

Aboriginal Heritage Due Diligence Assessment

SANDY HOLLOW SOLAR FARM

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ACRONYMS AND ABBREVIATIONS

AHIMS	Aboriginal heritage information management system
AHIP	Aboriginal Heritage Impact Permit
Km	Kilometres
LALC	Local Aboriginal Land Council
M	Metres
NPW Act	<i>National Parks And Wildlife Act 1974 (NSW)</i>
NSW	New South Wales
OEH	(NSW) Office of Environment and Heritage, formerly Department of Environment, Climate Change and Water
PAD	Potential Archaeological Deposit

EXECUTIVE SUMMARY

PROJECT BACKGROUND

NGH Environmental was commissioned by Renewable Management on behalf of Vernon Trust to undertake a Due Diligence (DD) assessment for Aboriginal heritage sites for a proposed solar farm on private property at 1333 Golden Highway, Sandy Hollow NSW.

The project area is located in Sandy Hollow, approximately 130km northwest of Newcastle, and 30km west of Muswellbrook. The area lies within the bounds of the Wonnarua Language group and the Wanaruah Local Aboriginal Land Council. The project area covers only the north-western portion of Lot 12 of Deposited Plan 1042612 (refer to Figure 1: General Project Location).

The proposal involves the development of a solar farm and switching station across the northern section of the lot. The solar farm would include installation of ground-mounted solar photovoltaic (PV) cells, with a capacity of approximately 6 MW, on a tracking system supported on pole driven steel posts. The development site comprises approximately 15 hectares. The solar farm would involve connection to the existing 33kV line (Denman to Merriwa) via a new switching station. The proposed works will involve ground surface disturbances, changes to land uses and the local visual environment.

ABORIGINAL HERITAGE DUE DILIGENCE FIELD ASSESSMENT

The project area was located on a north-south slope elevated at the northern end, immediately to the south of the Golden Highway on private property at Sandy Hollow. The proposed program of works includes the installation and construction of both a solar farm and switching station facility.

The project area is located in a cleared paddock which currently contains low grass cover, some small shrubs, and some mature trees. Upon field inspection, ground exposure was good across the site, ranging from 100% in some areas to around 10% in more vegetated sections. Average visibility across the entire site was good at approximately 40%.

Some mature trees were present within the northern section project area. A number of the trees displayed natural scars, with no cultural markings identified on any of the trees across the site.

No permanent natural water sources were present within the project area, with the closest water source being the Goulburn River, located approximately 800 meters to the south.

Switching station

The switching station area would be located to the east of the solar farm and will include power poles and control panels inside an area of roughly 150 m². There will be underground cabling coming from the solar farm into the substation as well as a 3 - 4 m (approximately 70 m long) wide internal access track.

The station is located immediately south of the Golden Highway on a low slope of <10°. Topographically it appears that this area may have been levelled off, potentially during works to the Golden Highway.

Soils within the station area were dark brown-red and brown-orange silty loams with numerous pebble inclusions. Ground exposure across the substation area was varied, ranging from 15% to 100%. Overall visibility within the station area was good at c.30%. Any existing cuts, exposures and areas of disturbance within the property were visually inspected for any for evidence of eroding and/or subsurface cultural material or Aboriginal objects however no cultural layers or objects were noted.

Pebble inclusions across the site were generally of quartz and mudstone and were <1cm diameter and not suitable for working due to size. One small (<30cm diameter) sedimentary rock outcrop was also noted within the station area but was also not identified as suitable for cultural modification. A number of mature Iron Bark Eucalypt trees were noted within the station area which were examined for cultural markings. It was noted that some natural scars were present on these trees, however there were no trees that displayed cultural markings.

Field examination of the station area has revealed that the area does not naturally contain suitable working materials and is located approximately 1km to the north of the permanent water source of the Goulburn River. The site is located on an area of potential ground disturbance and is not located on a ridgeline or a spur, areas noted for their archaeological sensitivity. The good surface visibility of the site resulted in an overall good analysis of the ground of the area, with no surface finds located. As a result, there is no indication of subsurface potential within the station area.

No Aboriginal places, objects or potential were identified within this sector during the visual inspection.

Solar Farm

The solar farm footprint is located immediately to the south of the Golden Highway and to the west of the proposed switching station area on a north-south slope. The slope across the area is varied and is sloping to the north at an angle of approximately 20° in the northern section of the site, flattening off to be approximately 10° gradient in the southern section.

