poles, it will not be able to determine the extent and nature of potential subsurface deposits within the wider PAD area.

The presence of modified trees and grinding grooves (all previously recorded) are less common for the local and regional archaeological record. The modified trees suggest opportunistic use of the landscape whereas the grinding grooves generally reflect at least semi-permanent occupation of the area. While the trees, at least those reinspected during this assessment, are typical of those recorded within the broader region, their significance is inherent to rarity in the area compared to other site types such as artefact scatters. The significance of the grinding grooves is limited in regard to scientific research potential, their significance primarily relates to their educational value with regard to cultural significance. Moreover, the grinding groove site type is less common in the local and regional areas in terms of representativeness.

The hearths ground-truthed during the assessment have research potential regarding the possibility of obtaining materials that may be dated. These also represent a less common site type recorded within the broader region.

The presence of the habitation structure (36-2-0243 [Shelter 02]) is an anomalous site type within the broader region. Such structures have the potential to be associated with other site types and can provide further information on aspects of past Aboriginal life. It is also noted that such sites are often positioned to afford aesthetic views of the broader landscape (EMM 2012).

Aesthetic Value

There are no specific aesthetic values within the Project area, apart from the views associated with the presence of Sandy Creek and Laheys Creek, along with the smells and sounds of the agricultural landscape. However, the modified agricultural landscape and associated infrastructure detract from this aesthetic setting.

Historic Value

None of the Aboriginal heritage objects recorded has a direct relationship to known historical Aboriginal sites (such as missions or massacre sites). To that end, all recorded Aboriginal sites are assessed as having low historic value.

Itemised heritage significance assessment

The significance assessment pertaining to each individual Aboriginal heritage site is shown in **Table 7-1**. As discussed in **Section 6**, those AHIMS sites within the Project area but outside the

surveyed area were not inspected by OzArk, and therefore the significance for these sites must be sourced from the ERM (2010), and EMM (2012, 2013, 2023) archaeological reports.

Additionally, the sites recorded by EMM (2023) (36-2-0965 [SNI-AS48] and 36-2-0697 [SNI-AS47]) that are within the development footprint were not known to OzArk at the time of survey as they were recorded either concurrent to, or following, the 2022 survey, and therefore these sites were not inspected by OzArk. The significance for these sites has been sourced from the EMM (2023) report and reproduced in **Table 7-1**. These sites were assessed to have low social or cultural significance (EMM 2024), however, this is subject to change if further information regarding the cultural significance of the sites is provided during the Stage 4 review period.

Table 7-1: Aboriginal cultural heritage significance assessment of newly recorded sites and previously recorded sites that have been updated.

AHIMS ID	Site Name	Social or Cultural Value	Archaeological / scientific Value	Aesthetic value	Historic value
36-1-0167	Grinding Groove 04	High	Moderate	Low	Nil
36-2-0168	Grinding Groove 05	High	Moderate	Low	Nil
36-2-0180	Hearth 04	High	Moderate, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0181	Hearth 05	High	Moderate, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0192	IF01	High	Low	Low	Nil
36-2-0196	IF 05-Ground Edge Axe	High	Moderate	Low	Nil
36-2-0214	SAC 11	High	Low, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0215	SAC 12	High	Low, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0216	SAC 13	High	Low, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0218	SAC 15	High	Low, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0223	SAC 20	High	Low, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0224	SAC 21	High	Low	Low	Nil

AHIMS ID	Site Name	Social or Cultural Value	Archaeological / scientific Value	Aesthetic value	Historic value
36-2-0240	SAC 37	High	Low	Low	Nil
36-2-0368	CBR-OS-33B	High	Low	Low	Nil
36-2-0369	CBR-OS-33A	High	Low	Low	Nil
36-2-0393	CBR-OS-21	High	Low	Low	Nil
36-2-0394	CBR-OS-20	High	Low	Low	Nil
36-2-0400	CBR-OS-15	High	Low	Low	Nil
36-2-0401	CBR-OS-14	High	Moderate	Low	Nil
36-2-0402	CBR-OS-13B	High	Low	Low	Nil
36-2-0403	CBR-OS-13A	High	Low	Low	Nil
36-2-0404	CBR-OS-12 'WATERHOLE'	High	High, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0405	CBR-OS-11	High	Low	Low	Nil
36-2-0406	CBR-OS-10	High	Low	Low	Nil
36-2-0407	CBR-OS-09 'BIG SCALD'	High	Moderate	Low	Nil
36-2-0408	CBR-OS-08	High	Low	Low	Nil
36-2-0409	CBR-OS-07	High	Low	Low	Nil
36-2-0410	CBR-OS-06	High	Low	Low	Nil
36-2-0421	CBR - IF - 05	High	Low	Low	Nil
36-2-0422	CBR-IF-04	High	Low	Low	Nil
36-2-0424	CBR-IF-02	High	Low	Low	Nil
36-2-0425	CBR-IF-01	High	Low	Low	Nil
36-2-0521	CSF OS2	High	Low	Low	Nil
36-2-0522	CSF OS3	High	Low, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0523	CSF OS5	High	Low	Low	Nil
36-2-0524	CSF OS6	High	Low, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0525	CSF OS7	High	Low, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0526	CSF OS8	High	Low, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0527	CSF OS9	High	Low, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0528	CSF OS10	High	Low, although the values of the PAD aspect of	Low	Nil

AHIMS ID	Site Name	Social or Cultural Value	Archaeological / scientific Value	Aesthetic value	Historic value
			the site are unknown		
36-2-0529	CSF OS11	High	Low	Low	Nil
36-2-0530	CSF OS12	High	Low	Low	Nil
36-2-0531	CSF OS13	High	Low	Low	Nil
36-2-0532	CSF OS14	High	Low	Low	Nil
36-2-0533	CSF OS15	High	Low	Low	Nil
36-2-0534	CSF OS4	High	Low, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0535	CSF IF01	High	Low	Low	Nil
36-2-0536	CSF IF03	High	Low	Low	Nil
36-2-0537	CSF IF04	High	Low	Low	Nil
36-2-0538	CSF IF05	High	Low	Low	Nil
36-2-0539	CSF IF06	High	Low	Low	Nil
36-2-0540	CSF IF08	High	Low	Low	Nil
36-2-0541	CSF IF09	High	Low	Low	Nil
36-2-0542	CSF IF10	High	Low	Low	Nil
36-2-0543	CSF IF11	High	Low	Low	Nil
36-2-0544	CSF IF12	High	Low	Low	Nil
36-2-0545	CSF IF13	High	Low	Low	Nil
36-2-0546	CSF IF15	High	Low	Low	Nil
36-2-0547	CSF IF14	High	Low	Low	Nil
36-2-0548	CSF OS1	High	Low, although the values of the PAD aspect of the site are unknown	Low	Nil
36-2-0582	SC GG1	High	High	High	Nil
36-2-0695	SNI-AS48	Low (provisional)	Low	Low	Nil
36-2-0697	SNI-AS47	Low (provisional)	Low	Low	Nil
36-2-0814	CSF IF02	High	Low	Low	Nil
36-2-0815	CSF IF07	High	Low	Low	Nil

7.2.1 Statement of significance

It has been noted through consultation with RAPs that the confluence of Sandy and Laheys Creeks hold cultural significance to the local Aboriginal community. Generally, the Project area contains a number of sites which hold significance to the Aboriginal community due to their cultural and educational value. Any further feedback regarding cultural values received from the RAPs will be added here.

The scientific values of the Project area vary from isolated finds that have a limited ability to provide further information on past Aboriginal use of the region, through to sites with rarer artefact types and site types that have a higher level of scientific significance. Scarred trees are typical of

those recorded within the broader region; their significance is elevated as they are relatively rare in the area compared to other site types such as artefact scatters. The hearths and grinding grooves are less common site types within the region and hearths provide potential for providing materials that can be dated.

There are no specific aesthetic values within the Project area apart from the environmental setting at the confluence of two creek lines, as well as the general sounds, smells, and sights of the current agricultural landscape.

There are no known historical Aboriginal values associated with the Project area.

8 ASSESSING HARM

8.1 AVOIDING AND MINIMISING HARM

8.1.1 Conserving significant Aboriginal cultural heritage

An object of the NPW Act is the '*conservation of objects places and features… of cultural value within the landscape, including… places, objects and features of significance to Aboriginal people*' (s.2A(1(b)(i)).

As heritage professionals, OzArk, strives for good conservation outcomes. In particular, OzArk is primarily concerned with the conservation and protection of Aboriginal cultural heritage that is of significance to Aboriginal people.

Two primary objectives when managing harm to an Aboriginal object are:

- Impacts to significant Aboriginal objects and places should always be avoided wherever possible
- Where impacts to Aboriginal objects and places cannot be avoided, proposals should be amended to reduce the extent and severity of impacts to significant Aboriginal objects and places using reasonable and feasible measures.

8.1.2 Opportunities to conserve Aboriginal cultural heritage values

Based on the results of the survey, the Proponent expanded the exclusions zones within the Project area and significantly altered the development footprint to conserve the Aboriginal sites identified (**Figure 8-1** and **Figure 8-2**). Of the 137 sites located within the Project area, only 22 sites remain within, or partially within, the development footprint. Therefore, 115 registered Aboriginal sites would be avoided by the Project. Additionally, of the 32 PADs located within the Project area, PADs 11, 19 and 20 intersect with the development footprint. Therefore, 29 PADs will be avoided by the Project.

The 22 sites and portions of PADs 11, 19, and 20 within the development footprint are unable to be conserved (**Figure 8-3** to **Figure 8-7**). These include isolated finds, artefact scatters, and a small portion of the PADs which are common site types within the region, and all have been assessed as having low or moderate archaeological significance, with the exception of 36-2-0226 (SAC 23) which ERM (2010) assessed to have high scientific value.

Eighteen of the 22 sites are wholly located within the development footprint, while the site extents of SAC 12, 36-2-0216 (SAC 13), SAC 23, and 36-2-0192 (IF01-Glass Flake) would be subject to partial impact.

The proposed partial impact to SAC 23 and PAD 20 involves the installation of two single 33 kV electrical line poles: one 33 kV pole within the site extent of SAC 23 and PAD 20, and the other within PAD 20 but outside of the identified artefact scatter extent (**Figure 8-4**). Similarly the

proposed partial impacts to IF01-Glass Flake, SAC 12, SAC 13, PAD 11, and PAD 19 involves the installation of further 33 kV poles along the easement (**Figure 8-5** to **Figure 8-7**). The PADs associated with SAC 12 and SAC 13 (PADs 13, 14, and 15) will not be subject to impact.

Figure 8-1: View of revised development footprint overlayed with previous development footprint.

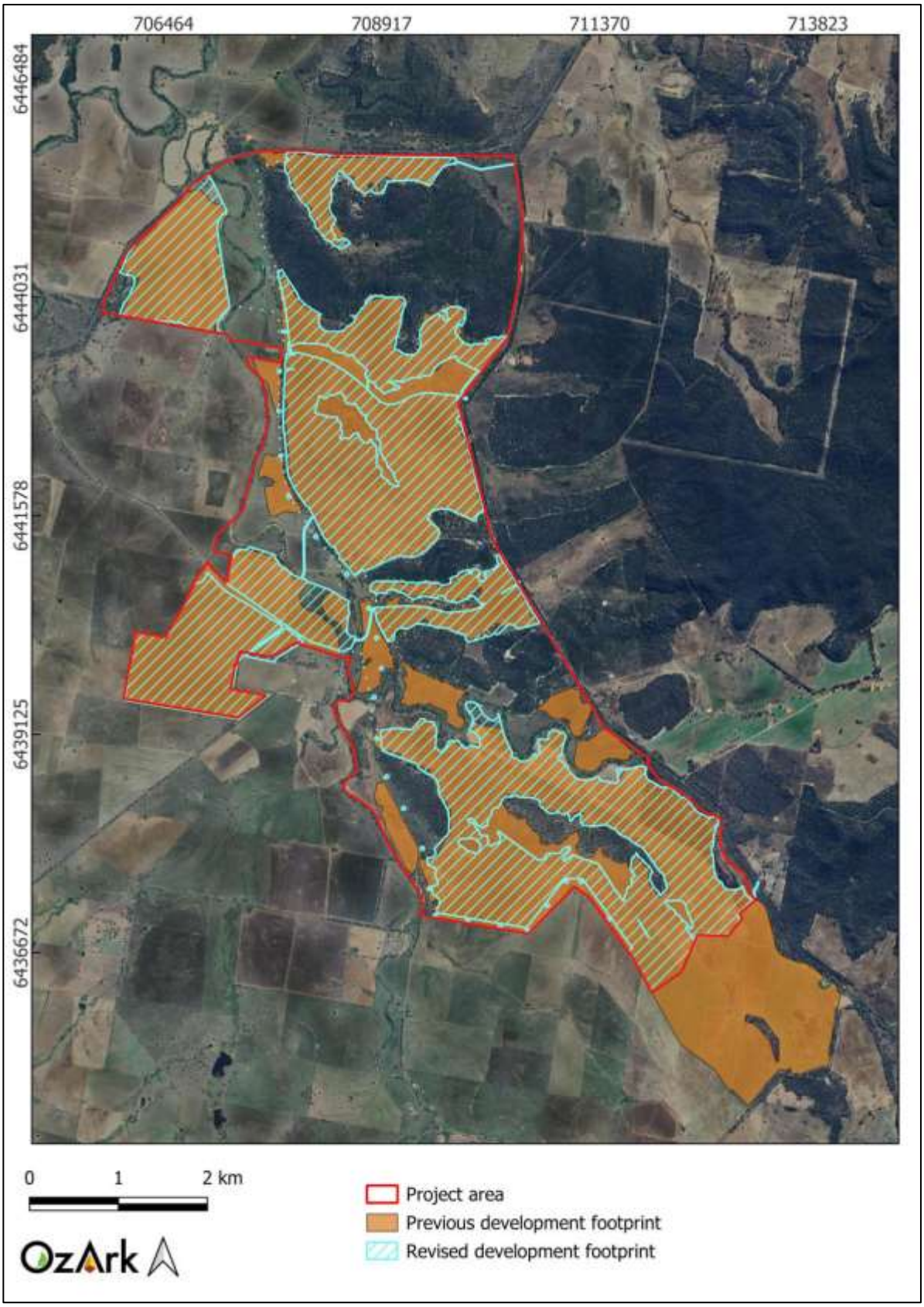


Figure 8-2: Recorded Aboriginal sites and PADs in relation to the development footprint.

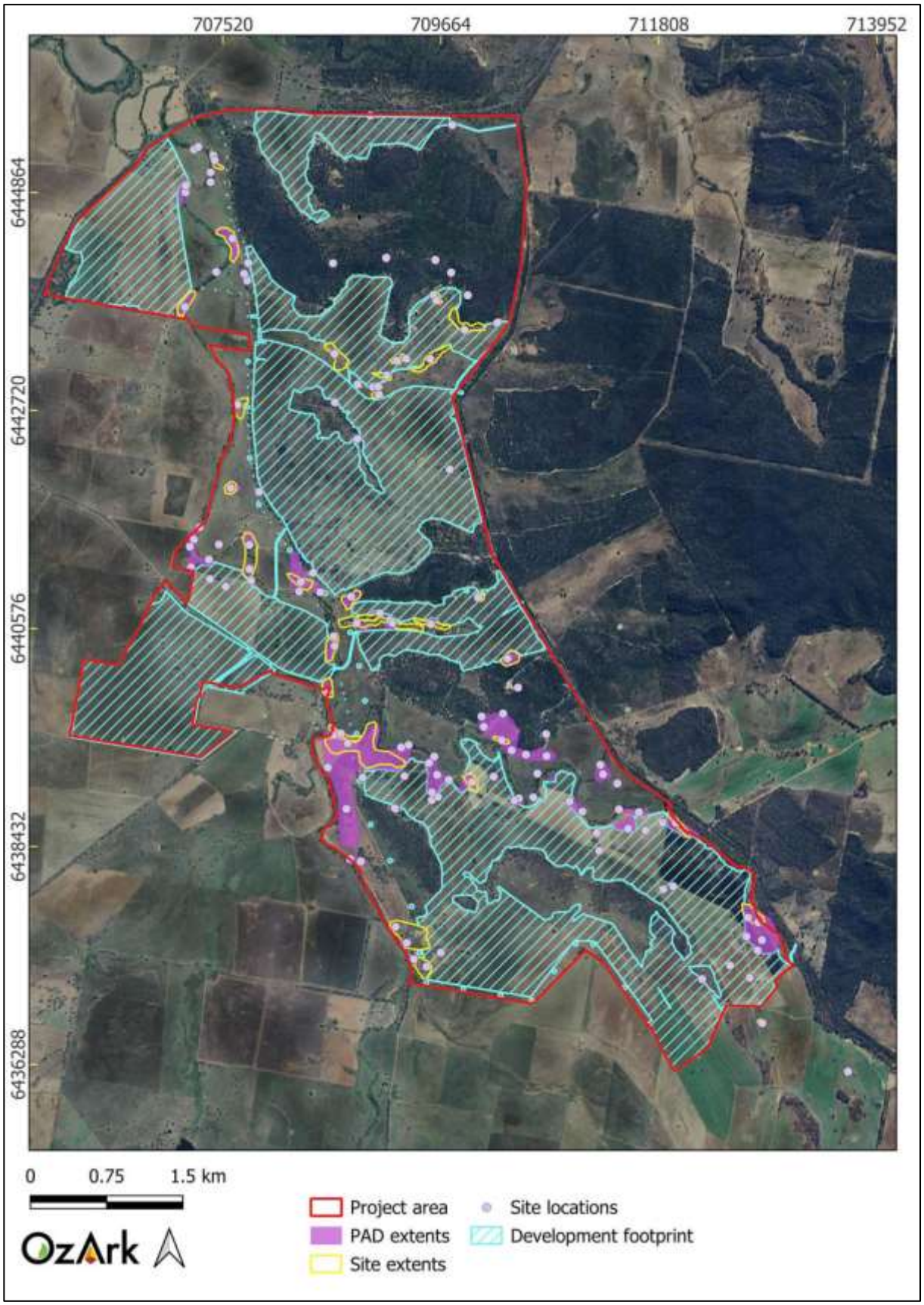


Figure 8-3: Aboriginal sites and PADs within the development footprint.

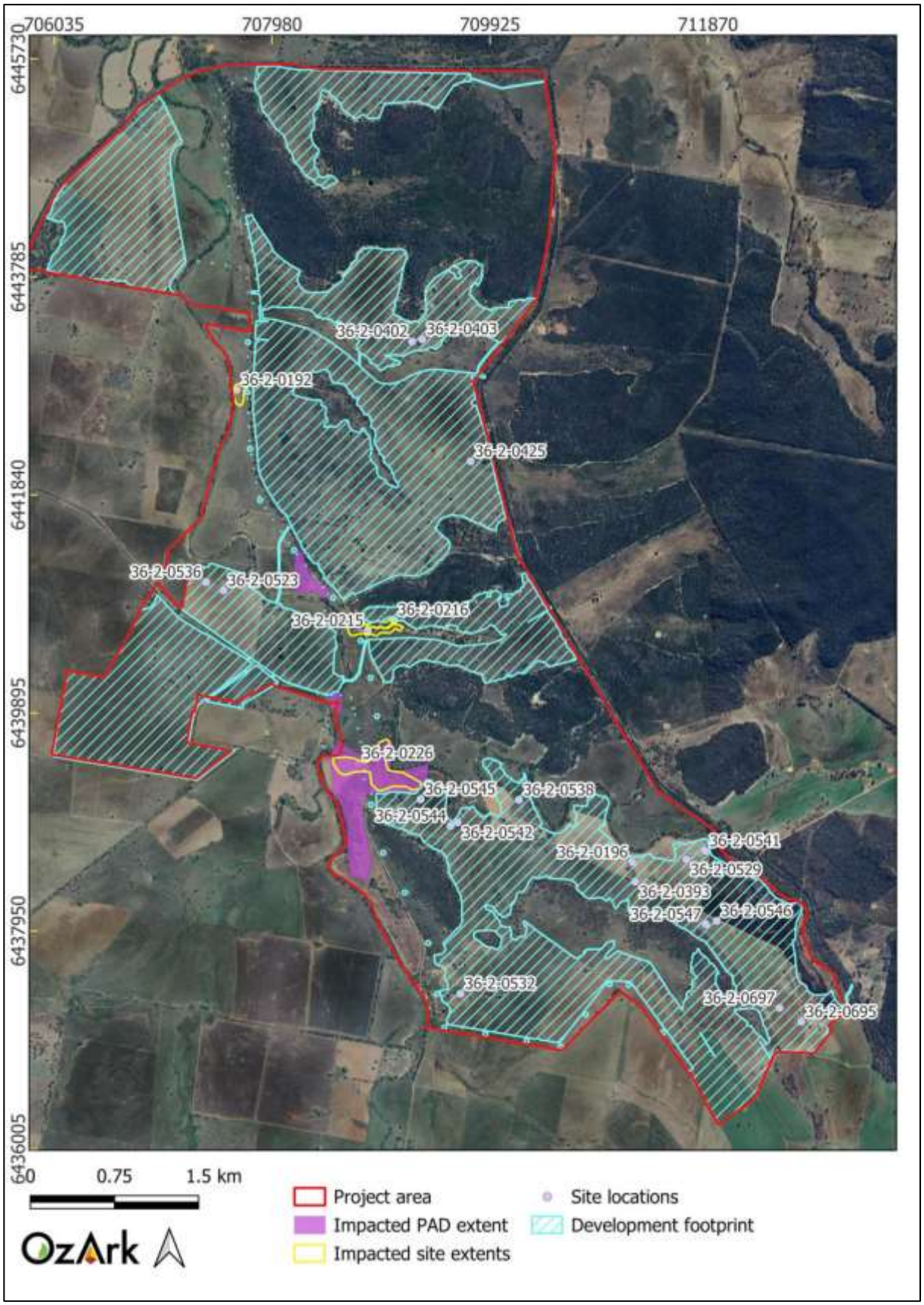


Figure 8-4: Proposed 33kV pole locations in relation to SAC 23 (36-2-0026) and PAD 20.

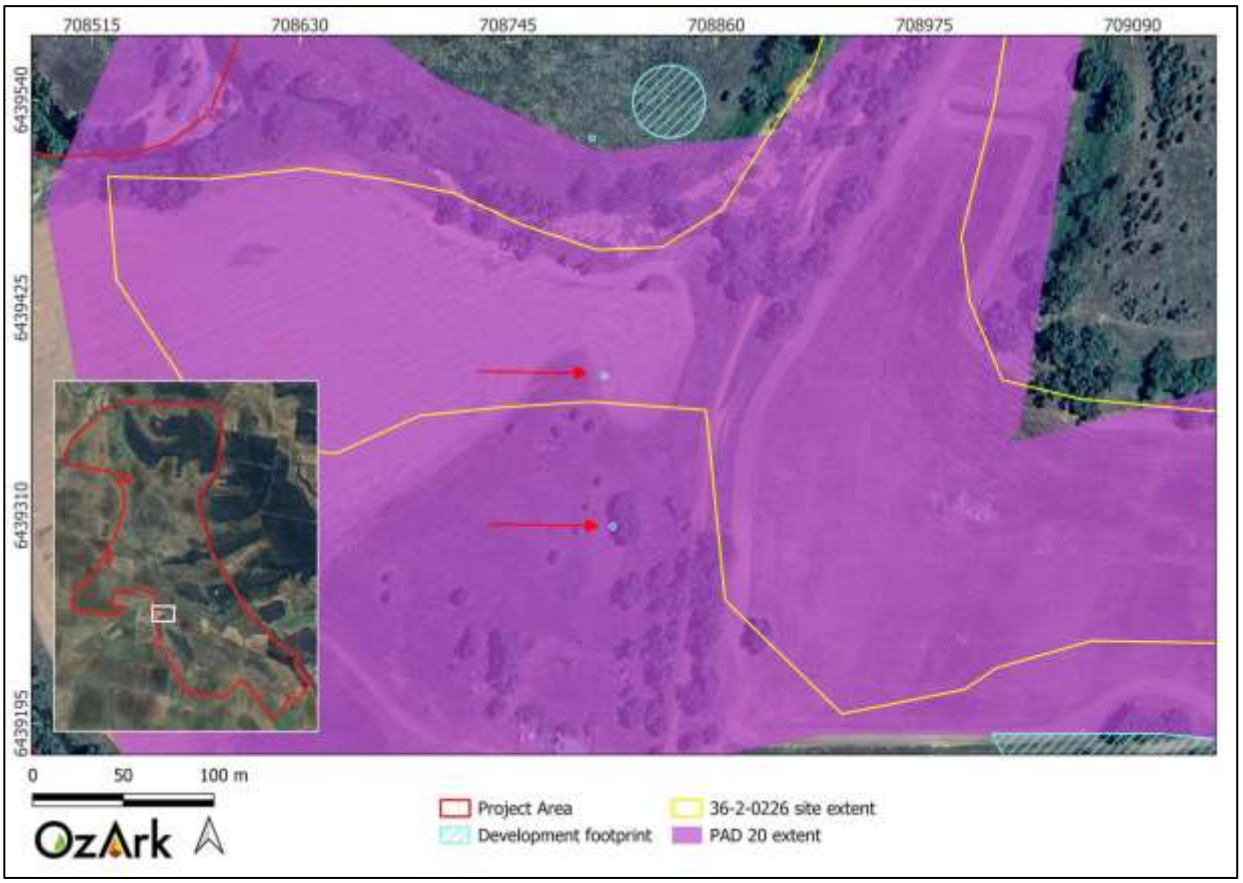


Figure 8-5: Proposed 33kV pole location in relation to IF01-Glass Flake (36-2-0192).

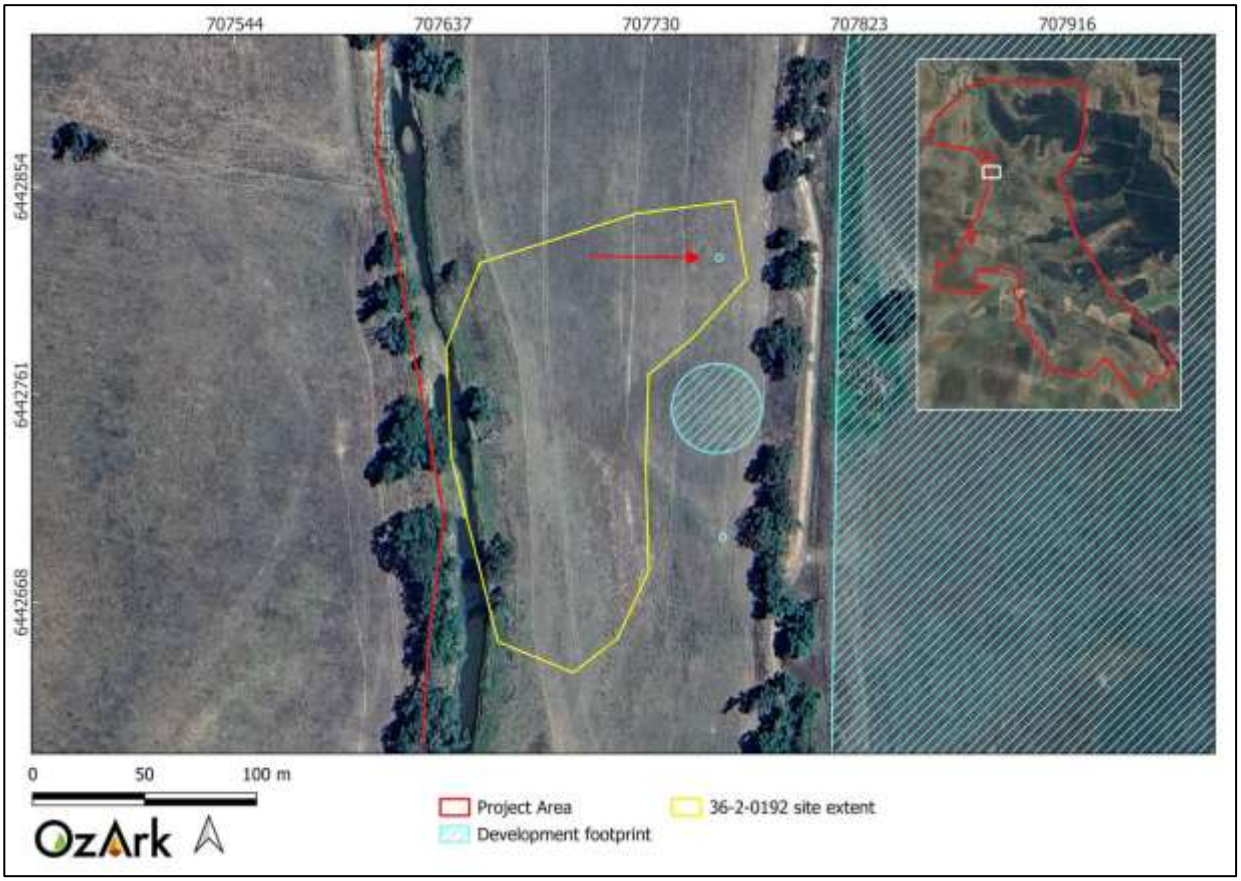


Figure 8-6: Proposed 33kV pole locations in relation to PAD 11, SAC 12 (36-2-0215) and SAC 13 (36-2-0216).

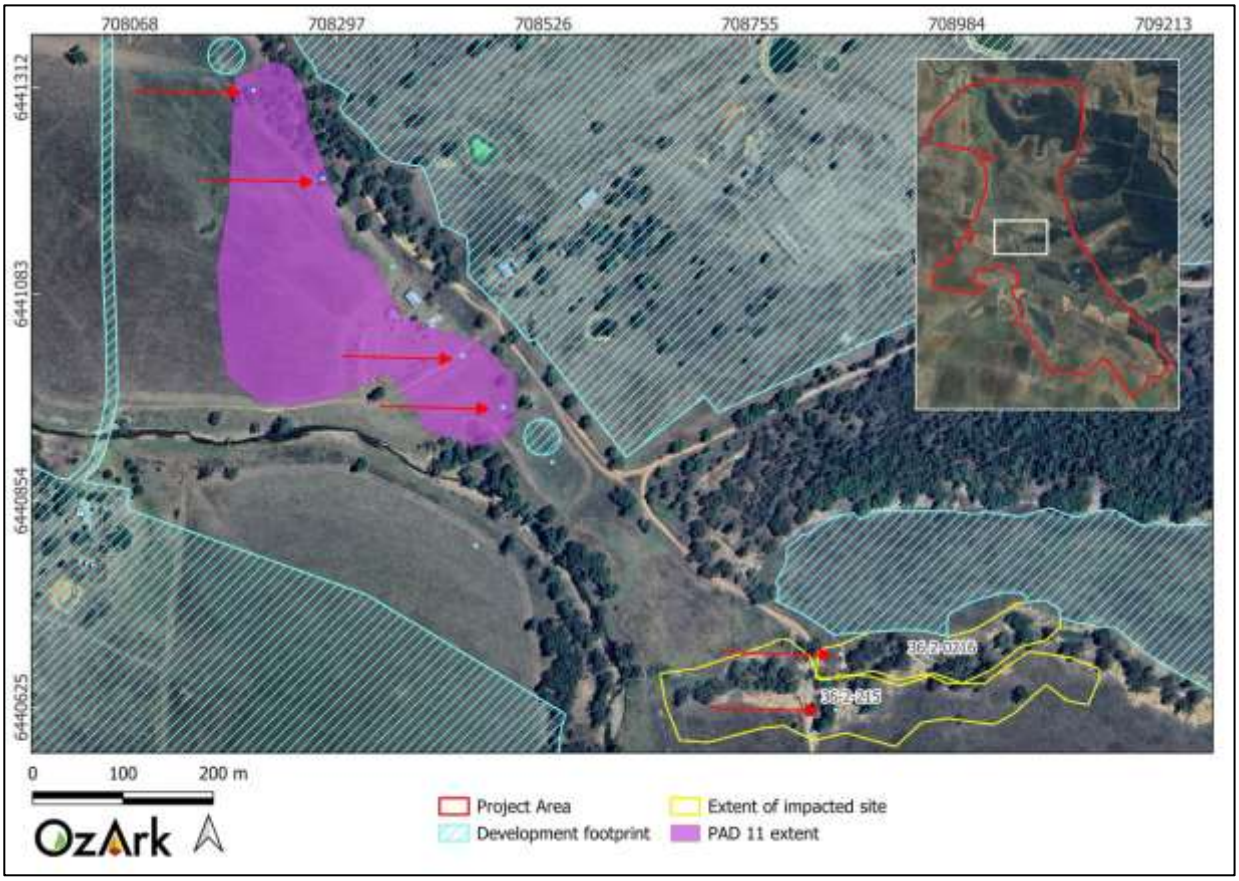
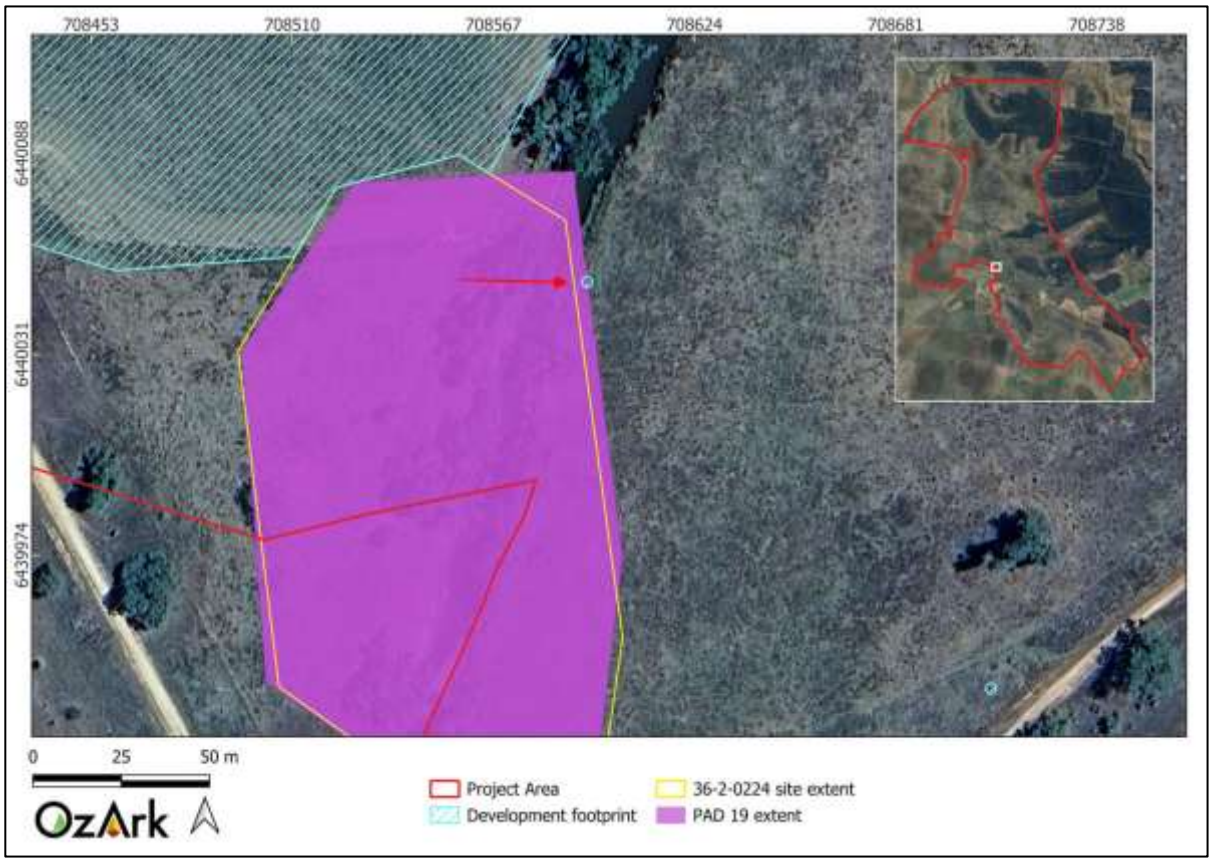


Figure 8-7: Proposed 33kV pole location in relation to PAD 19.



8.2 LIKELY IMPACTS TO ABORIGINAL HERITAGE FROM THE PROJECT

Table 8-1 presents a summary of potential impacts to Aboriginal cultural heritage associated with the Project. CSF IF02 and CSF OS15, included in **Table 8-1** below, are now located outside of the Project area and will not be subject to harm by the Project. Twenty-two AHIMS registered sites (out of the 137 sites within the Project area) are likely to be harmed should the Project proceed, and a small area of PAD 11 and PAD 20 would be harmed by the construction of electricity poles. PAD 19 may also be harmed should the electricity pole be located within the PAD extent, as it is currently proposed.

Table 8-1: Aboriginal cultural heritage: impact assessment.

AHIMS ID	Site Name	Type of Harm (Direct/Indirect / None)	Degree of Harm (Total/Partial / None)	Consequence of Harm (Total/Partial/No Loss of Value)
36-2-0090	DR-ST2	None	None	No loss of value
36-2-0164	Grinding Groove 01	None	None	No loss of value
36-2-0165	Grinding Groove 02	None	None	No loss of value
36-2-0166	Grinding Groove 03	None	None	No loss of value
36-2-0167	Grinding Groove 04	None	None	No loss of value
36-2-0168	Grinding Groove 05	None	None	No loss of value
36-2-0177	Hearth 01	None	None	No loss of value
36-2-0178	Hearth 02	None	None	No loss of value
36-2-0179	Hearth 03	None	None	No loss of value
36-2-0180	Hearth 04	None	None	No loss of value
36-2-0181	Hearth 05	None	None	No loss of value
36-2-0182	Hearth 06	None	None	No loss of value
36-2-0183	Hearth 07	None	None	No loss of value
36-2-0184	Hearth 08	None	None	No loss of value
36-2-0185	Hearth 09	None	None	No loss of value
36-2-0186	Hearth 10	None	None	No loss of value
36-2-0187	Hearth 11	None	None	No loss of value
36-2-0188	Hearth 12	None	None	No loss of value
36-2-0192	IF 01-Glass Flake	Direct	Partial	Partial
36-2-0193	IF 02-Brown Silcrete Core	None	None	No loss of value
36-2-0194	IF 03-Pounding Stone	None	None	No loss of value
36-2-0195	IF O4-Knife Sharping Stone	None	None	No loss of value
36-2-0196	IF 05-Ground Edge Axe	Direct	Total	Total loss of value
36-2-0198	IF 07-Hammer Stone	None	None	No loss of value
36-2-0206	SAC 03	None	None	No loss of value
36-2-0207	SAC 04	None	None	No loss of value
36-2-0208	SAC 05	None	None	No loss of value
36-2-0209	SAC 06	None	None	No loss of value
36-2-0210	SAC 07	None	None	No loss of value
36-2-0211	SAC 08	None	None	No loss of value
36-2-0212	SAC 09	None	None	No loss of value

AHIMS ID	Site Name	Type of Harm (Direct/Indirect / None)	Degree of Harm (Total/Partial / None)	Consequence of Harm (Total/Partial/No Loss of Value)
36-2-0214	SAC 11	None	None	No loss of value
36-2-0215	SAC 12	Direct	Partial	Partial loss of value
36-2-0216	SAC 13	Direct	Partial	Partial loss of value
36-2-0217	SAC 14	None	None	No loss of value
36-2-0218	SAC 15	None	None	No loss of value
36-2-0219	SAC 16	None	None	No loss of value
36-2-0220	SAC 17	None	None	No loss of value
36-2-0221	SAC 18	None	None	No loss of value
36-2-0223	SAC 20	None	None	No loss of value
26-2-0224	SAC 21	None	None	No loss of value
36-2-0225	SAC 22	None	None	No loss of value
36-2-0226	SAC 23	Direct	Partial	Partial loss of value
36-2-0227	SAC 24	None	None	No loss of value
36-2-0228	SAC 25	None	None	No loss of value
36-2-0229	SAC 26	None	None	No loss of value
36-2-0230	SAC 27	None	None	No loss of value
36-2-0231	SAC 28	None	None	No loss of value
36-2-0232	SAC 29	None	None	No loss of value
36-2-0237	SAC 34	None	None	No loss of value
36-2-0238	SAC 35	None	None	No loss of value
36-2-0239	SAC 36	None	None	No loss of value
36-2-0240	SAC 37	None	None	No loss of value
36-2-0243	Shelter 02	None	None	No loss of value
36-2-0252	TRE 03	None	None	No loss of value
36-2-0253	TRE 04	None	None	No loss of value
36-2-0254	TRE 05	None	None	No loss of value
36-2-0256	TRE 07	None	None	No loss of value
36-2-0257	TRE 08	None	None	No loss of value
36-2-0258	TRE 09	None	None	No loss of value
36-2-0259	TRE 10	None	None	No loss of value
36-2-0260	TRE 11	None	None	No loss of value
36-2-0261	TRE 12	None	None	No loss of value
36-2-0263	TRE 14	None	None	No loss of value
36-2-0264	TRE 15	None	None	No loss of value
36-2-0265	TRE 16	None	None	No loss of value
36-2-0336	IF 04 - Knife Sharping Stone	None	None	No loss of value
36-2-0341	CBR - RSH - 01	None	None	No loss of value
36-2-0368	CBR - OS - 33B	None	None	No loss of value
36-2-0369	CBR - OS - 33A	None	None	No loss of value
36-2-0371	CBR - OS - 31E	None	None	No loss of value
36-2-0372	CBR - OS - 31D	None	None	No loss of value
36-2-0373	CBR - OS - 31C	None	None	No loss of value
36-2-0374	CBR - OS - 31B	None	None	No loss of value

AHIMS ID	Site Name	Type of Harm (Direct/Indirect / None)	Degree of Harm (Total/Partial / None)	Consequence of Harm (Total/Partial/No Loss of Value)
36-2-0375	CBR - OS - 31A	None	None	No loss of value
36-2-0393	CBR - OS - 21	Direct	Total	Total loss of value
36-2-0394	CBR - OS - 20	None	None	No loss of value
36-2-0395	CBR - OS - 19	None	None	No loss of value
36-2-0396	CBR - OS - 18A	None	None	No loss of value
36-2-0397	CBR - OS - 18	None	None	No loss of value
36-2-0398	CBR - OS - 17	None	None	No loss of value
36-2-0400	CBR - OS - 15	None	None	No loss of value
36-2-0401	CBR - OS - 14	None	None	No loss of value
36-2-0402	CBR - OS - 13B	Direct	Total	Total loss of value
36-2-0403	CBR - OS - 13A	Direct	Total	Total loss of value
36-2-0404	CBR - OS - 12 'WATERHOLE'	None	None	No loss of value
36-2-0405	CBR - OS - 11	None	None	No loss of value
36-2-0406	CBR - OS - 10	None	None	No loss of value
36-2-0407	CBR - OS - 09 'BIG SCALD'	None	None	No loss of value
36-2-0408	CBR - OS - 08	None	None	No loss of value
36-2-0409	CBR - OS - 07	None	None	No loss of value
36-2-0410	CBR - OS - 06	None	None	No loss of value
36-2-0411	CBR - OS - 05B	None	None	No loss of value
36-2-0412	CBR - OS - 05A	None	None	No loss of value
36-2-0413	CBR - OS - 04	None	None	No loss of value
36-2-0414	CBR - OS - 03	None	None	No loss of value
36-2-0415	CBR - OS - 02	None	None	No loss of value
36-2-0416	CBR - OS - 01	None	None	No loss of value
36-2-0421	CBR - IF - 05	None	None	No loss of value
36-2-0422	36 CBR - IF - 04	None	None	No loss of value
36-2-0423	CBR - IF - 03	None	None	No loss of value
36-2-0424	CBR - IF - 02	None	None	No loss of value
36-2-0425	CBR - IF - 01	Direct	Total	Total loss of value
36-2-0427	CBR - OS - 11A	None	None	No loss of value
36-2-0428	CBR - OS - 18B	None	None	No loss of value
36-2-0490	Cobbora artefact reburial loc	None	None	No loss of value
36-2-0521	CSF OS2	None	None	No loss of value
36-2-0522	CSF OS3	None	None	No loss of value
36-2-0523	CSF OS5	Direct	Total	Total loss of value
36-2-0524	CSF OS6	None	None	No loss of value
36-2-0525	CSF OS7	None	None	No loss of value
36-2-0526	CSF OS8	None	None	No loss of value
36-2-0527	CSF OS9	None	None	No loss of value
36-2-0528	CSF OS10	None	None	No loss of value
36-2-0529	CSF OS11	Direct	Total	Total loss of value
36-2-0530	CSF OS12	None	None	No loss of value
36-2-0531	CSF OS13	None	None	No loss of value

AHIMS ID	Site Name	Type of Harm (Direct/Indirect / None)	Degree of Harm (Total/Partial / None)	Consequence of Harm (Total/Partial/No Loss of Value)
36-2-0532	CSF OS14	Direct	Total	Total loss of value
36-2-0533	CSF OS15	None	None	No loss of value
36-2-0534	CSF OS4	None	None	No loss of value
36-2-0535	CSF IF01	Non	None	No loss of value
36-2-0536	CSF IF03	Direct	Total	Total loss of value
36-2-0537	CSF IF04	None	None	No loss of value
36-2-0538	CSF IF05	Direct	Total	Total loss of value
36-2-0539	CSF IF06	None	None	No loss of value
36-2-0540	CSF IF08	None	None	No loss of value
36-2-0541	CSF IF09	Direct	Total	Total loss of value
36-2-0542	CSF IF10	Direct	Total	Total loss of value
36-2-0543	CSF IF11	None	None	No loss of value
36-2-0544	CSF IF12	Direct	Total	Total loss of value
36-2-0545	CSF IF13	Direct	Total	Total loss of value
36-2-0546	CSF IF15	Direct	Total	Total loss of value
36-2-0547	CSF IF14	Direct	Total	Total loss of value
36-2-0548	CSF OS1	None	None	No loss of value
36-2-0582	SC GG1	None	None	No loss of value
36-2-0695	SNI-AS48	Direct	Total	Total loss of value
36-2-0697	SNI-AS47	Direct	Total	Total loss of value
36-2-0814	CSF IF02	None	None	No loss of value
36-2-0815	CSF IF07	None	None	No loss of value
-	PAD 11	Direct	Partial	Partial loss of value
-	PAD 19	Direct	Partial	Partial loss of value
-	PAD 20	Direct	Partial	Partial loss of value

8.3 ECOLOGICALLY SUSTAINABLE DEVELOPMENT PRINCIPLES

Ecologically sustainable development principles (ESD) (defined in s.6 of the *Protection of the Environment Administration Act 1991*) requires the integration of economic and environmental considerations (including cultural heritage) in the decision-making process. Regarding Aboriginal cultural heritage, ESD can be achieved by applying the principle of intergenerational equity and the precautionary principle.

8.3.1 Intergenerational equity

Intergenerational equity is the principle whereby the present generation should ensure the health, diversity, and productivity of the environment for the benefit of future generations.

In terms of Aboriginal heritage, intergenerational equity can be considered in terms of the cumulative impacts to Aboriginal objects and places in a region. If few Aboriginal objects and places remain in a region (for example, because of impacts under previous permits), fewer

opportunities remain for future generations of Aboriginal people to enjoy the cultural benefits of those Aboriginal objects and places.

Information about the integrity, rarity or representativeness of the Aboriginal objects and places proposed to be impacted, and how they illustrate the occupation and use of land by Aboriginal people across the region, will be relevant to the consideration of intergenerational equity and the understanding of the cumulative impacts of the Project.

Where there is uncertainty, the precautionary principle should also be followed.

8.3.2 The precautionary principle

The precautionary principle states that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

In relation to Aboriginal cultural heritage values, the precautionary principle should be applied if:

- The proposal involves a risk of serious or irreversible damage to Aboriginal objects or places or to the value of those objects or places
- There is uncertainty about the Aboriginal cultural heritage values or scientific or archaeological values, including in relation to the integrity, rarity or representativeness of the Aboriginal objects or places proposed to be impacted.

8.3.3 Principle of Integration

The Plan of Implementation of the World Summit on Sustainable Development held in Johannesburg, 2002, noted the need to "*promote the integration of the three components of sustainable development- economic development, social development and environmental protection- as interdependent and mutually reinforcing pillars*".

The principle of integration ensures mutual respect and reciprocity between economic and environmental considerations:

- Environmental considerations are to be integrated into economic and other development plans, programs, and projects
- Development needs are to be considered in applying environmental objectives.

8.3.4 Applicability to the Project

Twenty-two of the 137 Aboriginal sites within the Project area have the potential to be harmed by the Project. It is acknowledged that there has been an increase in the number of Aboriginal sites being harmed in the region due to the number of renewable projects being developed, and therefore the Project contributes to the cumulative impacts to the Aboriginal cultural heritage of the area.

However, of the Aboriginal sites being impacted, 20 have been assessed as being of low scientific value, and one of moderate scientific value. SAC 23 and associated PAD 20, which have been assessed as being of high scientific value, would be subject to a discreet level of partial impact within the site and PAD extents. The scientific values of PAD 11 and PAD 19, which may be subject to partial impact, are not yet known, however both PADs are associated with sites assessed to have low scientific value (CSF OS5 and SAC 21 respectively).

While partial impact to a site of recorded high scientific value is proposed, there is a moderate impact to Aboriginal cultural heritage values within the Project area. This is due to the large number of Aboriginal sites which have been identified within the surrounding area, and the sites to be completely impacted are not representative of their type, nor significant to the region. Additionally, no intangible heritage values which have so far been identified within the Project area would be impacted.

The remaining sites within the Project area would be conserved in the landscape, and the Project will adhere to the ESD principles of ensuring that impacts are minimised and that the Aboriginal cultural heritage values within the Project area are maintained.

Table 8-2 examines the application of ESD principles to the Project.

Table 8-2: Application of ESD principles to the Project.

ESD principle	Response
Avoiding and minimising harm	**Section 9** sets out mechanisms by which to avoid and minimise harm to Aboriginal cultural heritage values from the Project. By avoiding the majority of Aboriginal sites and PADs, the principle of minimising harm has been followed.
The integration principle	The Project presents a strong case for the broader environmental benefits arising from environmentally responsible development. The environmental consequences of the Project have been carefully assessed.
The precautionary principle	The Aboriginal cultural heritage investigation has followed the precautionary principle by undertaking a robust Aboriginal cultural heritage assessment to ensure that the Aboriginal objects and values at the Project area have been identified. The robust assessment has also allowed for practical measures to minimise or avoid impact to Aboriginal sites. The survey adopted a precautionary principle when it came to describing and assessing landforms within the surveyed area. The development footprint has been redesigned in such a way that all PADs (except minor areas within PADs 11, 19, and 20) have been excluded to ensure that potential significant subsurface deposits would not be harmed.
The intergenerational equity principle	The results of the investigation and the undertakings of the Proponent have ensured that most of the recorded sites will be preserved and able to be appreciated by future generations. Harm to 22 sites, however, is a loss of intergenerational equity but it is considered to be a manageable loss and more than compensated by the large number of Aboriginal sites that have been avoided by the Project. The archaeological measures contained in this ACHAR are also designed to mitigate the loss of inter-generational equity as much as possible.

9 MANAGEMENT OF ABORIGINAL CULTURAL HERITAGE SITES

9.1 GENERAL MANAGEMENT PRINCIPLES

Appropriate management of cultural heritage items is primarily determined based on their assessed significance as well as the likely impacts of the Project. **Section 7.2** and **Section 8.2** describe, respectively, the significance / potential of the recorded sites and the likely impacts of the Project. The following management options are general principles, in terms of best practice and desired outcomes, rather than mitigation measures against individual site disturbance.

- Avoid impact by altering the Project to avoid impact to a recorded Aboriginal site. If this can be done, then a suitable curtilage around the site must be provided to ensure its protection both during the short-term construction phase of development and in the long-term use of the area. If the design is altered, care must be taken to ensure that impacts do not occur to areas not previously assessed.

- If impact is unavoidable then approval to disturb sites under the authority of an ACHMP must be sought from DPHI. Normally the management recommendations contained in the ACHAR become policies of the ACHMP. As the Aboriginal community have been provided the opportunity to view the draft ACHAR, the ACHAR must make it clear that a future ACHMP will manage Aboriginal cultural heritage within the Project area so that the Aboriginal community can assess the management recommendations with this knowledge. The ACHMP policies will often stipulate that the Aboriginal community should be involved in any salvage activities and will dictate what the fate of any salvaged Aboriginal objects will be.

9.2 MANAGEMENT AND MITIGATION OF RECORDED ABORIGINAL SITES

Recommendations for the management of each site and PAD area within the Project area are included in **Table 9-1**. Those sites which would be subject to impact are shown in blue. Any site or PAD areas which would not be subject to direct impact but are located within 20 m of the development footprint are recommended to be fenced (**Section 9.2.4**).

Table 9-1: Management strategies for sites within the Project area.

AHIMS ID	Site name	Site type	Degree of harm	Management strategy
36-2-0535	CSF IF01	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0536	CSF IF03	Isolated Find	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0537	CSF IF04	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.

AHIMS ID	Site name	Site type	Degree of harm	Management strategy
36-2-0538	CSF IF05	Isolated Find	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0539	CSF IF06	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0815	CSF IF07	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0540	CSF IF08	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0541	CSF IF09	Isolated Find	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0542	CSF IF10	Isolated Find	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0543	CSF IF11	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
36-2-0544	CSF IF12	Isolated Find	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0545	CSF IF13	Isolated Find	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0547	CSF IF14	Isolated Find	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0546	CSF IF15	Isolated Find	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0548	CSF OS1	Artefact Scatter + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0521	CSF OS2	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0522	CSF OS3	Artefact Scatter + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0534	CSF OS4	Artefact Scatter + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0523	CSF OS5	Artefact Scatter	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0524	CSF OS6	Artefact Scatter + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..

AHIMS ID	Site name	Site type	Degree of harm	Management strategy
36-2-0525	CSF OS7	Artefact Scatter + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0526	CSF OS8	Artefact Scatter + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
36-2-0527	CSF OS9	Artefact Scatter + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0528	CSF OS10	Artefact Scatter + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0529	CSF OS11	Artefact Scatter	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0530	CSF OS12	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0531	CSF OS13	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0532	CSF OS14	Artefact Scatter	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0533	CSF OS15	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0207	SAC 04	Artefact Scatter + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0208	SAC 05	Artefact Scatter + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0179	Hearth 03	Hearth + Artefact Scatter + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0211	SAC 08	Artefact Scatter + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0212	SAC 09	Artefact Scatter + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0192	IF01-Glass Flake	Artefact Scatter	Partial	Mapping, description, and collection of surface artefacts within the development footprint prior to commencement of construction as per the methodology in **Section 9.2.1**. The portions of the site which are not proposed to be impacted but are within 20 m of the development footprint should be fenced as per **Section 9.2.4**. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.

AHIMS ID	Site name	Site type	Degree of harm	Management strategy
36-2-0226	SAC 23	Artefact Scatter + PAD	Partial	Mapping, description, and collection of surface artefacts within the development footprint prior to commencement of construction as per the methodology in **Section 9.2.1**. A focused subsurface archaeological excavation will take place at the location of the single 33kV poles within the 36-2-0226 site extent when the finalised impact location is precisely known as per the methodology in **Section 9.2.2**. The portions of the site which are not proposed to be impacted but are within 20 m of the development footprint should be fenced as per **Section 9.2.4**. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0168/36-1-0167/36-2-0197	Grinding Groove 05/Grinding Groove 04/IF 06	Grinding Grooves + Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0240	SAC 37	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0181	Hearth 05	Hearth + Artefact Scatter + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0180	Hearth 04	Hearth + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0214	SAC 11	Artefact Scatter + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0215	SAC 12	Artefact Scatter + confirmed PAD	Partial	Mapping, description, and collection of surface artefacts within the development footprint prior to commencement of construction as per the methodology in **Section 9.2.1**. The portions of the site which are not proposed to be impacted but are within 20 m of the development footprint should be fenced as per **Section 9.2.4**. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0216	SAC 13	Artefact Scatter + confirmed PAD	Partial	Mapping, description, and collection of surface artefacts within the development footprint prior to commencement of construction as per the methodology in **Section 9.2.1**. The portions of the site which are not proposed to be impacted but are within 20 m of the development footprint should be fenced as per **Section 9.2.4**. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0218	SAC 15	Artefact scatter + PAD (updated location)	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0219 / 36-2-0217	SAC 14 / SAC 16	Artefact scatter + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..

AHIMS ID	Site name	Site type	Degree of harm	Management strategy
36-2-0231	SAC 28	Artefact Scatter + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0368	CBR-OS-33B	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0369	CBR-OS-33A	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0371/36-2-0372	CBR-OS-31E/ CBR-OS-31D	Artefact Scatter + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0373	CBR-OS-31C	Artefact Scatter + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0374	CBR-OS-31B	Artefact Scatter + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0375	CBR-OS-31A	Artefact Scatter + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0393	CBR - OS - 21	Isolated Find	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0196	IF 05-Ground Edge Axe	Isolated Find	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0394	CBR-OS-20	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0395	CBR-OS-19	Isolated Find + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0400	CBR-OS-15	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0401	CBR-OS-14	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0402	CBR-OS-13B	Artefact Scatter	Total	Mapping, description and collection of surface artefacts prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0403	CBR-OS-13A	Artefact Scatter	Total	Mapping, description and collection of surface artefacts prior to commencement of construction as per the methodology in **Section 9.2.1**.

AHIMS ID	Site name	Site type	Degree of harm	Management strategy
36-2-0404	CBR-OS-12 'WATERHOLE'	Artefact Scatter + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0405	CBR-OS-11	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0406	CBR-OS-10	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0407	CBR-OS-09 'BIG SCALD'	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0408	CBR-OS-08	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0409	CBR-OS-07	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0410	CBR-OS-06	Artefact Scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0422	CBR-IF-04	Artefact scatter	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0424	CBR-IF-02	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0425	CBR-IF-01	Isolated Find	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0427	CBR-OS-11A	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0164	Grinding Groove 01	Grinding Groove	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0165	Grinding Groove 02	Grinding Groove	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
36-2-0166	Grinding Groove 03	Grinding Groove	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.

AHIMS ID	Site name	Site type	Degree of harm	Management strategy
36-2-0177/36-2-0209	Hearth 01/SAC 06	Isolated Find + Hearths + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0178	Hearth 02	Hearth	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0182	Hearth 06	Hearth	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0183	Hearth 07	Hearth	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0184	Hearth 08	Hearth	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0185	Hearth 09	Hearth	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0186	Hearth 10	Hearth	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
36-2-0187	Hearth 11	Hearth	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0188	Hearth 12	Hearth	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0090	DR-ST2	Scarred Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0193	IF 02-Brown Silcrete Core	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0194	IF 03-Pounding Stone	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0195	IF O4-Knife Sharping Stone	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0198	IF 07-Hammer Stone	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0206	SAC 03	Isolated find + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0209	SAC 06	Isolated find + Hearth + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0210	SAC 07	Isolated Find + Hearth + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0219/36-2-0217	SAC16/SAC 14	Artefact Scatter + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.

AHIMS ID	Site name	Site type	Degree of harm	Management strategy
36-2-0220	SAC 17	Isolated find + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0221	SAC 18	Isolated find + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0223	SAC 20	Isolated find + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0224	SAC 21	Artefact scatter + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0225	SAC 22	Isolated find + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0227	SAC 24	Isolated Find + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0228	SAC 25	Isolated Find + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0229	SAC 26	Isolated find + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0230	SAC 27	Isolated find + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
36-2-0232	SAC 29	Isolated find + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0238	SAC 35	Artefact Scatter + confirmed PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0239	SAC 36	Isolated find + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0243	Shelter 02	Habitation Structure	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0252	TRE 03	Modified Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0253	TRE 04	Modified Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0259	TRE 10	Modified Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0254	TRE 05	Modified Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.

AHIMS ID	Site name	Site type	Degree of harm	Management strategy
36-2-0255	TRE 06	Modified Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0256	TRE 07	Modified Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0257	TRE 08	Modified Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0258	TRE 09	Modified Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0259	TRE 10	Modified Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0260	TRE 11	Modified Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0261	TRE 12	Modified Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0263	TRE 14	Modified Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0264	TRE 15	Modified Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0265	TRE 16	Modified Tree	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0336	IF 04 - Knife Sharping Stone	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0341	CBR - RSH - 01	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0396	CBR - OS - 18A	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0397	CBR - OS - 18	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0398	CBR - OS - 17	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0411	CBR - OS - 05B	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0412	CBR - OS - 05A	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0413	CBR - OS - 04	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.

AHIMS ID	Site name	Site type	Degree of harm	Management strategy
36-2-0414	CBR - OS - 03	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0415	CBR - OS - 02	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0416	CBR - OS - 01	Isolated Find + PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the site is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**..
36-2-0421	CBR - IF - 05	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0423	CBR - IF - 03	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0428	CBR - OS - 18B	Isolated Find	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0490	Cobborra artefact reburial loc	Artefact reburial location	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed.
36-2-0582	SC GG1	Grinding groove with artefact/s and PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the site is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
36-2-0695	SNI-AS48	Artefact scatter	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
36-2-0697	SNI-AS47	Artefact scatter	Total	Mapping, description and collection of surface artefact prior to commencement of construction as per the methodology in **Section 9.2.1**.
-	PAD 1	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed.
-	PAD 2	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed.
-	PAD 3	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 4	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed.
-	PAD 5	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 6	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 7	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.

AHIMS ID	Site name	Site type	Degree of harm	Management strategy
-	PAD 8	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 9	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 10	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 11	PAD	Partial	A focused subsurface archaeological excavation would take place at the location of the four 33kV poles within PAD 11 when the finalised impact location is precisely known as per the methodology in **Section 9.2.2**. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 12	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 13	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 14	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 15	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 16	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 17	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 18	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 19	PAD	Partial	A focused subsurface archaeological excavation would take place at the location of the one 33kV pole within PAD 19 when the finalised impact location is precisely known as per the methodology in **Section 9.2.2**.

AHIMS ID	Site name	Site type	Degree of harm	Management strategy
				To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 20	PAD	Partial	A focused subsurface archaeological excavation will take place at the location of the two 33kV poles within PAD 20 when the finalised impact location is precisely known as per the methodology in **Section 9.2.2**. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 21	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed.
-	PAD 22	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 23	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 24	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed.
-	PAD 25	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 26	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 27	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 28	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed.
-	PAD 29	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 30	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 31	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 32	PAD	None	Within exclusion zone. To be included on all construction plans used during heritage inductions

AHIMS ID	Site name	Site type	Degree of harm	Management strategy
				to ensure the PAD is not inadvertently harmed. As the PAD is within 20 m of the development footprint, it should be fenced as per **Section 9.2.4**.
-	PAD 33	PAD	None	Excluded from the Project area.

9.2.1 Surface collection

Twenty Aboriginal heritage sites are wholly located within the development footprint and would be harmed by the Project (**Table 9-2**). Two Aboriginal sites (SAC 23 and CSF OS3) are partially located within the development footprint and may be partially harmed. Therefore, it is recommended that these sites be salvaged through the recording and collection of surface artefacts, prior to construction works proceeding. This recommendation is made due to:

- The cultural value of these sites and their importance to the Aboriginal community
- The nature of these sites (isolated finds or surface artefact objects only)
- Being in landforms with high previous disturbance from a range of factors including erosion and land use practices
- The generally low archaeological value assigned to the sites preclude more intensive archaeological investigations
- Sites such as these have a limited ability to further inform the community about the history and culture of the area. While any potential research questions are limited, some information can nevertheless be gained.

The recommended methodology for the collection before construction in a particular area commences, will be finalised after the approvals process as part of the ACHMP, but will include the following measures:

- All visible surface artefacts will be flagged in the field
- The sites will be photographed after flagging and before recording
- All artefacts will have the following artefact information recorded:
    - Location
    - Artefact class
    - Artefact type
    - Size
    - Reduction level
    - Raw material
- The artefacts will be photographed

- An Aboriginal Site Impact Recording Form (ASIRF) will be submitted by the archaeologist detailing the salvage process at the sites.

Table 9-2: Sites at which a surface artefact collection will take place.

AHIMS ID	Site name	GDA East	GDA North	Degree of harm
36-2-0196	IF 05-Ground Edge Axe	711196	6438564	Total
36-2-0226	SAC 23	708747	6439446	Partial
36-2-0393	CBR - OS - 21	711220	6438390	Total
36-2-0394	CBR - OS - 20	711220	6438390	Total
36-2-0402	CBR - OS - 13B	710043	6440884	Total
36-2-0403	CBR - OS - 13A	709311	6443235	Total
36-2-0425	CBR - IF - 01	709755	6442142	Total
36-2-0535	CSF IF01	707480	6441401	Total
36-2-0536	CSF IF03	707391	6441061	Total
36-2-0538	CSF IF05	710183	6439120	Total
36-2-0541	CSF IF09	711844	6438665	Total
36-2-0542	CSF IF10	709636	6438918	Total
36-2-0544	CSF IF12	709573	6438887	Total
36-2-0545	CSF IF13	709306	6439125	Total
36-2-0547	CSF IF14	711851	6438010	Total
36-2-0546	CSF IF15	711948	6438040	Total
36-2-0522	CSF OS3	708287	6441035	Partial
36-2-0523	CSF OS5	707547	6440988	Total
36-2-0529	CSF OS11	711677	6438589	Total
36-2-0532	CSF OS14	709662	6437390	Total
36-2-0695	SNI-AS48	712703	6437140	Total
36-2-0697	SNI-AS47	712508	6437262	Total

9.2.2 Subsurface archaeological excavation of impacted PADs

Subsurface archaeological excavation of discreet areas at PAD 11 and PAD 20 is recommended at the precise locations of impacts from the proposed 33kV poles. Excavations within PAD 20 would include an area within 36-2-0226 (SAC 23) site extent. Archaeological excavations may also be required within PAD 19 should 33 kV poles be located within the PAD. These subsurface investigations must occur prior to the construction of the 33 kV electricity line when the precise location of impacts is known to occur within areas of PAD.

This recommendation is made due to:

- The higher level of archaeological sensitivity of the landforms in which these PADs are located
- The potential for these excavations to yield valuable information regarding associated occupational patterns and site use within the Project area
- A previous 3 x 1 m TU within the PAD 20 having been excavated by machine within SAC 23 extent which confirmed the presence of subsurface deposits at this location and

increases the likelihood for surrounding PADs to contain subsurface deposits. The excavation will ensure that any of the soil profile that could be harmed by the pole installations will be archaeologically excavated.

The methodology for the excavation will be finalised following the preparation of a written assessment methodology which will undergo consultation with RAPs following ACHCR protocols. The excavation methodology will consider the following methodology:

- The setting out of TUs at the proposed location of the 33kV poles
- The excavation of TUs where impacts will be located
- Record any archaeological deposits and/or objects present.

Table 9-3: Site and PAD where further subsurface investigation is required.

AHIMS ID	Site name	Site type	GDA East	GDA North
36-2-0226	SAC 23	Artefact scatter with PAD	708747	6439446
-	PAD 11	PAD	708287	6441091
-	PAD 19	PAD	708552	6439993
-	PAD 20	PAD	708826	6439177

9.2.3 Long-term management of Aboriginal object

The ACHMP would include protocols for the long-term management of the Aboriginal sites salvaged for the Project, as well as any additional artefacts discovered during construction and operation of the Project.

Regarding stone artefacts suitable procedures for the long-term management could include:

- The reburial of artefacts at a location outside of the development footprint. This could include reburying the artefacts near the location of site 36-2-0490 (Cobbora artefact reburial loc) which contains artefact recovered during previous test excavations
- Movement of the objects from the development footprint to a location within the site extent which will not be impacted by the Project (where applicable) or nearby to the original site location outside of the development footprint
- A RAP group (normally the LALC) nominating themselves to apply for a Care Agreement to be entered into between the group and Heritage NSW.

Any long-term management of Aboriginal objects would be done in consultation with the RAPs.

9.2.4 Fencing

The Proponent has avoided harm to 115 of the 137 recorded sites and 31 of the 32 PADs within the Project area through a considered design of the Project components. Owing to the large size of the Project area fencing of all areas outside the development footprint is not feasible. Instead, where the avoided sites are located within 20 m of the development footprint, the site should be protected during construction of the Project using high-visibility temporary fencing (such as

bunting) and marked as ‘no-go’ areas on all maps and induction material provided to workers. The recommended site fencing is shown on **Figure 9-1** to **Figure 9-3**. All 76 sites and PAD areas requiring fencing are shown in **Table 9-4**.

The location of all sites should be shown on all appropriate plans to ensure that they are not inadvertently harmed.

The fencing must be installed prior to any construction commencing and will be supervised by a qualified archaeologist and a representative from the RAPs.

Figure 9-1: Recommended Aboriginal site fencing (1).

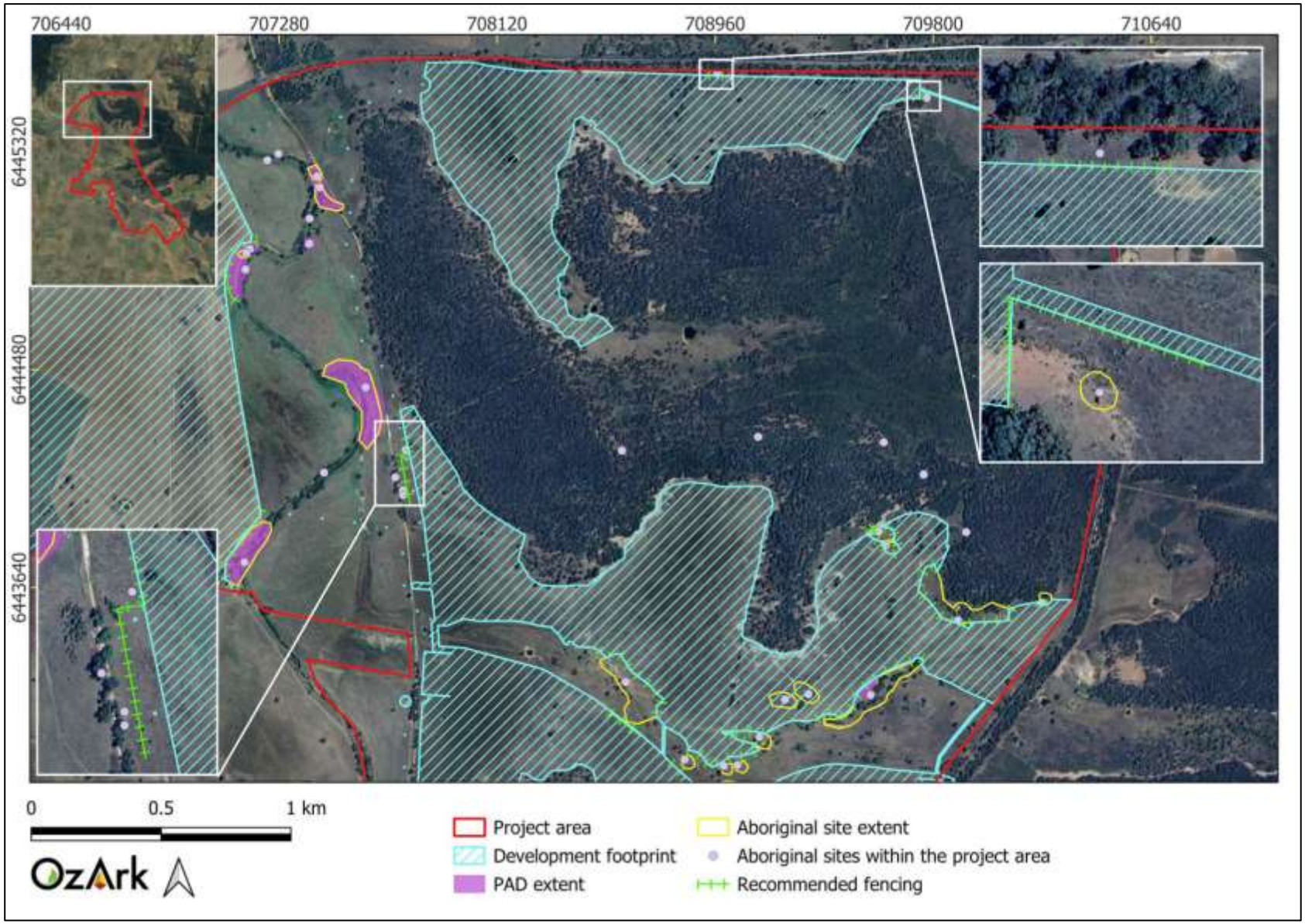


Figure 9-2: Recommended Aboriginal site fencing (2).

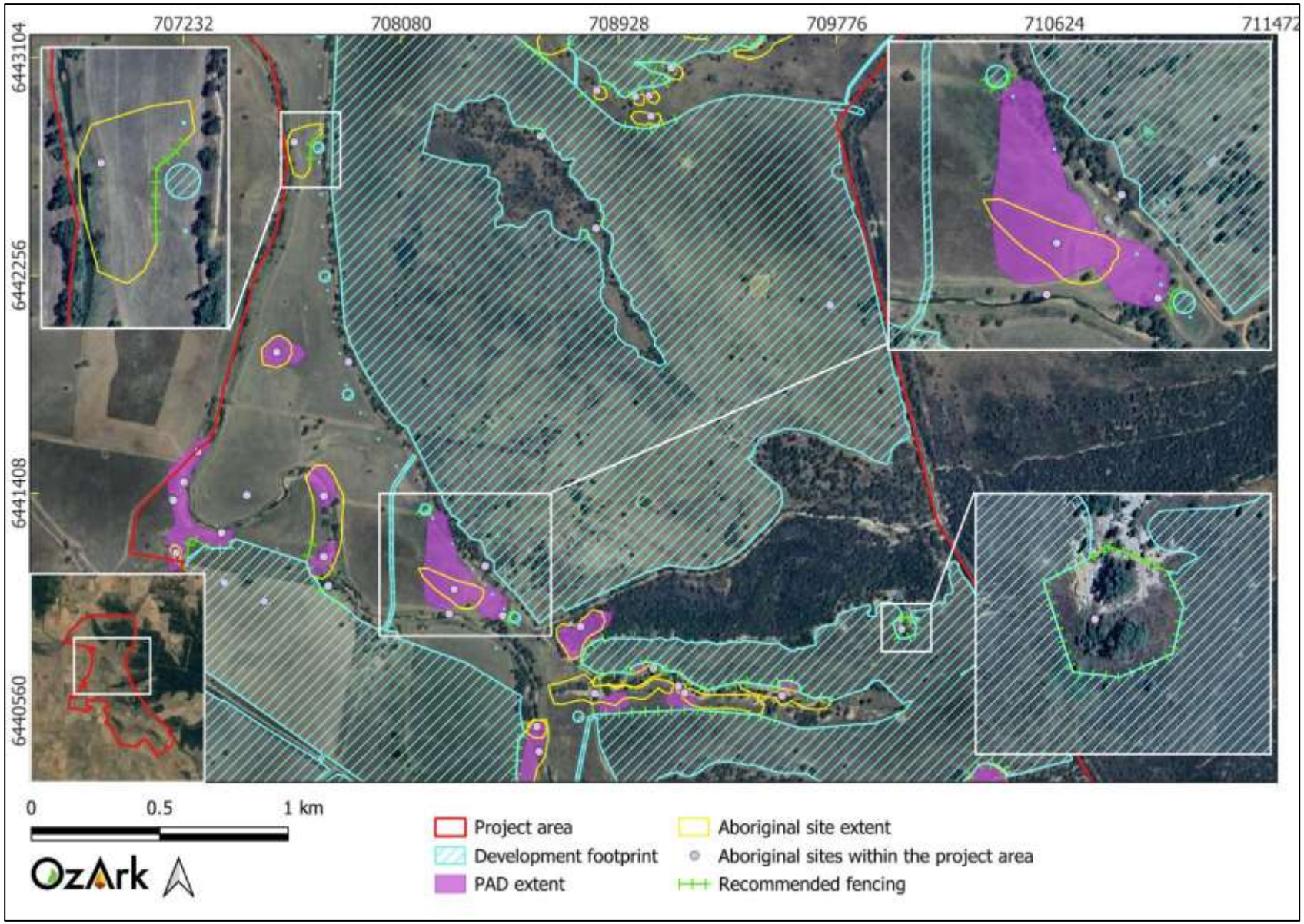


Figure 9-3: Recommended Aboriginal site fencing (3).

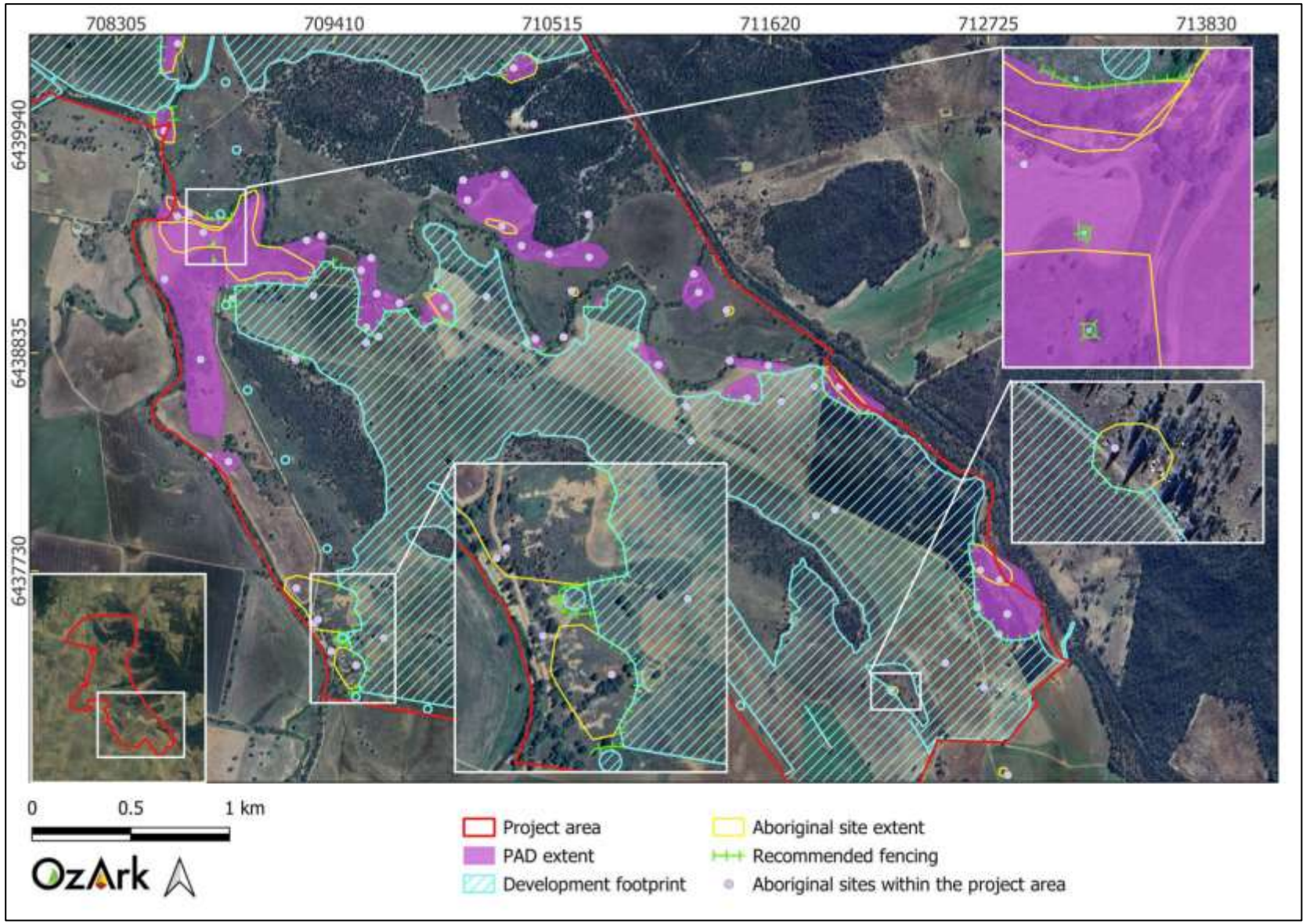


Table 9-4: Site and PAD areas requiring fencing during construction of the Project.

AHIMS ID	Site name	Site type	GDA East	GDA North
36-2-0090	DR-ST2	Scarred Tree	708970	6445621
36-2-0165	Grinding Groove 02	Grinding Groove	709598	6439316
36-2-0168/36-1-0167. See also 36-2-0582 (SC GG1)	Grinding Groove 05/Grinding Groove 04	Grinding Grooves	Grinding Groove 04: 709311. Grinding Groove 05: 709329	Grinding Groove 04: 6437483 Grinding Groove 05:6437465
36-2-0179	Hearth 03	Hearth + Artefact Scatter + PAD	707154	6444930
36-2-0180	Hearth 04	Hearth + confirmed PAD	709160	6440657
36-2-0181	Hearth 05	Hearth + Artefact Scatter + confirmed PAD	709185	6440631
36-2-0186	Hearth 10	Hearth	709741	6439088
36-2-0210	SAC 07	Isolated Find + Hearth + PAD	707151	6444866
36-2-0212	SAC 09	Artefact Scatter + confirmed PAD	707147	6443738
36-2-0214	SAC 11	Artefact Scatter + confirmed PAD	709564	6440620
36-2-0215	SAC 12	Artefact Scatter + confirmed PAD	708835	6440629
36-2-0216	SAC 13	Artefact Scatter + confirmed PAD	709063	6440727
36-2-0218	SAC 15	Artefact scatter + PAD (updated location)	707768	6444171
36-2-0219 / 36-2-0217	SAC 14 / SAC 16	Artefact scatter + confirmed PAD	SAC 14: 707779. SAC 16: 707780	SAC 14: 6441161. SAC 16: 6441398
36-2-0223	SAC 20	Isolated find + PAD	708609	6440500
36-2-0224	SAC 21	Artefact scatter + PAD	708551	6439961
36-2-0225	SAC 22	Isolated find + PAD	708679	6439544
36-2-0230	SAC 27	Isolated find + PAD	709627	6439136
36-2-0240	SAC 37	Artefact Scatter	709522	6437251
36-2-0256	TRE 07	Modified Tree	707728	6444065
36-2-0257	TRE 08	Modified Tree	707758	6444015
36-2-0258	TRE 09	Modified Tree	707758	6443997
36-2-0259	TRE 10	Modified Tree	707797	6441048
36-2-0368	CBR-OS-33B	Artefact Scatter	709618	6443803
36-2-0369	CBR-OS-33A	Artefact Scatter	709591	6443856
36-2-0371/36-2-0372	CBR-OS-31E/ CBR-OS-31D	Artefact Scatter + confirmed PAD	CBR-OS-31E: 712685. CBR-OS-31D: 712785	CBR-OS-31E: 6437733. CBR-OS-31D: 6437685
36-2-0374	CBR-OS-31B	Artefact Scatter + confirmed PAD	712779	6437409
36-2-0375	CBR-OS-31A	Artefact Scatter + confirmed PAD	712670	6437545
36-2-0394	CBR-OS-20	Artefact scatter	710030	6440880
36-2-0395	CBR-OS-19	Isolated Find + PAD	710320	6440280
36-2-0400	CBR-OS-15	Artefact Scatter	709046	6442956
36-2-0401	CBR-OS-14	Artefact Scatter	709132	6443064

AHIMS ID	Site name	Site type	GDA East	GDA North
36-2-0404	CBR-OS-12 'WATERHOLE'	Artefact Scatter + PAD	709560	6443226
36-2-0405	CBR-OS-11	Artefact Scatter	709896	6443514
36-2-0406	CBR-OS-10	Artefact Scatter	708623	6442799
36-2-0407	CBR-OS-09 'BIG SCALD'	Artefact Scatter	708616	6443276
36-2-0408	CBR-OS-08	Artefact Scatter	708843	6442977
36-2-0409	CBR-OS-07	Artefact Scatter	708994	6442953
36-2-0410	CBR-OS-06	Artefact Scatter	709054	6442877
36-2-0416	CBR - OS - 01	Isolated Find + PAD	708780	6440890
36-2-0422	CBR-IF-04	Artefact scatter	712233	6437128
36-2-0424	CBR-IF-02	Isolated Find	708840	6442440
36-2-0427	CBR-OS-11A	Isolated Find	710218	6443582
36-2-0521	CSF OS2	Artefact Scatter	709776	6445528
36-2-0524	CSF OS6	Artefact Scatter + PAD	707205	6441177
36-2-0526	CSF OS8	Artefact Scatter + PAD	709547	6439254
36-2-0527	CSF OS9	Artefact Scatter + PAD	709971	6439065
36-2-0531	CSF OS13	Artefact Scatter	708894	6439110
36-2-0534	CSF OS4	Artefact Scatter + PAD	708476	6440932
36-2-0537	CSF IF04	Isolated Find	709574	6438965
36-2-0543	CSF IF11	Isolated Find	709211	6438808
36-2-0582	SC GG1	Grinding groove with artefact/s and PAD	709396	6437322
-	PAD 3	PAD	707129	6444869
-	PAD 5	PAD	707157	6443773
-	PAD 6	PAD	709546	6443248
-	PAD 8	PAD	707253	6441337
-	PAD 9	PAD	707775	6441440
-	PAD 10	PAD	707773	6441149
-	PAD 11	PAD	708287	6441091
-	PAD 12	PAD	708789	6440859
-	PAD 13	PAD	709012	6440728
-	PAD 14	PAD	708911	6440591
-	PAD 15	PAD	709169	6440603
-	PAD 16	PAD	709594	6440659
-	PAD 17	PAD	710349	6440282
-	PAD 18	PAD	708588	6440383
-	PAD 19	PAD	708552	6439993
-	PAD 20	PAD	708826	6439177
-	PAD 22	PAD	709609	6439120
-	PAD 23	PAD	709928	6439062
-	PAD 25	PAD	710431	6438887
-	PAD 26	PAD	710757	6439094

AHIMS ID	Site name	Site type	GDA East	GDA North
-	PAD 27	PAD	711003	6438817
-	PAD 29	PAD	711561	6438773
-	PAD 30	PAD	711492	6438644
-	PAD 31	PAD	712019	6438629
-	PAD 32	PAD	712807	6437604

9.3 SKELETAL REMAINS PROTOCOL

Protocols related to the discovery of suspected human skeletal material will follow Requirement 25 of the Code of Practice and be set out in the ACHMP which would be developed in consultation with RAPs, Heritage NSW and DPHI.

The protocol will include:

1. Cordon off area with a minimum buffer of 10 m in all directions from the visible remains. Do not disturb any skeletal material that remains in place. If some skeletal remains have been removed from the ground, store these in a dry location on site. Do not remove any skeletal material or associated artefacts from site.
2. If bones are suspected to be human, the site supervisor should immediately contact the nearest police station. Heritage NSW should also be contacted (131 555 or info@environment.nsw.gov) to assist with the identification of the burial. Police will make an initial assessment to determine if the remains are part of crime scene or possible ancient Aboriginal remains. Such an assessment will usually involve sending photographs of the find to a physical anthropologist to determine the ethnic origin of the skeleton.
3. If the skeletal material is determined to be ancient Aboriginal remains, Heritage NSW would send a Compliance and Regulation Officer to the scene and then issue an Advisory Letter setting out the required process from this point.
4. Notify the Aboriginal community.
5. The Aboriginal ancestral remains must be recorded under the direct supervision of a specialist anthropologist or other suitably qualified person.
6. The location of the burial must be registered as an Aboriginal site on the AHIMS database.
7. Work cannot recommence in the cordoned off area until authorised in writing by Heritage NSW.

9.4 PROTOCOLS RELATED TO THE DISCOVERY OF NEW SITES

9.4.1 New sites within the development footprint

The following procedure will be implemented for any newly identified sites within the development footprint in the ACHMP:

- The site will be assessed by a qualified archaeologist and a RAP

- The site will be temporarily fenced
- The site location will be registered with AHIMS, and a site card submitted
- Depending on the Aboriginal cultural heritage values at the site and the degree of immediate threat to the site, the site will be salvaged according to the appropriate management process
- A brief report of the salvage will be produced to record the findings
- On the completion of salvage at such sites, an ASIRF will be completed. Copies of the forms will be archived. Digital copies will be submitted to the AHIMS Registrar soon after completion of salvage fieldwork. The form will be lodged within a reasonable time of fieldwork completion and certainly within four months
- All artefacts salvaged will be subject to the approved long-term management process set out in the ACHMP.