The solar farm footprint is located within a cleared paddock with low (<10cm) grass cover and a section of mature trees in the north-eastern sector of the site. Of the mature trees present within northern section of the solar farm area, a number of natural scars were noted, however no cultural markings were present.

Water sources present within the solar farm area were limited to two man made dams and a drainage channel located on the southern section of the project area.

Soils across the area ranged from brown-orange silty-sand in the north with some small pebble inclusions (<1cm diameter), to dark brown sandy-silt in the southern section of the site. Ground exposure across the solar farm site was generally around 30%, with good visibility across the site at approximately 40%.

It was noted that the northern-most section of the project area has undergone some ground disturbance with the creation of the Golden Highway, resulting in some areas of cut and fill and effectively reducing any archaeological potential in these areas.

Field examination of the Solar Farm area has revealed that the area is located approximately 800m to the north of the permanent water source of the Goulburn River and does not naturally contain suitable working materials. Within this project area there was one small (<30cm diameter) sedimentary rock outcrop and small pebbles (<1cm diameter) of mainly chert and quartz. The size of these pebbles across the site would not have been conducive for napping. No colluvial boulders or river pebbles available across the site, suggesting that if stone tools had been fashioned at the site then the raw materials would have had to have been imported.

The site contains areas of ground disturbance in the north (Goulburn Highway cut and fill) and the south (two man made dams and drainage channel). It is noted that the gradient of the slope at the location of the proposed solar farm area would not be conducive for Aboriginal camping, reducing potential for surface and subsurface archaeology. The good surface visibility of the site resulted in effective survey coverage of the area, with no surface finds located. As a result, there is no indication of subsurface potential within the Solar Farm area.

No Aboriginal places, objects or potential were identified within this sector during the visual inspection.

IMPACT ASSESSMENT CONCLUSION

The Due Diligence Code of Practice states that if, after the desktop research and visual inspection is completed, it is evident that harm will occur to Aboriginal objects or heritage places, then further and more detailed assessment is required. If, however, the research and inspection conclude that there are no, or unlikely to be any, objects impacted by the proposed activity, then the activity can proceed with caution.

The installation of the solar farm would involve extensive ground disturbance across the project area, which would have the potential to impact upon Aboriginal objects and sites if located here.

Background investigations have determined that historic farming has occurred across the project area, resulting in the substantial clearing of vegetation. None of the mature trees that have been left on site display markings of cultural modification. Sections of the project area have undergone considerable ground disturbance with the creation of two man made dams and a drainage channel in the southern section of the project area, and the building up of the road in the northern section. No suitable materials for making stone artefacts were present within the project area.

The field assessment concludes that the project area does not require further investigation and assessment, as the results of the visual inspection indicate that there are no identified areas of sensitivity. No Aboriginal sites or objects were located during the site survey of the project area and no PADs were identified across the site.

Further investigation or impact assessment is therefore not required.

RECOMMENDATIONS

No new sites or areas of potential were identified during the site inspection of the proposed solar farm at Sandy Hollow, NSW. It is therefore recommended that:

1. The proposed works may proceed with caution;
2. In the event that previously undiscovered Aboriginal finds are identified during any part of the construction, all works in the vicinity of the find must cease and the 'Unexpected Finds Procedure' (Appendix A) should be adhered to, with a qualified archaeologist/heritage consultant called in to inspect the find and provide recommendations on proceeding;
3. In the event that human skeletal remains are identified during any aspect of the proposed construction works, all work in the vicinity of the find must stop and OEH/Police must be notified to inspect the site; and
4. Any alterations to the design footprint for the proposed project area may require further heritage assessment to be undertaken.

1 INTRODUCTION

NGH Environmental was commissioned by Renewable Management on behalf of Vernon Trust to undertake a Due Diligence (DD) assessment for Aboriginal heritage sites for the proposed solar farm on private property at 1333 Golden Highway, Sandy Hollow NSW 2333.

The project area is located in Sandy Hollow, along the Golden Highway approximately 130km northwest of Newcastle, and 30km west of Muswellbrook. The area lies within the Muswellbrook Shire Council Local Government Area (LGA), and the bounds of the Wonnarua Language group. The project area covers only the north-western portion of Lot 12 of Deposited Plan 1042612.