9.4.2 New sites outside the development footprint

Any new Aboriginal site identified outside the development footprint will be managed in accordance with the following procedure in the ACHMP:

- The site will be assessed by a qualified archaeologist and a RAP
- The site will be considered for fencing depending on its proximity to the impact footprint
- The site location will be registered with AHIMS, and a site card submitted
- The site cannot be harmed without an approved AHIP.

10 RECOMMENDATIONS

Under Section 89A of the NPW Act it is mandatory that all newly recorded Aboriginal sites be registered with AHIMS. As a professional in the field of cultural heritage management, it is the responsibility of OzArk to ensure this process is undertaken.

To this end, it is noted that 30 previously unrecorded Aboriginal sites were recorded during the assessment and have been registered with AHIMS and 43 previously identified AHIMS site extents have been updated.

The following recommendations are made based on these impacts and with regard to:

- Legal requirements under the terms of the NPW Act whereby it is illegal to damage, deface or destroy an Aboriginal place or object without an approved ACHMP
- The findings of the current investigations undertaken within the Project area
- The interests of the Aboriginal community.

Recommendations concerning Aboriginal cultural values within the Project area are as follows:

1. Following granting of development consent for the Project, the Proponent will develop an ACHMP as per the Conditions of Approval, in consultation with the RAPs and DPHI (with input from Heritage NSW). The ACHMP would also include an unanticipated finds protocol, unanticipated skeletal remains protocol, and heritage inductions and long-term management of any Aboriginal sites being impacted. The ACHMP must be approved by the DPHI prior to salvage and construction activities occurring.
2. Twenty-two Aboriginal sites and three PADs are within or partially within the development footprint for the Project and will likely be harmed by the Project. The management measures outlined in **Section 9.2.1** should be followed for stone artefact sites and the management measures in **Section 9.2.2** should be followed for PADs 11, 19, and 20.
3. Results of any salvage work will be included in a report (within 12 months of the salvage program) to preserve the data in a useable form and an Aboriginal Site Impact Recording Form be submitted to AHIMS for all harmed sites.
4. The Proponent has avoided 115 Aboriginal sites within the Project area through a considered design of the Project components. Where sites or PAD areas are located within 20 m of the development footprint, these sites or PADs will be protected during construction of the Project through temporary fencing (**Section 9.2.4**). The location of the fencing will be determined on the advice of a qualified archaeologist and a representative from the RAPs.

5. The location of all Aboriginal sites and PADs will be shown on all appropriate plans to ensure that they are not inadvertently harmed.
6. All land disturbing activities will remain within the development footprint. Any works proposed outside the development footprint would require further archaeological assessment.
7. Inductions for worker will include a cultural heritage awareness procedure to ensure they recognise Aboriginal artefacts and understand the implementation of the unanticipated finds protocol (**Appendix 4**).

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APPENDIX 1: ABORIGINAL COMMUNITY CONSULTATION

Appendix 1 Table 1: Aboriginal community consultation log.

Date	Organisation	Comment	Method
27.4.22	Dubbo Liberal	Jane Book (JB) sent enquiry for advertising	phone
27.4.22	Dubbo Liberal	JB sent ad to paper for advertising 29.4.22 closing date 13.5.22	phone
4.5.22	Heritage NSW	Catherine Burrowes (CB) sent stage 1 agency letter requesting potential stakeholders. Closing date 13.5.22	email
4.5.22	Dubbo LALC	CB sent stage 1 agency letter requesting potential stakeholders. Closing date 13.5.22	email
4.5.22	Office of The Registrar, ALRA	CB sent stage 1 agency letter requesting potential stakeholders. Closing date 13.5.22	email
4.5.22	National Native Title Tribunal	CB sent stage 1 agency letter requesting potential stakeholders. Closing date 13.5.22	email
4.5.22	NTSCORP	CB sent stage 1 agency letter requesting potential stakeholders. Closing date 13.5.22	email
4.5.22	Dubbo Regional Council	CB sent stage 1 agency letter requesting potential stakeholders. Closing date 13.5.22	email
4.5.22	Central West Local Land Services	CB sent stage 1 agency letter requesting potential stakeholders. Closing date 13.5.22	email
4.5.22	National Native Title Tribunal	CB received notification '*Records held by the National Native Title Tribunal as at 6.5.22 indicate that there are no Native Title Determination Applications, Determinations of Native Title, or Indigenous Land Use Agreements over the identified area.*	email
10.5.22	Binjang Wellington Wiradjuri Heritage Survey	CB sent stage 1 community letter ends 25.5.22	email
10.5.22	Brian Draper	CB sent stage 1 community letter ends 25.5.22	email
10.5.22	Stakeholder 1	CB sent stage 1 community letter ends 25.5.22	email
10.5.22	Dubbo Aboriginal Community Working Party	CB sent stage 1 community letter ends 25.5.22	email
10.5.22	Dubbo Aboriginal Community Working Party	CB sent stage 1 community letter ends 25.5.22	email
10.5.22	Katrina Mckinnon	CB sent stage 1 community letter ends 25.5.22	email
10.5.22	Dubbo Local Aboriginal Land Council	CB sent stage 1 community letter ends 25.5.22	email
10.5.22	Natasha Rodgers	CB sent stage 1 community letter ends 25.5.22	email
10.5.22	Paul Brydon	CB sent stage 1 community letter ends 25.5.22	email
10.5.22	Peter Peckham	CB sent stage 1 community letter ends 25.5.22	email
10.5.22	Wiradjuri Council of Elders	CB sent stage 1 community letter ends 25.5.22	email
10.5.22	Wirrimbah Direct Descendants	CB sent stage 1 community letter ends 25.5.22	email
10.5.22	Tubbah-Gah Aboriginal Corporation	CB sent stage 1 community letter ends 25.5.22	email
10.5.22	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	CB sent stage 1 community letter ends 25.5.22	email
30.4.22	Gallanggabang Aboriginal Corporation	CB received email registering for the Project CB replied with thanks	Email
4.5.22	WVWAC	JB received phone call from Brad Bliss registering for the Project	Phone
10.5.22	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	Sheridan Burke (SB) received email registering for the Project	email
11.5.22	Stakeholder 1	CB received email registering for the Project CB replied with thanks	email

Date	Organisation	Comment	Method
11.5.22	Stakeholder 2	CB received email registering for the Project CB replied with thanks	email
10.5.22	Dubbo Local Aboriginal Land Council	CB received email registering for the Project CB replied with thanks	email
26.5.22	Gallanggabang Aboriginal Corporation	CB emailed Stage 2/3 methodology and letter closing date 23.6.22	Email
26.5.22	WVWAC	CB emailed Stage 2/3 methodology and letter closing date 23.6.22	Phone
26.5.22	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	CB emailed Stage 2/3 methodology and letter closing date 23.6.22	email
26.5.22	Stakeholder 1	CB emailed Stage 2/3 methodology and letter closing date 23.6.22	email
26.5.22	Stakeholder 2	CB emailed Stage 2/3 methodology and letter closing date 23.6.22	email
26.5.22	Dubbo Local Aboriginal Land Council	CB emailed Stage 2/3 methodology and letter closing date 23.6.22	email
10.6.22	Gallanggabang Aboriginal Corporation	CB sent FW invite closing date 23.6.22	email
10.6.22	WVWAC	CB sent FW invite closing date 23.6.22	email
10.6.22	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	CB sent FW invite closing date 23.6.22	email
10.6.22	Dubbo LALC	CB sent FW invite closing date 23.6.22	email
10.6.22	WVWAC	CB received email from Brad Bliss confirming FW officer will be available to attend. FW person TBA - CB replied with thanks.	email
14.6.22	Gallanggabang Aboriginal Corporation	CB received email from Mel Chown confirming FW officer will be available to attend. Bren Doherty - Insurance provided. CB replied with thanks.	email
21.6.22	WVWAC	CB received email from B Bliss thanking for Scoping report	Email
21.6.22	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	CB called and left message following up FW invite also sent email	email
21.6.22	Dubbo LALC	CB called and left message following up FW invite also sent email	email
22.6.22	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	CB called Lewis and left message following up FW invite - no answer	email
22.6.22	Dubbo LALC	CB called Veneta and left message following up FW invite - no answer	email
23.6.22	Dubbo LALC	CB called both landline and mobile left messages	Phone
23.6.22	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	CB called Lewis - no answer. Sent Mal a text message to follow up.	phone
23.6.22	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	CB received phone call from Mal - he will confirm by 24.6.22 AM if able to attend. Lewis is currently in Italy	phone
23.6.22	Dubbo LALC	CB received phone call from Veneta - her FW officer is on the land and will confirm attendance AM 24.6.22. FW officer daughter said she believes he is in for the FW.	Phone
24.6.22	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	CB received call from Mal Burns. Mal confirmed that both Judy Riley and Greg Kennedy will share the work over the 5 days of fieldwork. Mal 0476 976 140.	phone
29.7.22	WVWAC	Chelsea Jones (CJ) called B Bliss to confirm tentative availability for the survey Thursday and Friday next week. BB confirmed availability and CJ advise she would send confirmation on Monday afternoon.	Phone
29.7.22	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	CJ called MB to confirm tentative availability for the survey Thursday and Friday next week. MB confirmed availability and CJ advise she would send confirmation on Monday afternoon.	Phone

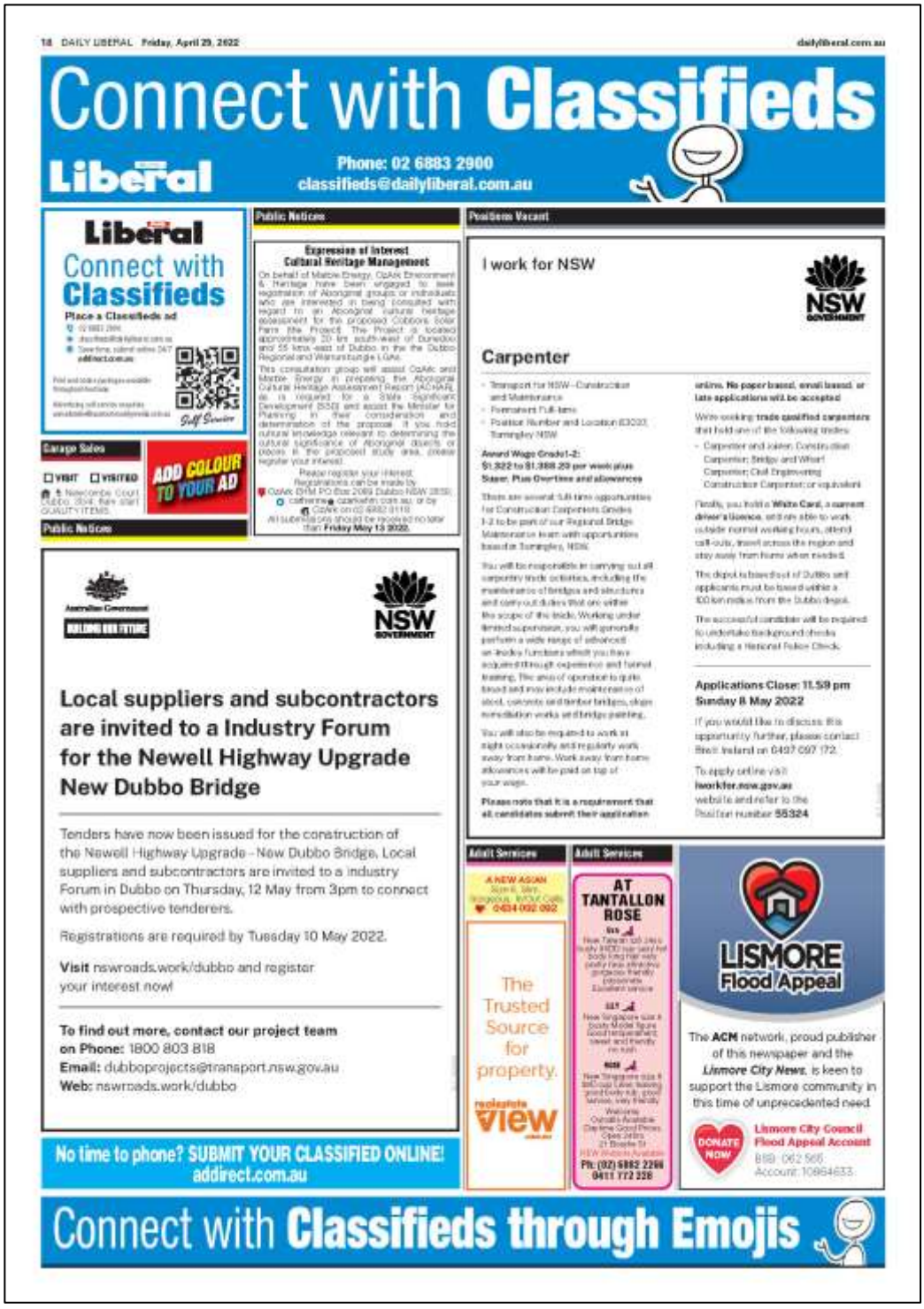
Date	Organisation	Comment	Method
29.7.22	WVWAC	Call to confirm Thurs/Frid	Phone
29.7.22	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	Call to confirm Thurs/Frid but no answer - left message to return call	Phone
1.8.22	WVWAC	CB sent Additional FW invite	email
1.8.22	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	CB sent Additional FW invite	email
1.8.22	WVWAC	CB received email from Brad Bliss confirming he will be available to attend. CB replied with thanks.	email
3.8.22	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	CB received email from Mal Burns, Mal confirmed that Judy Ryan will be in attendance for FW. CB replied with thanks to Mal.	email
4.8.22	WVWAC	Brendan Fisher (BF) phoned Brad to cancel fieldwork tomorrow, as well as check availability for Thursday 11th and Friday 12th August. Called CJ to discuss another half day pay for Fri. CJ advised that this is why we made the call early and we have discussed half day for the Thursday only. She can discuss with JB but only recs that half day thus will be paid. Brad said that's a pain but agreed.	Phone
4.8.22	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	Brendan Fisher (BF) phoned Mal to cancel fieldwork tomorrow, as well as check availability for Thursday 11th and Friday 12th August.	Phone
8.8.22	WVWAC	confirm go ahead for Thurs and Fri. CJ confirmed	CJ
8.8.22	Dubbo LALC	CB spoke with CEO then provided a FW invite for 11/12th August. CB requested updated insurance and FW name and contact details	Phone/email
9.8.22	Dubbo LALC	CB called and emailed Tatum checking on FW officer	Phone/email
10.8.22	Dubbo LALC	CB received email confirming Thomas from LALC will be in attendance - more info to follow	Phone/email
10.8.22	Dubbo LALC	CB received call confirming Lindy Ward will be present at FW - CJ to collect from residence Phone	Phone
Revised Project 2024			
2.8.24	Dubbo Liberal	CB emailed ad placement	Email
6.8.24	Dubbo Liberal	JB sent ad to paper for advertising 6.8.24 - **closing date 20.8.24**	phone
6.8.24	Heritage NSW	CB sent stage 1 agency letter requesting potential stakeholders. **Closing date 20.8.24**	email
6.8.24	Dubbo LALC	CB sent stage 1 agency letter requesting potential stakeholders. **Closing date 20.8.24**	email
6.8.24	Office of The Registrar, ALRA	CB sent stage 1 agency letter requesting potential stakeholders. **Closing date 20.8.24**	email
6.8.24	National Native Title Tribunal	CB sent stage 1 agency letter requesting potential stakeholders. **Closing date 20.8.24**	email
6.8.24	NTSCORP	CB sent stage 1 agency letter requesting potential stakeholders. **Closing date 20.8.24**	email
6.8.24	Dubbo Regional Council	CB sent stage 1 agency letter requesting potential stakeholders. **Closing date 20.8.24**	email
6.8.24	Central West Local Land Services	CB sent stage 1 agency letter requesting potential stakeholders. **Closing date 20.8.24**	email
11.8.24	Booral Maliyan	CB received email registering for the Project	email
11.8.24	Booral Maliyan	CB replied with thanks	email
12.8.24	George Flick	CB received email registering for the Project	email
13.8.24	George Flick	CB replied with thanks	email
13.8.24	Dubbo Regional Council	CB received email with details to contact for the Project • Grace Toomey - grace.toomey@alc.org.au (Aboriginal Land Council – previous Aboriginal Liaison Officer for DRC)	email

Date	Organisation	Comment	Method
		• Anthony Riley - anthony@trra.community (Three Rivers Regional Assembly) • Shane Riley - shane@trra.community (representing Dubbo Aboriginal Community Working Party) • Jody Chester - Western NSW LHD Jody.Chester@health.nsw.gov.au (representing Wellington Aboriginal Action Panel) • Tara Stanley - wellingtonlalc@yahoo.com (CEO Wellington Local Aboriginal Land Council)	
13.8.24	Dubbo Regional Council	CB replied with thanks	email
19.8.24	Paul Brydon	CB received Phone call registering for the Project	Phone
20.8.24	Binjang Wellington Wiradjuri heritage Survey	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Brian Draper	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Dubbo Aboriginal Community Working Party	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Edgerton kwiembal AC	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Geoffrey Ryan	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Katrina Mckinnon	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Natasha Rodgers	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	A&K Cultural Heritage	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Peter Peckham	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Thomas Dahlstrom	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Timothy Stubbs	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Vicky Hannah Gomeroi Duncan	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Wellington LALC	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Wiradjuri Council of Elders	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Yurwang Gundana Consultancy Cultural Heritage Services.	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	RAW Cultural Healing	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Sonione Wakabut Rogers	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Geoffrey Toomey	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Judy Bell	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Girragirra Murun Aboriginal Corporation	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Wingarra Wilay Aboriginal Corporation	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Guthers Aboriginal Corporation	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Ngagga Ngagga	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email

Date	Organisation	Comment	Method
20.8.24	Aboriginal Land Council	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Three Rivers Regional Assembly	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Wellington Aboriginal Action Panel	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	email
20.8.24	Central West Catchment Management Authority	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	Post
20.8.24	David Smith	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	Post
20.8.24	Raymond Thomas Smith	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	Post
20.8.24	Trevor Robinson	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	Post
20.8.24	Tubbagah Aboriginal Co-op	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	Post
20.8.24	Wamarr Cultural Consultants	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	Post
20.8.24	William Smith	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	Post
20.8.24	Wiradjuri Interim Working Party	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	Post
20.8.24	Gary Smith	CB sent stage 1 community letter requesting potential stakeholders. **Closing date 3.9.24**	Post
20.8.24	Sonione Wakabut Rogers	CB received email registering for the Project	Email
20.8.24	Wiradjuri Council of Elders	CB received email registering for the Project	Email
20.8.24	Brian Draper	CB received email registering for the Project	Email
22.8.24	Sonione Wakabut Rogers	CB replied with thanks	Email
22.8.24	Wiradjuri Council of Elders	CB replied with thanks	Email
22.8.24	Brian Draper	CB replied with thanks	Email
22.8.24	Geoff Toomey	CB received email registering for the Project	Email
22.8.24	Geoff Toomey	CB replied with thanks	Email
22.8.24	Timothy Stubbs	CB received email registering for the Project	Email
23.8.24	Timothy Stubbs	CB replied with thanks	Email
23.8.24	Thomas Dahlstrom	CB received email registering for the Project	email
23.8.24	Thomas Dahlstrom	CB replied with thanks	email
23.8.24	Michael Long	CB received email registering for the Project	email
30.8.24	Michael Long	CB replied with thanks	email
5.9.24	Wellington Aboriginal Action Panel	CB received email registering for the Project	email
9.9.24	Wellington Aboriginal Action Panel	CB replied with thanks	email
27.9.24	Gallanggabang Aboriginal Corporation	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
27.9.24	WVWAC	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
27.9.24	Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
27.9.24	Stakeholder 1	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
27.9.24	Stakeholder 2	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
27.9.24	Dubbo LALC	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email

Date	Organisation	Comment	Method
27.9.24	Booral Maliyan	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
27.9.24	George Flick	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
27.9.24	Paul Brydon	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
27.9.24	Sonione Wakabut Rogers	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
27.9.24	Wiradjuri Council of Elders	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
27.9.24	Brian Draper	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
27.9.24	Geoff Toomey	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
27.9.24	Thomas Dahlstrom	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
27.9.24	Michael Long	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
27.9.24	WAAP	CB sent stage 2/3 methodology letter **Closing date 25.10.24**	email
10.10.24	Stakeholder 2	CB received email - We support methodologies	email
10.10.24	Stakeholder 2	CB replied with thanks	email
25.10.24	WVWAC	CB received email - details in folder	email
25.10.24	Booral Maliyan	CB received email - We support methodologies	email

Appendix 1 Figure 1: Stage 1 advertisement placed in the *Dubbo Liberal* (Round 1 ACHCRs).



Appendix 1 Figure 2: Stage 1 letter sent to agencies (sample) (Round 1 ACHCRs)[3].

OzArk Environment & Heritage ABN 59 104 582 354

Dubbo T: 02 6882 0118 145 Wingewarra St
Queanbeyan enquiry@ozarkehm.com.au PO Box 2069
Newcastle www.ozarkehm.com.au DUBBO NSW 2830

29 April 2022

Heritage NSW
Department of Premier and Cabinet
Locked Bag 5020
Parramatta NSW 2124
heritagemailbox@environment.nsw.gov.au

Seeking Aboriginal groups or individuals relevant to the
Aboriginal cultural heritage assessment for the proposed Cobbora Solar Farm

OzArk Environment & Heritage (OzArk) has been engaged by Marble Energy to undertake Aboriginal community consultation as per the '*Aboriginal cultural heritage consultation requirements for proponents 2010' (DECCW 2010)*.

Marble Energy are proposing to construct a large scale solar photovoltaic (PV) generation facility with associated infrastructure (the project), in the locality of Cobbora, approximately 20 kilometres (km) south-west of the township of Dunedoo and 55 km east of Dubbo in the New South Wales (NSW) Central West (**Figure 1**).

We are therefore seeking Expressions of Interest from relevant Aboriginal stakeholder groups and individuals in the area who hold cultural knowledge relevant to determining the significance of Aboriginal objects or places within the Cobbora area.

This consultation group will assist OzArk and Marble Energy in preparing the Aboriginal Cultural Heritage Assessment Report (ACHAR) as required by the Minister for Planning in their consideration and determination of the SSD proposal.

If your organisation can recommend and provide contact details for any known Aboriginal groups or individuals with cultural knowledge relevant to determining the potential impacts to the cultural significance from the above-mentioned project, please advise our office. We would appreciate it if you could provide any feedback, by responding to this email catherine@ozarkehm.com.au, regarding these Aboriginal stakeholder groups by 13 May 2022, or sooner if possible.

Once relevant groups and individuals have been identified, they will form part of the formal consultation process for the project.

Kind regards,

Catherine Burrowes
Office Manager/ Community Liaison

[3] Note: letters to agencies are dated 29 April 2022, however, they were not sent until 4 May 2022 as documented in the consultation log (**Appendix 1 Table 1**).

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Figure 1: Proposed location of the Cobbora Solar Farm

Appendix 1 Figure 3: Stage 1 example of letter sent to Aboriginal community groups (sample) (Round 1 ACHCRS).

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DUBBO NSW 2830

10 May 2022

[redacted]

Seeking Aboriginal groups or individuals relevant to the Aboriginal cultural heritage assessment for the proposed Cobbora Solar Farm

OzArk Environment & Heritage (OzArk) has been engaged by Marble Energy to undertake Aboriginal community consultation as per the '*Aboriginal cultural heritage consultation requirements for proponents 2010' (DECCW 2010).*

Marble Energy are proposing to construct a large scale solar photovoltaic (PV) generation facility with associated infrastructure (the project), in the locality of Cobbora, approximately 20 kilometres (km) south-west of the township of Dunedoo and 55 km east of Dubbo in the New South Wales (NSW) Central West (**Figure 1).**

This consultation group will assist OzArk and Marble Energy in preparing the Aboriginal Cultural Heritage Assessment Report (ACHAR) as required by the Minister for Planning in their consideration and determination of the SSD proposal.

If you hold cultural knowledge relevant to determining the impacts to the cultural significance of this project area, please register your interest by return email catherine@ozarkehm.com.au or by contacting our office. The closing date for expressions of interest is **COB Wednesday 25th May 2022.**

If you wish to register interest it is noteworthy that as per the Heritage NSW guidelines, we are required to provide your details to Heritage NSW and the Local Aboriginal Lands Council unless we are advised that you do not wish your details to be released.

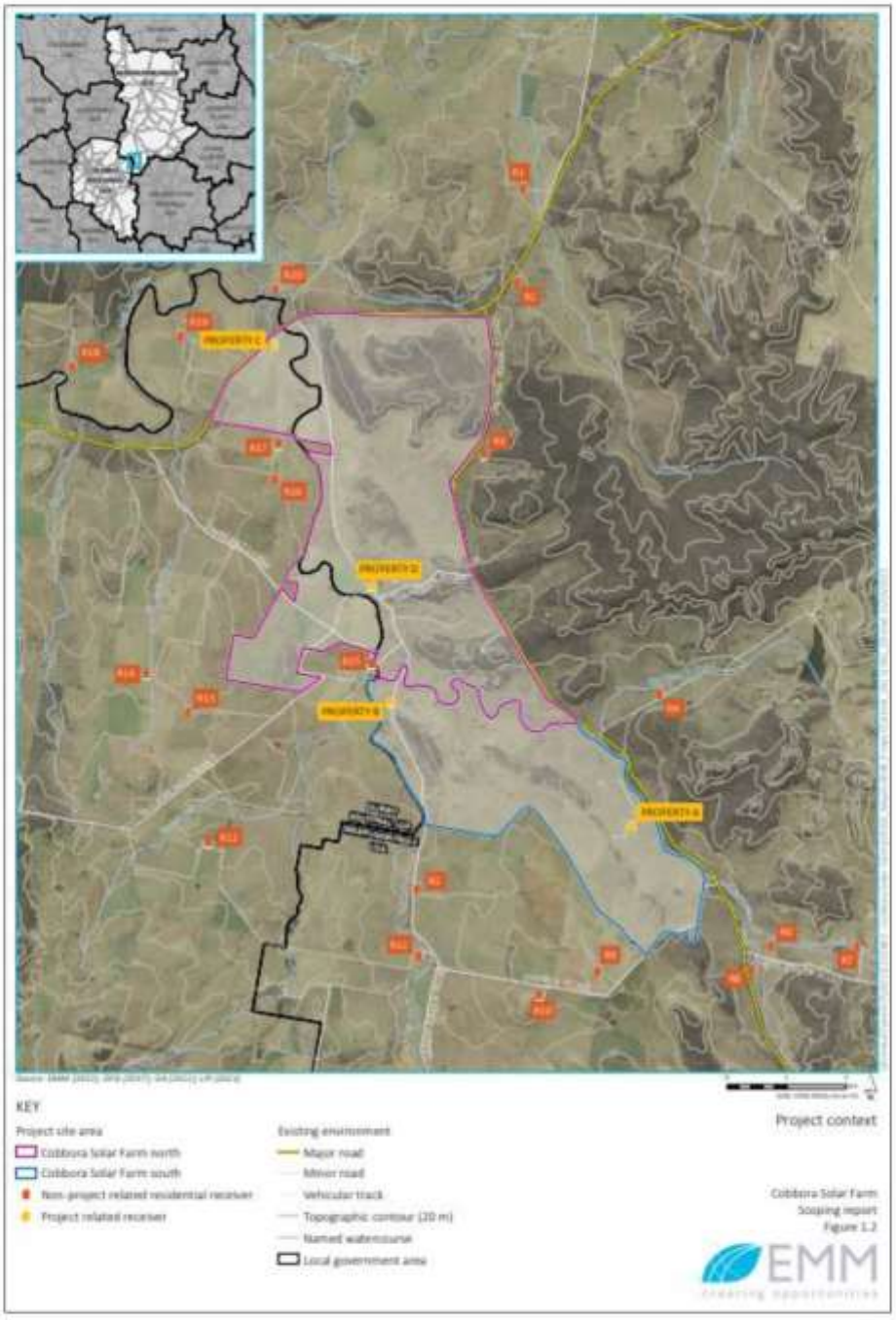
Once relevant groups and individuals have been identified, they will form part of the formal consultation process for the project.

Kind regards,

Catherine Burrowes
Office Manager/ Community Liaison

OzArk Environment & Heritage

Figure 1: Proposed location of the Cobbora Solar Farm



Appendix 1 Figure 4: Stage 2/3 cover letter (Round 1 ACHCRs).

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26 May 2022

[redacted]

ABORIGINAL CULTURAL & HISTORIC HERITAGE ASSESSMENT
FOR THE PROPOSED COBBORA SOLAR FARM

Dear Members,

Thank-you for your registration of interest to become a Registered Aboriginal Party (RAP) to be consulted for the proposed Cobbora Solar Farm.

The purpose of this letter is to invite you to comment on the enclosed draft methodology for the Cobbora Solar Farm. The project site area is located across two local government areas (LGAs) Warrumbungle Shire Council and Dubbo Regional Council.

In addition to comments on the draft methodology, if you can share any Aboriginal cultural heritage knowledge relevant to the proposed study area, we welcome this input so as to improve our assessment outcomes and to ensure Aboriginal cultural values are considered.

OzArk Environment & Heritage is required to give you 28 days to supply feedback on the attached documents. This period closes **5pm on Thursday 23 June 2022.**

If you need any help supplying feedback or have any queries in relation to the enclosed information, please do not hesitate to contact our office.

Kind regards,

Catherine Burrowes
Community Liaison

Appendix 1 Figure 5: Stage 1 advertisement in the *Dubbo Liberal* (Round 2 ACHCRs).

Appendix 1 Figure 6: Stage 1 letter sent to agencies (sample) (Round 2 ACHCRs).

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6 August 2024

Seeking Aboriginal groups or individuals relevant to the Aboriginal cultural heritage assessment for the proposed Cobbora Solar Farm

OzArk Environment & Heritage (OzArk) has been engaged by Cobbora Solar Farm Pty Ltd in its capacity as trustee for the Cobbora Solar Farm Trust (a wholly owned subsidiary of Pacific Partnerships Pty Ltd) (the proponent) to undertake Aboriginal community consultation as per the *'Aboriginal cultural heritage consultation requirements for proponents 2010' (DECCW 2010).*

The proponent is proposing to construct a large scale solar photovoltaic (PV) generation facility with associated infrastructure (the project), in the locality of Cobbora, approximately 20 kilometres (km) southwest of the township of Dunedoo and 55 km east of Dubbo in the New South Wales (NSW) Central West (**Figure 1**).

OzArk are therefore seeking Expressions of Interest from relevant Aboriginal stakeholder groups and individuals in the area who hold cultural knowledge relevant to determining the significance of Aboriginal objects or places within the Cobbora area.

This consultation group will assist OzArk and the proponent in preparing the Aboriginal Cultural Heritage Assessment Report (ACHAR) as required by the Minister for Planning and Open Spaces in their consideration and determination of the SSD proposal.

If your organisation can recommend and provide contact details for any known Aboriginal groups or individuals with cultural knowledge relevant to determining the potential impacts to the cultural significance from the above-mentioned project, please advise our office. We would appreciate it if you could provide any feedback, by responding to this email catherine@ozarkehm.com.au, regarding these Aboriginal stakeholder groups by 20 August 2024, or sooner if possible.

Once relevant groups and individuals have been identified, they will form part of the formal consultation process for the project.

Kind regards,

Catherine Burrowes
Office Manager/ Community Liaison

OzArk Environment & Heritage

Figure 1: Proposed location of the Cobbora Solar Farm.

Appendix 1 Figure 7: Stage 1 community letter (sample) (Round 2 ACHCRs).

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20 August 2024

Seeking Aboriginal groups or individuals relevant to the

Aboriginal cultural heritage assessment for the proposed Cobbora Solar Farm

OzArk Environment & Heritage (OzArk) has been engaged by Cobbora Solar Farm Pty Ltd in its capacity as trustee for the Cobbora Solar Farm Trust (a wholly owned subsidiary of Pacific Partnerships Pty Ltd) (the proponent) to undertake Aboriginal community consultation as per the *'Aboriginal cultural heritage consultation requirements for proponents 2010' (DECCW 2010).*

The proponent is proposing to construct a large scale solar photovoltaic (PV) generation facility with associated infrastructure (the project), in the locality of Cobbora, approximately 20 kilometres (km) southwest of the township of Dunedoo and 55 km east of Dubbo in the New South Wales (NSW) Central West (**Figure 1**). These activities may result in harm to Aboriginal cultural heritage.

Accordingly, we are seeking Expressions of Interest from relevant Aboriginal groups and individuals in the Cobbora area, to form a consultation group. This consultation group will assist OzArk in preparing the Aboriginal Cultural Heritage Assessment Report (ACHAR) to assist Heritage NSW and the Department of Planning, Housing and Infrastructure in their consideration and determination of the project.

If you hold cultural knowledge relevant to determining the impacts to the cultural significance of this project area, should you wish to register for the project please provide the following information:

- Group or individual name
- Contact name (if registering as a group)
- Email or postal address
- Contact number

Please do this by contacting our office on (02) 6882 0118 or responding to this email catherine@ozarkehm.com.au. The closing date for expressions of interest is **3 September 2024**.

If you wish to register interest it is noteworthy that as per the Heritage NSW guidelines, we are required to provide your details to Heritage NSW and the Local Aboriginal Lands Council unless we are advised that you do not wish your details to be released.

Once relevant groups and individuals have been identified, they will form part of the formal consultation process for the project.

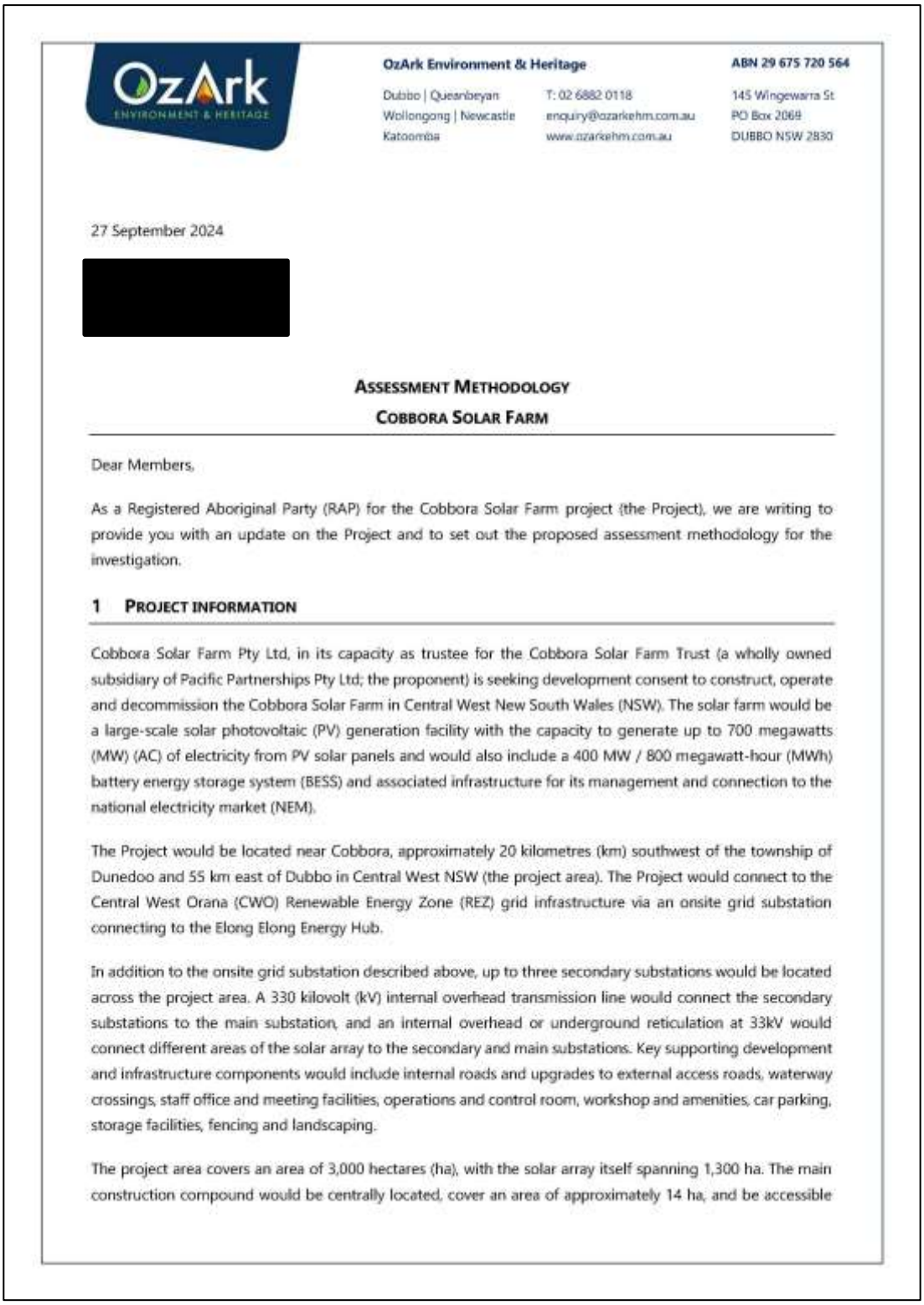
Kind regards,

Catherine Burrowes
Office Manager/ Community Liaison

OzArk Environment & Heritage

Figure 1: Proposed location of the Cobbora Solar Farm.

Appendix 1 Figure 8: Stage 2/3 assessment methodology (Round 2 ACHCRs).



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DUBBO NSW 2830

27 September 2024

[redacted]

ASSESSMENT METHODOLOGY

COBBORA SOLAR FARM

Dear Members,

As a Registered Aboriginal Party (RAP) for the Cobbora Solar Farm project (the Project), we are writing to provide you with an update on the Project and to set out the proposed assessment methodology for the investigation.

1 PROJECT INFORMATION

Cobbora Solar Farm Pty Ltd, in its capacity as trustee for the Cobbora Solar Farm Trust (a wholly owned subsidiary of Pacific Partnerships Pty Ltd; the proponent) is seeking development consent to construct, operate and decommission the Cobbora Solar Farm in Central West New South Wales (NSW). The solar farm would be a large-scale solar photovoltaic (PV) generation facility with the capacity to generate up to 700 megawatts (MW) (AC) of electricity from PV solar panels and would also include a 400 MW / 800 megawatt-hour (MWh) battery energy storage system (BESS) and associated infrastructure for its management and connection to the national electricity market (NEM).

The Project would be located near Cobbora, approximately 20 kilometres (km) southwest of the township of Dunedoo and 55 km east of Dubbo in Central West NSW (the project area). The Project would connect to the Central West Orana (CWO) Renewable Energy Zone (REZ) grid infrastructure via an onsite grid substation connecting to the Elong Elong Energy Hub.

In addition to the onsite grid substation described above, up to three secondary substations would be located across the project area. A 330 kilovolt (kV) internal overhead transmission line would connect the secondary substations to the main substation, and an internal overhead or underground reticulation at 33kV would connect different areas of the solar array to the secondary and main substations. Key supporting development and infrastructure components would include internal roads and upgrades to external access roads, waterway crossings, staff office and meeting facilities, operations and control room, workshop and amenities, car parking, storage facilities, fencing and landscaping.

The project area covers an area of 3,000 hectares (ha), with the solar array itself spanning 1,300 ha. The main construction compound would be centrally located, cover an area of approximately 14 ha, and be accessible

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via Spring Ridge Road. In addition, four satellite construction support areas would be located across the project area. One would be accessed via Golden Highway (to the north), two via Spring Ridge Road, and the fourth via internal access roads. Each satellite construction support area would be approximately 0.25 ha.

2 Background of the Aboriginal Cultural Heritage Assessment

OzArk Environment & Heritage (OzArk) has been engaged to complete an Aboriginal Cultural Heritage Assessment for the Project. In 2022, pedestrian surveys of the project area were undertaken by OzArk and representatives from Dubbo Local Aboriginal Land Council (LALC), Gallangabang Aboriginal Corporation, Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation, and Wellington Valley Wiradjuri Aboriginal Corporation. A total of 30 previously unrecorded Aboriginal sites were identified during 2022 surveys, and an additional 104 AHIMS sites and 20 sites previously identified by EMM were located within the previous project area. Additionally, 32 areas of potential archaeological deposits (PADs) were identified.

Following the survey in 2022, and during the preparation of the draft Aboriginal Cultural Heritage Assessment Report (ACHAR), the Project was in the process of being sold to Pacific Partnerships and works were put on hold. Since this time, a number of project updates have taken place including the re-issuing of Project SEARs, the release of the Large Scale Solar Farm Guidelines by the NSW Government, as well as amendments to project description.

Due to the remobilisation of the Project, the ACHAR process has been restarted, including a reinitiation of the *Aboriginal cultural heritage consultation requirements for proponents* (ACHCRs). OzArk is in the process of revising and updating the current ACHAR.

3 Previous survey effort

The survey carried out by OzArk in 2022 follows two major investigations that occurred in 2010 and 2013 across the landforms of the project area.

In 2010, ERM conducted an Aboriginal archaeological assessment for the Cobbora Coal Project. The assessment area for this proposal covered most of the eastern side of the project area. During the survey, a total of 20 scarred trees, six rock shelters, 52 artefact scatters, 17 isolated artefacts, 15 hearth features, and 16 grinding groove sites were recorded. Those sites identified were predominantly clustered around waterways and particular those major waterways within the assessment area including Sandys and Laheys Creeks.

Following changes to the mine plan, an additional survey was undertaken by EMM in 2012. A total of 229 Aboriginal objects were recorded. These included 164 open stone artefact sites, 25 scarred trees, 18 grinding groove sites, 15 hearths, and seven rock shelters. Quartz was the dominant material recorded comprising approximately 95% of the artefact assemblage. To a much lesser degree, stone artefacts manufactured from volcanic materials, silcrete, quartzite, chert, chalcedony, mudstone, and sandstone were also recorded.

Test excavation program was conducted by EMM in 2013. The two areas which formed the focus of testing included the northern and southern banks of Laheys Creek (towards the eastern boundary of the project area),

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and the northern and southern banks of an east–west running unnamed drainage line located 750 m north of Laheys Creek (outside the development footprint). A total of 118 test units (TU) were excavated across 45 discrete locations. These locations included 36 TUs (3 x 1 m) and nine borehole TUs (1 x 1 m). A total of 791 stone artefacts were recovered across 89 of the 118 TUs with an average frequency of 6.7 artefacts per 1 x 1 m.

Consequently, the archaeological potential of the project area has been previously mapped and the subsurface potential of landforms near Laheys Creek is known.

4 OzArk survey effort

Archaeological sensitivity modelling based on the findings of previous Aboriginal cultural heritage assessments within the project area, allowed 'priority survey areas' and 'secondary survey areas' within the development footprint to be designated. Greater survey effort was expended on locating the previously recorded sites in the development footprint, assessing their current condition, reassessing their potential to be associated with subsurface deposits, and surveying landforms considered to have greater Aboriginal archaeological potential.

The survey strategy involved a series of pedestrian transects (~15–35 metres [m] spacing) within each of the 'priority survey areas', with broader-spaced pedestrian transects and sample survey within the 'secondary survey areas'.

The survey participants were divided into two teams to maximise coverage of the study area. Team 1 (T1) included five survey participants and Team 2 (T2) included four survey participants. Transects were overall spaced evenly between the five survey participants for T1 transects and four survey participants for T2 transects, however, each team of participants clustered together to aid ground-truthing of the previously recorded AHIMS sites.

Pedestrian coverage across the survey is shown on **Figure 1**. This figure only shows the tracks of one OzArk archaeologist as there were up to five survey participants for each team, the actual survey coverage was greater than is indicated in this figure.

The previous archaeological test excavation by EMM concentrated particularly on the northeast bank of Laheys Creek where EMM identified greater archaeological potential. Owing the concentrated coverage of this area through surface (ERM 2010 and EMM 2010) and subsurface testing previously (EMM 2012) further survey in this area was not warranted.