The proposal involves the development of a solar farm and switching station across the northern section of the lot. The solar farm would include installation of ground-mounted solar photovoltaic (PV) cells, with a capacity of approximately 6 MW, on a tracking system supported on pole driven steel posts. The development site comprises approximately 15 hectares. The solar farm would involve connection to the existing 33kV line (Denman to Merriwa) via a new switching station. The proposed works will involve ground surface disturbances, changes to land uses and the local visual environment.

1.2 PROJECT PARTICIPANTS

This Due Diligence assessment was carried out by qualified archaeologists Bronwyn Partell and Ingrid Cook of NGH Environmental. This included background research, field inspection and the completion of this report. The due diligence process does not formally require consultation with Aboriginal community groups. No Aboriginal groups were contacted for this due diligence level assessment. The project area is within the boundaries of the Wanaruah Local Aboriginal Land Council (LALC).

1.3 FORMAT OF THIS REPORT

This report has been drafted in keeping with the sequence of steps identified in the NSW Office of Environment and Heritage's *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (OEH 2010). The Code of Practice provides a five-step approach to determine if an activity is likely to cause harm to an Aboriginal object, as defined by the NSW *National Parks and Wildlife Act 1974*. The steps follow a logical sequence of questions, the answer to each question determines the need for the next step in the process.

The progress through the steps in the Code of Practice is aimed at providing an assessment of the potential for an activity to impact either a known Aboriginal object, or whether it is likely that unrecorded Aboriginal objects are present that may be impacted. The result of the process is aimed at providing the proponent with information about the likelihood that their activity will impact an Aboriginal object and whether an Aboriginal Heritage Impact Permit may be required.

Each section below follows the relevant step outlined in the Code of Practice.

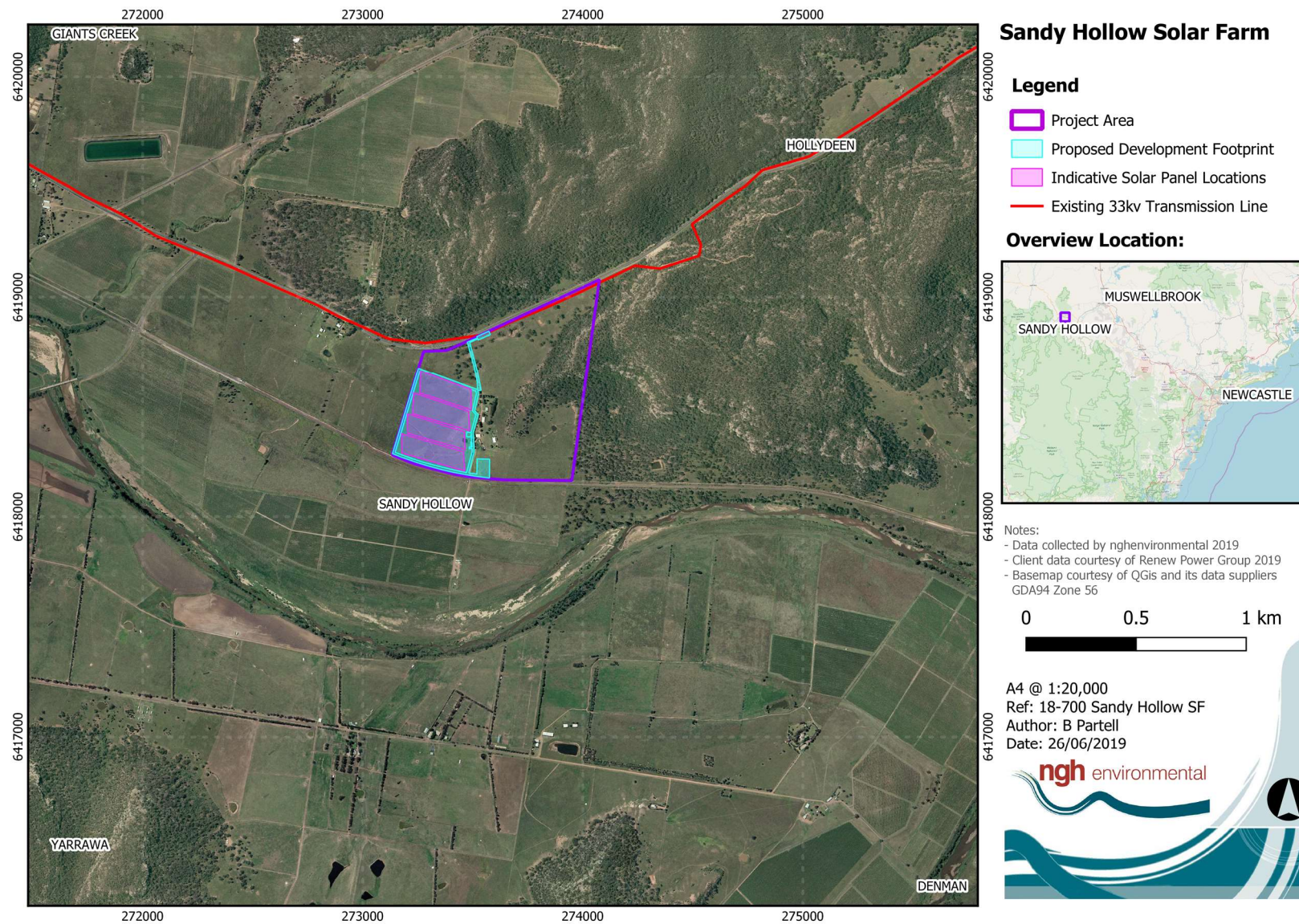


Figure 1. General project location and proposed development footprint, Sandy Hollow Solar Farm.

2 GROUND DISTURBANCE

Step 1. Will the activity disturb the ground surface or any culturally modified trees?

The project area is located across the north-western portion of one lot (Lot 12 DP1042612) of cleared rural land historically used for agricultural activities. The proposed works will disturb the ground surface within the project area and will include the installation of solar panels and infrastructure as well as the construction of a substation located immediately east of the proposed Solar Farm panel locations.

The proposal involves the development of a solar farm and switching station across the northern section of the lot. The solar farm would include installation of ground-mounted solar photovoltaic (PV) cells, with a capacity of approximately 6 MW, on a tracking system supported on pole driven steel posts. The development site comprises approximately 15 hectares (Figure 1). The solar farm would involve connection to the existing 33kV line (Denman to Merriwa) via a new switching station, located immediately to the east of the solar farm area and connected by a short transmission line (Figure 1).

Proposed works for the project would include:

- Solar PV panels (single axis tracking or fixed tilt) and associated infrastructure (supports, underground cabling, inverter assemblies etc). The modules would be in rows which allows a vehicle to pass between them. PV panels would occupy approximately 13 hectares;
- A switching station to the east of the solar array, on the southern side of Merriwa Road (Golden Highway);
- Overhead powerline connection to the proposed station;
- Underground cabling within the PV array and to the station; and
- Infrastructure required to connect to the substation (eg. switchgear; circuit breakers; cable supports etc.). The requirements would be subject to design).

These activities require moderate to significant ground disturbance, the use of heavy machinery and laydown areas. Any Aboriginal sites within the disturbance footprint would therefore be subject to harm. The affirmation that ground disturbance will occur requires the next step in the due diligence process.

3 REGISTER SEARCH AND LANDSCAPE ASSESSMENT

3.1 AHIMS REGISTER SEARCH

Step 2a. Search the AHIMS Database and other information sources

A search of relevant heritage registers for Aboriginal sites and places provides an indication of the presence of previously recorded sites. It is to be noted that a register search is not conclusive, as it reflects only those areas that have been surveyed and that sites recorded are added to the register. As a starting point the search will indicate whether any sites are known within or adjacent to the investigation area. The Aboriginal Heritage Information Management System (AHIMS) is maintained by OEH and provides a database of Aboriginal heritage sites registered previously. The results of the search are valid for 12 months for the purposes of a due diligence level assessment.

On 19 March 2019 a search of the AHIMS database was undertaken from Latitude 32.3895, Longitude 150.5221, to Latitude 32.3175, Longitude 150.6363 with a Buffer of 1km, centred on the study area (an area of approximately 12kmx11km. The AHIMS Client Service Number was 407543. There were 47 Aboriginal sites recorded within this search area and no declared Aboriginal Places. Table 1 below shows the breakdown of site types and Figures 2 and 3 show the location of the AHIMS sites in relation to the project area.

Table 1. Breakdown of previously recorded Aboriginal sites in proximity to the project area.