Fifteen isolated finds and 15 artefact scatters were identified during the survey and 32 areas of PAD were also recorded within the study area. Many areas of PAD are associated with surface artefact sites, although the boundary of the site and the PAD may be different or two previously recorded sites may occupy one PAD.

Inspection at sites 36-2-0240 and 36-2-0168 identified completely eroded topsoil exposing a cemented B-horizon erosion scour and it was concluded that the previously recorded PAD at these sites is no longer valid.

Most sites were identified within the drainage landform survey unit (SU1, n=45) followed by the slope landform unit (SU2, n=24), with the smallest number of sites identified along the crest landform (SU3, n=5). The remainder of the sites (n=6) extended across the transition between one or more survey units.

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5 CULTURAL HERITAGE WITHIN THE PROJECT AREA

An updated AHIMS search indicates that there are 135 registered Aboriginal sites within the project area, including 27 identified by OzArk during the 2022 survey. 32 PADs remain within the project area (**Figure 2**). During the 2022 survey, the confluence of Sandy and Laheys Creeks was noted to hold cultural significance to the local Aboriginal community. Also noted was that the study area represents an archaeologically dense area with a variety of site complexes that holds cultural significance to the local Aboriginal community.

Following the results of the 2022 survey, the proponent has redesigned the impact footprint of the Project to avoid and conserve Aboriginal cultural heritage where possible. Most notably, almost all PADs have been avoided by Project impacts.

The only proposed impact to a PAD is from the installation of two, single electricity poles: one 33kV pole within the site extent of site (36-2-0226) and PAD 20 and one 33kV pole within the same PAD but outside of the identified artefact scatter extent (**Figure 4**).

The type of pole structure used will be based on the outcome of the geotechnical assessment and detailed design. An area of approximately 0.6 x 0.6 metres will be directly impacted at each pole location and ground around the pole location may be impacted by vehicle movements.

Of the 135 Aboriginal sites within the project area, 21 sites consisting of isolated finds and surface artefact scatters are located within the impact footprint and may be harmed by the Project (**Table 1**, **Figure 3**). There is the potential for the disturbance of subsurface deposits, if present, by the proposed installation of two 33kV electricity poles at site 36-2-0226.

Table 1: AHIMS sites likely to be harmed by the Project.

AHIMS ID	Site name	GDA East	GDA North	Site Type
36-2-0196	IF 05-Ground Edge Axe	711196	6438564	Isolated find
36-2-0226	SAC 23	708747	6439446	Artefact scatter with PAD
36-2-0393	CBR - OS - 21	711220	6438390	Artefact scatter
36-2-0394	CBR - OS - 20	710030	6440880	Artefact scatter
36-2-0402	CBR - OS - 13B	709230	6443209	Artefact scatter
36-2-0403	CBR - OS - 13A	709320	6443229	Artefact scatter
36-2-0425	CBR - IF - 01	709752	6442140	Isolated find
36-2-0523	CSF OS5	707547	6440988	Artefact scatter
36-2-0529	CSF OS11	711677	6438589	Artefact scatter
36-2-0532	CSF OS14	709662	6437390	Artefact scatter
36-2-0535	CSF IF01	707480	6441401	Isolated find
36-2-0536	CSF IF03	707391	6441061	Isolated find
36-2-0538	CSF IF05	710183	6439120	Isolated find

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AHIMS ID	Site name	GDA East	GDA North	Site Type
36-2-0541	CSF IF09	711844	6438665	Isolated find
36-2-0542	CSF IF10	709636	6438918	Isolated find
36-2-0544	CSF IF12	709573	6438887	Isolated find
36-2-0545	CSF IF13	709306	6439125	Isolated find
36-2-0546	CSF IF15	711948	6438040	Isolated find
36-2-0547	CSF IF14	711851	6438010	Isolated find
36-2-0695	SNI-AS48	712703	6437140	Artefact scatter
36-2-0697	SNI-AS47	712508	6437262	Artefact scatter

6 STEPS MOVING FORWARD

In summary, the investigation has so far involved:

- April 2022- ACHCRs initiated for original project.
- May 2022- Original assessment methodology issued.
- 27 June to 1 July 2022- Field survey Mobilisation 1.
- 11–12 August 2022 - Field survey Mobilisation 2.
- August 2024 - ACHCRs re-initiated for revised project.

It is intended to use the results of the 2022 OzArk survey, as well as the previous ERM and EMM surveys, to inform the preparation of the ACHAR. As the development footprint has been studied extensively, it is considered that these landforms have been adequately sampled in accordance with Requirement 5a of the *Code of Practice for Archaeological Investigation of Aboriginal objects in NSW*.

The forthcoming ACHAR will recommend for the complete salvage of the 21 isolated finds and artefact scatters located within the impact footprint for the solar array, including the partial salvage of site 36-2-0226 at the location of proposed disturbance.

On the finalised design of the impact footprint, a focused subsurface archaeological excavation will take place at the location of the two poles within site 36-2-0226 when this is precisely known. The excavation at the base of the pole will ensure any of the soil profile that could be harmed by the pole installation will be archaeologically excavated.

The results of the survey and the final details for the project will be described in the draft ACHAR currently being completed. The draft ACHAR will be provided for you for comment in the coming months.

The proposed schedule for the remainder of the Aboriginal cultural heritage assessment will follow:

OzArk Environment & Heritage

- RAPs receive this document and have 28 days to provide any comment on the proposed assessment. Additionally, if RAPs have cultural knowledge that should be considered in the ACHAR, OzArk invites them to get in contact us.
- OzArk completes a draft ACHAR. This document will detail the results of the survey and have management recommendations for any Aboriginal sites liable to be harmed by the Project.
- RAPs receive draft ACHAR and have 28 days to provide any comment on the assessment and/or the recommendations.
- OzArk finalises the ACHAR after considering all RAP comments.

This project update letter satisfies Stage 2 of the *Aboriginal cultural heritage consultation requirements for proponents* (ACHCRs), providing project information, and Stage 3 of the ACHCRs, providing a proposed methodology for the cultural heritage assessment. As per Section 4.3.2 of the ACHCRs, RAPs will be provided 28 days to provide any comment on this document by COB 25 October 2024.

If you have any queries in relation to the enclosed information or are aware of any cultural values regarding the revised study area, please do not hesitate to contact our office.

Kind regards,

Catherine Burrowes
Consultation Officer
catherine@ozarkehm.com.au

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Figure 1: Pedestrian survey.

Figure 2: Aboriginal sites and PADs within the project area.

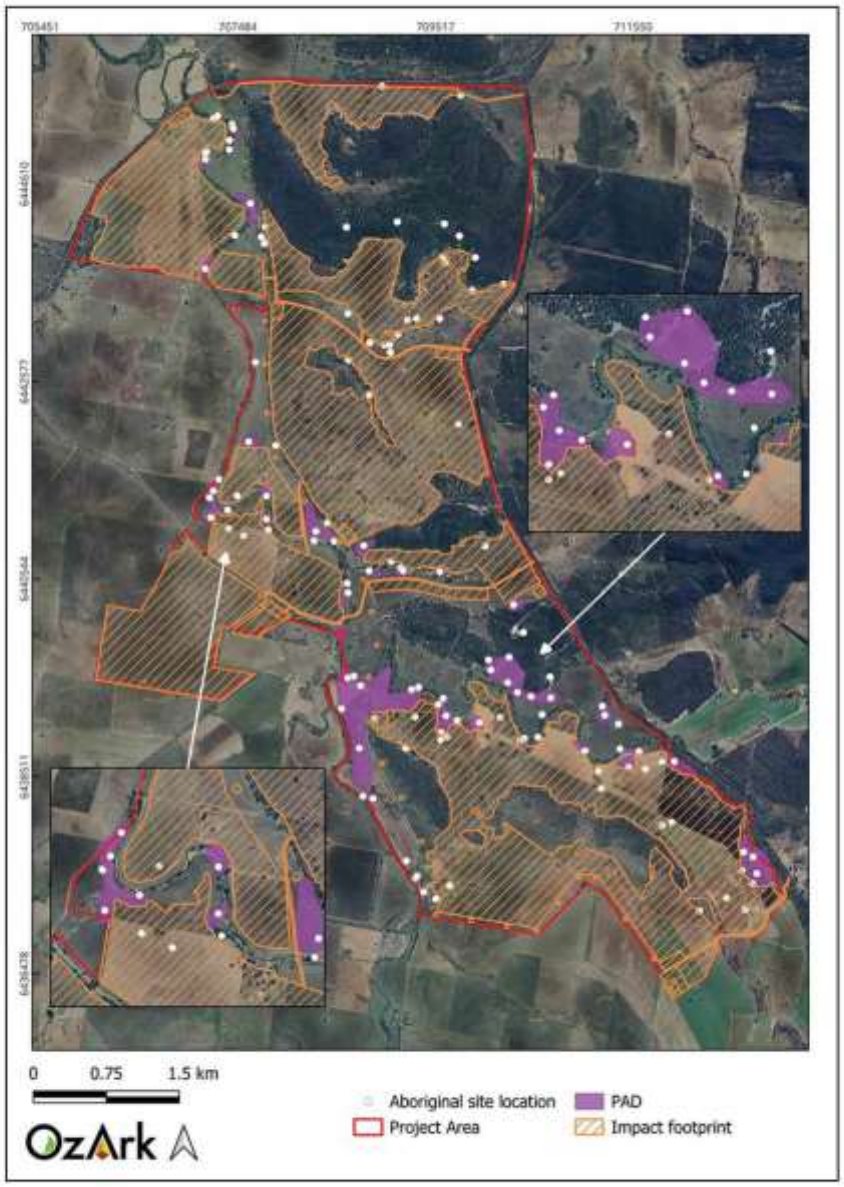

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Figure 3: Aboriginal sites within the impact footprint.

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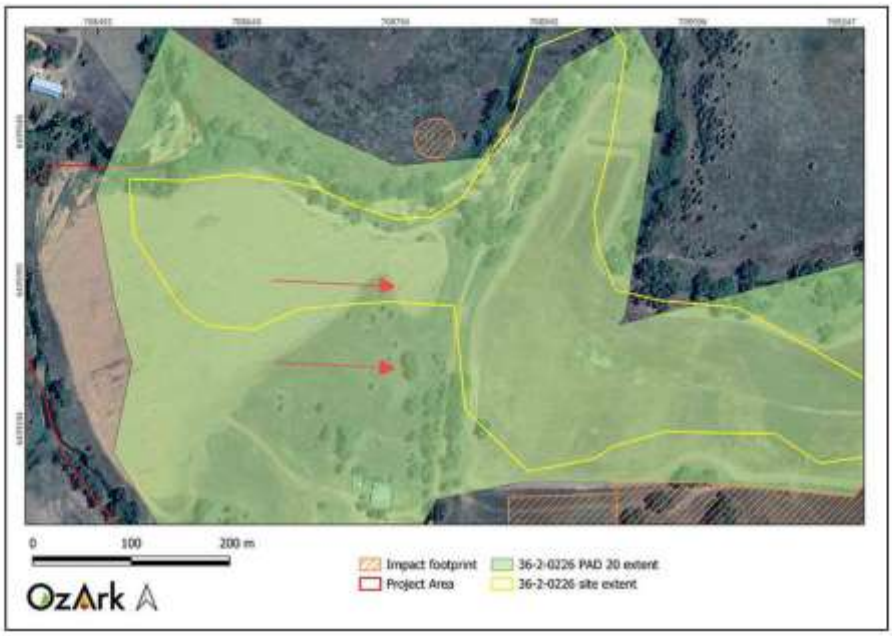
Figure 4: Proposed 33kV pole locations in relation to 36-2-0026 and PAD 20.



Appendix 1 Figure 9: Stage 2/3 RAP responses (Round 2 ACHCRs).

Booral Maliyan

Hi Catherine and Jodie,

I agree to the methodology as presented below in your email dated 27 September 2024.

Regards

Booral Maliyan

Stakeholder 2

Hi Catherine
We support methodologies

Wellington Valley Wiradjuri Aboriginal Corporation

Wellington Valley Wiradjuri Aboriginal Corporation (WVWAC) would like to thank you for your invitation to provide a response for This Aboriginal Cultural Heritage issue relevant to obligations to protect our Heritage within our Traditional Lands. Wellington Valley Wiradjuri represent traditional families with identified apical ancestry pre European occupation with our known Traditional Lands. We know our culture, country and continue with our association with our traditional lands (Ngurangbang).

WVWAC Strongly object to any other non-traditional aboriginal organizations or people taking part in site surveys, consultation and assessments within our defined Traditional Lands. These non-traditional people and groups are outsiders under Traditional Lore and have no right to advise on or to be present during consultation or site visits as they do not possess the specific traditional knowledge in relation to these lands or sites. These participants may be indigenous and may live locally within the region however, this still does not give them the right to disregard Traditional Lore and values.

Wellington Valley Wiradjuri Aboriginal Corporation (WVWAC) have through consultation with other Traditional Elders and Traditional Community with cultural knowledge have the following comments and or recommendations:

- That WVWAC agree to the Proposed Assessment Methodology for the Cobbora Solar Farm as received in the email dated 27 September 2024.

- WVWAC Request that a Map showing the Original Layout overlayed with the Current Site Layout be supplied to better understand the Current Project Redesign.

Regards,

Bradley R. Bliss J.P.
WVWAC Chairman and Contact Officer
P.O. Box 1583
Orange NSW 2800
Email: WVWAC@hotmail.com
[redacted]

APPENDIX 2: ASSESSMENT METHODOLOGY FOR THE 2022 FIELD SURVEY

** Please note that the Project area and disturbance footprint is currently different to that shown in this document.

A view of the development footprint near site CBR-OS-09 (EMM 2012).

ABORIGINAL CULTURAL HERITAGE ASSESSMENT METHODOLOGY

COBBORA SOLAR FARM

WARRUMBUNGLE AND DUBBO LOCAL GOVERNMENT AREAS, NSW

JUNE 2022

Report prepared by

OzArk Environment & Heritage

for Marble Energy

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Acknowledgement

OzArk acknowledge the traditional custodians of the area on which this assessment will take place and pay respect to their beliefs, cultural heritage, and continuing connection with the land. We also acknowledge and pay respect to the post-contact experiences of Aboriginal people with attachment to the area and to the Elders, past and present, as the next generation of role models and vessels for memories, traditions, culture and hopes of local Aboriginal people.

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FIGURES

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1 INTRODUCTION

1.1 PREAMBLE

OzArk Environment & Heritage (OzArk) has been engaged by Marble Energy (the proponent) to prepare an assessment methodology for the proposed Cobbora Solar Farm (the project).

The project site is located approximately 20 kilometres (km) southwest of the township of Dunedoo and 55 km east of Dubbo in Central Western New South Wales (NSW). The project site is across the Warrumbungle Shire Council and Dubbo Regional Council Local Government Areas (LGAs) (**Figure 1-1**).

This methodology is in accordance with Stage 3 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (ACHCRs; DECCW 2010b). The project information provided here also complies with Stage 2 of the ACHCRs.

1.2 PROJECT AREA

The project area describes the area in which all impacts associated with the project will be located. The project area covers approximately 3,300 hectares (ha), with the project infrastructure to occupy an indicative development footprint of approximately 2,450 ha across approximately 60 land parcels (**Figure 1-2**).

1.3 PROJECT OVERVIEW

The proposed solar farm will have a capacity of up to 700 megawatts (MW) and include a centralised 200 megawatt/ 200 megawatt hour (MWh) battery energy storage system (BESS). The method of connection to the proposed Central West Orana (CWO) Renewable Energy Zone (REZ) transmission line will be confirmed as further details of the project are known. The project will improve the reliability of energy supply in the region by providing storage and firming capacity to the National Energy Market (NEM).

The project will involve the development of separate arrays of solar photovoltaic (PV) modules (solar panels). The PV modules will be installed on racking frames fixed onto a horizontal tracker tube, with this mounted-on vertical piles driven or screwed into the ground; and installed in rows spaced between 5 metres (m) and 12 m apart.

The area being considered for this project covers part of what was the Cobbora Coal Project holdings, an open-cut coal mine proposed by Cobbora Holding Company Pty Limited, which was a state-owned entity. The assessments undertaken for the Cobbora Coal Project and documented in the Environmental Impact Statement (EIS) provide useful baseline information on the archaeological potential of the development footprint.

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1.4 ASSESSMENT OVERVIEW

The project will be assessed as a State Significant Development (SSD).

The investigation set out in this methodology aims to identify Aboriginal cultural values, both tangible and intangible, that exist in the development footprint. The results of this investigation will be presented in an *Aboriginal Cultural Heritage Assessment Report* (ACHAR).

Figure 1-1: Location of the project area.

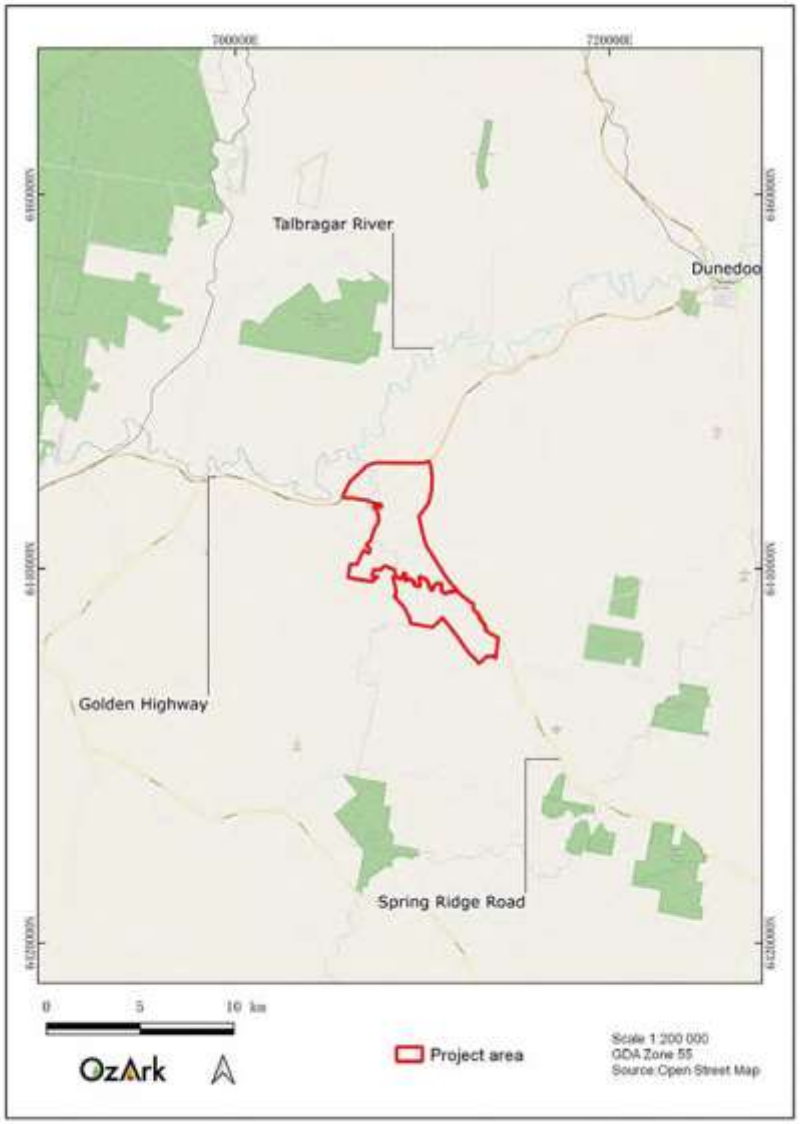

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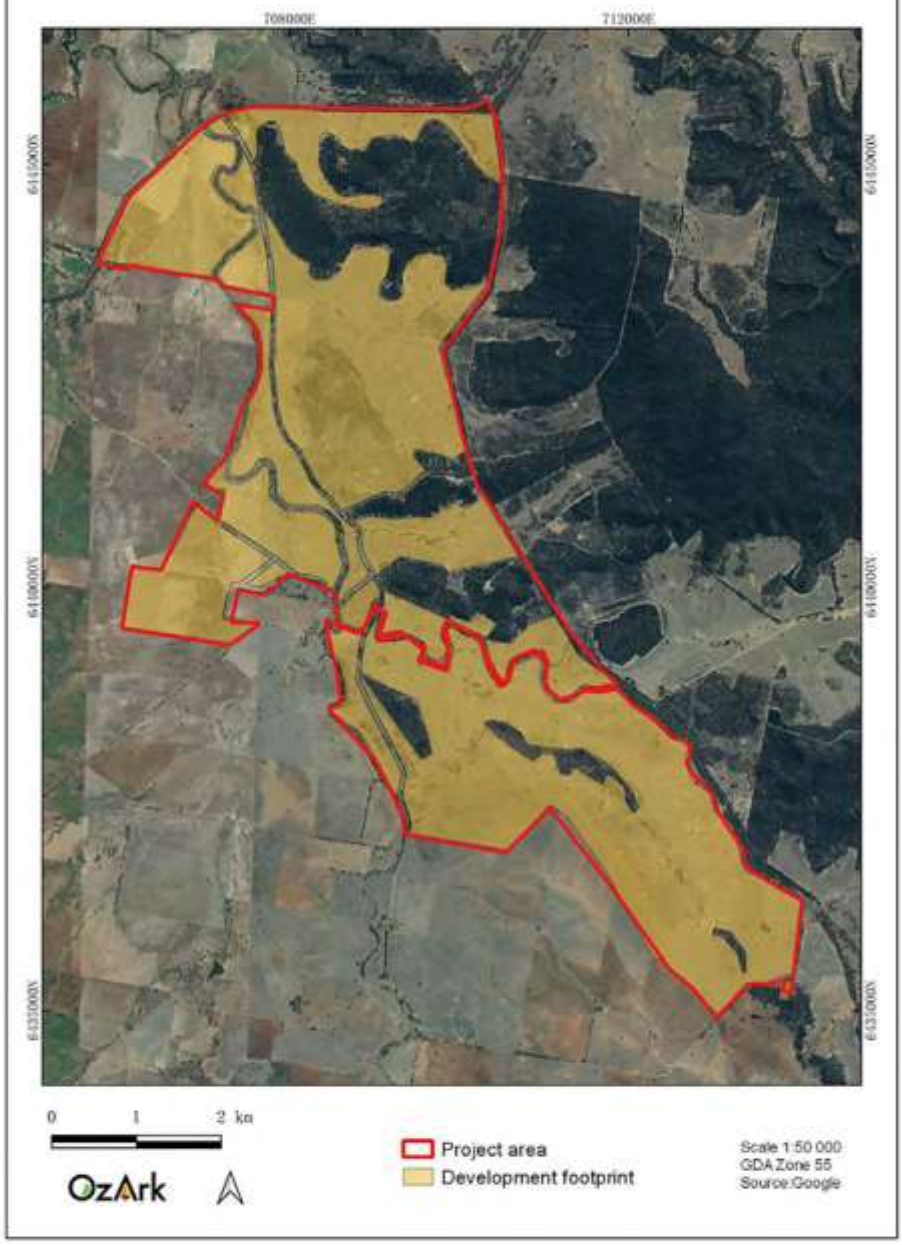
Figure 1-2. Aerial of the project area and the development footprint.



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1.5 CONSULTATION ON THIS METHODOLOGY

Consultation for this proposal has followed the guidelines established in the ACHCRs (DECCW 2010b) whereby an advertisement was placed in the local press and relevant agencies were contacted to ascertain if they were aware of groups or individuals who may have cultural knowledge of the region containing the project.

On 29 April 2022, an advertisement was placed in the *Daily Liberal* requesting expressions of interest in being consulted about the project. In addition, the following agencies were contacted to identify potential stakeholders for the area: Heritage NSW; the Dubbo Regional Local Aboriginal Land Council (LALC); the Office of The Registrar, *Aboriginal Land Rights Act 1983*; the National Native Title Tribunal; Native Title Services Corporation Limited (NTSCORP); the Dubbo Regional Council; and the Central West Local Land Services.

As a result, the following individuals/groups registered to be consulted about the project:

- Gallanggabang Aboriginal Corporation
- Wellington Valley Wiradjuri Aboriginal Corporation
- Tubbah-Gah (Maing) Wiradjuri Aboriginal Corporation
- Corroboree Aboriginal Corporation
- Woka Aboriginal Corporation
- Dubbo Regional LALC.

These individuals/groups constitute the Registered Aboriginal Parties (RAPs) for the project.

All RAPs were sent a draft of this assessment methodology on 25 May 2022 for the statutory 28 day review period that concluded on 23 June 2022.

As of 30 June 2022, no comments on the assessment methodology had been received.

1.6 LANDSCAPE CHARACTERISTICS OF THE PROJECT AREA

The project area lies within the southern edge of the Brigalow Belt South (BBS) biogeographic region of NSW and is within the Goonoo Slopes landscape of the BBS Pilliga as defined by Mitchell (2002).

The Goonoo Slopes landscape is characterised by extensive undulating to stepped low hills with long slopes on sub-horizontal Triassic/Jurassic (approximately 250–145 million years ago) quartz sandstone, conglomerates, siltstone, shale, and some coal. The general elevation is 300 m to 500 m with overall westerly slope. Soils within the project area consist primarily stony yellow earths with sandstone outcrop on ridgelines to yellow harsh texture-contrast soils downslope. Typically the valley floors have clay subsoils with sediments sorted into deep sands and grey clays, sometimes with a concentration of soluble salts.

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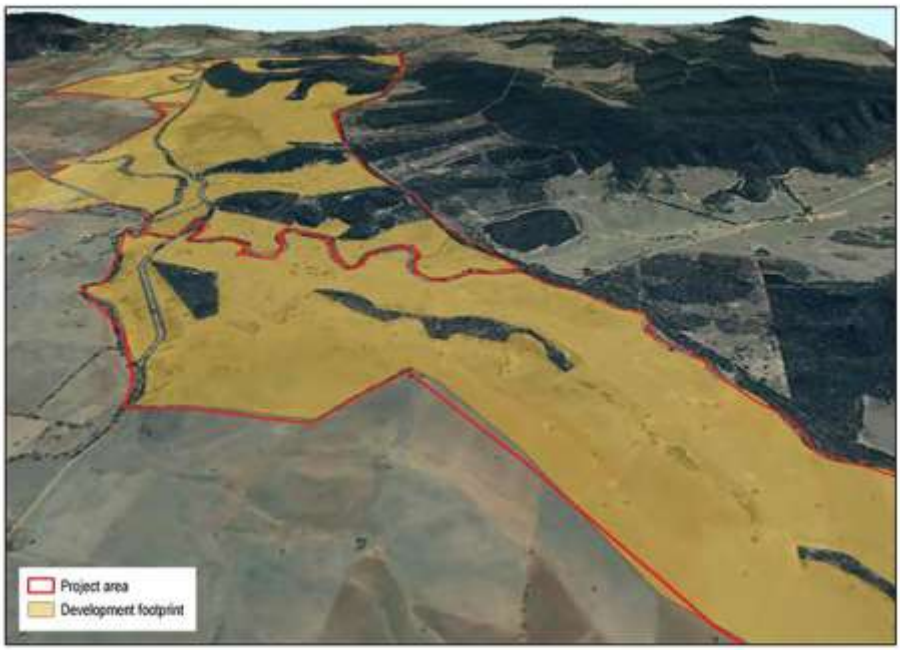
The northern part of the project area comprises sandstone ridges with scree slope edges and rock outcrops from the Dunedoo Formation, a pebbly conglomerate sandstone. These rocks are friable and fragment readily with the result that rock shelters rarely occur. The southern and eastern parts of the project area are characterised by undulating ground due to varying volcanic geology.

A digital elevation model (DEM) illustrates that the project area consists of generally flat land downslope to landforms with higher elevations to the east (**Figure 1-3**). Apart from a few spur landforms that are excluded from the development footprint, the project area only contains a few low hills with the remainder consisting of undulating landforms with a gentle gradient.

Figure 1-3: DEM showing the project area (view north).



Vegetation before land clearing within the project area would have comprised broad-leaved ironbark and black cypress pine on ridges, broad-leaved ironbark, narrow-leaved ironbark, red ironbark, fringe myrtle, spur-wing wattle, dainty phebalium, daphne heath on slopes with patches of green, Dwyer's mallee gum and broombush. Grey box, red ironbark, red stringybark, fuzzy box and Blakely's red gum with knob sedge, and tall sedge along streams.

The Goonoo Slopes landscape has a poorly defined drainage network and the Sandy Creek catchment, within which the project area is located, forms a southerly extension to the Talbragar Valley. The Talbragar River is the closest permanent watercourse and is located approximately

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600 m northwest of the project area. Several creeks intersect with the project area in a general south–north direction and flow into the Talbragar River. These include Sandy Creek and several tributaries in the western and northern portions of the project area, and Laheys Creek and its several tributaries in the south-eastern portion of the project area (**Figure 1-4**).

Land use in the region is typically cattle and sheep grazing with some wheat cropping. Forest and woodland areas generally occur in association with rock outcrops on the low hills and ridges. The broad flat areas which very gently slope down to the creeks have been cleared and ploughed regularly over many decades. The clearing of trees along watercourses has exacerbated erosion and increased salinity in some areas. Salt scalds are present in some low-lying areas in the north-western part of the project area. An aerial from 1964 which covers the project area shows there has been little change in terms of land use over the past 58 years (**Figure 1-5**).

Figure 1-4: Topography and drainage of the project area.

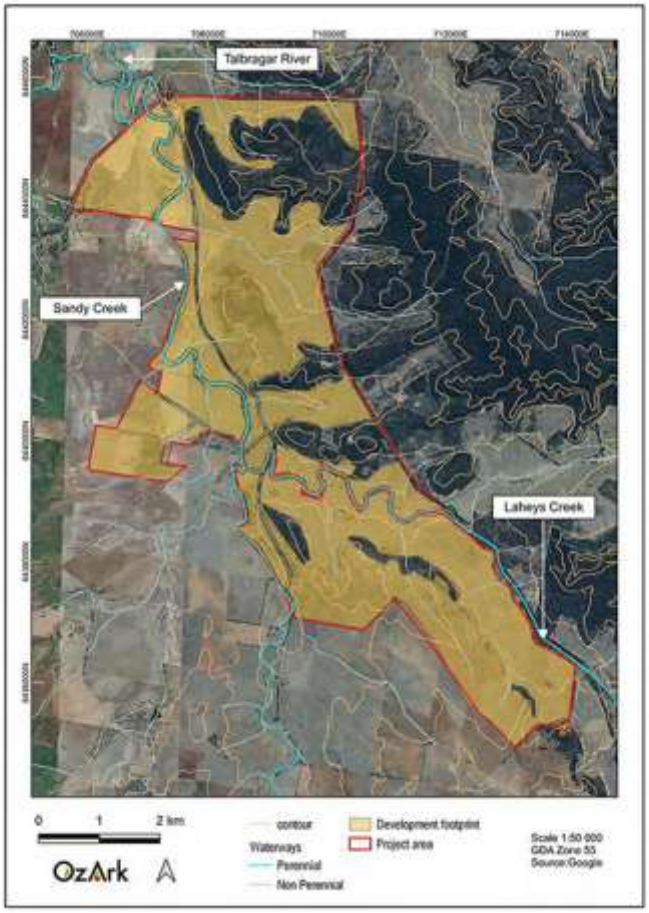

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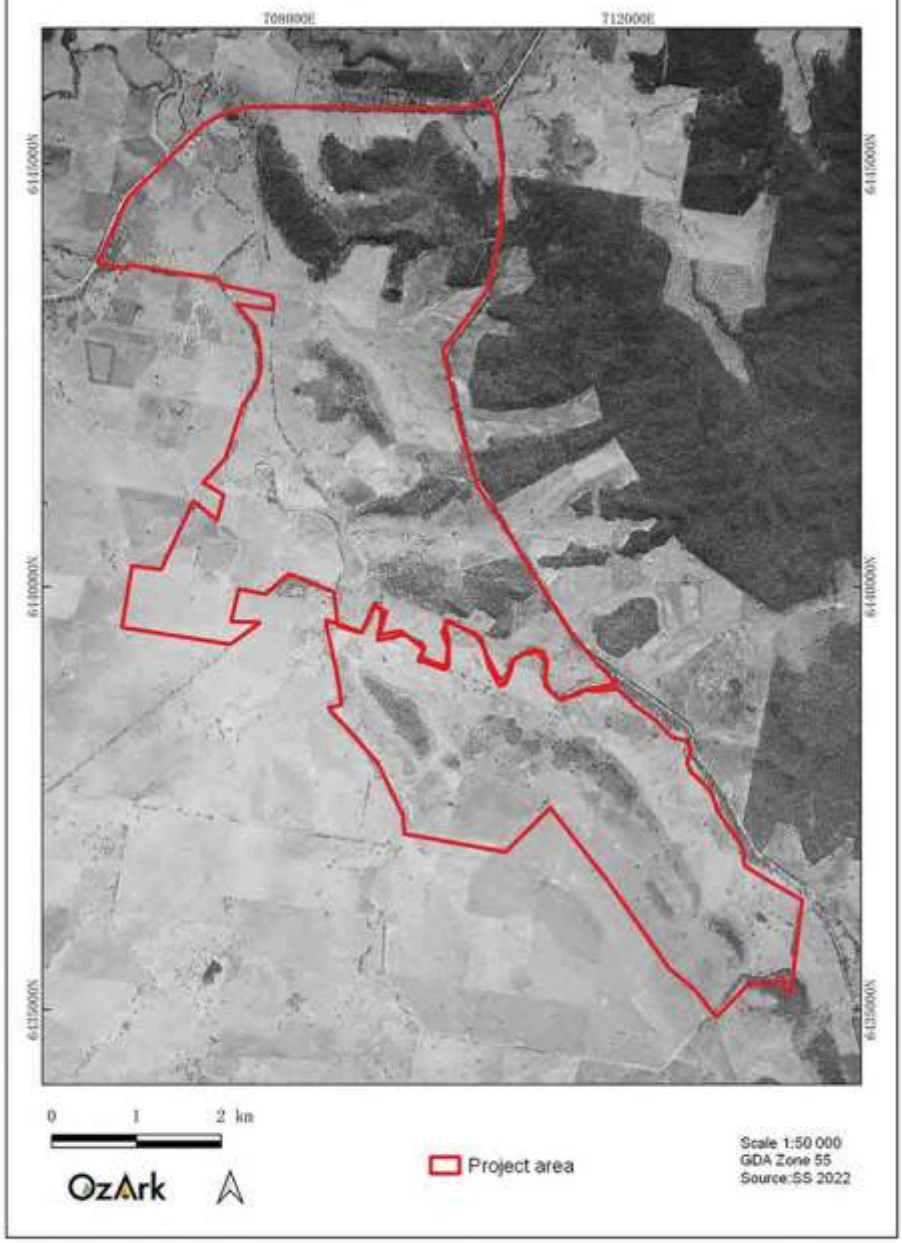
Figure 1-5: 1964 aerial with overlay of project area (source: SS 2022).



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2 CULTURAL VALUES

2.1 INTRODUCTION TO CULTURAL VALUES

No matter who you are, we all have culture. Each person's culture is important; it's part of what makes us who we are.

Many Aboriginal people in Australia have a unique view of the world that's distinct from the mainstream. Land, family, law, ceremony, and language are five key interconnected elements of Aboriginal culture. For example, families are connected to the land through the kinship system, and this connection to land comes with specific roles and responsibilities which are enshrined in the law and observed through ceremony. In this way, the five elements combine to create a way of seeing and being in the world that is distinctly Aboriginal.

Fundamentally, culture is living and is not static:

- Culture is acquired - we learn about culture from others in our community, including our parents
- Culture is shared - culture does not exist in a vacuum, it is shared amongst a group of people
- Culture defines core values - because we have been taught our culture and share it with our cultural group, we tend to form the same core values
- Cultures resist change but are not static - culture does and can change, but change is usually slow and gradual.

2.1.1 Connection to Country

Aboriginal and Torres Strait Islander peoples are connected to Country through lines of descent (paternal and maternal), as well as clan and language groups.

Although in the past (and sometimes into the present) there have been conflicts between different tribal groups, these were rarely over land. Aboriginal and Torres Strait Islander people have such a strong sense of belonging to country; they have no desire to own the land of others.

Territory is defined by spiritual as well as physical links. Landforms have deep meaning, recorded in art, stories, songs, and dance. Songlines or Dreaming Tracks as well as kinship structures link Aboriginal peoples to the territories of other groups. In the past, these links were also used for trade.

> *"When we say Country we might mean homeland, or tribal or clan area and in saying so we may mean something more than just a place; somewhere on the map. We are not necessarily referring to place in a geographical sense. But we are talking about the whole of the landscape, not just the places on it."*
>
> Professor Mick Dodson AM, August 2007

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2.1.2 Managing Country

Living on this land for around 50,000 years, Aboriginal and Torres Strait Islanders established effective ways to use and sustain resources. One important aspect is the right of certain people to control the use of resources in a particular area. Aboriginal and Torres Strait Islander people don't see themselves as 'owning' land, animals, plants, or nature, but rather belonging with these things as equal parts of creation.

The rights of different groups to live in and manage certain areas of land are clear and recorded through art, stories, songs, and dance.

Deep cultural and spiritual values like totemism have also played an important part in Aboriginal and Torres Strait Islander resource management. Totemism is a belief and value system that connects human beings to other animals, plants, and aspects of nature. Groups and individuals are assigned a particular animal that they are related to and must care for. This gives them a profound sense of connection to and responsibility for the natural world.

Aboriginal and Torres Strait Islanders people have a wide range of traditional methods for gathering food including fish traps, subsistence agriculture, hunting and harvesting a wide range of natural fruits and vegetables. Some groups of people would stay in one place, while others moved around the land according to the seasons, to ensure sustainable and rich food supplies, and to fulfil their spiritual and cultural obligations.

Even before 1788 there were complex relationships for long distance trade between Aboriginal and Torres Strait Islander communities especially for coastal shells and stone hatchets. When people from different groups met socially to share resources, for ceremonies or to settle disputes, they brought items to exchange. Items included stones for hatchets, kangaroo skins, timber for spears, ochre or clay for paint and marine shells for decoration. The exchange of objects was not motivated by a desire for wealth accumulation but a social system to build connection between people and groups.

2.1.3 Recognising lore

In much of eastern Australia, Aboriginal communities live their lives like most Australians without resorting to tribal lore. However, in certain crucial areas, particularly associated with family, leadership roles, and caring for Country, Aboriginal lore continues, even in the most urbanised communities.

2.2 IDENTIFYING CULTURAL VALUES

A major aim of this assessment is to identify any cultural values within the landscape in which the project is located so that those values can be recognised and incorporated into the ACHAR's management recommendations.

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Any cultural values relating to the project area will be captured by the OzArk archaeologists (if such information is provided by RAPs during the survey) and included in the ACHAR.

Understanding cultural landscapes can only come from the views of a particular community, in this case, the Aboriginal community. Unless informed, OzArk will not know of the community's feelings towards the cultural landscape in which the project will be located. Should any RAPs have knowledge of cultural values regarding the proposal area that they wish to share or that may affect the survey methodology set out in **Section 5**, OzArk invites them to contact us so that these values can be recorded and/or responded to in the methodology.

2.2.1 Use of information collected

An ACHAR will be prepared for the project which articulates Aboriginal cultural values and associated conservation methods across the proposal area, as identified during the consultations. The ACHAR will be circulated to all RAPs for comment as is set out in the ACHCRs. The ACHAR will be available to Heritage NSW for their consideration of the proposal and the report will be publicly available.

2.2.2 Public / confidential information

Information will be treated in accordance with instructions received by Aboriginal informants. Information described as confidential (culturally sensitive) will not be detailed in the publicly available report. Confidential information should be made available to the proponent, its heritage consultants, and Heritage NSW so that significant cultural values can be conserved. On advice from the provider of the information, a redacted ACHAR would be made available to the wider public where any sensitive cultural information is removed.

2.2.3 Copyright

Information collected for this assessment remains the property of the Aboriginal informants and the author. Without written permission from individual informants and the author information may not be used for purposes other than those outlined above.

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3 ARCHAEOLOGICAL CONTEXT

3.1 ABORIGINAL PEOPLE OF THE PROJECT AREA

At the time of British settlement, the project area was situated within the territory of people belonging to the *Wiradjuri* tribal and linguistic group (Tindale 1974). The Wiradjuri tribal area is situated within the Murray Darling Basin and extends across three general physiographic regions: the highlands or central tablelands in the east, the riverine plains in the west, and the transitional western slopes zone in-between (Navin Officer 2005: 48). The project area is at the north-eastern extent of Wiradjuri territory.

The Wiradjuri is one of the largest language groups within New South Wales extending across the districts of Mudgee, Bathurst, Dubbo, Parkes, West Wyalong, Forbes, Orange, Junee, Cowra, Young, Holbrook, Wagga Wagga, Narrandera, Griffith, and Mossgiel (Tindale, 1974). While the area was noted to have a single basic language, various dialects could be found throughout the region (Tindale 2000). The project area is located within the central tablelands and on the eastern margin of the Wiradjuri territory.

Oral tradition records the presence of over 20 clans within the broader Bathurst–Mudgee region, organised according to matrilineal descent (Navin Officer 2005: 48). Clans were made up of a number of fairly independent groups, of up to 20 members, in friendly contact with each other, moving separately for much of the year over a shared territory (Pearson 1981; Haglund 1985).

Within the Wiradjuri region, the presence of Aboriginal people in the Darling Basin has been dated to 40,000 BP (years before present) (Hope 1981 as cited in Haglund 1985). A spread east into the mountains is thought to have occurred between 14,000 to 12,000 BP.

3.2 REGIONAL ARCHAEOLOGICAL CONTEXT

The Aboriginal occupation of Australia begins prior to 40,000 BP and possibly earlier than 50,000 BP (O'Connell et al. 2018). Dates exceeding 20,000 years occur in almost all parts of Australia resulting in the expectation that most areas should have a Pleistocene (>12,000 BP) occupational signature. However, such dates remain relatively rare due to a range of factors, both behavioural and post-depositional. These factors include a possible low density of occupation in the Pleistocene period and poor preservation of archaeological materials (particularly dateable organic materials).

There are several broad scale regional archaeological studies which examined areas near the project area. These studies have been summarised below.

Pearson 1981

Pearson's work was primarily in the Upper Macquarie region, which reflects topographic similarities to the current project area. Pearson divided the archaeological sites he recorded into

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two main categories: occupation sites and non-occupation sites (including grinding grooves, scarred or carved trees, ceremonial, and burial sites). Analysis of site locations produced a site prediction model with occupation occurring in areas with access to water, good drainage, level ground, adequate fuel and appropriate localised weather patterns for summer or winter occupation. Occupation sites were most frequently found on low ridge tops, creek banks, gently undulating hills and river flats and usually in open woodland vegetation (Pearson 1981: 101). The location of non-occupation sites was dependent upon a variety of factors relating to site function. For instance, grinding grooves were found where appropriate sandstone outcropping occurred, as close to occupation sites as possible. The location of scarred trees displayed no obvious patterning, other than proximity to watercourses where camps were more frequently located. Pearson suggested that these patterns would differ on the drier plains to the west, towards Dubbo and beyond, where dependence upon larger, more permanent water supplies was greater.

Koettig 1985

In 1985, the survey by Koettig investigated the evidence of Aboriginal occupation within 5 km of Dubbo's city limits. The investigation concluded that sites exist throughout all environmental landscapes surveyed. Artefact scatters, scarred trees and grinding grooves were the most frequently occurring site types; and site location and size were determined by various environmental and social factors. Of the environmental factors, proximity to water, geological formation and availability of food resources were the most important. As such, Koettig's site prediction model suggested that: all site types would occur along watercourses; stone arrangements would occur most frequently on knolls or prominent landscape features; larger campsites would occur most frequently along permanent watercourses, near springs or wetlands; small campsites could occur anywhere; scarred trees could occur anywhere, but particularly in remnant native woodland communities; campsites would be smaller and more sporadic near the headwaters of creeks; grinding grooves could occur where appropriate sandstone existed; quarries could occur wherever there were suitable stone sources; and shell middens could occur only along the Macquarie River.

Haglund 1985

Haglund (1985) conducted a study into the prehistoric heritage in the Mudgee Shire and noted that prior to colonial settlement small groups of approximately twenty Aborigines acted independently but engaged in friendly contact. These groups moved after variable intervals, often over a short distance or within the same area, to obtain and use different resources.