Site Type	Number
Open Camp site (Artefact)	5
Isolated find (Artefact)	1
Artefact	9
Artefact; Burial, Aboriginal Ceremony and Dreaming	1
Shelter with Deposit (Artefact)	1
Artefact; Potential Archaeological Deposit (PAD)	21
Potential Archaeological Deposit (PAD)	1
Artefact; Ochre Quarry	1
Potential Artefact Deposit (PAD); Modified Tree (Carved or Scarred)	1
Habitation Structure; Potential Archaeological Deposit (PAD)	1
Artefact; Habitation Structure; Potential Archaeological Deposit (PAD)	2
Habitation Structure	3
TOTAL	47

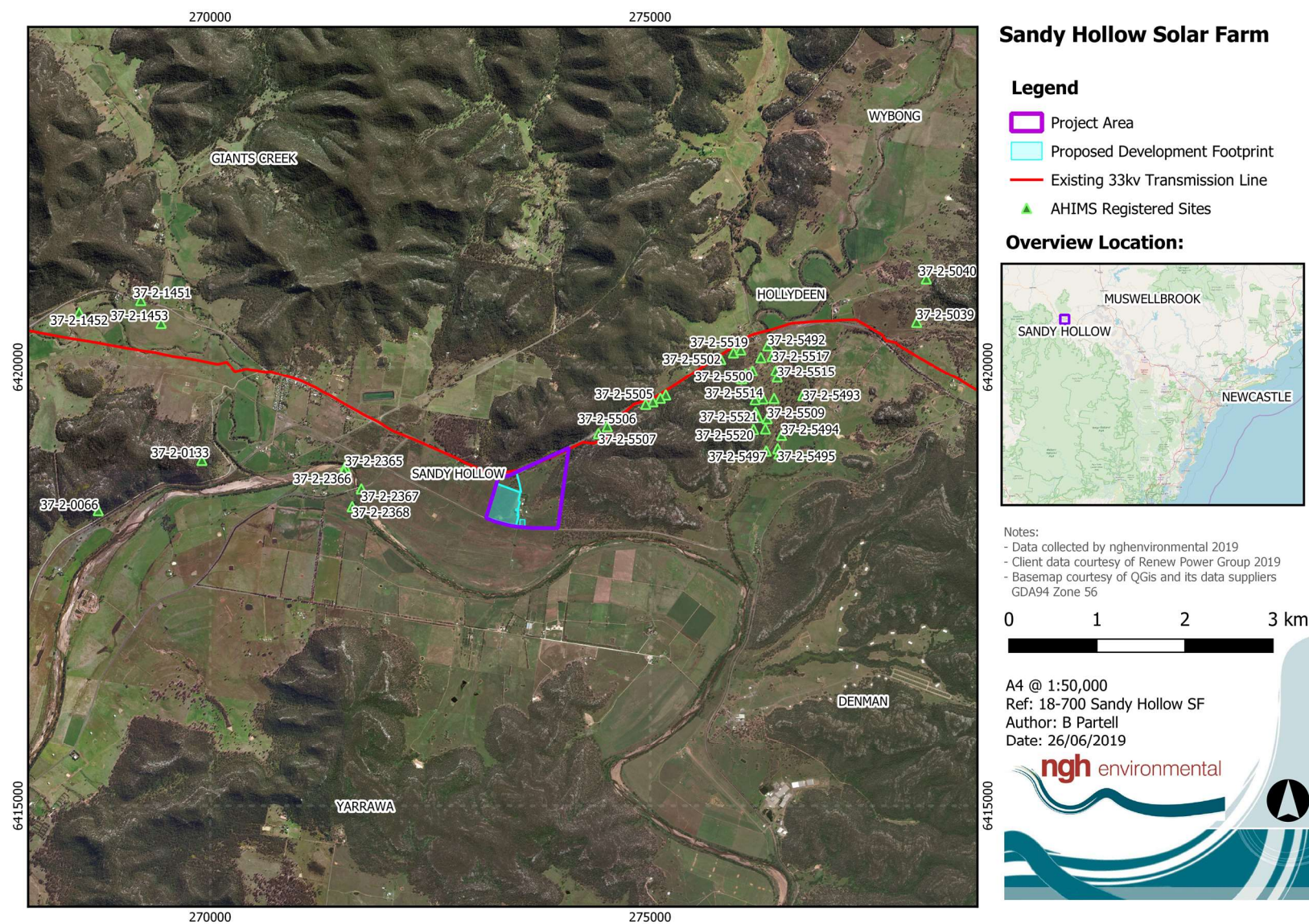


Figure 2. Results of AHIMS search surrounding the project area. An area of approximately 10kmx10km is represented in the map.