Early British explorers and settlers noted considerable variation in the numbers of Aboriginal people that would gather for food procurement activities during different seasons of the year. This seasonality was most obvious in the case of gatherings along major rivers, and it has been

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suggested that during dry periods the water holes remaining in the major rivers would become focal points for the usually scattered groups (Haglund 1985: 5).

Concerning the Mudgee/Gulgong area, Haglund (1985: 3) notes that the distribution of known sites cannot be seen as accurately reflecting past Aboriginal land use or site location patterns because of site loss since colonial settlement. Those sites known to exist, however, do fit within the general pattern for the various resource zones discerned by Koettig (1985) and Pearson (1981).

OzArk 2006

An assessment of Aboriginal heritage resources within the then Dubbo LGA to assist Dubbo City Council (now amalgamated into the Dubbo Regional Council) with planning was undertaken by OzArk (2006). This study aimed to consolidate previous surveys and assessments of Aboriginal heritage; set a baseline for further study; and survey areas zoned for future expansion. Approximately 1120 ha of land was surveyed within five study areas surrounding the city of Dubbo. During the survey, 26 new Aboriginal sites were recorded, and eight out of 12 previously recorded sites were relocated. A number of the newly recorded site types were similar to those found in previous studies. Fewer scarred trees were found than expected, likely due to intensive agricultural practices and associated tree clearance around Dubbo city compared to the broader former Dubbo LGA. No new grinding groove sites were recorded, which was understandable given that this site type comprised only 3.6% of previously located sites within the former Dubbo LGA. Scarred tree distribution adhered to the predictive model, exclusively following waterways and fence-lines, although this probably reflected land clearing practices more than Aboriginal site patterning. Isolated finds and open sites followed a similar pattern, largely limited to watercourse edges and elevated terraces within 500 m of the Macquarie River and other permanent to semi-permanent waterways. No significant patterning emerged in terms of site size or quality, perhaps because surface manifestations of artefacts often do not adequately reflect site size or complexity.

Ulan Coal Mine

Numerous studies undertaken over the past twenty-five years for the Ulan Coal Mine over all portions of their lease areas and have recorded hundreds of Aboriginal sites (for example, Kuskie and Webster 2001; Corkill 1991; Haglund 1981, 1996, 1999). Surveys carried out through the 1980s and 1990s by Haglund have been summarised by Kuskie (2000). As expected, the variety of landforms present within the Ulan project area resulted in all site types being recorded because of these studies (including more unusual sites such as ochre quarries and a utilised rock pool); although, it was noted that in general, the landscapes were highly disturbed because of agricultural activities (clearing, ploughing, grazing) and erosional processes. Overall quartz

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appears to be the predominant raw material recorded at Ulan, although significant quantities of chert are also present (Kuskie and Webster 2001; Corkill 1991; Haglund 1996).

ASL Natural Gas pipeline, Dubbo-Tamworth

JMCHM (1998, 1999) undertook a major linear survey for the Dubbo to Tamworth gas pipeline that provided a view of Aboriginal site distribution. Archaeological survey was conducted along a 300 km pipeline construction corridor which passes through the north-west part of the project area. Of the 98 Aboriginal sites recorded, 56 were stone artefact sites comprising one or more stone artefacts, the other major site type being Aboriginal scarred trees (N = 36). Like the Goonoo Forest survey (see below), most Aboriginal sites were found in close association with watercourses with 56% of stone artefact sites occurring within 200 m of watercourses, and the remaining number distributed variously up to 2 km from watercourses. Grinding grooves were also found on watercourses but other site types were not strongly associated with a particular part of the landscape.

Brigalow Belt South Stage 2

The National Parks and Wildlife Service (NPWS 2002) undertook an Aboriginal cultural heritage assessment of the Brigalow Belt South (BBS) within the Goonoo State Forest (located approximately 20 km to the northwest of the project area) and Pilliga State Forest (located approximately 100 km to the north of the project area). A total of 107 sites were recorded within the Goonoo State Forest as part of the BBS survey. These sites were primarily stone artefact sites (N=74 sites) comprising one or more flaked stone artefacts, 29 scarred trees, and one grinding grooves site. No Aboriginal rockshelter sites were recorded. Mention was made by an Aboriginal participant of a burial within the forest. One natural source of ochre was identified which, despite the lack of evidence for extraction, may have been a suitable source for cultural purposes.

Most of the sites were found within the alluvial landforms, primarily within 200 m of watercourses. Eighty four per cent of sites were recorded within 200 m with the remainder scattered across other parts of the landscape. The largest stone artefact site recorded during the survey was 800 m in length along a forest track exposure. Most stone artefact sites comprised less than 50 artefacts. Only one site had more than 500 artefacts.

Stubbo Solar Farm

OzArk (2020 and 2021) conducted an archaeological assessment for the Stubbo Solar Farm located 32 km southeast of the project area. The assessment resulted in 23 Aboriginal sites being recorded, and two previously recorded AHIMS sites located. The 25 Aboriginal sites inside the study area consist of nine isolated finds, three isolated finds with potential archaeological deposits (PADs), two artefact scatters, nine artefact scatters with PADs, one PAD, and one modified tree.

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The assessment concluded:

- In total, 309 stone artefacts were recorded during the survey. The predominate material for stone artefacts was quartz (n=246, 79.6%), followed by chert (n=22, 7.1%), mudstone (n=16, 5.2%), and volcanics (n=13, 4.2%). Also present though in much lower quantities were silcrete, petrified wood, greywacke, and chalcedony
- The most frequent type of stone artefact is flakes (n=240, 79.6%), shatter (n=36, 11.7%), cores (n=12, 3.9%), blades (n=9, 2.9%) and backed blades (n=5, 1.6%). Also present in the overall assemblage are end scrapers (n=2), flaked pieces (n=2), ground edge hatchet heads (n=2), and a microlith (n=1)
- Most sites were recorded in the 'drainage' landforms along Stubbo Creek or the two main tributaries northwest and southwest of Stubbo Creek.
- The larger and higher-density sites are located at the confluence of Stubbo Creek and the two tributaries or further southwest along Stubbo Creek after the confluence
- The artefact sites (scatters and isolated finds) are located predominately in erosion scalds on the edges of elevated terraces, indicating there is potential for subsurface archaeological deposits where the terrace still has topsoil and A-horizon soils present.

The assessment also concluded that the highest areas of archaeological sensitivity remain to be along the main watercourses (Stubbo Creek and its tributaries), which would have provided at least a semi-permanent source of water in the area. The remainder of the Stubbo Solar Farm assessment area, especially the higher to mid slopes have a much lesser degree of archaeological sensitivity. The ridgelines and crests of the low-lying rolling hills were also less sensitive for archaeological sites than the landforms immediately adjacent to the main watercourses.

An addendum assessment for the external access tracks to Stubbo Solar Farm was undertaken by OzArk in 2021. The addendum assessment covered two eastern access easements, one western access easement and the extent of the Blue Spring Road between its intersection with Cope Road to where the eastern access easements intersect with the road. No Aboriginal sites were recorded during the addendum assessment.

3.3 LOCAL ARCHAEOLOGICAL CONTEXT

A search of the Heritage NSW administered Aboriginal Heritage Information Management System (AHIMS) database on 28 April 2022 returned 173 results for Aboriginal sites within an 8 km radius of the project area (GDA Zone 55 Eastings: 701980–716992; Northings: 6432945–6447931 with no buffer) (see **Table 3-1** for site types and frequencies).

The most frequently recorded site types are isolated finds which contribute 46.2% of the site types within and in the vicinity of the project area. Other frequent site types are isolated finds with PAD (17.9%), modified trees (13.3%), hearths (7.5%), and artefact sites (quantity unknown) (6.4%).

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Isolated find, hearth & PAD (1.7%), artefact scatters (1.7%) and habitation structure (2.3%) and burial/s (2.3%) are also present, as well as less represented site types which only have single recording in the vicinity of and within the project area (see **Table 3-1**).

Open artefact sites (such as scatters, isolated finds, and PADs) tend to be near a watercourse and are recorded outside of the more mountainous areas. Modified trees also tend to be located near watercourses. Recorded grinding grooves tend to be located near a watercourse and on the edges of mountainous areas. **Figure 3-1** shows the location of previously recorded sites near the project area. There is one Aboriginal site which is classified as restricted. AHIMS was contacted and it was confirmed this site is not located within the development footprint.

Forty-six recorded sites are in the development footprint area. **Table 3-2** shows the site types and frequencies of sites in the development footprint, and **Figure 3-2** shows the location of previously recorded sites.

Table 3-1: AHIMS site types and frequencies.

Site Type	Number	% Frequency
Isolated find	80	46.2
Isolated find & potential archaeological deposit (PAD)	31	17.9
Modified tree	23	13.3
Hearth	13	7.5
Grinding groove	11	6.4
Artefact site (quantity unknown)	6	3.5
Artefact scatter	3	1.7
Isolated find, hearth & PAD	3	1.7
Habitation structure	2	1.2
Restricted site	1	0.6
Total	**173**	**100**

Table 3-2: AHIMS site types and frequencies within the development footprint.

Site Type	Number	% Frequency
Isolated find	29	63.1
Isolated find & PAD	10	21.7
Hearth	5	10.9
Modified tree	2	4.3
Total	**46**	**100**

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Figure 3-1. AHIMS sites in relation to the project area.

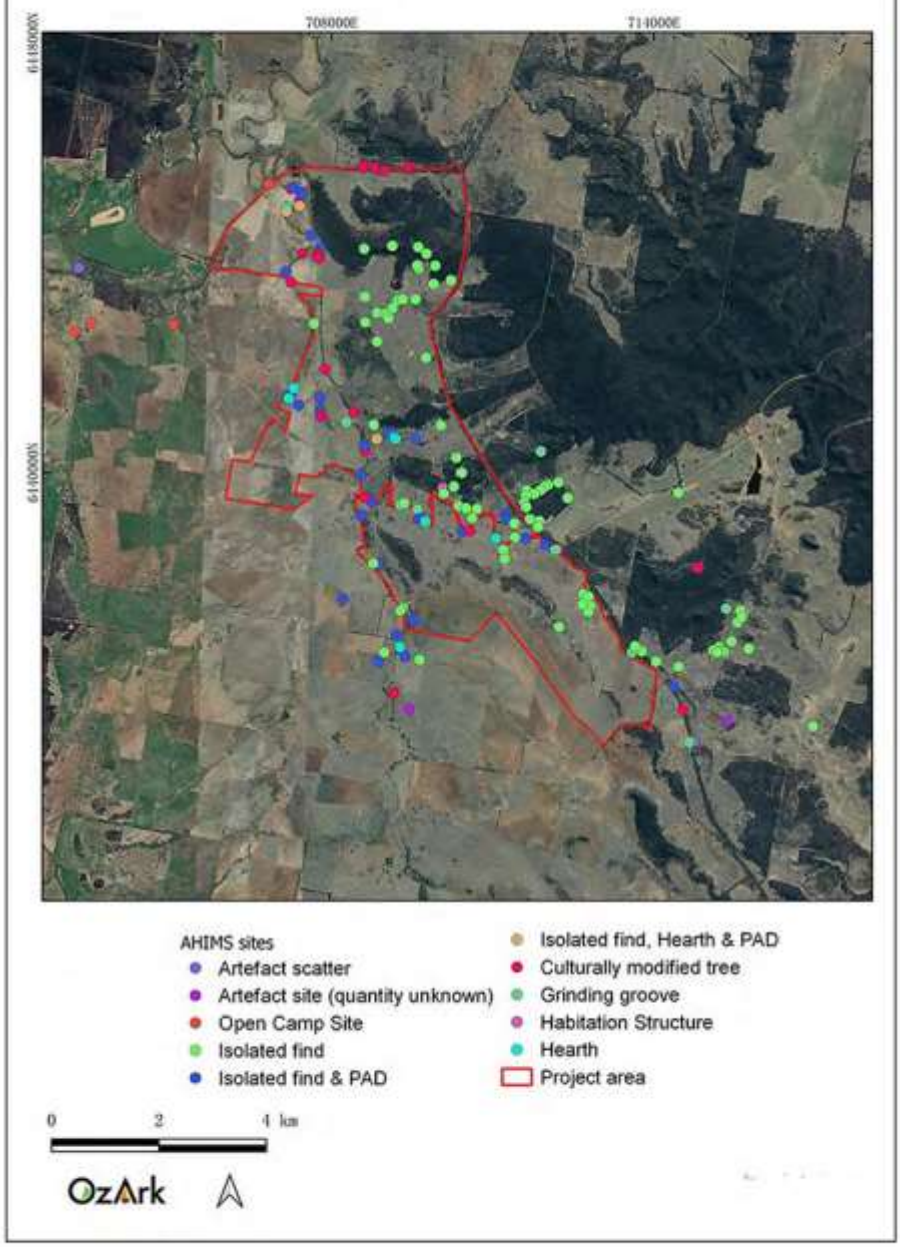

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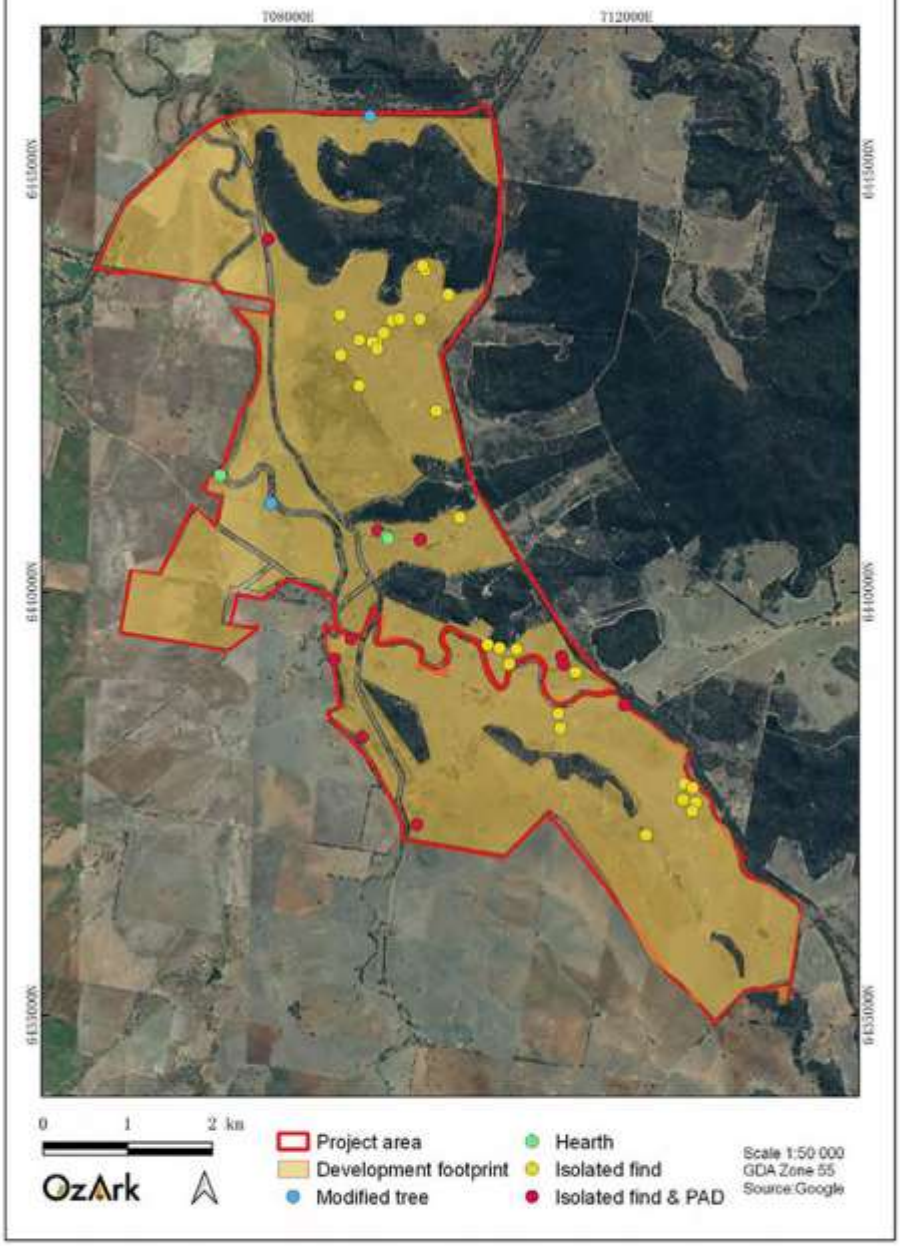
Figure 3-2. AHIMS sites within the development footprint.



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3.3.1 Archaeological investigations within the project area

Cobbora Coal Project

In 2012, EMM conducted an Aboriginal cultural heritage assessment for the Cobbora Coal Project (EMM 2012). The area of the then proposed Cobbora Coal Mine encompasses the project area (**Figure 3-3**).

The EMM survey followed an earlier survey by ERM (Dr Tim Owen and Angie So) in October 2009 to February 2010. This assessment area included areas within the project area and also an approximate 35 km corridor for a pipeline between Tallawang and Ulan. The results of this survey were included in EMM 2012.

Sites recorded during the 2009–2010 ERM survey for the Cobbora Coal Project and an associated pipeline route include:

- 20 scarred trees located within road or creek reserves
- Six rockshelters (none of which have recorded evidence of occupation or activity, but presumably potential archaeological deposit) on rocky slopes
- 52 'stone artefact concentrations' being open stone artefact sites along creeks
- 17 isolated artefacts
- 15 hearth features, almost all of which occur within the mapped boundaries of stone artefact sites
- 16 grinding groove sites predominantly along Sandy Creek and Laheys Creek.

A series of 1 m by 2 m test pits were mechanically excavated during the 2009–2010 fieldwork with the locations determined by where soil testing was required. Artefacts were recovered from three pits within recorded site boundaries (SAC12 and SAC23). One other pit on flat ground 300 m west of Laheys Creek yielded one artefact. In the two metre square pits, 58 and 16 artefacts were recorded within the two pits within SAC12, and 17 artefacts were recorded in the pit within SAC23. The results of the subsurface testing demonstrated that artefacts are present in the topsoil in association with a minor tributary watercourse inside the Cobbora Coal Project area (SAC12), as well as near the confluence of Sandy Creek and Laheys Creek (SAC23).

Following the additional survey by EMM (Neville Baker) in October and November 2011 and March 2012 within the Cobbora Coal Project area, a total of 229 Aboriginal sites were found to be present within the study area for the project. 164 are open stone artefact sites, 25 are scarred trees, 18 are grinding groove sites, 15 are hearths, and seven are rockshelters. In addition, areas of archaeological sensitivity were also identified along many of the creeks. Quartz was the predominant material recorded for stone artefacts comprising approximately 95% of the

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assemblage. To a much lesser degree, stone artefacts manufactured from volcanic materials, silcrete, quartzite, chert, calcedony, mudstone, and sandstone were also recorded.

Despite the added focus on survey coverage on elevated ground following a change in the mine plan from the 2009–2010 survey area, most Aboriginal sites were recorded by EMM along watercourses. The greater association with watercourse could not be attributed to greater survey effort in that part of the landscape, as survey along watercourses comprised just less than one third of the effort. Furthermore survey away from watercourses identified comparable ground exposure and effective coverage. Greater number of Aboriginal sites along the watercourses in contrast with other landforms therefore reflects a real archaeological pattern, and not a result of any bias in survey coverage. As a result EMM concluded that Aboriginal artefacts do not occur everywhere, instead they occur consistently along major creeks, sporadically along the edges of the valley floors and on minor creeks, and rarely on the rocky slopes, ridgelines, and minor drainage lines.

The overall assessment concluded that Aboriginal sites, especially artefact scatters, were predominately associated with major watercourses such as Sandy Creek and Laheys Creek and commonly occurred within 200 m of such watercourses. Artefact scatters along minor watercourses and drainage lines tended to be within 30 m of the watercourses.

During the 2011 fieldwork, artefacts were consistently observed occurring beyond the site boundaries identified during the earlier fieldwork near watercourses, to the extent that an artefact continuum could readily be inferred. In contrast, open artefact sites on the valley floors more distant to water occur discontinuously and primarily at the ecotonal edges.

This allowed EMM to map areas of archaeological sensitivity within the Cobbora Coal Project. Where these areas of high and moderate archaeological sensitivity intersect with the development footprint is shown on **Figure 3-4**.

There are several sites within the development footprint where EMM recommend salvage excavation:

- CBR - OS - 12 'WATERHOLE' (36-2-0404)
- Hearth 4 (36-2-0180)
- Hearth 5 (36-2-0181)
- SAC24 (36-2-0227).

An additional nine sites, all isolated finds, have been previously registered by ERM as having PAD (36-2-0214, 36-2-0216, 36-2-0218, 36-2-0226, 36-2-0228, 36-2-0231, 36-2-0238, 36-2-0239, 36-2-0240).

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The Cobbora Coal Mine was approved in 2014 with the State government planning to sell or lease the mine, however, the mine never went ahead and in 2017 the land that had been purchased for the mine was sold to the public.

As a result, the management measures recommended by EMM (2012: Section 9), including additional archaeological excavation, were never required.

Figure 3-3: The Cobbora Coal Project area in relation to the current project area (EMM 2012: 88).

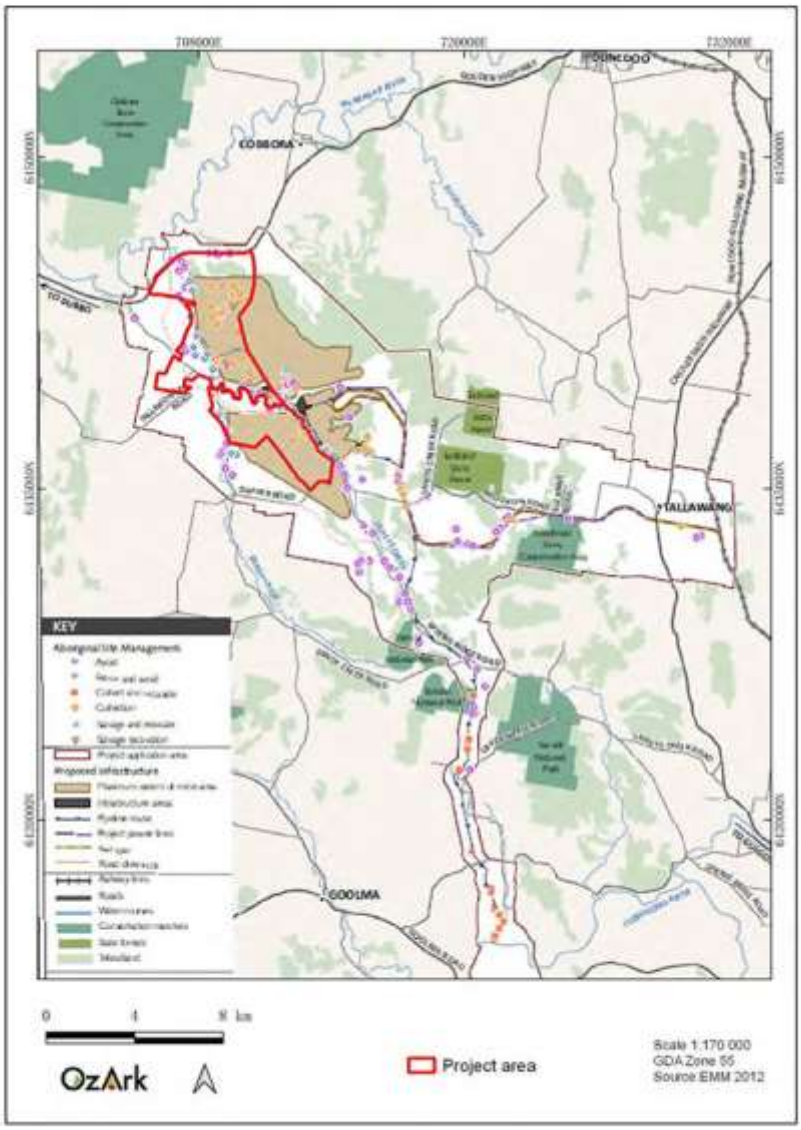

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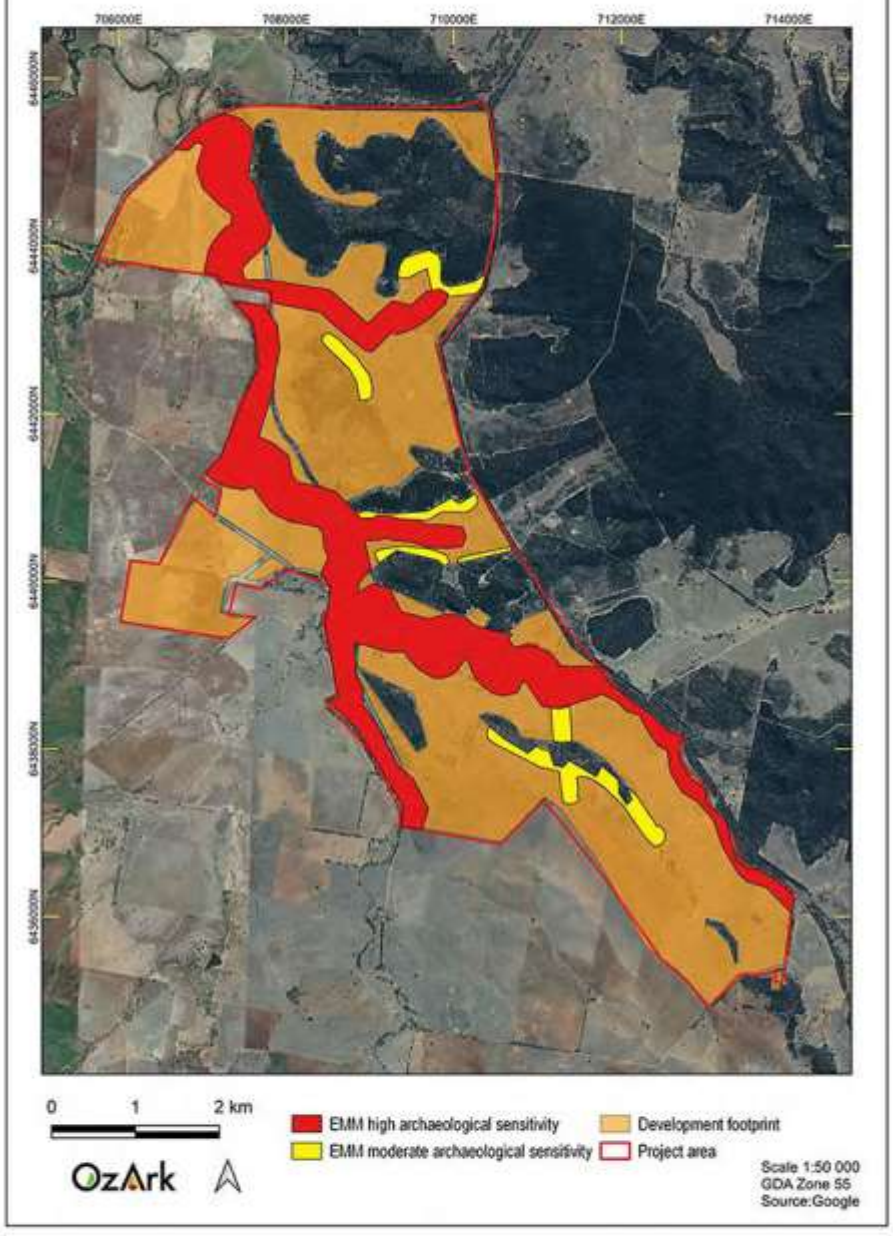
Figure 3-4: Areas of archaeological sensitivity identified by EMM.



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3.4 ARCHAEOLOGICAL CONTEXT: CONCLUSION

The archaeological investigations surrounding the project area as summarised in **Sections 3.2** and **3.3** indicate that:

- Stone artefact sites (isolated finds and artefact scatters) are the most frequent sites recorded in the area, especially in association with watercourses
- Quartz is the predominant material for stone artefacts in the area, although volcanic materials, silcrete, quartzite, mudstone, chert, and chalcedony could also be present
- Artefact scatters are recorded in a continuum along major watercourses such as Sandy and Laheys Creeks
- Further from water, sites are generally recorded along ecotones, for example, where hills join plain landforms.

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4 PREDICTIVE MODEL

4.1 LANDFORM MODELLING

The topography of the project area is primarily footslopes in the eastern portions and flats associated with drainage lines to the west. There are some isolated crest landforms with an elevation of up to 420 m above sea level (see **Figure 1-4**). Previous study in the district (EMM 2012) demonstrates that Aboriginal sites such as hearths, artefact scatters and isolated finds were predominately associated with major watercourses such as Sandy Creek and Laheys Creek and commonly occurred within 200 m of such watercourses. Artefact sites along minor watercourses and drainage lines tended to be within 30 m of the watercourses.

Preliminary landform mapping within the development footprint indicates there are three main landform types (**Figure 4-1**):

- Drainage landforms. Drainage lines with a 200 m buffer
- Slope landforms. Gentle to moderate slopes
- Crest landforms. Small areas of elevated crests.

When the identified landforms are compared to the EMM archaeological sensitivity mapping, a strong correlation is seen between drainage landforms and areas identified by EMM as having high archaeological sensitivity (**Figure 4-2**). Areas identified by EMM as having moderate archaeological sensitivity tend to be slope landforms near drainage landforms.

Figure 4-3 plots AHIMS sites against the identified landforms and EMM archaeological sensitivity mapping. This shows a strong correlation between drainage landforms and the presence of sites and any sites not within drainage landforms are contained within the EMM sensitivity mapping. Given that the development footprint has been subject to previous systematic survey, this provides confidence that the location of Aboriginal objects can be predicted by considering the underlying topography.

4.2 HISTORICAL AND USE

The development footprint and surrounding land is primarily used for farming and grazing operations. This land use can result in the removal of certain site types, such as culturally modified trees, and impacts to other site types such as artefact scatters. Generally artefact scatters can be dispersed, if not removed altogether, because of soil loss that stems from the initial clearing of the land and the effect of long-term low intensity grazing that causes trampling and the compaction of the ground surface which, in turn, accelerates soil loss.

It is also likely that eroded soils have accumulated in drainage landforms having been stripped from slope landforms. The implication is that aggrading landforms may contain artefacts in a secondary context having been moved from slope landforms, and that degrading slope landforms

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will have had artefacts removed and display shallow soil profiles with little potential for subsurface deposits.

Figure 4-1: Landforms within the development footprint.

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Figure 4-2: Landforms within the development footprint and EMM sensitivity mapping.

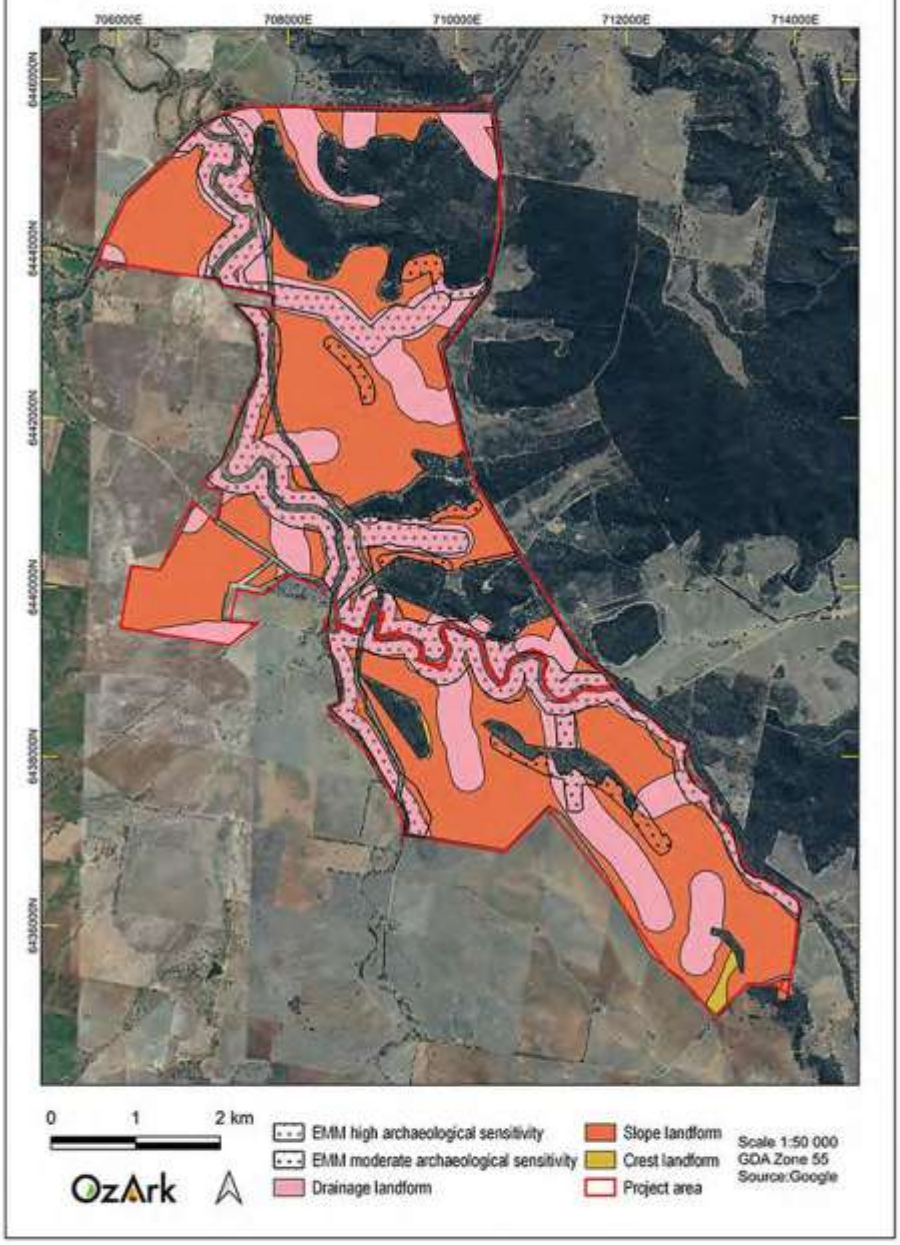

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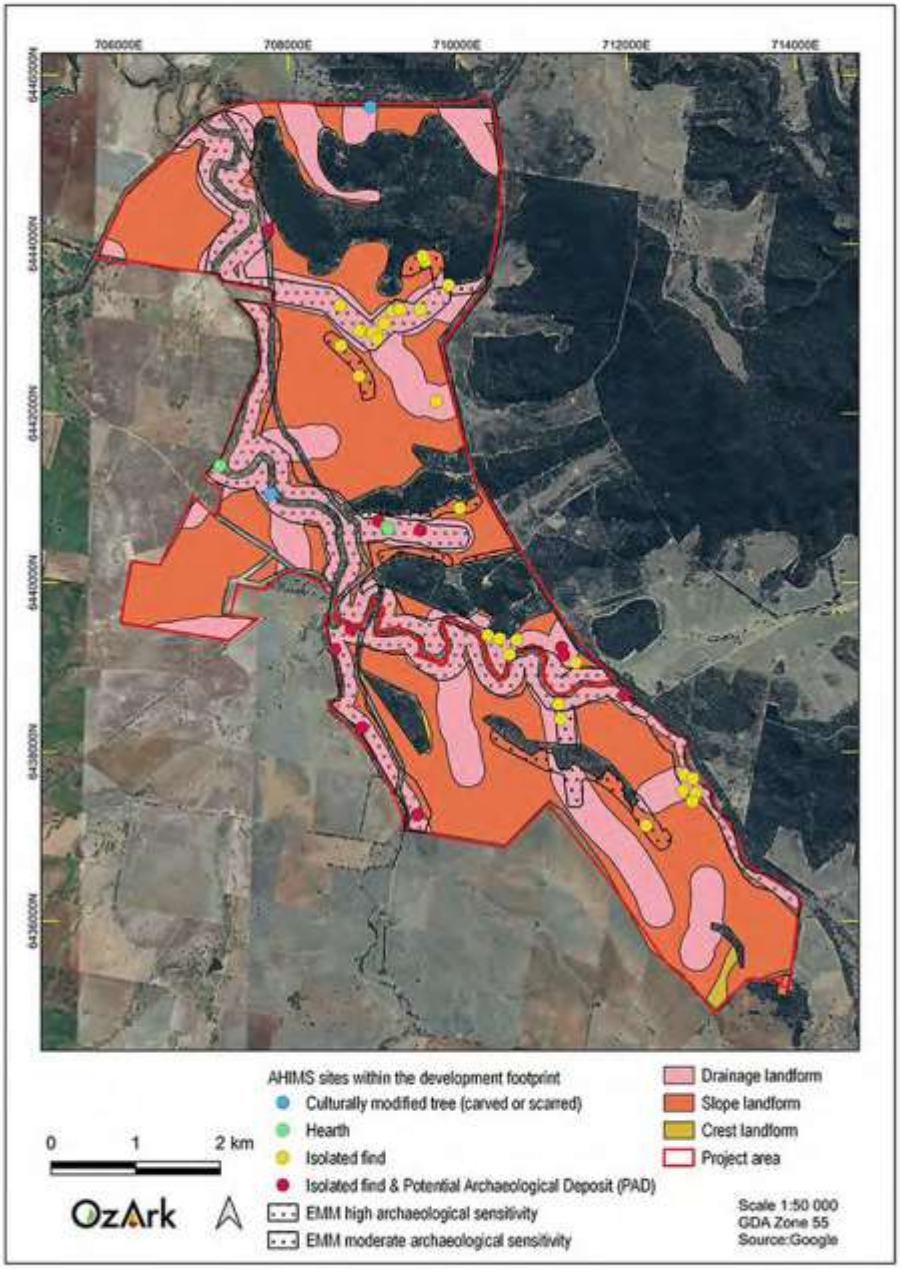
Figure 4-3: Landforms within the development footprint, EMM sensitivity mapping, and AHIMS sites.



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4.3 PREDICTIVE MODEL FOR THE PROJECT AREA

Across Australia, numerous archaeological studies in widely varying environmental zones and contexts have demonstrated a high correlation between the permanence of a water source and the permanence and/or complexity of Aboriginal occupation. Site location is also affected by the availability of and/or accessibility to a range of other natural resources including: plant and animal foods; stone and ochre resources and rock shelters; as well as by their general proximity to other sites/places of cultural/mythological significance. Consequently, sites tend to be found along permanent and ephemeral water sources, along access or trade routes or in areas that have good flora/fauna resources and appropriate shelter.

In formulating a predictive model for Aboriginal archaeological site location within any landscape it is also necessary to consider post-depositional influences on Aboriginal material culture. In all but the best preservation conditions very little of the organic material culture remains of ancestral Aboriginal communities survives to the present. Generally, it is the more durable materials such as stone artefacts, stone hearths, shell, and some bones that remain preserved in the current landscape. Even these however may not be found in their original depositional context since these may be subject to either (a) the effects of wind and water erosion/transport—both over short- and long-time scales—or (b) the historical impacts associated with the introduction of colonial farming practices. Scarred trees, by their nature, may survive for up to several hundred years but rarely beyond.

The archaeological studies within and in the vicinity of the project area, especially the archaeological study for the Cobbora Coal Project undertaken by EMM (2012) that encompasses the current project area, provide an insight into the nature and distribution of archaeological sites within the area. Generally, sites have been recorded in proximity to a recognised water source, in locations that have been subject to reduced landform disturbance, and on gentle, elevated landforms. However, landform disturbance may also explain why Aboriginal objects become revealed on the ground surface, such as within modified and disturbed landforms.

4.3.1 Site types in the region of the project area

The site types listed in **Table 4-1** are present in the region of the project area. The likelihood of these sites being present in the development footprint is discussed in **Section 4.3.2**.

Table 4-1: Site types recorded in the region of the project area.

Site type	Site description
Isolated finds	May be indicative of random loss or deliberate discard of a single artefact, the remnant of a now dispersed and disturbed artefact scatter, or an otherwise obscured or subsurface artefact scatter. They may occur anywhere within the landscape but are more likely to occur in topographies where open artefact scatters typically occur.
Open artefact scatters	Artefact scatters are defined as two or more artefacts, not located within a rock shelter, and located no more than 50 m away from any other constituent artefact. This site type may occur almost anywhere that Aboriginal people have travelled and may be associated with hunting and gathering activities, short- or long-term camps, and the manufacture and maintenance of stone tools. Artefact

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Site type	Site description
	scatters typically consist of surface scatters or sub-surface distributions of flaked stone discarded during the manufacture of tools but may also include other artefactual rock types such as hearth and anvil stones. Less commonly, artefact scatters may include archaeological stratigraphic features such as hearths and artefact concentrations which relate to activity areas. Artefact density can vary considerably between and across individual sites. Small ground exposures revealing low density scatters may be indicative of a background scatter rather than a spatially or temporally distinct artefact assemblage. These sites are classed as 'open', that is, occurring on the land surface unprotected by rock overhangs, and are sometimes referred to as 'open camp sites'. Artefact scatters are most likely to occur on level or low gradient contexts, along the crests of ridgelines and spurs, and elevated areas fringing watercourses or wetlands. Larger sites may be expected in association with permanent water sources. Topographies which afford effective through-access across, and relative to, the surrounding landscape, such as the open basal valley slopes and the valleys of creeks, will tend to contain more and larger sites, mostly camp sites evidenced by open artefact scatters.
Culturally modified trees	Aboriginal scarred trees contain evidence of the removal of bark (and sometimes wood) in the past by Aboriginal people, in the form of a scar. Bark was removed from trees for a wide range of reasons. It was a raw material used in the manufacture of various tools, vessels, and commodities such as string, water containers, roofing for shelters, shields and canoes. Bark was also removed because of gathering food, such as collecting wood boring grubs or creating footholds to climb a tree for possum hunting. Due to the multiplicity of uses and the continuous process of occlusion (or healing) following removal, it is difficult to accurately determine the intended purpose for any example of bark removal. Scarred trees may occur anywhere old growth trees survive. The identification of scars as Aboriginal cultural heritage items can be problematical because some forms of natural trauma and European bark extraction create similar scars. Many remaining scarred trees probably date to the historic period when bark was removed by Aboriginal people for both their own purposes and for roofing on early European houses. Consequently, the distinction between European and Aboriginal scarred trees may not be clear.
Grinding grooves	Grinding grooves are the remnants of ground edge hatchet manufacture and sometimes from food preparation. The site is most likely to occur on flat outcrops of coarse-grained sandstone in the vicinity of water sources, however, grinding grooves have also been recorded on fine-grained granite and quartzite outcrops.
Hearths/ovens	Features used by Aboriginal people for the preparation of food and would generally be in the vicinity of available resources, such as water sources to procure fish and shellfish, and on elevated ground to avoid impact from environmental threats.
Potential archaeological deposit (PAD)	Any location where the potential for subsurface archaeological material is considered to be moderate or high, relative to the surrounding study area landscape. The potential for subsurface material to be present is assessed using criteria developed from the results of previous surveys and excavations relevant to the region.
Burials	Generally found in soft sediments such as aeolian sand, alluvial silts, and rock shelter deposits. In valley floor and plains contexts, burials may occur in locally elevated topographies rather than poorly drained sedimentary contexts. Burials are also known to have occurred on rocky hilltops in some limited areas. Burials are generally only visible where there has been some disturbance of sub-surface sediments or where some erosional process has exposed them.
Bora/Ceremonial sites	Places which have ceremonial or spiritual connections. Ceremonial sites may comprise of natural landscapes or have archaeological material. Bora sites are ceremonial sites which consist of a cleared area and earthen rings.

4.3.2 Conclusion

Based on knowledge of the environmental contexts of the project area and a desktop review of the known local and regional archaeological record, the following predictions are made concerning the probability of landforms within the development footprint to contain Aboriginal objects (**Table 4-2**), and what types of sites may be present within the development footprint (**Table 4-3**).

Table 4-2: Likelihood of landforms within the development footprint to contain Aboriginal objects.

Survey Unit	Landform type	Likelihood to contain Aboriginal objects
1	Drainage	Drainage landforms are an aggrading environment that are impacted by flooding and channel migration. Drainage landforms would have provided resources to encourage occupation and use in the past and previous archaeological studies have demonstrated a strong correlation between site recordings and this landform type. However, it is possible that Aboriginal objects in this landform type are in a secondary context (having been

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Survey Unit	Landform type	Likelihood to contain Aboriginal objects
		washed downslope), impacted by erosion (that tends to be prevalent around the edge of drainage systems), or potentially obscured by colluvial slope wash.
2	Slopes	Slopes are a degrading landform, especially in the development footprint where vegetation removal has accelerated soil loss. When steep (gradients greater than 10 degrees), these landforms are unsuitable for occupation and Aboriginal objects recorded in such landforms are likely to be in a secondary context. The exception is in localised flat benches, if they are present, where occupation may have been possible.
3	Crests	The extensive study conducted by EMM (2012) demonstrates that Aboriginal sites are less likely to occur in these landforms. There are only small portions of crest landforms within the development footprint.

Table 4-3: Likelihood of certain site types being present in the development footprint.

Site type	Likelihood of being present in the project area
Isolated finds	As isolated finds can occur anywhere, particularly within disturbed contexts, it is predicted that this site type could be recorded within the development footprint. It is noted that a number of isolated finds have been recorded the development footprint, and this raises the possibility that the area contains further sites of this type.
Open artefact scatters	As much of the development footprint contains drainage landforms, this site type is predicted to be relatively common, although there is a high probability that the integrity of any site has been impacted by land use disturbances. Within sloping landforms distant to permanent water, this site type is not predicted to be common. It is likely that any sites associated with such landforms are likely to have a low artefact density and a low complexity of tool types as the sites are either one-off events or only infrequently used.
Culturally modified trees	Due to the clearance of trees from within the development footprint, the likelihood to record this site type is reduced. However, there is potential to record this site type should mature trees present in the development footprint and it is noted that two culturally modified trees are already known to be present in the development footprint.
Hearths/ovens	This site type is considered possible in areas where A-Horizon soils are relatively undisturbed. It is noted that the development footprint has recorded five hearths, and this raises the possibility that the area contains further sites of this type.
PAD	It is noted that the development footprint has recorded 10 PADs associated with isolated finds, and this raises the possibility that the area contains further sites of this type, especially in drainage landforms.
Burials	Although it is possible that this site type could be found within the development footprint, it is considered a rare site type especially given the disturbance that has occurred within the development footprint.
Bora/Ceremonial sites	This site type does not necessarily follow landform predictability and are, overall, a rare site type with a low likelihood of being present and remaining extant. These sites are generally identified through consultation with the RAPs.

4.4 RESEARCH QUESTIONS

Several research questions can meaningfully be applied to the investigation of the development footprint. These research questions include:

- What changes have occurred to the nature and integrity of the sites recorded over 10 years ago?
- Are areas identified as having PAD still considered to have potential to contain subsurface deposits?
- Are there landforms within the development footprint that will require test excavation to understand their archaeological potential?
- Do the findings within the development footprint accord with the previous archaeological investigations by ERM and EMM discussed in **Section 3.3.1**?
- Do the survey results support the predictive model set out in **Section 4.3.2**?

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5 SURVEY METHODOLOGY

5.1 ASSESSMENT APPROACH

The Aboriginal cultural heritage assessment of the development footprint will follow the *Code of Practice for the Investigation of Aboriginal Objects in New South Wales* (Code of Practice; DECCW 2010). The field inspection will follow the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales* (The Guide, OEH 2011).

Survey for Aboriginal cultural heritage values will concentrate on the development footprint where project impacts will be located.

5.2 SURVEY AIMS

The aim of any archaeological survey is not to locate each artefact in a landscape but to undertake investigations so that the archaeological potential and archaeological characteristics of all landforms within the project area are known. Therefore, the aims of the survey will be to:

- Inspect all landform types in the development footprint so that their archaeological potential can be determined
- Evaluate whether the predictive model set out in **Section 4.3** is valid
- Determine if the research questions set out in **Section 4.4** can be answered
- Determine if any landforms of the development footprint require test excavation to understand the archaeological potential at a particular location
- Determine if any sites where EMM (2012) recommended salvage excavation or where ERM recorded an isolated find with associated PAD require test excavation
- Locate previously recorded Aboriginal sites and evaluate their current condition
- Undertake sufficient assessment to satisfy Sections 2.2, 2.4, 2.5, 2.6, and 2.7 in the Guide
- Collect sufficient data so that the results can be presented in an ACHAR as set out in Section 3 in the Guide
- Undertake survey and record keeping satisfying Requirements 1–13 of the Code of Practice.

5.3 SURVEY METHODOLOGY

Standard archaeological field survey and recording methods will be employed in this assessment (Burke & Smith 2004) and will follow the Code of Practice.

As highlighted in **Sections 3** and **4**, greater Aboriginal archaeological potential tends to exist on landforms within 200 m of permanent water sources. The development footprint has been previously assessed by EMM (2012), as such, during the field assessment, greater survey effort will be expended on locating the sites already known in the development footprint, assessing their

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current condition, determining if they have PAD, and surveying landforms considered to have greater Aboriginal archaeological potential.

As such, the field assessment will include:

- Priority survey areas. (1146 ha) Full pedestrian survey will occur areas with high archaeological potential (i.e., areas within 200 m of watercourses) and landforms where previously recorded sites are located (**Figure 5-1**). The priority survey area includes all drainage landforms (**Figure 4-1**) and all landforms identified by EMM as having high or moderate archaeological potential (**Figure 3-4**)
- Secondary survey areas. (1307 ha) Targeted pedestrian survey will include all other landforms in the development footprint. This survey will target a range of landforms in these areas (slopes and crests) and rather than being a systematic transect of the area will include a more opportunistic approach where areas of exposure are focused on. This approach will also include inspecting all trees of sufficient maturity to contain cultural modification, as well as inspecting any areas with outcropping rock for evidence of quarrying and/or grinding grooves.

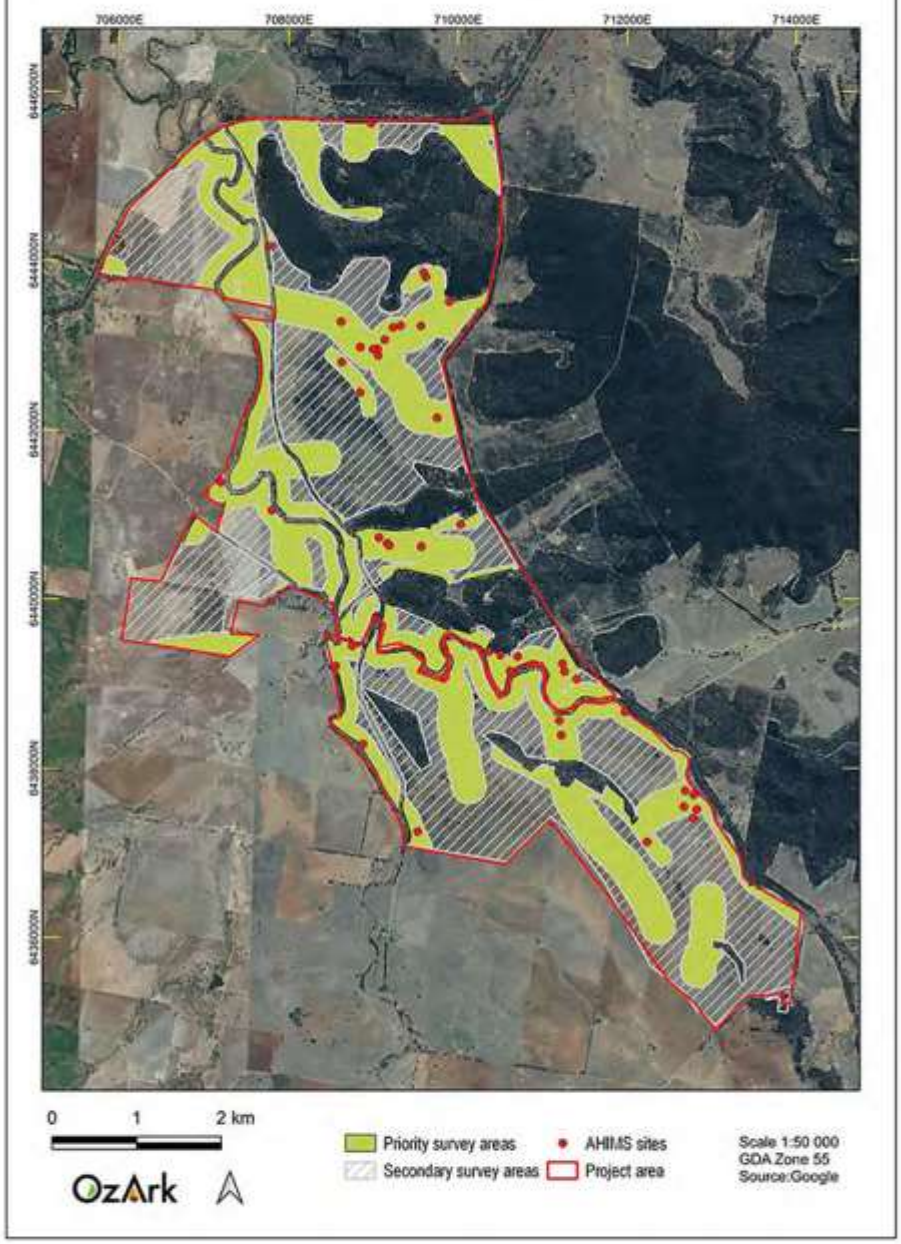
Some areas of the development footprint may not be physically surveyed if the RAPs and OzArk staff agree they are too disturbed or possess a very low likelihood of sites.

In the field, OzArk staff will identify, record, and evaluate physical (i.e., archaeological) evidence. Site recording will capture all the information required to complete current AHIMS site recording forms (e.g., site location, site boundary, site plan, representative photographs, artefact recording and feature recording). RAPs will participate in the survey, identifying Aboriginal objects, determining the cultural significance of Aboriginal objects, and identifying cultural places or non-physical site types within the project area. OzArk staff understand that cultural knowledge may not be provided in some instances due to cultural sensitivities (e.g., men's and/or women's places). Under these circumstances, to assess the potential impacts, OzArk staff will need to be told, only in general terms, why a particular place is important, and what the significance of the impact will be. OzArk staff will liaise with RAPs on a case-by-case basis to determine how to record the location in a culturally sensitive manner.

5.4 TEST EXCAVATION

It is possible that the survey may identify landforms where test excavation under the Code of Practice (Requirements 14–17) is required. Should such landforms be identified during the survey, the test excavation methodology will be prepared as a separate document that will be circulated to all RAPs for review and comment.

Figure 5-1: Aerial showing the proposed survey areas.



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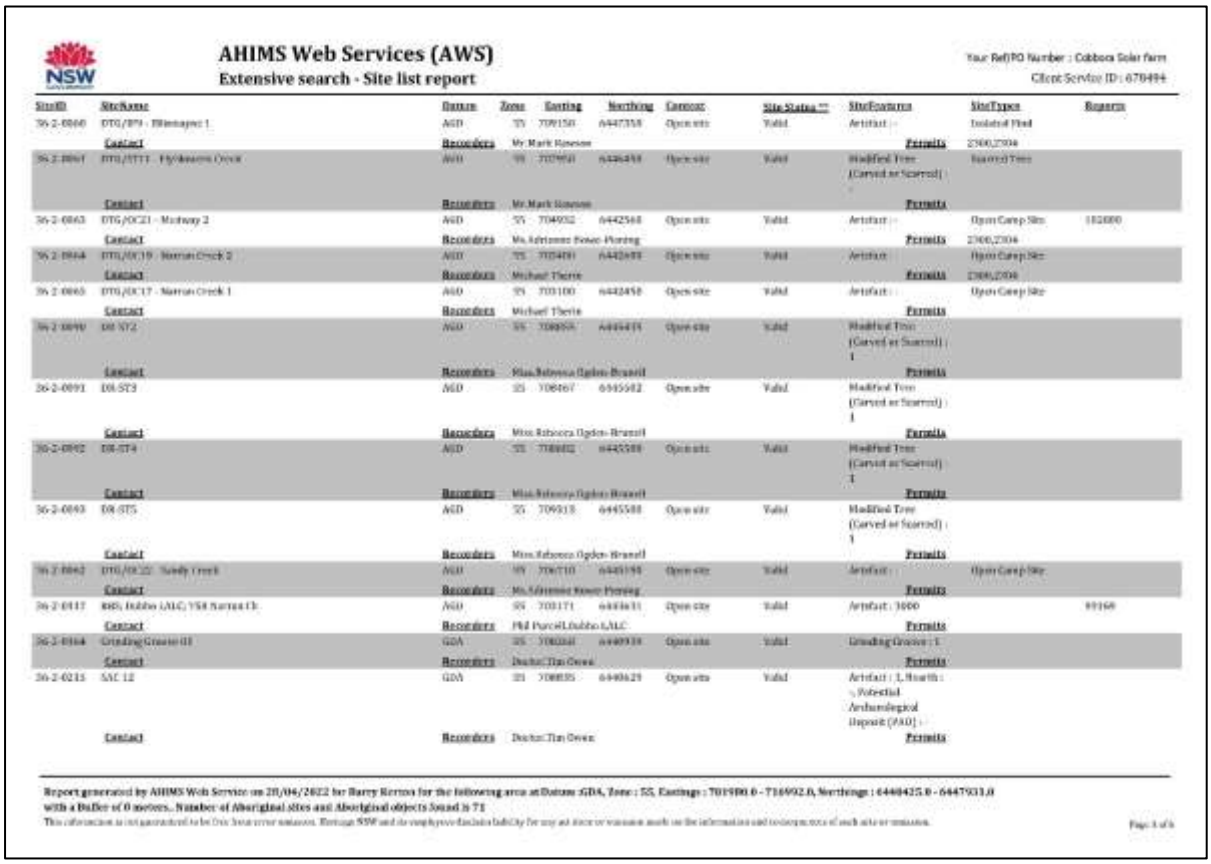
APPENDIX 3: AHIMS SEARCH RESULTS

28 April 2022 Search Results



AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora Solar Farm
Client Service ID : 670494

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0860	DTG/BT9 - Billamayne 1	AGD	55	709150	6447358	Open site	Valid	Artefact : -	Isolated Find	
	Contact	Recorders	Mr Mark Rawson					Permits	2300,2304	
36-2-0861	DTG/BT11 - Hydeaway Creek	AGD	55	707950	6446458	Open site	Valid	Modified Tree (Carved or Scarred) : -	Scarred Tree	
	Contact	Recorders	Mr Mark Rawson					Permits		
36-2-0863	DTG/OC21 - Midway 2	AGD	55	704932	6442568	Open site	Valid	Artefact : -	Open Camp Site	182880
	Contact	Recorders	Ms Adrienne Rowe-Fleming					Permits	2300,2304	
36-2-0864	DTG/OC19 - Narran Creek 2	AGD	55	703491	6442693	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	Michael Therin					Permits	2300,2304	
36-2-0865	DTG/OC17 - Narran Creek 1	AGD	55	703100	6442458	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	Michael Therin					Permits		
36-2-0890	DR ST2	AGD	55	708854	6446419	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Miss Rebecca Ogden-Brassil					Permits		
36-2-0891	DR ST3	AGD	55	708467	6445582	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Miss Rebecca Ogden-Brassil					Permits		
36-2-0892	DR ST4	AGD	55	708402	6445589	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Miss Rebecca Ogden-Brassil					Permits		
36-2-0893	DR ST5	AGD	55	709318	6445588	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Miss Rebecca Ogden-Brassil					Permits		
36-2-0862	DTG/OC22 - Sandy Creek	AGD	55	706710	6445198	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	Ms Adrienne Rowe-Fleming					Permits		
36-2-0917	BRS; Bubbo (ALC; YS8 Narran Ck	AGD	55	703171	6446631	Open site	Valid	Artefact : 3000		93160
	Contact	Recorders	Phil Purcell Dubbo LALC					Permits		
36-2-0364	Grinding Groove 01	GDA	55	708264	6440939	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Doctor Tim Owen					Permits		
36-2-0235	SAC 12	GDA	55	708835	6440629	Open site	Valid	Artefact : 1, Hearth : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor Tim Owen					Permits		

Report generated by AHIMS Web Service on 28/04/2022 for Barry Kerton for the following area at Datum :GDA, Zone : 55, Eastings : 701980.0 - 716902.0, Northings : 6440425.0 - 6447931.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 71

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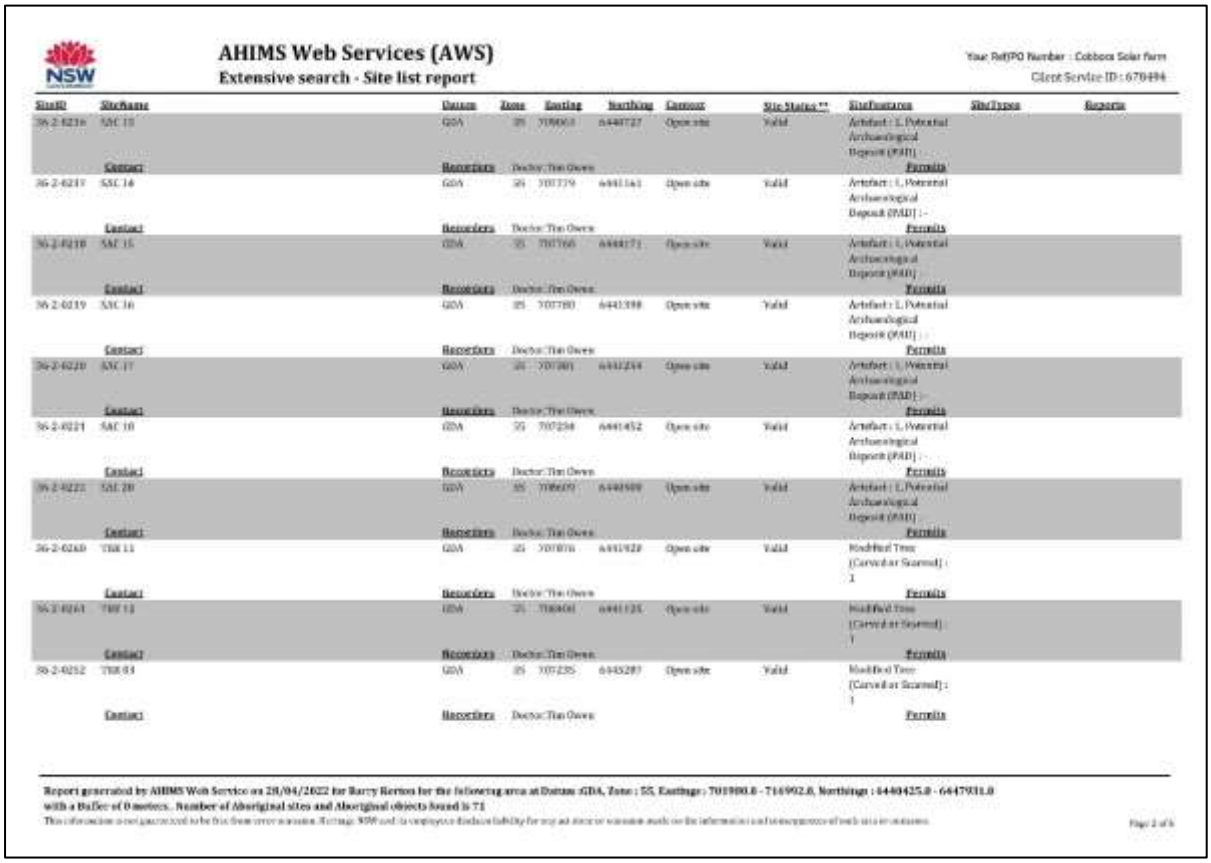

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora Solar Farm
Client Service ID : 670494

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0216	SAC 13	GDA	55	709063	6447727	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor Tim Owen					Permits		
36-2-0217	SAC 14	GDA	55	707379	6441161	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor Tim Owen					Permits		
36-2-0218	SAC 15	GDA	55	707765	6440171	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor Tim Owen					Permits		
36-2-0219	SAC 16	GDA	55	707780	6441398	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor Tim Owen					Permits		
36-2-0220	SAC 17	GDA	55	707301	6441264	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor Tim Owen					Permits		
36-2-0221	SAC 18	GDA	55	707250	6441452	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor Tim Owen					Permits		
36-2-0222	SAC 20	GDA	55	708659	6440569	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor Tim Owen					Permits		
36-2-0260	TSR 11	GDA	55	707876	6441928	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor Tim Owen					Permits		
36-2-0261	TSR 12	GDA	55	708406	6441125	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor Tim Owen					Permits		
36-2-0252	TSR 03	GDA	55	707235	6445287	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor Tim Owen					Permits		

Report generated by AHIMS Web Service on 28/04/2022 for Barry Kerton for the following area at Datum :GDA, Zone : 55, Eastings : 701980.0 - 716902.0, Northings : 6440425.0 - 6447931.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 71

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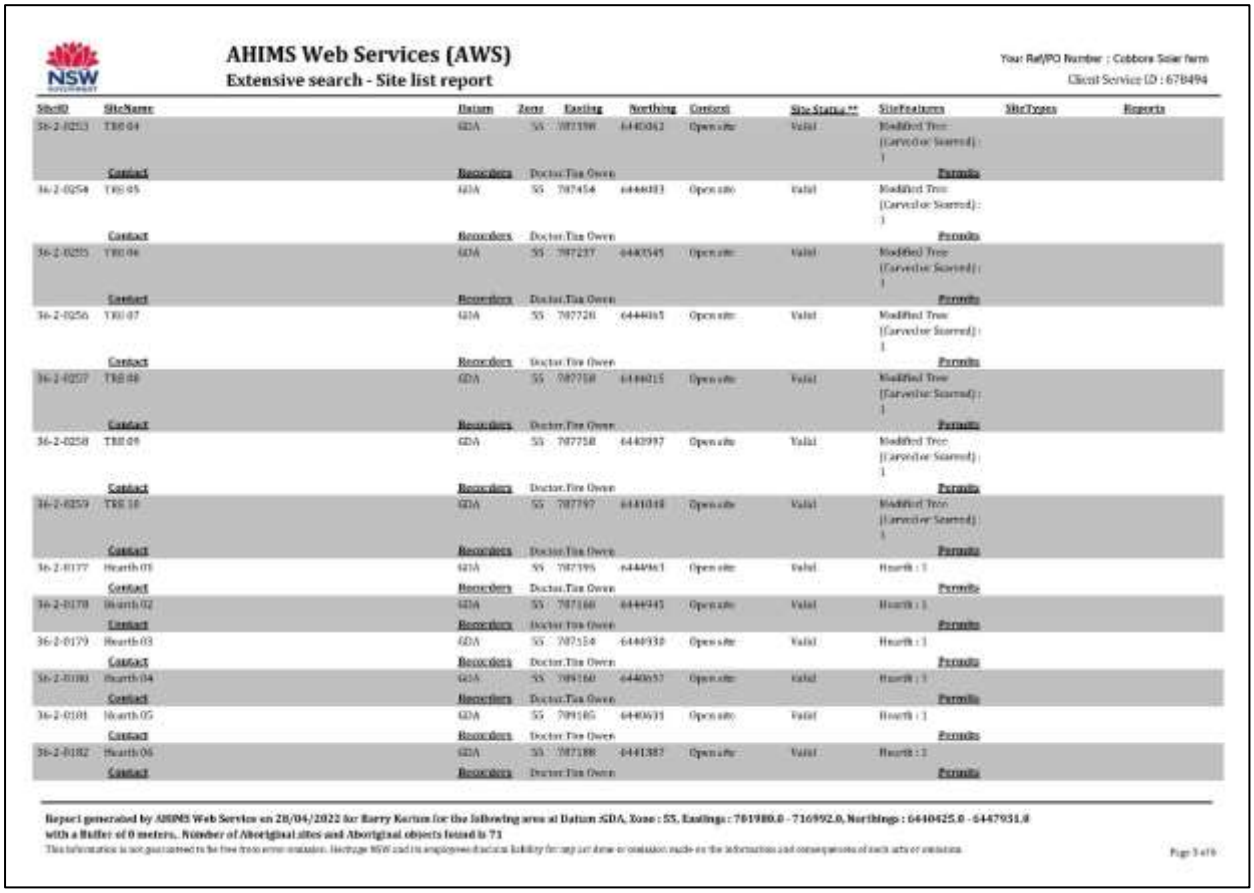

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora Solar farm
Client Service ID : 678494

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0253	TRE 04	GDA	55	707399	6440362	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0254	TRE 05	GDA	55	707454	6440383	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0255	TRE 06	GDA	55	707237	6440345	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0256	TRE 07	GDA	55	707726	6444065	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0257	TRE 08	GDA	55	707758	6444015	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0258	TRE 09	GDA	55	707758	6443997	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0259	TRE 10	GDA	55	707797	6443938	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0177	Hearth 01	GDA	55	707395	6444961	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0178	Hearth 02	GDA	55	707160	6444945	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0179	Hearth 03	GDA	55	707154	6444930	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0180	Hearth 04	GDA	55	709160	6440657	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0181	Hearth 05	GDA	55	709165	6440631	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0182	Hearth 06	GDA	55	707188	6441387	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		

Report generated by AHIMS Web Service on 28/04/2022 for Barry Kerton for the following area at Datum :GDA, Zone : 55, Eastings : 701980.0 - 716992.0, Northings : 6440425.0 - 6447931.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 71

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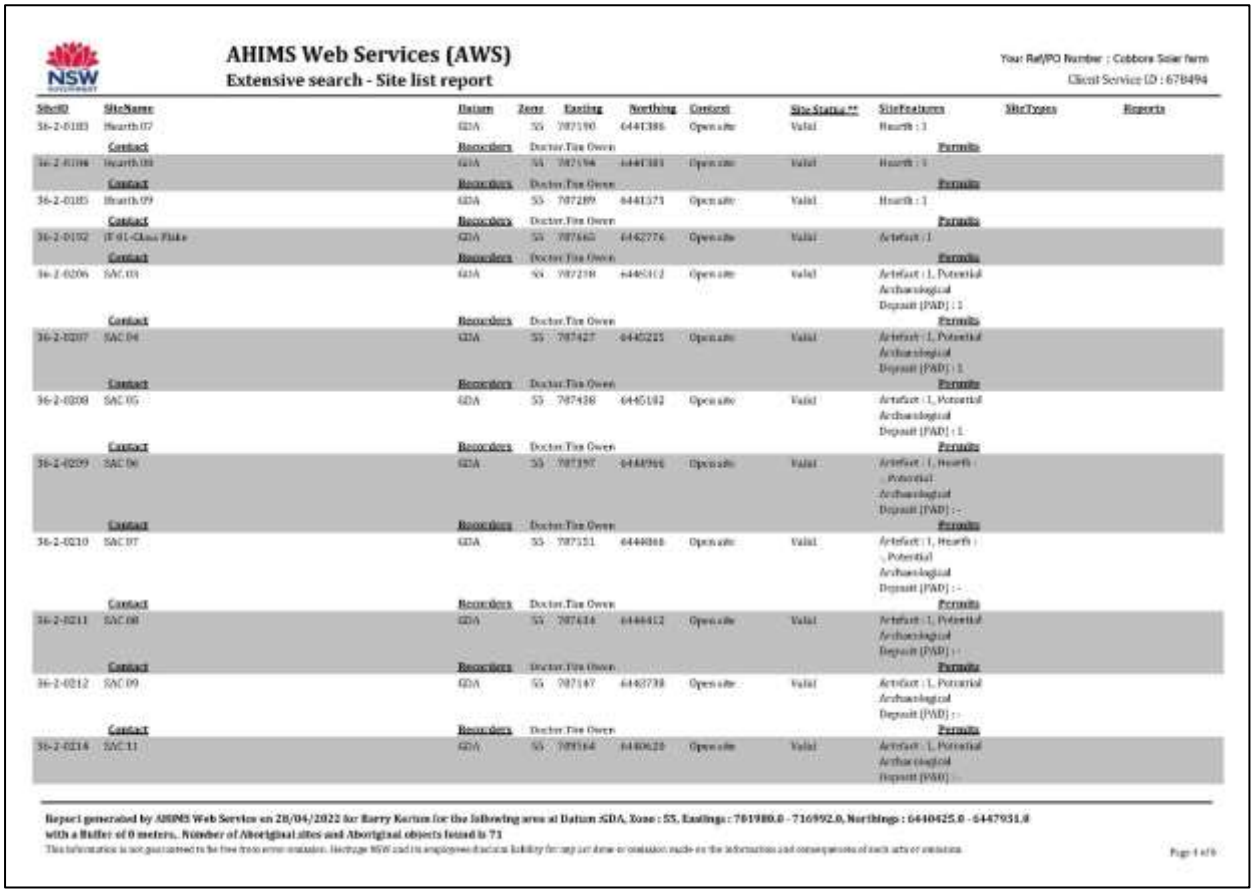

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora Solar farm
Client Service ID : 678494

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0183	Hearth 07	GDA	55	707190	6441386	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0184	Hearth 08	GDA	55	707194	6441383	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0185	Hearth 09	GDA	55	707289	6441373	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0192	IF 01-Glass Flake	GDA	55	707665	6442776	Open site	Valid	Artefact : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0206	SAC 01	GDA	55	707210	6446512	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0207	SAC 04	GDA	55	707427	6445225	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0208	SAC 05	GDA	55	707428	6445182	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0209	SAC 06	GDA	55	707397	6444966	Open site	Valid	Artefact : 1, Hearth : , Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0210	SAC 07	GDA	55	707151	6444868	Open site	Valid	Artefact : 1, Hearth : , Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0211	SAC 08	GDA	55	707434	6444412	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0212	SAC 09	GDA	55	707147	6443738	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0214	SAC 11	GDA	55	709164	6440628	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		

Report generated by AHIMS Web Service on 28/04/2022 for Barry Kerton for the following area at Datum :GDA, Zone : 55, Eastings : 701980.0 - 716992.0, Northings : 6440425.0 - 6447931.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 71

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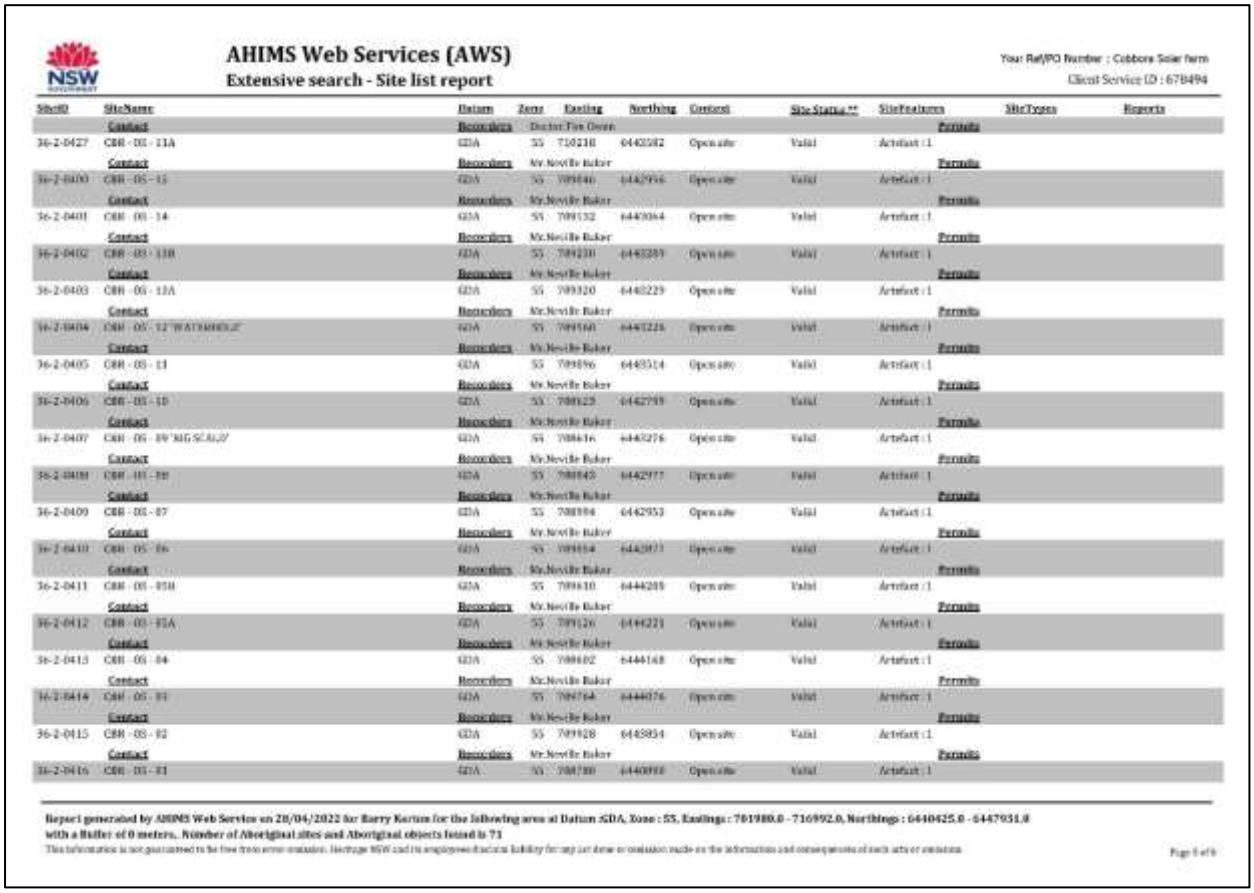

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora Solar farm
Client Service ID : 678494

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	Boundary	Doctor Tim Owen					Permits		
36-2-0427	CBR - 01 - 11A	GDA	55	710218	6440582	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0400	CBR - 01 - 15	GDA	55	709846	6442956	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0401	CBR - 01 - 14	GDA	55	709732	6443064	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0402	CBR - 01 - 13B	GDA	55	709230	6443289	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0403	CBR - 01 - 13A	GDA	55	709320	6443229	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0404	CBR - 01 - 12 WATERHOLE	GDA	55	709560	6443226	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0405	CBR - 01 - 11	GDA	55	709596	6443514	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0406	CBR - 01 - 10	GDA	55	709629	6442795	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0407	CBR - 01 - 09 BIG SCALP	GDA	55	709616	6443276	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0408	CBR - 01 - 08	GDA	55	709845	6442977	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0409	CBR - 01 - 07	GDA	55	709894	6442953	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0410	CBR - 01 - 06	GDA	55	709854	6442977	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0411	CBR - 01 - 05B	GDA	55	709610	6444205	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0412	CBR - 01 - 05A	GDA	55	709126	6444221	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0413	CBR - 01 - 04	GDA	55	709102	6444168	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0414	CBR - 01 - 03	GDA	55	709764	6444076	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0415	CBR - 01 - 02	GDA	55	709928	6443854	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0416	CBR - 01 - 01	GDA	55	708780	6440898	Open site	Valid	Artefact : 1		

Report generated by AHIMS Web Service on 28/04/2022 for Barry Kerton for the following area at Datum :GDA, Zone : 55, Eastings : 701980.0 - 716992.0, Northings : 6440425.0 - 6447931.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 71

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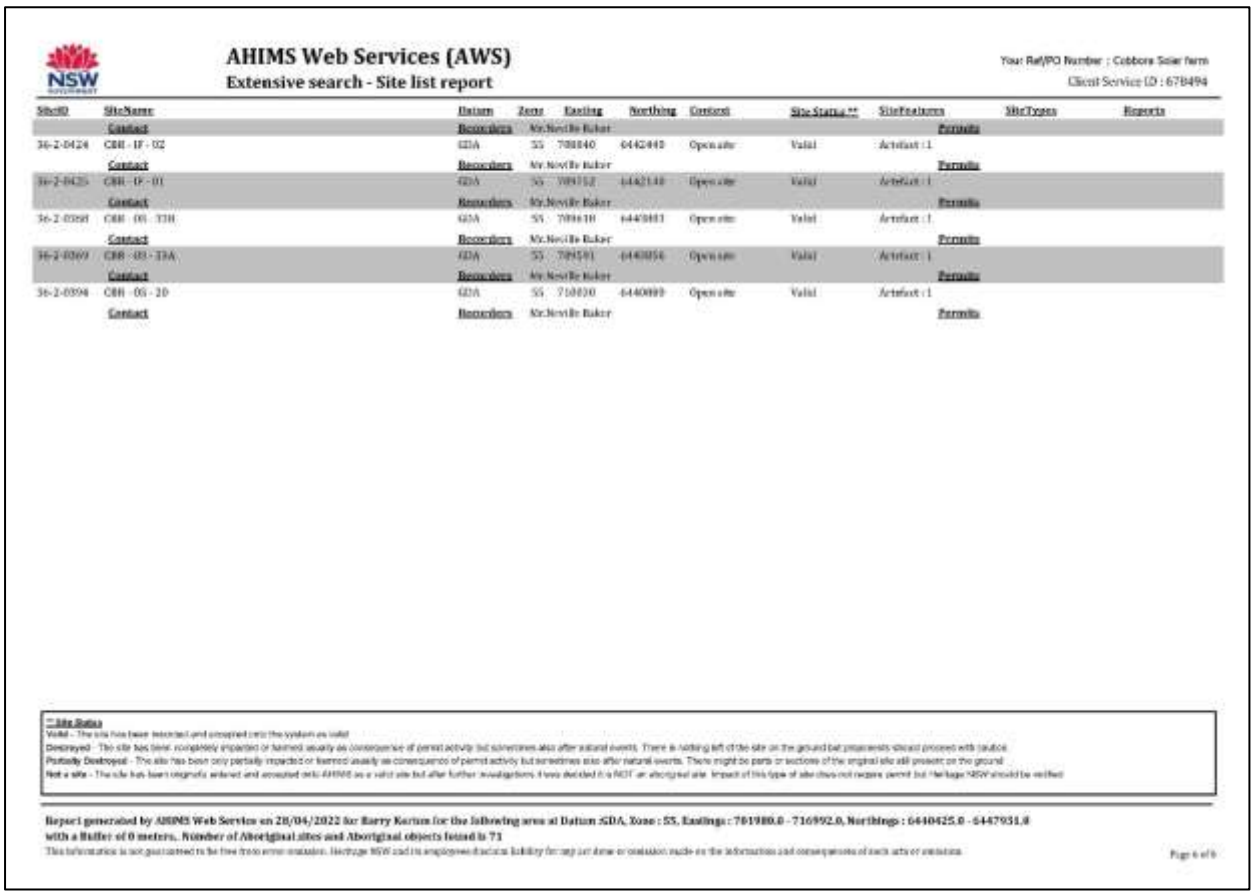

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora Solar farm
Client Service ID : 678494

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0424	CBR - IF - 02	GDA	55	708840	6442440	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0425	CBR - IF - 01	GDA	55	709152	6442140	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0398	CBR - 01 - 17H	GDA	55	709610	6443883	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0399	CBR - 01 - 15A	GDA	55	709591	6443854	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		
36-2-0394	CBR - 01 - 20	GDA	55	710020	6440889	Open site	Valid	Artefact : 1		
	Contact	Boundary	Mr.Neville Baker					Permits		

** Site Status
Valid - The site has been recorded and accepted onto the system as valid
Destroyed - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution
Partially Destroyed - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground
Not a site - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified

Report generated by AHIMS Web Service on 28/04/2022 for Barry Kerton for the following area at Datum :GDA, Zone : 55, Eastings : 701980.0 - 716992.0, Northings : 6440425.0 - 6447931.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 71

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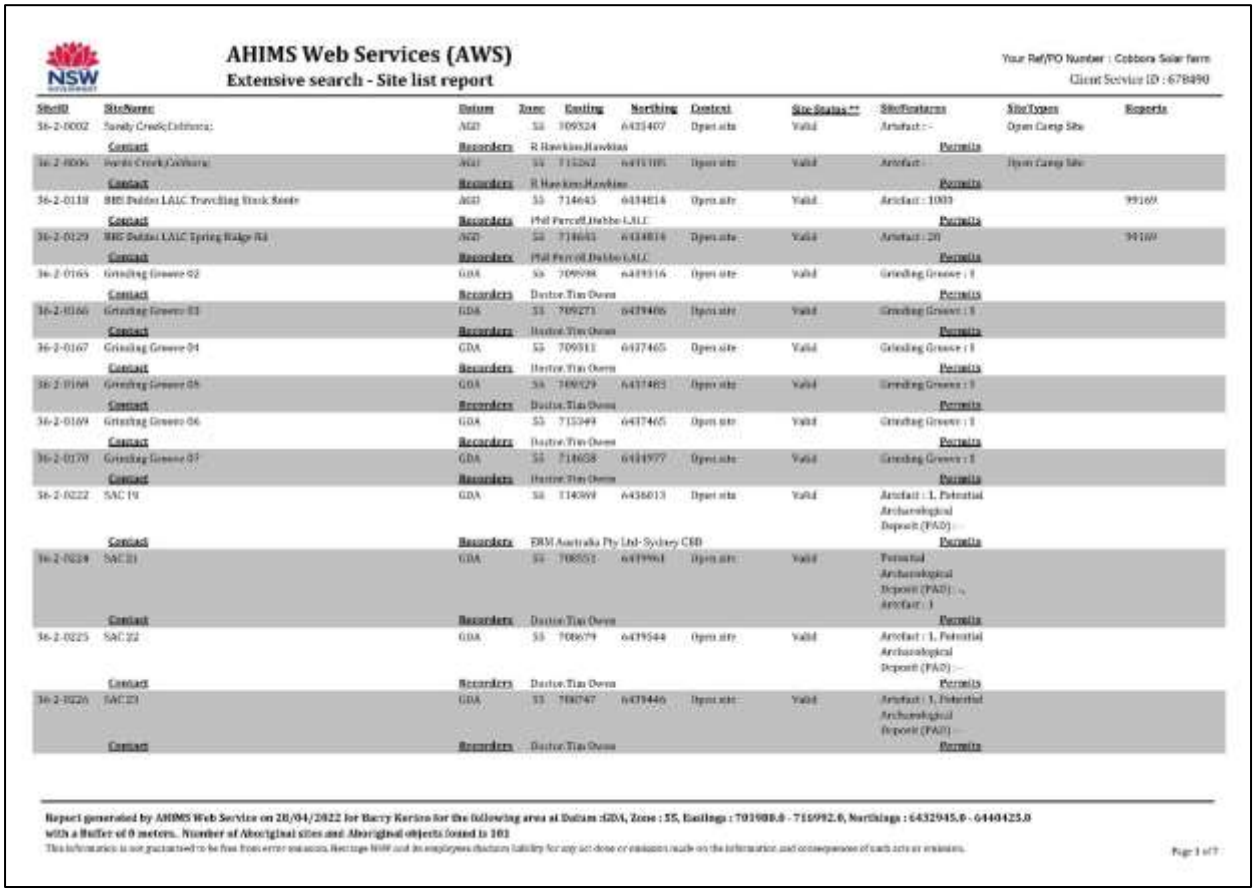

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora Solar farm
Client Service ID : 678490

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	Site Features	Site Types	Reports
36-2-0002	Sandy Creek Cobbora	AGD	55	709524	6435407	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	R Hawkins,Hawkins					Permits		
36-2-0006	Sandy Creek Cobbora	AGD	55	711262	6435105	Open site	Valid	Artefact :	Open Camp Site	
	Contact	Recorders	R Hawkins,Hawkins					Permits		
36-2-0118	BBE Dubbo LALC Travelling Stock Route	AGD	55	714645	6434814	Open site	Valid	Artefact : 1003		99169
	Contact	Recorders	Phil Purcell,Dubbo LALC					Permits		
36-2-0129	BBE Dubbo LALC Spring Ridge Rd	AGD	55	714645	6434814	Open site	Valid	Artefact : 20		94169
	Contact	Recorders	Phil Purcell,Dubbo LALC					Permits		
36-2-0165	Grinding Groove 02	GDA	55	709598	6439316	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0166	Grinding Groove 03	GDA	55	709271	6439406	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0167	Grinding Groove 04	GDA	55	709511	6437465	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0168	Grinding Groove 05	GDA	55	709529	6437483	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0169	Grinding Groove 06	GDA	55	715049	6437465	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0170	Grinding Groove 07	GDA	55	714658	6434977	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0222	SAC 19	GDA	55	714099	6436013	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	ERM Australia Pty Ltd- Sydney CBD					Permits		
36-2-0223	SAC 21	GDA	55	708551	6439961	Open site	Valid	Potential Archaeological Deposit (PAD) : -, Artefact : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0225	SAC 22	GDA	55	708679	6439544	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0226	SAC 23	GDA	55	708747	6439446	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		