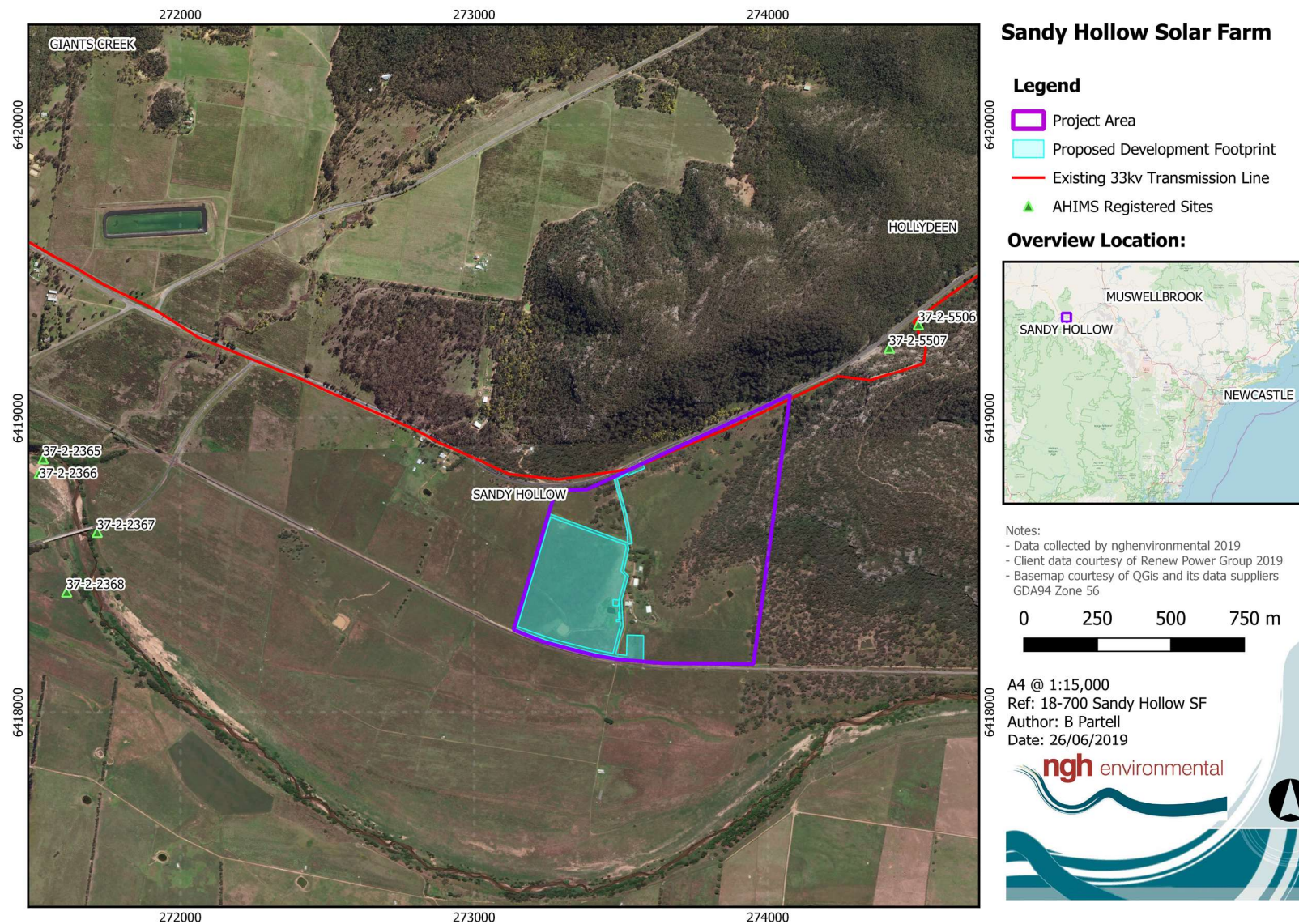


Figure 3. Results of AHIMS search surrounding the project area. An area of approximately of 3kmx3km is represented in the map.

None of the archaeological sites currently recorded on AHIMS are located within or directly adjacent to the project area however, one site is located within 1km of the project area and is detailed in Table 2, below.

Table 2. Sites within 1km of project area.

Site Number	Site Name	Site Type	distance to project (m)	Site Status on AHIMS
37-2-5507	Artefact Scatter with PAD 9	Artefact and PAD	930m north-east	Valid

3.2 LOCAL ARCHAEOLOGICAL STUDIES

Aboriginal people have occupied what we now know as the Australian continent for at least 40,000 years and perhaps 60,000 years and beyond. In the Hunter Valley region where the project area is located, gullies, creeks, rivers, floodplains, woodlands and grasslands provided rich and varied resources in the area. The coming of European Settlers to the Hunter region had a major effect on the local Aboriginal population. European diseases significantly reduced the Aboriginal population in the area and as land occupied by the European settlers in the region from the 1830s onwards, Aboriginal people lost their hunting grounds, leading to sheep and cattle being killed for food by the Aboriginal people which often resulted in violent retaliation from the colonial settlers.

Archaeological investigation of the Muswellbrook Shire LGA is widespread and has predominately focused on mining related projects. There are relatively few archaeological reports available within close proximity to the project area, and as a result, NGH has included a number of reports from the wider Muswellbrook Shire LGA to provide context to this report.

A number of reports were not available on the AHIMS website, and we have therefore relied upon previous archaeological summaries for some reports.

3.2.1 ANU Archaeological Consultancies.1985. An Archaeological Survey of the Bayswater to Mt Piper Transmission Line. Report to NSW National Parks and Wildlife Services.

Between May 1983 and August 1984, the Electricity Commission of New South Wales undertook the construction of a 500KV transmission line from Bayswater, south of Muswellbrook in the Hunter Valley, to Mount Piper, near Lithgow on the western edge of the Blue Mountains (approximately 222km length). A section of this transmission line route is approximately 5-6km to the north of the Sandy Hollow Solar Farm.

ANU Archaeological Consultancies (1985) was contracted by NSW Parks and Wildlife Services to undertake an archaeological investigation of the proposed transmission line. Field investigations were undertaken in a series of stages as sections of the route plan became available. Sections of the transmission line route 70 meters wide and of varying lengths were allocated to a number of different archaeologists to survey. ANU Archaeological Consultancies documented and collated the findings of each survey.

The topography along the transmission line route was generally varied and included gently rounded hills, shallow valleys, flat alluvial terraces, cliff-walled valleys, steep inclines and areas of undulating plateau. The majority of the vegetation along the transmission line close to the Sandy Hollow project area had been previously cleared or thinned for agricultural purposes, with the remaining vegetation consisting of savannah woodland of box, gum and ironbark.

Ground surface visibility during the surveys was generally poor. A total of 44 Aboriginal archaeological sites were located in the survey of the transmission line. These sites consisted of 41 open stone artefact scatters, 2 rock

shelters with occupation deposit, and 1 complex of axe grinding grooves (over 50 linear grooves). In addition, 24 isolated finds and 16 rock shelters which were thought likely to contain archaeological debris were recorded.

Analysis of the location of artefacts and sites found during the survey revealed that 31 (76%) of the 41 open stone artefact scatters located along the transmission line were found to occur on creek flats, along the banks of creeks, at the foot of slopes adjacent creeks or on gentle hillslopes above creeks. Ten sites (24%) were found on hilltops and along ridges, in saddles and on knolls. It was found that 27 (66%) of the sites were located within 50 meters of water, 6 (15%) were located within 50-100 meters of water, 5 (12%) were within 100-200 meters of water, and 3 (7%) were recorded more than 200 meters from water.

Artefacts included within the scatters included backed blades, bipolar pieces, flakes, flake pieces and cores. Flakes and flaked pieces made up the majority of the artefacts contained within the open artefact scatters (88.7%). Raw materials used for artefacts included chert, fine grained acid volcanic rock, fine grained basic rock, indurated mudstone, quartz, quartzite, and silcrete.

The isolated finds recorded during the survey were located on either gentle slopes above creeks or along creek banks and included flakes and cores, mostly manufactured from mudstone.

The majority of the open artefact scatters and isolated finds located along the transmission line were found in disturbed contexts suggesting the possibility of movement and dispersion of artefacts. Most of the disturbance had been caused by clearing, ploughing, grazing and subsequent erosion.

Comparative analysis to the Sandy Hollow project area

Part of the transmission line route runs approximately 5-6km north of the Sandy Hollow project area within the same Wonnarua Language group. It was found in the analysis of the transmission line that artefacts were predominately found along creek beds, a landform unit that does not occur within the Sandy Hollow project area.

The relevance of the transmission line study is limited to the (relative) close proximity within the same language group.