Report generated by AHIMS Web Service on 28/04/2022 for Barry Kerins for the following area at Datum :GDA, Zone : 55, Eastings : 701988.0 - 716992.0, Northings : 6432945.0 - 6440425.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 103

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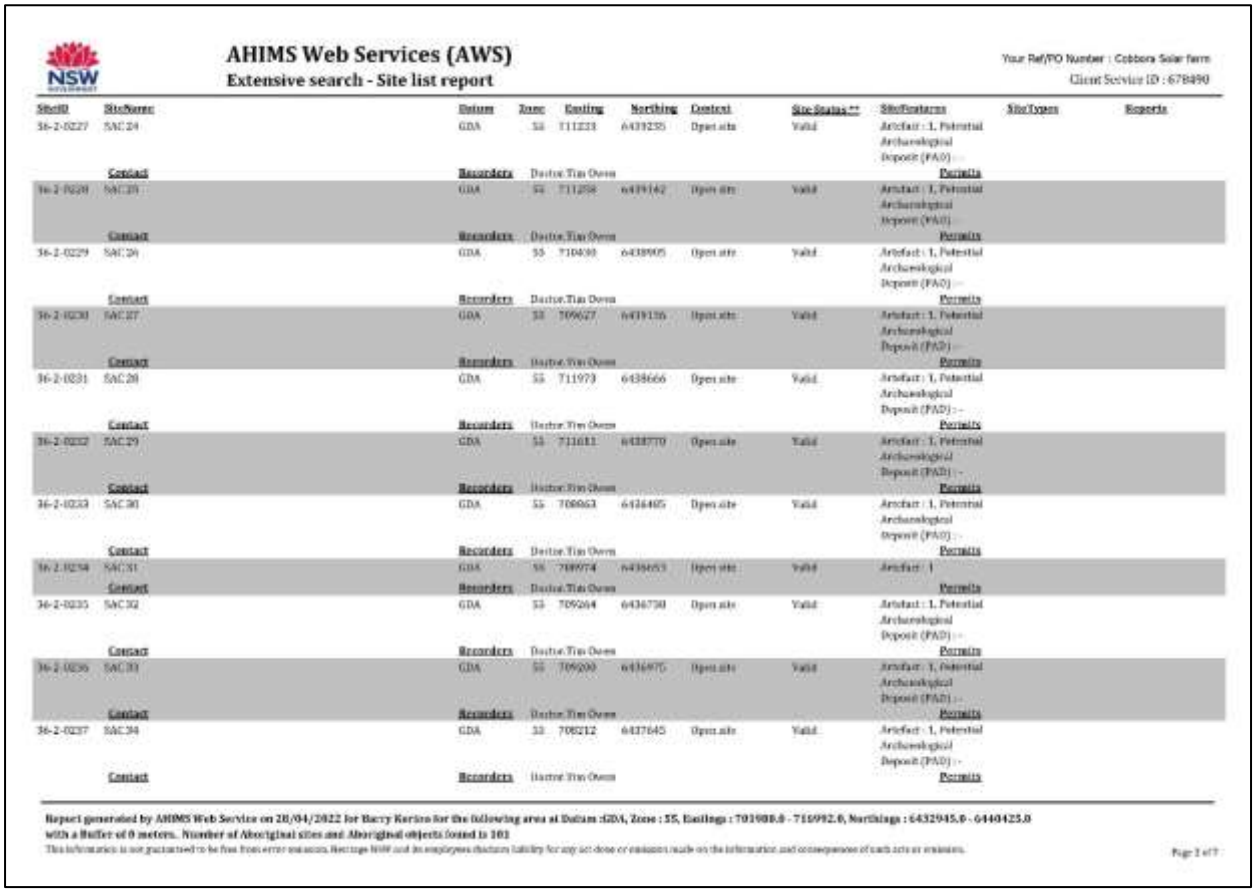

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora Solar farm
Client Service ID : 678490

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	Site Features	Site Types	Reports
36-2-0227	SAC 24	GDA	55	711233	6439235	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0228	SAC 25	GDA	55	711256	6439142	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0229	SAC 26	GDA	55	710430	6438905	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0230	SAC 27	GDA	55	709627	6439136	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0231	SAC 28	GDA	55	711973	6438666	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0232	SAC 29	GDA	55	711611	6438770	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0233	SAC 30	GDA	55	708963	6436405	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0234	SAC 31	GDA	55	708974	6436653	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0235	SAC 32	GDA	55	709264	6436730	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0236	SAC 33	GDA	55	709200	6436975	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0237	SAC 34	GDA	55	708212	6437645	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		

Report generated by AHIMS Web Service on 28/04/2022 for Barry Kerins for the following area at Datum :GDA, Zone : 55, Eastings : 701988.0 - 716992.0, Northings : 6432945.0 - 6440425.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 103

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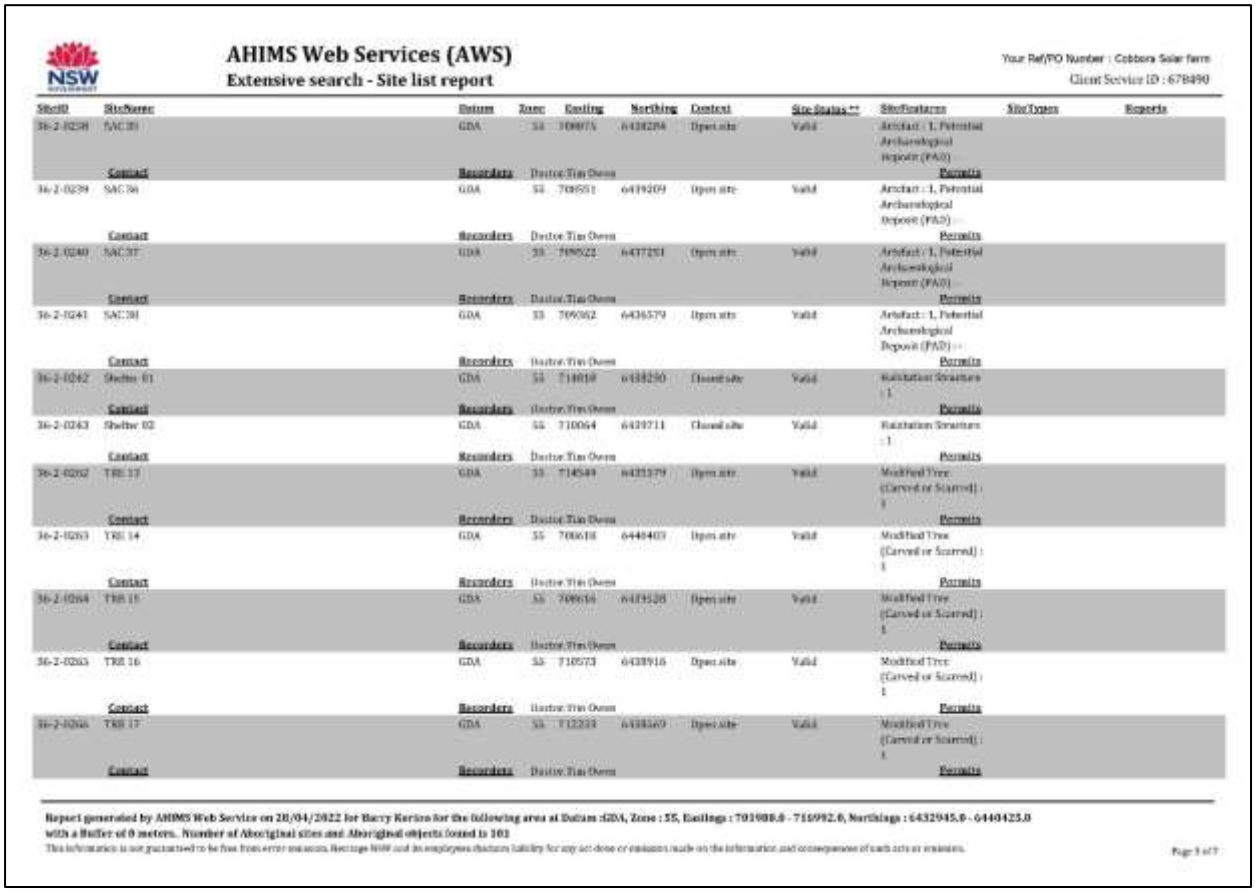

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora Solar farm
Client Service ID : 678490

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	Site Features	Site Types	Reports
36-2-0238	SAC35	GDA	55	709875	6438294	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD)		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0239	SAC36	GDA	55	709851	6439209	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD)		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0240	SAC37	GDA	55	709522	6437251	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD)		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0241	SAC38	GDA	55	709502	6436579	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD)		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0242	Shelter 01	GDA	55	710010	6438250	Closed site	Valid	Habitation Structure : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0243	Shelter 02	GDA	55	710064	6439711	Closed site	Valid	Habitation Structure : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0262	TRE 13	GDA	55	714549	6435379	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0263	TRE 14	GDA	55	708618	6440403	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0264	TRE 15	GDA	55	709616	6439528	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0265	TRE 16	GDA	55	710573	6438916	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0266	TRE 17	GDA	55	712233	6438669	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		

Report generated by AHIMS Web Service on 28/04/2022 for Barry Kerins for the following area at Datum :GDA, Zone : 55, Eastings : 703988.0 - 716992.0, Northings : 6432945.0 - 6440425.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 101

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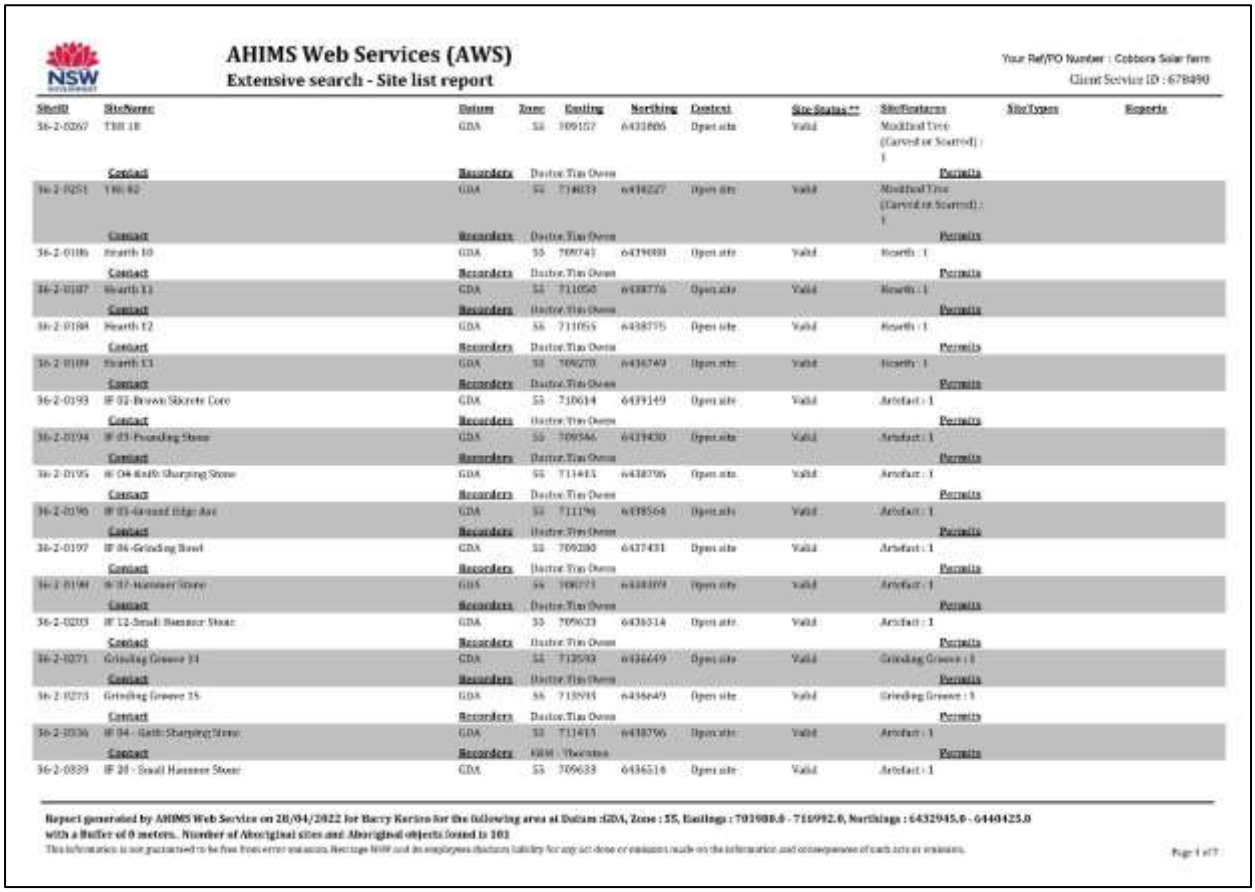

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora Solar farm
Client Service ID : 678490

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	Site Features	Site Types	Reports
36-2-0250	TRE 18	GDA	55	709157	6433806	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0251	TRE 02	GDA	55	714033	6438227	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0186	Hearth 10	GDA	55	709741	6439088	Open site	Valid	Hearth : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0187	Hearth 11	GDA	55	711050	6438776	Open site	Valid	Hearth : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0188	Hearth 12	GDA	55	711051	6438775	Open site	Valid	Hearth : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0189	Hearth 13	GDA	55	709270	6436749	Open site	Valid	Hearth : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0193	IF 02-Brown Silcrete Core	GDA	55	710614	6439149	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0194	IF 03-Pounding Stone	GDA	55	709566	6439430	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0195	IF 04-Knife Sharpning Stone	GDA	55	711461	6438706	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0196	IF 05-Ground Edge Axe	GDA	55	711196	6438568	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0197	IF 06-Grinding Bowl	GDA	55	709280	6437431	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0198	IF 07-Hammer Stone	GDA	55	708771	6438099	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0203	IF 12-Small Hammer Stone	GDA	55	709633	6436514	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0271	Grinding Groove 14	GDA	55	713593	6436649	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0272	Grinding Groove 15	GDA	55	713593	6436649	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0336	IF 04 - Knife Sharpning Stone	GDA	55	711461	6438706	Open site	Valid	Artefact : 1		
	Contact	Recorders	[illegible] Thornton					Permits		
36-2-0339	IF 20 - Small Hammer Stone	GDA	55	709633	6436514	Open site	Valid	Artefact : 1		

Report generated by AHIMS Web Service on 28/04/2022 for Barry Kerins for the following area at Datum :GDA, Zone : 55, Eastings : 703988.0 - 716992.0, Northings : 6432945.0 - 6440425.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 101

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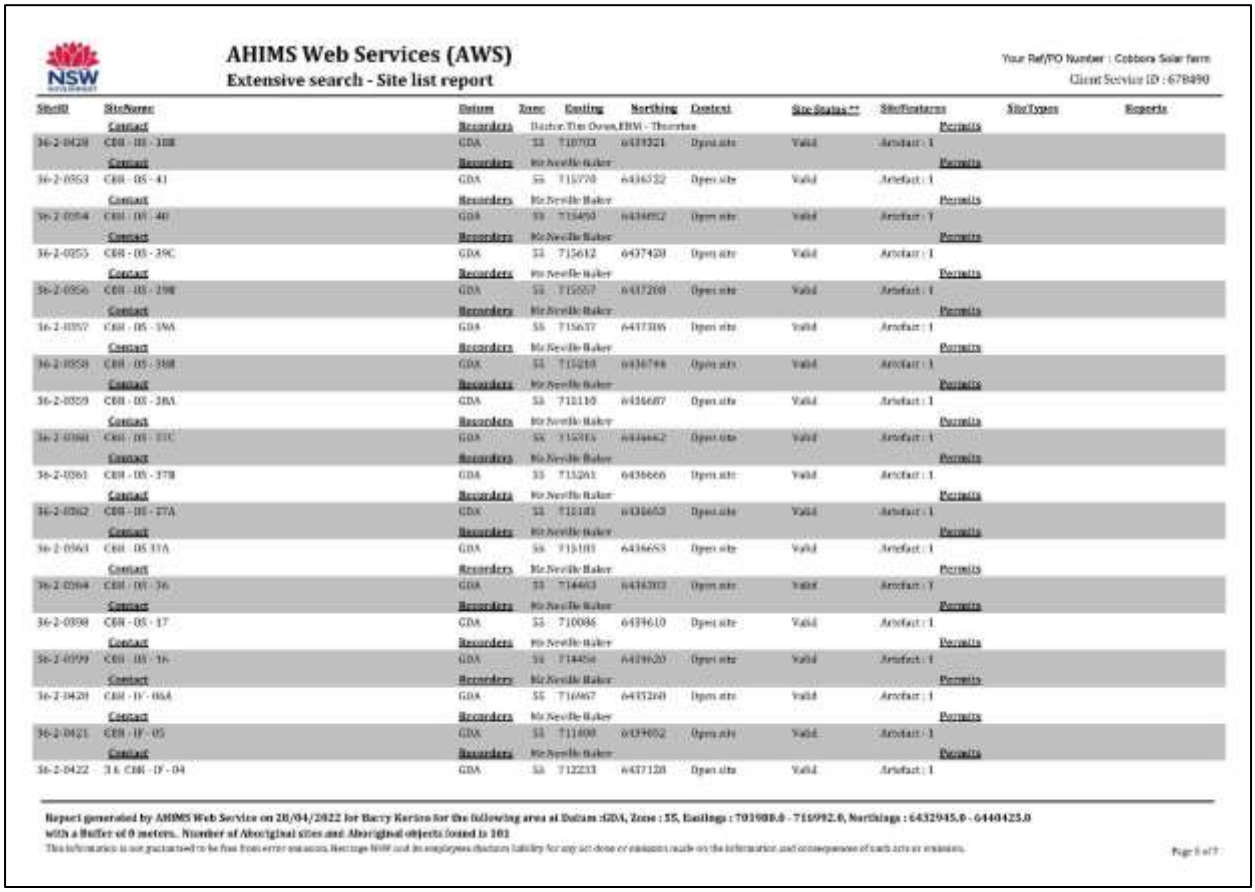

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora Solar farm
Client Service ID : 678490

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	Recorders	Dactor Tim Owen,EHM - Thornton					Permits		
36-2-0428	CBR - IF - 108	GDA	55	710703	6439321	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0053	CBR - IS - 43	GDA	55	715778	6436732	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0054	CBR - IS - 40	GDA	55	715459	6436952	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0055	CBR - IS - 39C	GDA	55	715612	6437420	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0056	CBR - IS - 39B	GDA	55	715557	6437209	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0057	CBR - IS - 39A	GDA	55	715637	6437306	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0058	CBR - IS - 38B	GDA	55	715218	6436748	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0059	CBR - IS - 38A	GDA	55	715110	6436687	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0060	CBR - IS - 37C	GDA	55	715051	6436662	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0061	CBR - IS - 37B	GDA	55	715261	6436666	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0062	CBR - IS - 37A	GDA	55	715181	6436653	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0063	CBR - IS 33A	GDA	55	715101	6436653	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0064	CBR - IS - 36	GDA	55	714463	6436303	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0098	CBR - IS - 17	GDA	55	710086	6439610	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0099	CBR - IS - 16	GDA	55	714456	6439620	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0420	CBR - IF - 06A	GDA	55	710467	6435260	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0421	CBR - IF - 05	GDA	55	711400	6439052	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0422	3 k CBR - IF - 04	GDA	55	712233	6437128	Open site	Valid	Artefact : 1		

Report generated by AHIMS Web Service on 28/04/2022 for Barry Kerins for the following area at Datum :GDA, Zone : 55, Eastings : 701988.0 - 716992.0, Northings : 6432945.0 - 6440425.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 101

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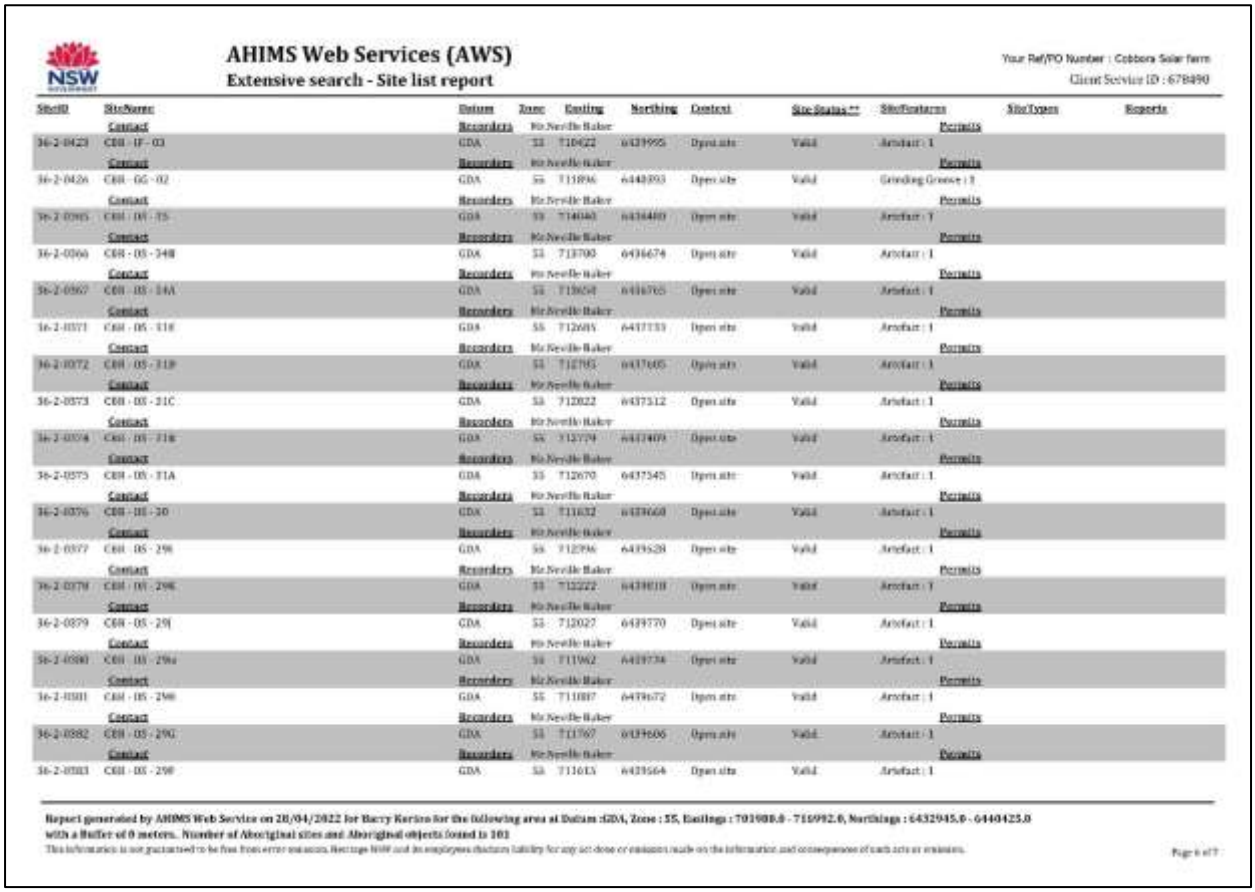

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora Solar farm
Client Service ID : 678490

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0423	CBR - IF - 03	GDA	55	710422	6439995	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0426	CBR - GG - 02	GDA	55	711896	6448393	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0065	CBR - IS - 35	GDA	55	714040	6436480	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0066	CBR - IS - 34B	GDA	55	713700	6436674	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0067	CBR - IS - 34A	GDA	55	713650	6436705	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0071	CBR - IS - 31E	GDA	55	712685	6437733	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0072	CBR - IS - 31D	GDA	55	712765	6437605	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0073	CBR - IS - 31C	GDA	55	712822	6437512	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0074	CBR - IS - 31B	GDA	55	712779	6437409	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0075	CBR - IS - 31A	GDA	55	712670	6437345	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0076	CBR - IS - 30	GDA	55	711632	6439468	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0077	CBR - IS - 29I	GDA	55	712396	6439528	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0078	CBR - IS - 29H	GDA	55	712222	6439810	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0079	CBR - IS - 29I	GDA	55	712027	6439770	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0080	CBR - IS - 29a	GDA	55	711962	6439734	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0081	CBR - IS - 29H	GDA	55	711887	6439672	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0082	CBR - IS - 29G	GDA	55	711767	6439606	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0083	CBR - IS - 29F	GDA	55	711613	6439564	Open site	Valid	Artefact : 1		

Report generated by AHIMS Web Service on 28/04/2022 for Barry Kerins for the following area at Datum :GDA, Zone : 55, Eastings : 701988.0 - 716992.0, Northings : 6432945.0 - 6440425.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 101

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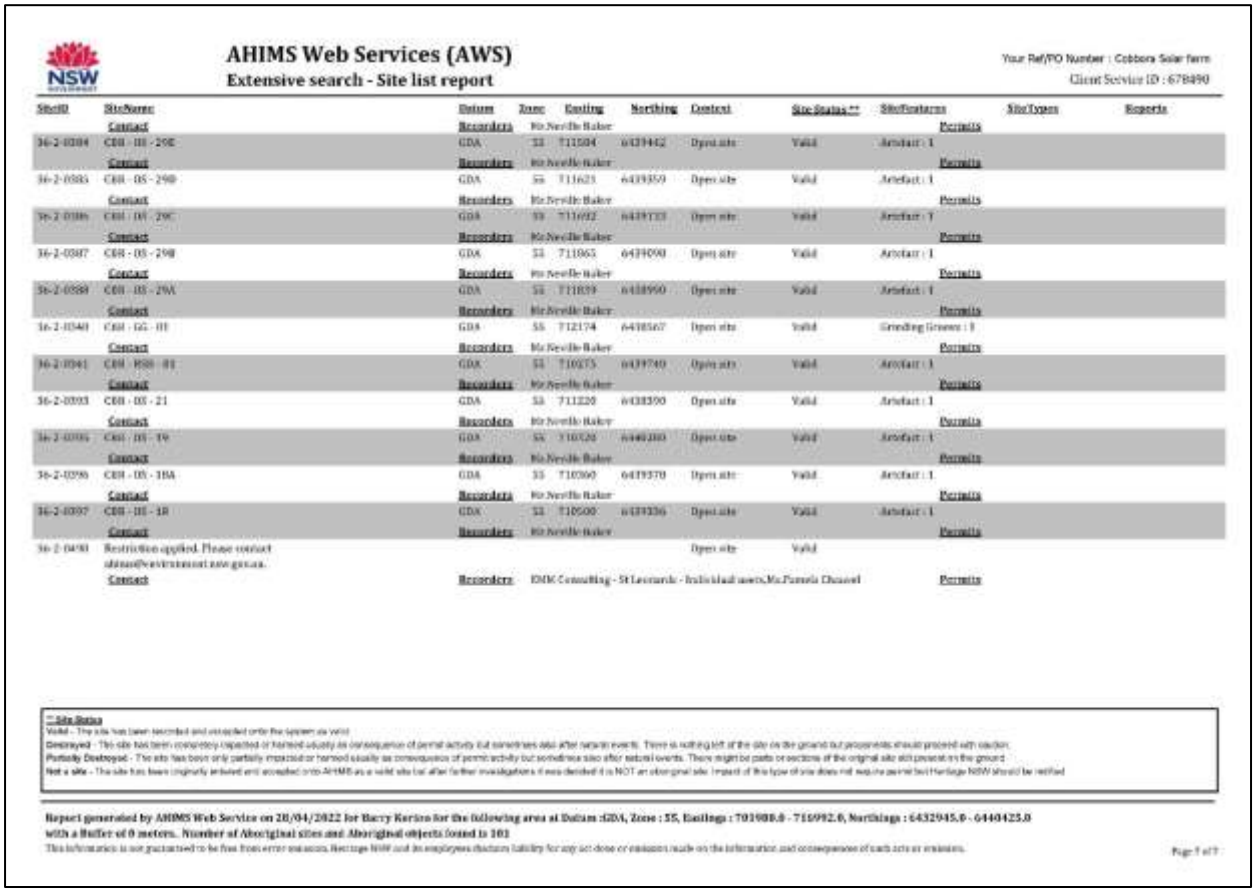

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora Solar farm
Client Service ID : 678490

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0384	CBR - BS - 29E	GDA	55	711504	6439442	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0385	CBR - BS - 29D	GDA	55	711621	6439359	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0386	CBR - BS - 29C	GDA	55	711692	6439333	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0387	CBR - BS - 29B	GDA	55	711865	6439090	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0388	CBR - BS - 29A	GDA	55	711839	6438990	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0340	CBR - GG - 01	GDA	55	712174	6438567	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0341	CBR - BSS - 01	GDA	55	710375	6439740	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0393	CBR - BS - 21	GDA	55	711220	6438590	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0394	CBR - BS - 19	GDA	55	710520	6440380	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0396	CBR - BS - 18A	GDA	55	710360	6439370	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0397	CBR - BS - 18	GDA	55	710500	6439336	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0430	Restriction applied. Please contact ahims@environment.nsw.gov.au.					Open site	Valid			
	Contact	Recorders	EMM Consulting - St Leonards - Individual users,Ms.Pamela Channel					Permits		

** Site Status
Valid - The site has been recorded and accepted onto the system as valid
Destroyed - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution.
Partially Destroyed - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground.
Not a site - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified

Report generated by AHIMS Web Service on 28/04/2022 for Barry Kerton for the following area at Datum :GDA, Zone : 55, Eastings : 703900.0 - 715992.0, Northings : 6432945.0 - 6440425.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 101

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5 September 2024 Search Results

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 n 2
Client Service ID : 927909

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0220	SAC 17	GDA	55	707881	6441254	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0260	TRK 11	GDA	55	707076	6440920	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0490	Cobbora Artefact Potential Loc	GDA	55	710698	6439537	Open site	Valid	Artefact : 1		
	Contact	Recorders	EMM Consulting - St Leonards - Individual users,Ms.Pamela Chauvel					Permits		
36-2-0522	CSP OS3	GDA	55	706287	6443035	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr.YINKUN ZHANG					Permits		
36-2-0090	DR-ST2	AGD	55	708855	6445435	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Miss.Rebecca Ogden-Brunell					Permits		
36-2-0093	DR-ST3	AGD	55	708467	6445302	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Miss.Rebecca Ogden-Brunell					Permits		
36-2-0262	TRK 03	GDA	55	707236	6443287	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0177	Hearth 03	GDA	55	707395	6444963	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0210	SAC 07	GDA	55	707151	6444066	Open site	Valid	Artefact : 1, Hearth : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0214	SAC 11	GDA	55	709564	6448620	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0402	CBB - 05 - 138	GDA	55	709230	6443209	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0405	CBB - 05 - 11	GDA	55	709036	6443514	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		

Report generated by AHIMS Web Service on 05/09/2024 for Tessa Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714168.0, Northings : 6439407.0 - 6446197.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 100

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AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 n 2
Client Service ID : 927909

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0408	CBB - 05 - 08	GDA	55	708043	6442977	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0414	CBB - 05 - 03	GDA	55	709764	6444076	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0424	CBB - IF - 02	GDA	55	708840	6442440	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0379	CBB - 05 - 29	GDA	55	712027	6439770	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0383	CBB - 05 - 29B	GDA	55	711615	6439564	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0394	CBB - 05 - 20	GDA	55	710830	6440080	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0221	SAC 18	GDA	55	707234	6441452	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0264	TRK 15	GDA	55	708616	6439520	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0558	SCWF SH2/L1	GDA	55	705079	6444006	Open site	Valid	Grinding Groove : -		
	Contact	Recorders	Doctor.Julie Dibden,NSW Archaeology Pty Ltd					Permits		
36-2-0524	CSP OS6	GDA	55	707203	6448177	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr.YINKUN ZHANG					Permits		
36-2-0062	DTG/OC22 - Sandy Creek	AGD	55	706710	6443190	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	Ms.Adrianne Howie-Fleming					Permits		
36-2-0401	CBB - 05 - 14	GDA	55	709132	6443064	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0410	CBB - 05 - 06	GDA	55	709054	6442877	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0415	CBB - 05 - 02	GDA	55	709020	6443054	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0594	SC AS15	GDA	55	708439	6439606	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,EMM Consulting - St Leonards - Individual users,Miss.Amber Mo					Permits		

Report generated by AHIMS Web Service on 05/09/2024 for Tessa Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714168.0, Northings : 6439407.0 - 6446197.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 100

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AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 n 2
Client Service ID : 927909

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0224	SAC 21	GDA	55	708501	6439961	Open site	Valid	Potential Archaeological Deposit (PAD) : -, Artefact : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0225	SAC 22	GDA	55	708679	6439544	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0957	NCWP 102/A2	GDA	55	710056	6440063	Open site	Valid	Artefact : -		
	Contact	Recorders	Doctor.Julie Dibden,NSW Archaeology Pty Ltd					Permits		
36-2-0523	CSP 055	GDA	55	707547	6440988	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr.YIXUN ZHANG					Permits		
36-2-0182	Hearth 06	GDA	55	707188	6443387	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0207	SAC 04	GDA	55	707427	6445225	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0209	SAC 06	GDA	55	707397	6444966	Open site	Valid	Artefact : 1, Hearth : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0211	SAC 08	GDA	55	707614	6444412	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0404	CBR - IS - 12 'WATERHOLE'	GDA	55	709560	6443228	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0409	CBR - IS - 07	GDA	55	708934	6442953	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0412	CBR - IS - 09A	GDA	55	709126	6444221	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0164	Grinding Groove 01	GDA	55	708268	6440929	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0180	Hearth 04	GDA	55	709160	6440657	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		

Report generated by AHIMS Web Service on 05/09/2024 for Tessa Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714158.0, Northings : 6439407.0 - 6446197.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 100

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AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 n 2
Client Service ID : 927909

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0206	SAC 03	GDA	55	707278	6445312	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0406	CBR - IS - 10	GDA	55	708623	6442799	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0423	CBR - IF - 03	GDA	55	710422	6439995	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0425	CBR - IF - 01	GDA	55	709752	6442140	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0399	CBR - IS - 33A	GDA	55	709591	6443856	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0377	CBR - IS - 29B	GDA	55	712296	6439520	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0521	CSP 052	GDA	55	709776	6445528	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr.YIXUN ZHANG					Permits		
36-2-0701	Woolandra 01	GDA	55	710952	6440862	Open site	Valid	Artefact : -		
	Contact	Recorders	Ms.Sophia Graham					Permits		
36-2-0215	SAC 12	GDA	55	708835	6440629	Open site	Valid	Artefact : 1, Hearth : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0243	Shelter 02	GDA	55	710064	6439711	Closed site	Valid	Habitation Structure : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0540	CSP 051	GDA	55	707596	6441958	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr.YIXUN ZHANG					Permits		
36-2-0559	NCWP 106/A1	GDA	55	708965	6442899	Open site	Valid	Artefact : -		
	Contact	Recorders	Doctor.Julie Dibden,NSW Archaeology Pty Ltd					Permits		
36-2-0093	DH-ST5	AGD	55	709013	6445300	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Miss.Rebecca Oppitz-Brunell					Permits		
36-2-0254	Tree 05	GDA	55	707454	6444003	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		

Report generated by AHIMS Web Service on 05/09/2024 for Tessa Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714158.0, Northings : 6439407.0 - 6446197.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 100

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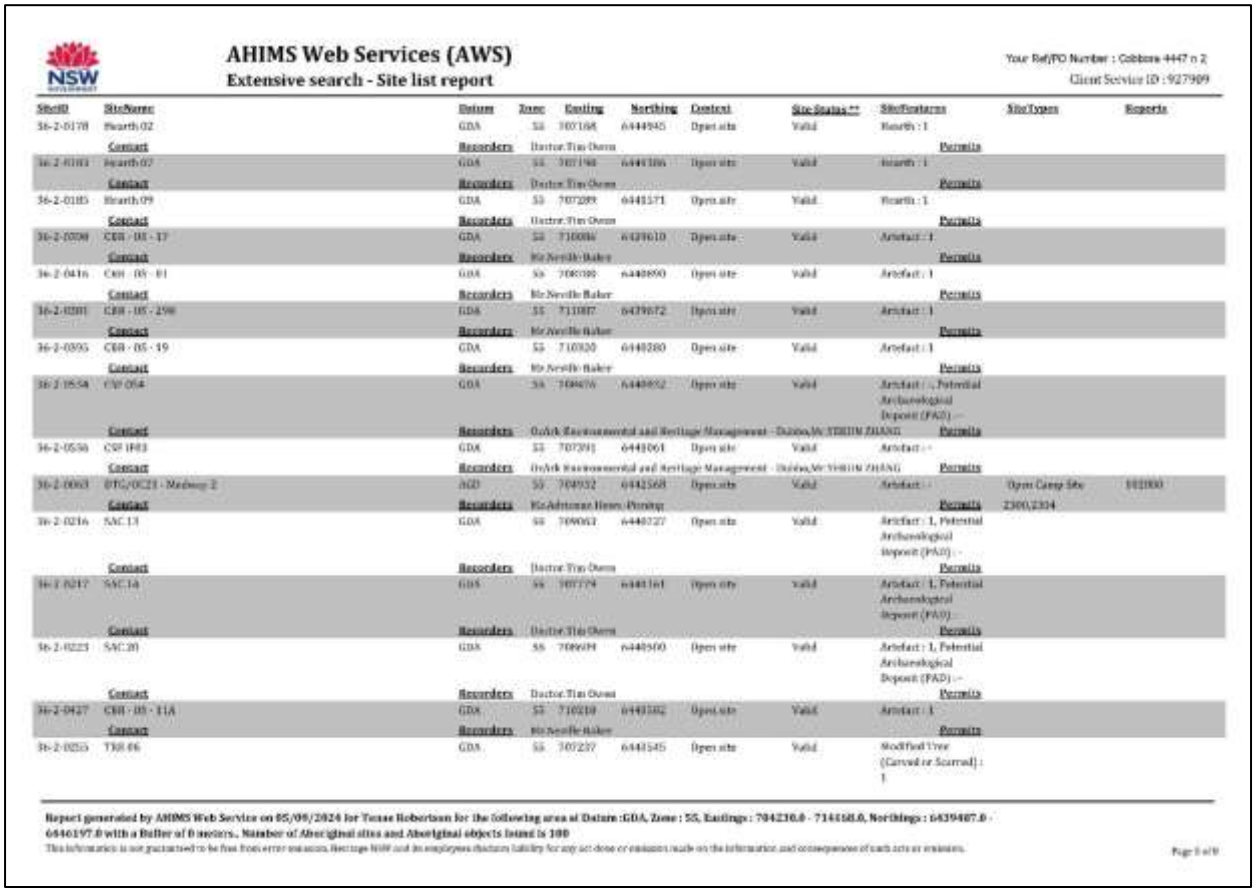

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 n 2
Client Service ID : 927909

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0178	Hearth 02	GDA	55	707168	6444945	Open site	Valid	Hearth : 1		
	Contact	Recorders	Dorrer,Tim Owen					Permits		
36-2-0183	Hearth 07	GDA	55	707198	6445186	Open site	Valid	Hearth : 1		
	Contact	Recorders	Dorrer,Tim Owen					Permits		
36-2-0185	Hearth 09	GDA	55	707289	6445171	Open site	Valid	Hearth : 1		
	Contact	Recorders	Dorrer,Tim Owen					Permits		
36-2-0098	CBR - 05 - 17	GDA	55	710086	6439610	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0416	CBR - 05 - 01	GDA	55	709100	6440890	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0091	CBR - 05 - 250	GDA	55	711087	6439672	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0095	CBR - 05 - 19	GDA	55	710320	6440280	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0558	CSF 054	GDA	55	709676	6440852	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIBIN ZHANG					Permits		
36-2-0556	CSF IF03	GDA	55	707391	6441061	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIBIN ZHANG					Permits		
36-2-0003	BTG/OC21 - Medway 2	AGD	55	704932	6442568	Open site	Valid	Artefact : -	Open Camp Site	102800
	Contact	Recorders	Ms Adrienne Hines-Fleming					Permits	2300,2304	
36-2-0216	SAC 13	GDA	55	709063	6440727	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorrer,Tim Owen					Permits		
36-2-0217	SAC 14	GDA	55	707174	6441161	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorrer,Tim Owen					Permits		
36-2-0223	SAC 20	GDA	55	709659	6440500	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorrer,Tim Owen					Permits		
36-2-0427	CBR - 05 - 11A	GDA	55	710210	6441102	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0255	TRE 06	GDA	55	707237	6441545	Open site	Valid	Modified Tree (Carved or Scarred) : 1		

Report generated by AHIMS Web Service on 05/09/2024 for Tessa Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714160.0, Northings : 6439407.0 - 6446197.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 100

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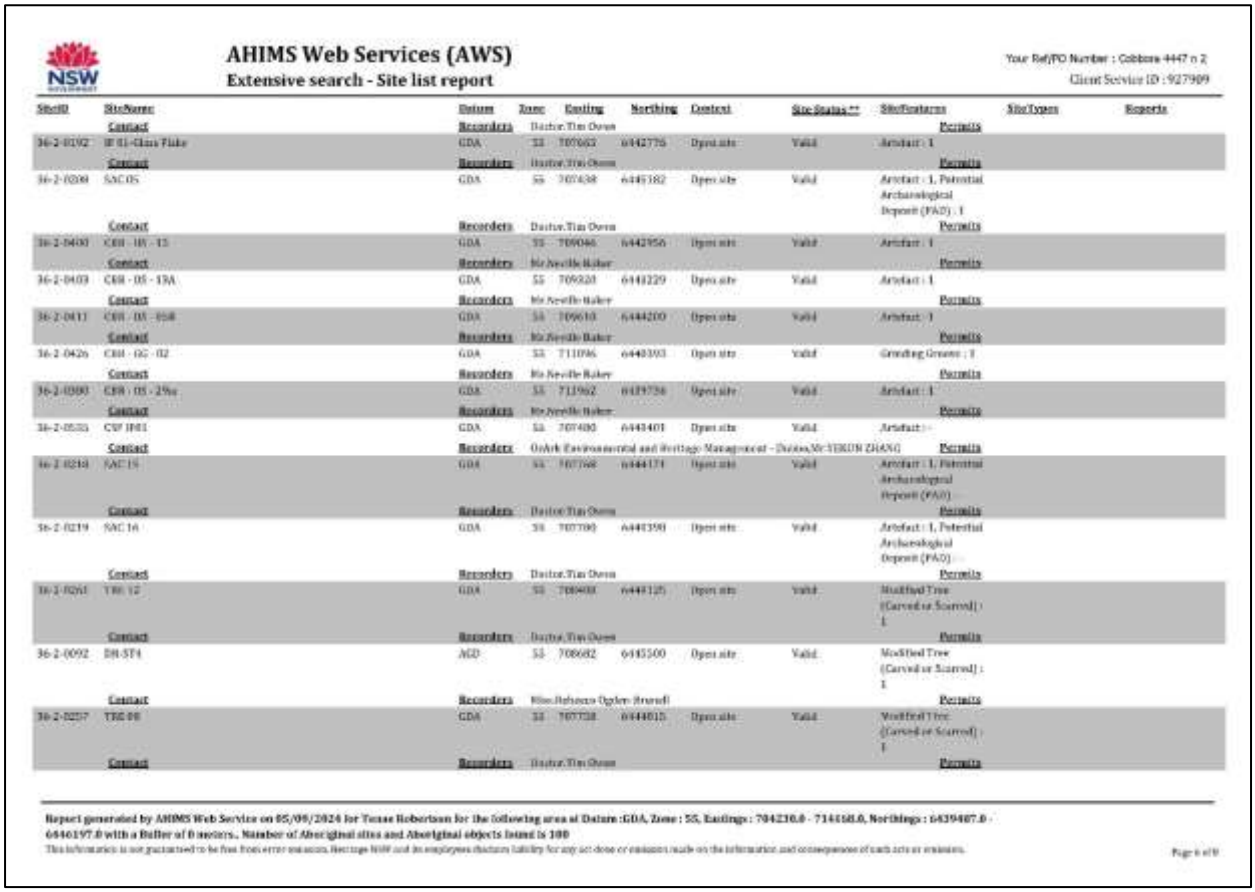

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 n 2
Client Service ID : 927909

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	Recorders	Dorrer,Tim Owen					Permits		
36-2-0192	IF 01-Glass Flake	GDA	55	707663	6442776	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dorrer,Tim Owen					Permits		
36-2-0208	SAC 05	GDA	55	707438	6445182	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		
	Contact	Recorders	Dorrer,Tim Owen					Permits		
36-2-0400	CBR - 05 - 15	GDA	55	709046	6442956	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0403	CBR - 05 - 13A	GDA	55	709321	6443229	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0411	CBR - 05 - 05B	GDA	55	709610	6444200	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0426	CBR - 05 - 02	GDA	55	711096	6440393	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0090	CBR - 05 - 25a	GDA	55	711962	6439736	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0555	CSF IF01	GDA	55	707400	6443401	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIBIN ZHANG					Permits		
36-2-0218	SAC 15	GDA	55	707768	6444171	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorrer,Tim Owen					Permits		
36-2-0219	SAC 16	GDA	55	707790	6443590	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorrer,Tim Owen					Permits		
36-2-0261	TRE 12	GDA	55	708408	6443125	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Dorrer,Tim Owen					Permits		
36-2-0092	DH-ST4	AGD	55	708682	6445500	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Miss Rebecca Ogden (Retired)					Permits		
36-2-0257	TRE 08	GDA	55	707738	6444815	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Dorrer,Tim Owen					Permits		

Report generated by AHIMS Web Service on 05/09/2024 for Tessa Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714160.0, Northings : 6439407.0 - 6446197.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 100

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AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 n 2
Client Service ID : 927909

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0258	TRE 09	GDA	55	707758	6442997	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0259	TRE 10	GDA	55	707797	6443040	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0181	Hearth 05	GDA	55	709185	6440631	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0184	Hearth 08	GDA	55	707194	6443301	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0407	CBH - 05 - 09 'BIG SCALE'	GDA	55	708616	6441276	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0578	CBH - 05 - 29E	GDA	55	712222	6439818	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0382	CBH - 05 - 29G	GDA	55	711767	6439606	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0759	Woolandra 377	GDA	55	713035	6439559	Open site	Valid	Artefact : -		
	Contact	Recorders	Ms.Sophia Gratwic					Permits		
36-2-0263	TRE 14	GDA	55	708618	6440403	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0253	TRE 04	GDA	55	707399	6440867	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0256	TRE 07	GDA	55	707728	6444065	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0179	Hearth 03	GDA	55	707154	6444930	Open site	Valid	Hearth : 1		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0212	SAC 09	GDA	55	707147	6443738	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Doctor.Tim Owen					Permits		
36-2-0413	CBH - 05 - 04	GDA	55	708632	6444168	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		

Report generated by AHIMS Web Service on 05/09/2024 for Tessa Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714168.0, Northings : 6439407.0 - 6446197.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 100

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AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 n 2
Client Service ID : 927909

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0368	CBH - 05 - 53B	GDA	55	709618	6442803	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0376	CBH - 05 - 30	GDA	55	711632	6439668	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0341	CBH - R08 - 83	GDA	55	710275	6439740	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr.Neville Baker					Permits		
36-2-0576	Spring Ridge Road Axe	GDA	55	711265	6439502	Open site	Valid	Artefact : -		
	Contact	Recorders	Mr.Bradley Bliss,Wellington Valley Wiradjuri Aboriginal Corporation					Permits		

** Site Status
Valid - The site has been recorded and accepted onto the system as valid
Destroyed - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. [illegible]
Partially Destroyed - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. [illegible]
Not a site - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. [illegible]

Report generated by AHIMS Web Service on 05/09/2024 for Tessa Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714168.0, Northings : 6439407.0 - 6446197.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 100

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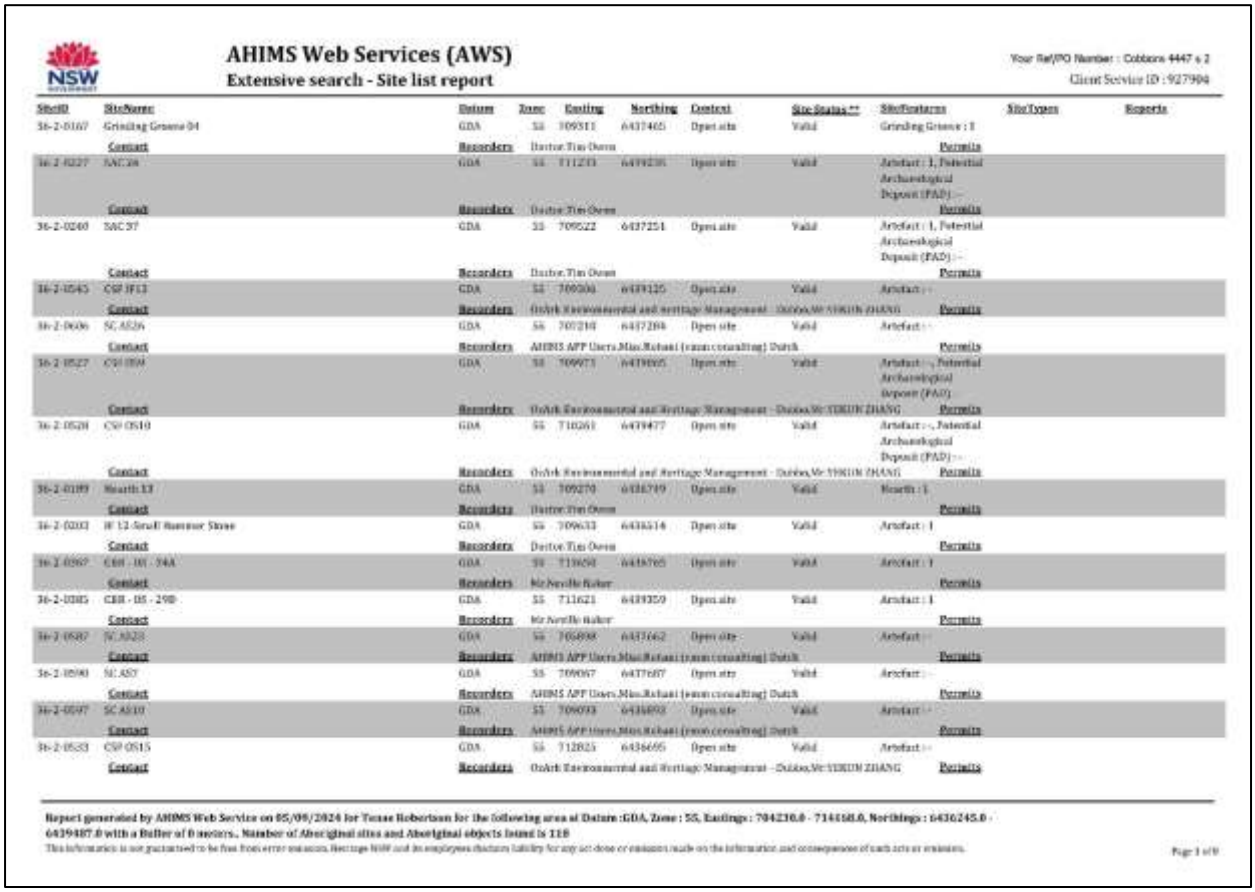

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 s 2
Client Service ID : 927904

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0167	Grinding Groove 04	GDA	55	709511	6437405	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0227	SAC 28	GDA	55	711233	6439235	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0240	SAC 37	GDA	55	709522	6437251	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0545	CSP IF13	GDA	55	709506	6439125	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIKUN ZHANG					Permits		
36-2-0606	SC AS26	GDA	55	707210	6437204	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss Rehani (enviro consulting) Dutch					Permits		
36-2-0527	CSP 0509	GDA	55	709973	6439005	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIKUN ZHANG					Permits		
36-2-0520	CSP 0510	GDA	55	710261	6439477	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIKUN ZHANG					Permits		
36-2-0189	Hearth 13	GDA	55	709270	6438749	Open site	Valid	Hearth : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0203	IF 12 Small Hammer Stone	GDA	55	709633	6436514	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0367	CBR - 08 - 34A	GDA	55	711650	6438705	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Walker					Permits		
36-2-0385	CBR - 08 - 29B	GDA	55	711621	6439359	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Walker					Permits		
36-2-0587	SC AS23	GDA	55	709498	6437662	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss Rehani (enviro consulting) Dutch					Permits		
36-2-0590	SC AS7	GDA	55	709067	6437687	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss Rehani (enviro consulting) Dutch					Permits		
36-2-0597	SC AS10	GDA	55	709933	6436892	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss Rehani (enviro consulting) Dutch					Permits		
36-2-0533	CSP 0515	GDA	55	712825	6436695	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIKUN ZHANG					Permits		

Report generated by AHIMS Web Service on 05/09/2024 for Tessa Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714160.0, Northings : 6436245.0 - 6439487.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 110

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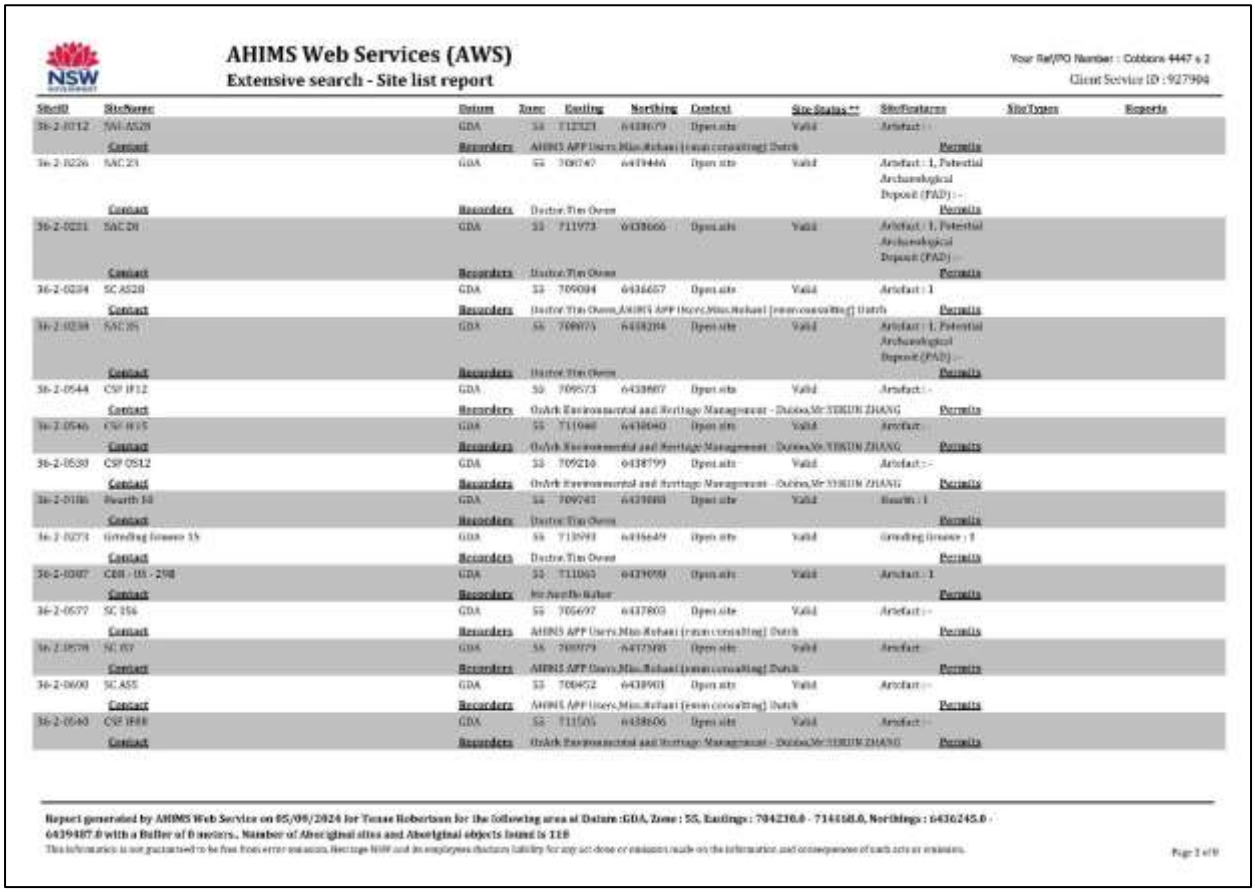

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 s 2
Client Service ID : 927904

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0212	SAC AS29	GDA	55	712523	6438679	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss Rehani (enviro consulting) Dutch					Permits		
36-2-0226	SAC 25	GDA	55	709747	6439446	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0231	SAC 20	GDA	55	711973	6439666	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0234	SC AS28	GDA	55	709084	6436657	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dorine Tim Owen,AHIMS APP Users,Miss Rehani (enviro consulting) Dutch					Permits		
36-2-0238	SAC 26	GDA	55	709975	6438294	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0544	CSP IF12	GDA	55	709573	6438807	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIKUN ZHANG					Permits		
36-2-0546	CSP 0515	GDA	55	711940	6438040	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIKUN ZHANG					Permits		
36-2-0530	CSP 0512	GDA	55	709210	6438799	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIKUN ZHANG					Permits		
36-2-0186	Hearth 10	GDA	55	709741	6439088	Open site	Valid	Hearth : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0273	Grinding Groove 15	GDA	55	710593	6436649	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Dorine Tim Owen					Permits		
36-2-0387	CBR - 08 - 29E	GDA	55	711065	6439698	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Walker					Permits		
36-2-0577	SC 156	GDA	55	709697	6437803	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss Rehani (enviro consulting) Dutch					Permits		
36-2-0579	SC 157	GDA	55	709979	6437993	Open site	Valid	Artefact :		
	Contact	Recorders	AHIMS APP Users,Miss Rehani (enviro consulting) Dutch					Permits		
36-2-0600	SC AS5	GDA	55	708452	6438903	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss Rehani (enviro consulting) Dutch					Permits		
36-2-0540	CSP IF08	GDA	55	711505	6438606	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIKUN ZHANG					Permits		

Report generated by AHIMS Web Service on 05/09/2024 for Tessa Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714160.0, Northings : 6436245.0 - 6439487.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 110

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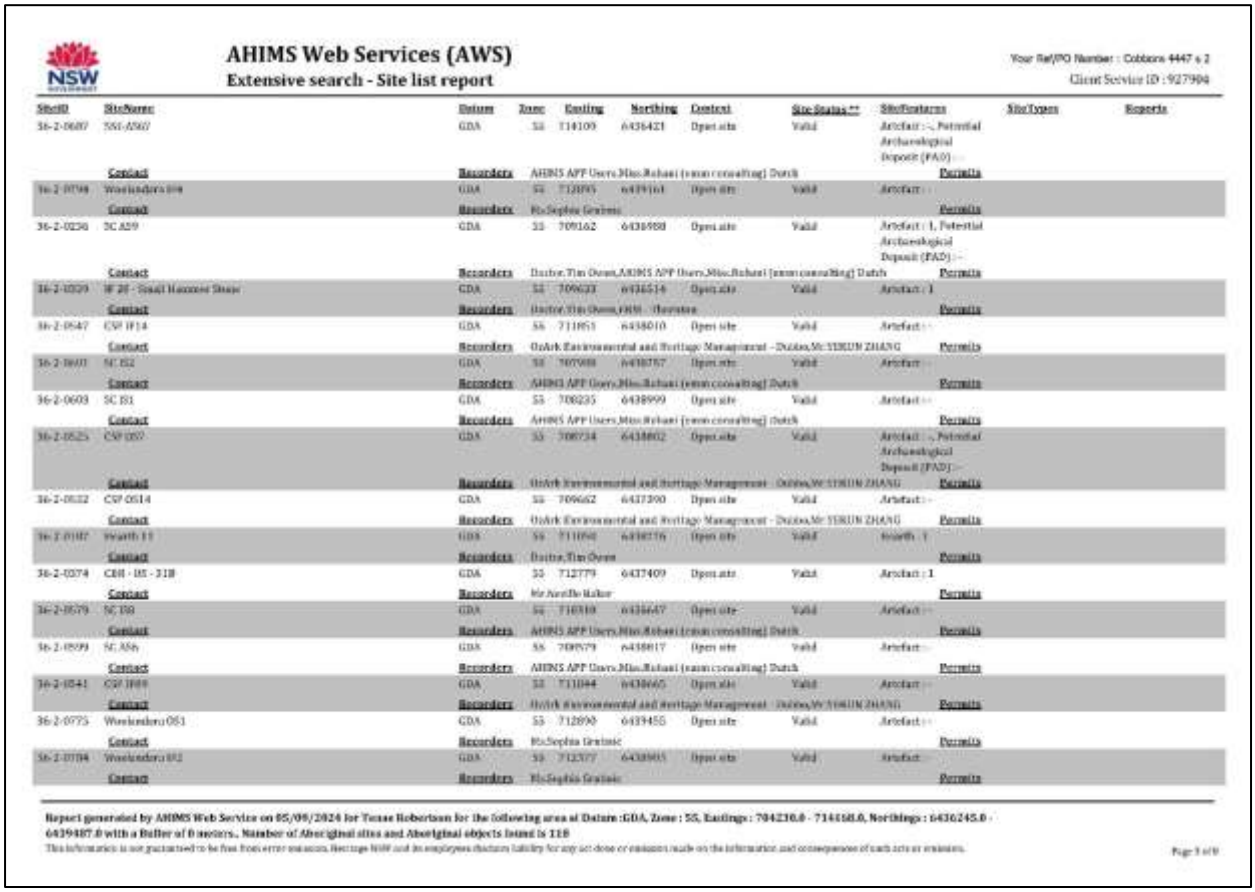

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 s 2
Client Service ID : 927904

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0687	SNI-A567	GDA	55	714109	6436421	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohani (emm consulting) Dutch					Permits		
36-2-0798	Woolenders 04	GDA	55	712895	6439164	Open site	Valid	Artefact : -		
	Contact	Recorders	Ms Sophie Greiner					Permits		
36-2-0236	SC A59	GDA	55	709162	6436988	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dottor Tim Owen,AHIMS APP Users,Miss.Rohani (emm consulting) Dutch					Permits		
36-2-0329	IF 20 - Small Hammer Stone	GDA	55	709633	6436514	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dottor Tim Owen,OEH - Hunter					Permits		
36-2-0547	CSP IF14	GDA	55	711051	6438010	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIBUN ZHANG					Permits		
36-2-0601	SC 052	GDA	55	707988	6438767	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohani (emm consulting) Dutch					Permits		
36-2-0603	SC 051	GDA	55	708235	6438999	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohani (emm consulting) Dutch					Permits		
36-2-0525	CSP 057	GDA	55	708734	6438802	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIBUN ZHANG					Permits		
36-2-0532	CSP 0514	GDA	55	709662	6437390	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIBUN ZHANG					Permits		
36-2-0187	Hearth 11	GDA	55	711050	6438776	Open site	Valid	Hearth : 1		
	Contact	Recorders	Dottor Tim Owen					Permits		
36-2-0374	CBR - BS - 318	GDA	55	712779	6437409	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0579	SC 050	GDA	55	710510	6438647	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohani (emm consulting) Dutch					Permits		
36-2-0599	SC A56	GDA	55	709579	6438817	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohani (emm consulting) Dutch					Permits		
36-2-0541	CSP IF09	GDA	55	711044	6438665	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIBUN ZHANG					Permits		
36-2-0775	Woolenders 051	GDA	55	712890	6439455	Open site	Valid	Artefact : -		
	Contact	Recorders	Ms Sophie Greiner					Permits		
36-2-0784	Woolenders 052	GDA	55	712577	6438905	Open site	Valid	Artefact :		
	Contact	Recorders	Ms Sophie Greiner					Permits		

Report generated by AHIMS Web Service on 05/09/2024 for Tessa Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714160.0, Northings : 6436245.0 - 6439487.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 110

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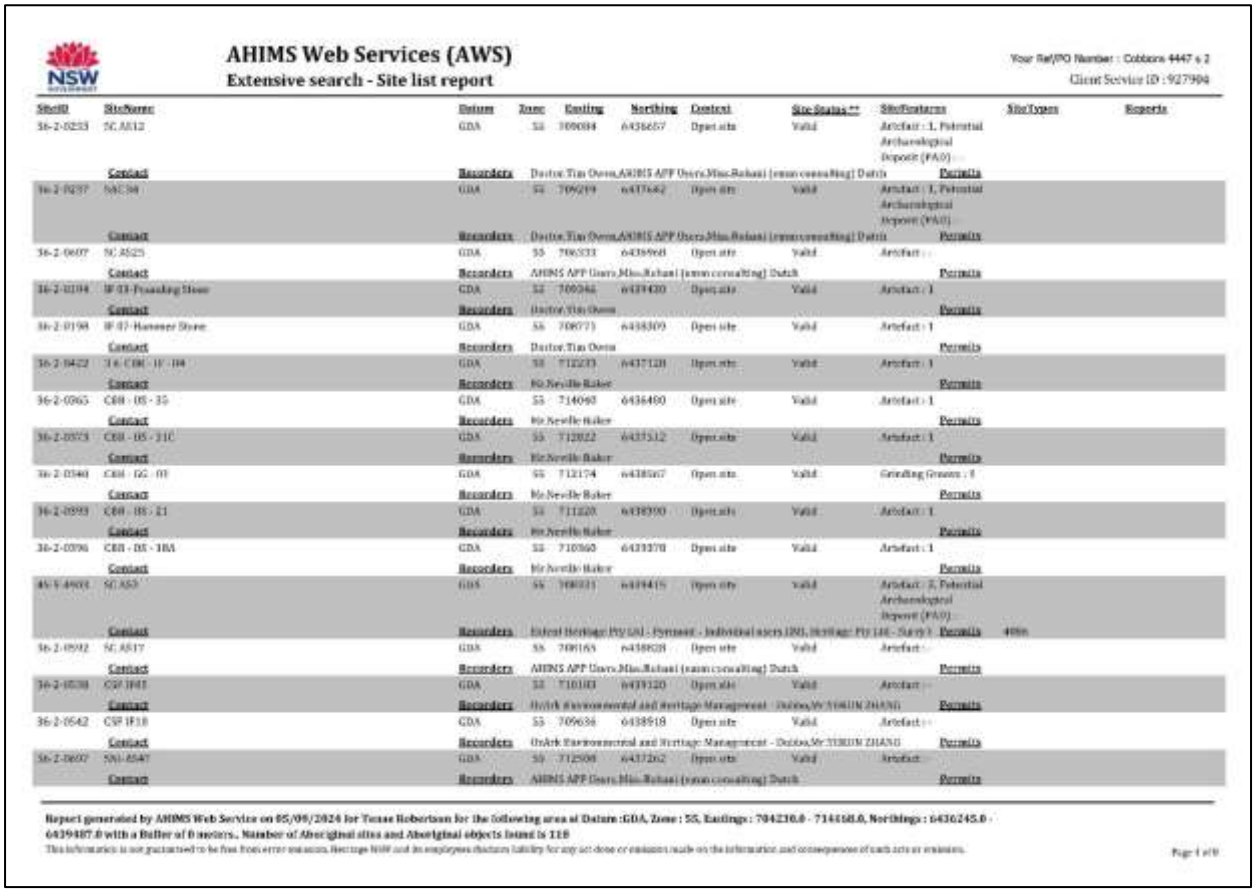

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 s 2
Client Service ID : 927904

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0253	SC A512	GDA	55	709084	6436657	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dottor Tim Owen,AHIMS APP Users,Miss.Rohani (emm consulting) Dutch					Permits		
36-2-0237	SAC 58	GDA	55	709299	6437642	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dottor Tim Owen,AHIMS APP Users,Miss.Rohani (emm consulting) Dutch					Permits		
36-2-0607	SC A525	GDA	55	709333	6436968	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohani (emm consulting) Dutch					Permits		
36-2-0194	IF 03 - Pounding Stone	GDA	55	709346	6439400	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dottor Tim Owen					Permits		
36-2-0198	IF 07 - Hammer Stone	GDA	55	709771	6438309	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dottor Tim Owen					Permits		
36-2-0422	T4 - CBR - IF - 04	GDA	55	712233	6437128	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0365	CBR - BS - 35	GDA	55	714060	6436480	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0373	CBR - BS - 21C	GDA	55	712822	6437512	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0340	CBR - GC - 03	GDA	55	712174	6438567	Open site	Valid	Grinding Groove : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0393	CBR - BS - 21	GDA	55	711220	6438990	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0396	CBR - BS - 18A	GDA	55	710360	6439378	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0403	SC A53	GDA	55	708031	6439415	Open site	Valid	Artefact : 2, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Extent Heritage Pty Ltd - Pymble - Individual users (IN), Heritage PO Ltd - Survey					Permits	48hr	
36-2-0532	SC A517	GDA	55	709165	6438828	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohani (emm consulting) Dutch					Permits		
36-2-0538	CSP IF05	GDA	55	710103	6439120	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIBUN ZHANG					Permits		
36-2-0542	CSP IF10	GDA	55	709636	6438918	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIBUN ZHANG					Permits		
36-2-0607	SNI-A547	GDA	55	712508	6437262	Open site	Valid	Artefact :		
	Contact	Recorders	AHIMS APP Users,Miss.Rohani (emm consulting) Dutch					Permits		

Report generated by AHIMS Web Service on 05/09/2024 for Tessa Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714160.0, Northings : 6436245.0 - 6439487.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 110

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 s 2

Client Service ID : 927904

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports	Recorders	Permits
36-2-0165	Grinding Groove 02	GDA	55	709598	6439316	Open site	Valid	Grinding Groove : 1			Doctor.Tim Owen	
36-2-0166	Grinding Groove 03	GDA	55	709271	6439406	Open site	Valid	Grinding Groove : 1			Doctor.Tim Owen	
36-2-0237	SAC 27	GDA	55	709627	6439136	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -			Doctor.Tim Owen	
45-5-4902	SC AS4	GDA	55	708118	6439369	Open site	Valid	Artefact : 3, Potential Archaeological Deposit (PAD) : -			[illegible] Heritage Pty Ltd - Pyrmont - Individual users [illegible], Heritage Pty Ltd - Surry Hills	4066
36-2-0371	CBH - DS - 118	GDA	55	712685	6437733	Open site	Valid	Artefact : 1			Mr.Neville Baker	
36-2-0768	Windamdera 0/6	GDA	55	713306	6439443	Open site	Valid	Artefact : -			Ms.Sophia Graham	
36-2-0168	Grinding Groove 05	GDA	55	709329	6437483	Open site	Valid	Grinding Groove : 1			Doctor.Tim Owen	
36-2-0428	CBH - DS - 388	GDA	55	710703	6439321	Open site	Valid	Artefact : 1			Mr.Neville Baker	
36-2-0543	CSP IF11	GDA	55	709213	6438808	Open site	Valid	Artefact : -			OzArk Environmental and Heritage Management - Dubbo,Mr.YIKUN ZHANG	
36-2-0526	CSP IF08	GDA	55	709547	6439254	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -			OzArk Environmental and Heritage Management - Dubbo,Mr.YIKUN ZHANG	
36-2-0372	CBH - DS - 31B	GDA	55	712785	6437605	Open site	Valid	Artefact : 1			Mr.Neville Baker	
36-2-0384	CBH - DS - 29B	GDA	55	711508	6439442	Open site	Valid	Artefact : 1			Mr.Neville Baker	
36-2-0396	CBH - DS - 29C	GDA	55	711692	6439153	Open site	Valid	Artefact : 1			Mr.Neville Baker	
36-2-0397	CBH - DS - 30	GDA	55	710500	6439336	Open site	Valid	Artefact : 1			Mr.Neville Baker	
36-2-0583	SC AS1	GDA	55	707979	6438928	Open site	Valid	Artefact : -			AHIMS APP Users,Miss.Rohani (raxon consulting) Dutch	
36-2-0585	SC AS21	GDA	55	708034	6436293	Open site	Valid	Artefact : -			AHIMS APP Users,Miss.Rohani (raxon consulting) Dutch	

Report generated by AHIMS Web Service on 05/08/2024 for Tessa Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714168.0, Northings : 6436245.0 - 6439487.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 118

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 s 2

Client Service ID : 927904

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports	Recorders	Permits
36-2-0588	SC AS20	GDA	55	709250	6436583	Open site	Valid	Artefact : -			AHIMS APP Users,Miss.Rohani (raxon consulting) Dutch	
36-2-0593	SC AS16	GDA	55	708201	6439036	Open site	Valid	Artefact : -			AHIMS APP Users,Miss.Rohani (raxon consulting) Dutch	
36-2-0598	SC IS3	GDA	55	708992	6438620	Open site	Valid	Artefact : -			AHIMS APP Users,Miss.Rohani (raxon consulting) Dutch	
36-2-0229	SAC 26	GDA	55	710430	6438905	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -			Doctor.Tim Owen	
36-2-0235	SC AS11	GDA	55	709270	6436750	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -			Doctor.Tim Owen,AHIMS APP Users,Miss.Rohani (raxon consulting) Dutch	
36-2-0239	SAC 36	GDA	55	708557	6439209	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -			Doctor.Tim Owen	
36-2-0241	SAC 38	GDA	55	709362	6436579	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -			Doctor.Tim Owen	
36-2-0265	TRE 16	GDA	55	710573	6438916	Open site	Valid	Modified Tree (Carved or Scarred) : 1			Doctor.Tim Owen	
36-2-0266	TRE 17	GDA	55	712233	6438569	Open site	Valid	Modified Tree (Carved or Scarred) : 1			Doctor.Tim Owen	
36-2-0188	Hearth 12	GDA	55	711055	6438775	Open site	Valid	Hearth : 1			Doctor.Tim Owen	
36-2-0193	IF 02-Brown Silcrete Core	GDA	55	710614	6439149	Open site	Valid	Artefact : 1			Doctor.Tim Owen	
36-2-0195	IF 04-Knife Sharpening Stone	GDA	55	711415	6438796	Open site	Valid	Artefact : 1			Doctor.Tim Owen	
36-2-0196	IF 05-Ground Edge Axe	GDA	55	711196	6438504	Open site	Valid	Artefact : 1			Doctor.Tim Owen	
36-2-0271	Grinding Groove 14	GDA	55	712093	6436649	Open site	Valid	Grinding Groove : 1			Doctor.Tim Owen	

Report generated by AHIMS Web Service on 05/08/2024 for Tessa Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714168.0, Northings : 6436245.0 - 6439487.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 118

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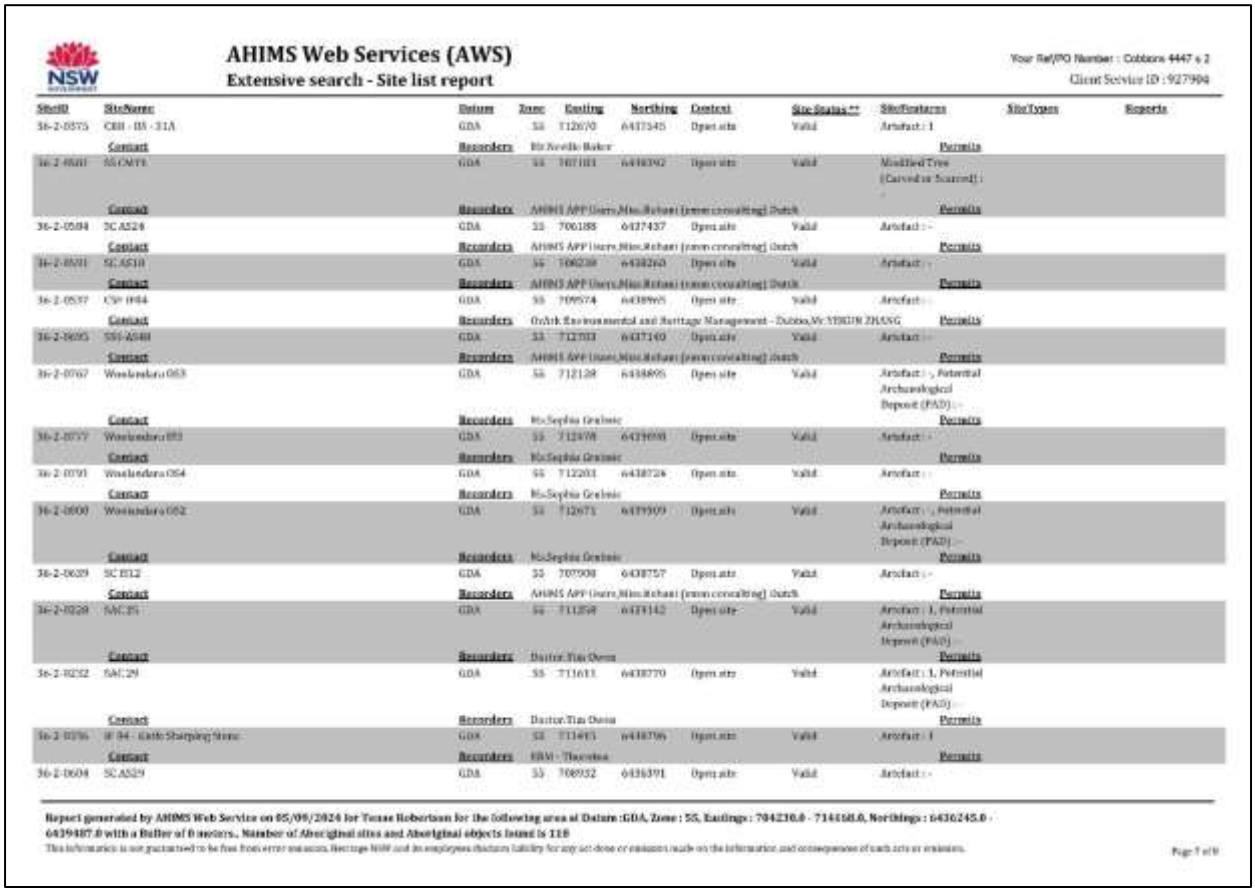

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 s 2
Client Service ID : 927904

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
36-2-0575	CBR - IS - 31A	GDA	55	712670	6437345	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0581	SS CMY8	GDA	55	707101	6438392	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohan (emm consulting) Dutch					Permits		
36-2-0584	SC AS24	GDA	55	706188	6437437	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohan (emm consulting) Dutch					Permits		
36-2-0591	SC AS10	GDA	55	706238	6438260	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohan (emm consulting) Dutch					Permits		
36-2-0597	CSP 0944	GDA	55	709574	6438965	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIBIN ZHANG					Permits		
36-2-0695	SSS-AS40	GDA	55	712703	6437140	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohan (emm consulting) Dutch					Permits		
36-2-0707	Wooloodaru 053	GDA	55	712128	6438895	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Ms Sophie Grelinic					Permits		
36-2-0717	Wooloodaru 055	GDA	55	712478	6439098	Open site	Valid	Artefact : -		
	Contact	Recorders	Ms Sophie Grelinic					Permits		
36-2-0791	Wooloodaru 054	GDA	55	712203	6438726	Open site	Valid	Artefact : -		
	Contact	Recorders	Ms Sophie Grelinic					Permits		
36-2-0800	Wooloodaru 052	GDA	55	712671	6439309	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Ms Sophie Grelinic					Permits		
36-2-0809	SC E12	GDA	55	707908	6438757	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohan (emm consulting) Dutch					Permits		
36-2-0829	SAC 35	GDA	55	711858	6439142	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dr Tim Owen					Permits		
36-2-0832	SAC 29	GDA	55	711611	6438770	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	Dr Tim Owen					Permits		
36-2-0836	IF 04 - Knife Sharpening Stone	GDA	55	711493	6438706	Open site	Valid	Artefact : 1		
	Contact	Recorders	EBM - Thornton					Permits		
36-2-0604	SC AS29	GDA	55	708932	6436391	Open site	Valid	Artefact : -		

Report generated by AHIMS Web Service on 05/09/2024 for Tonae Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714160.0, Northings : 6436245.0 - 6439487.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 110

This information is not guaranteed to be free from error or omission. Heritage NSW and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omissions.

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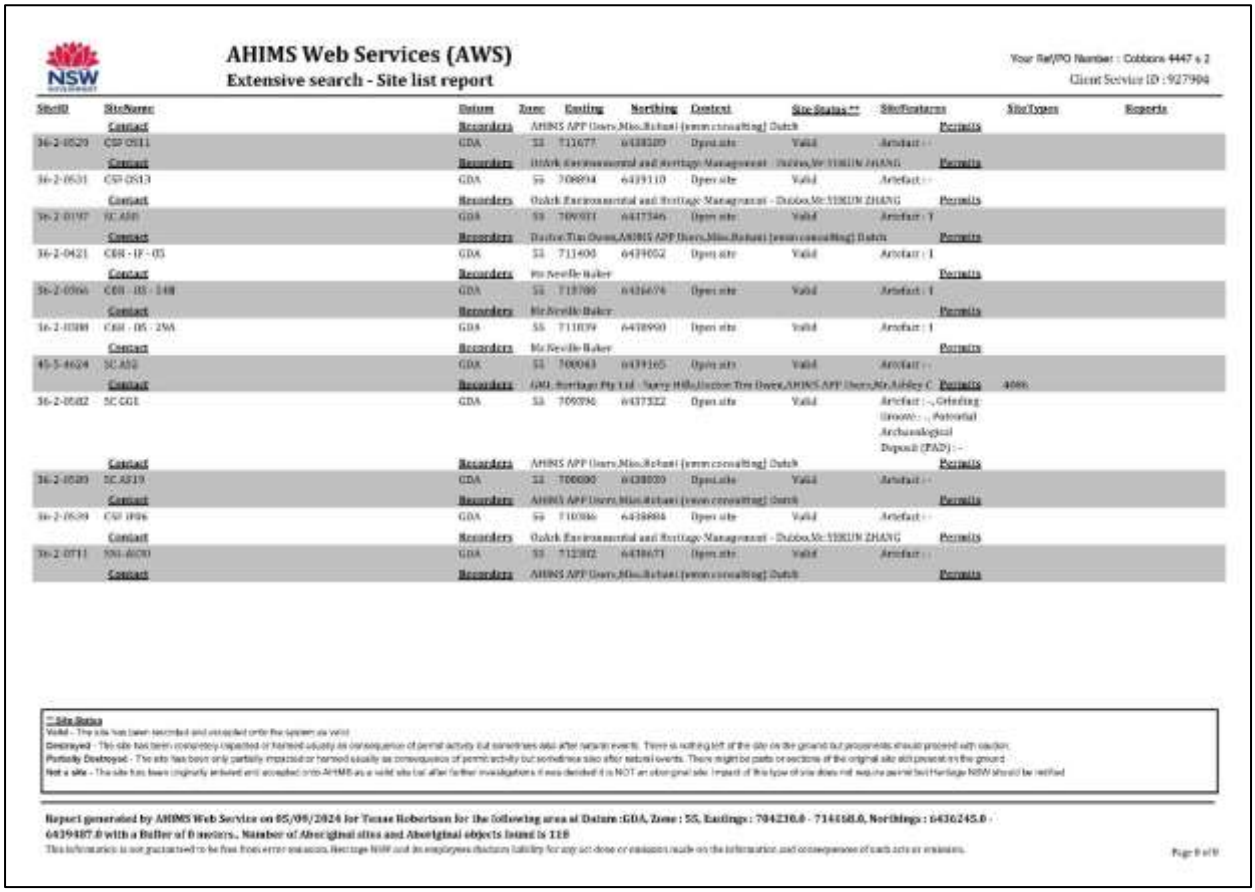

AHIMS Web Services (AWS)
Extensive search - Site list report

Your Ref/PO Number : Cobbora 4447 s 2
Client Service ID : 927904

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	Recorders	AHIMS APP Users,Miss.Rohan (emm consulting) Dutch					Permits		
36-2-0529	CSP 0511	GDA	55	711677	6438589	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIBIN ZHANG					Permits		
36-2-0631	CSP 0513	GDA	55	708894	6439110	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIBIN ZHANG					Permits		
36-2-0197	SC A00	GDA	55	709931	6437346	Open site	Valid	Artefact : 1		
	Contact	Recorders	Dr Tim Owen,AHIMS APP Users,Miss.Rohan (emm consulting) Dutch					Permits		
36-2-0421	CBR - IF - 05	GDA	55	711400	6439052	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0366	CBR - IS - 148	GDA	55	713780	6436676	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
36-2-0389	CBR - IS - 25A	GDA	55	711839	6438960	Open site	Valid	Artefact : 1		
	Contact	Recorders	Mr Neville Baker					Permits		
45-5-4624	SC A02	GDA	55	708043	6439165	Open site	Valid	Artefact : -		
	Contact	Recorders	GML Heritage Pty Ltd - Surry Hills,Doctor Tim Owen,AHIMS APP Users,Mr Ashley C					Permits	4000	
36-2-0502	SC GG1	GDA	55	709396	6437322	Open site	Valid	Artefact : -, Grinding Groove : -, Potential Archaeological Deposit (PAD) : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohan (emm consulting) Dutch					Permits		
36-2-0589	SC AS19	GDA	55	708000	6438020	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohan (emm consulting) Dutch					Permits		
36-2-0639	CSP 0936	GDA	55	710986	6438884	Open site	Valid	Artefact : -		
	Contact	Recorders	OzArk Environmental and Heritage Management - Dubbo,Mr YIBIN ZHANG					Permits		
36-2-0711	SSS-AS30	GDA	55	712302	6438671	Open site	Valid	Artefact : -		
	Contact	Recorders	AHIMS APP Users,Miss.Rohan (emm consulting) Dutch					Permits		

** Site Status
Valid - The site has been recorded and accepted onto the system as valid
Destroyed - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but proponents should proceed with caution.
Partially Destroyed - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground.
Not a site - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified

Report generated by AHIMS Web Service on 05/09/2024 for Tonae Robertson for the following area at Datum :GDA, Zone : 55, Eastings : 704230.0 - 714160.0, Northings : 6436245.0 - 6439487.0 with a Buffer of 0 meters., Number of Aboriginal sites and Aboriginal objects found is 110

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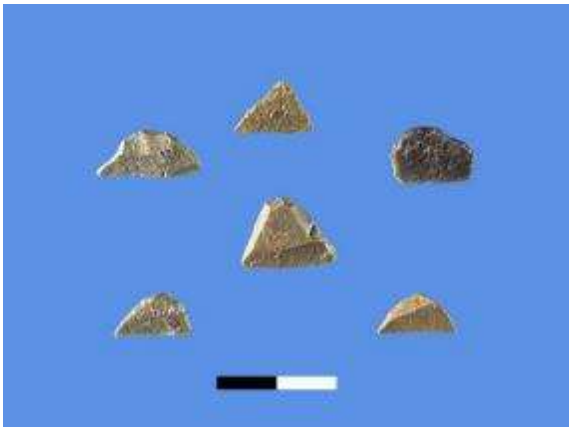
APPENDIX 4: ABORIGINAL HERITAGE: ARTEFACT IDENTIFICATION

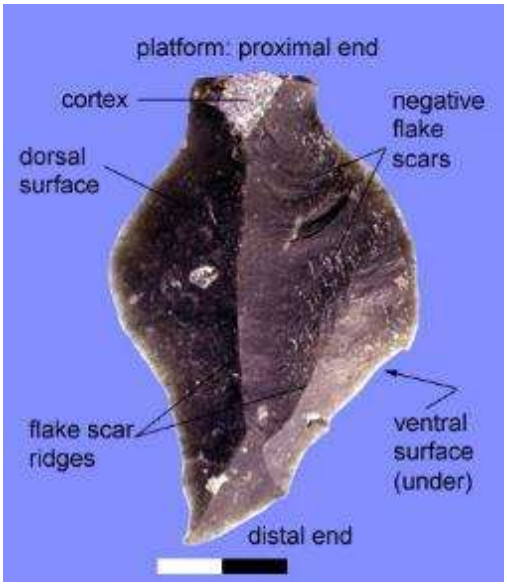
A retouched silcrete flake

A quartz flake



Microliths (scale = 1 cm)

Volcanic flakes



Flake characteristics (scale = 1 cm)

A mudstone/tuff core from which flakes have been removed