3.2.2 Rich, E. R. (1995b). Mt Pleasant Coal Lease, Near Muswellbrook, NSW. Archaeological Survey for Aboriginal Sites.

Rich (1995b) undertook an archaeological survey of the Mt Pleasant coal lease, extending from Wybong Road in the south to Dorset Road in the north, in some areas approximately 7km north-east of the Sandy Hollow project area. A total of 327 Aboriginal sites were recorded comprising 180 isolated artefacts and 93 artefact scatters (the remaining site types are not provided). In total 1,408 artefacts were recorded including backed blades and associated knapping debris, cores, a variety of retouched and/or used flakes and pieces, and larger pebble tools and axes of igneous materials. Silcrete was the predominant raw material utilised across the study area (58%) followed by mudstone 28%, igneous 5%, quartz 3%, and other 7%.

Rich (1995) found artefact densities along gullies tended to be higher than on hill slopes and ridges. No artefacts were found on the slopes of Mt Pleasant above 300m and none was found on the Hunter Flats. Variation in artefact density across the lease was attributed to a variety of factors including the effects of land disturbance.

Comparative analysis to the Sandy Hollow project area

A section of the Mount Pleasant Coal Lease project is located approximately 7km north of the Sandy Hollow project area, within the same Wonnarua Language group. Artefact densities were found to be higher in gullies compared

to hillslopes and ridges. The Sandy Hollow project area is located on a slope, an area identified within the Mount Pleasant Coal Lease as having reduced artefact density.

3.2.3 Kuskie (2000a) An Aboriginal Archaeological Assessment of the Proposed Mount Arthur North Coal Mine, Near Muswellbrook, Hunter Valley, New South Wales.

Kuskie (2000a) conducted an assessment of the Mt Arthur North lease area prior to proposed mining activities, approximately 20km east of the Sandy Hollow project area. The assessment examined 244 ha (6.6%) of the total Mt Arthur North lease area (3,700 ha). Kuskie (2000a) based the survey on a system of Archaeological Terrain Units (ATUs) i.e. landscape divisions based on a combination of landform elements and slope class. Archaeological survey areas were segments of an ATU that were surrounded on all sides by a different ATU. Kuskie recorded artefactual materials in terms of *sites* (defined as the presence of one or more artefacts in a survey area – when an artefact is found in a survey area the whole survey area is regarded as a site) and *site loci* (spatially separate locations of evidence within a site).

A total of 17,330 stone artefacts were identified during this assessment. The majority of artefacts (86%) were recorded on surfaces exposed by sheet erosion. Artefacts were also noted in areas of stream bank erosion, gully erosion, rill erosion, dense vegetation, aggrading surface deposits and modified surfaces. Overall, artefact densities were relatively low throughout the Study Area, despite artefacts being identified within a virtual continuum. All the landforms contained archaeological materials.

Although sites were widely distributed throughout the Mt Arthur North landscape, Kuskie (2000a) noted several patterns in artefact distribution. Artefacts occurred at substantially higher densities within the valley flat landform element, on level to very gently inclined slopes, within 50 m of a watercourse (particularly if it was a higher order stream) and on level to very gentle valley flat ATU. Artefacts were widely distributed on ridge crests and spurs but in lower densities than expected. Artefact densities were higher than expected on simple slopes within all classes of slope (upper, mid, lower) and aggrading surfaces.

The recorded assemblage contained 37 different types of artefacts, dominated by flakes (53.4%), microblades (16%) and flaked portions (15.1%). The primary raw materials utilised were silcrete (51%) and IMT (34.6%), although 13 other stone materials were also identified.

Comparative analysis to the Sandy Hollow project area

The Mount Arthur North Coal Mine is located approximately 28km east of the project area, a considerable distance from the Sandy Hollow project area. This area is still within the Wonnarua Language group. Sites were located across a range of landforms, including higher than expected numbers on slopes, the landform within the Sandy Hollow project area.

3.2.4 Kuskie & Clarke (2004) Salvage of Aboriginal Heritage Sites in the Mount Arthur North Coal Mine Lease, Hunter Valley, New South Wales.

As a result of the Mt Arthur North Aboriginal heritage assessment undertaken by Kuskie (2000a), Kuskie and Clarke (2004) conducted a program of salvage excavation in 2004. The salvage excavations were conducted in four phases comprising of mechanical test scrapes, broad-area hand excavations, mechanical surface scrapes and localised hand excavations within the surface scrapes. A combined total of 38ha of surface scrapes were completed, resulting in a total of 138.7m³ of soil being excavated and sieved. In addition, a total of 779.75m² was excavated by hand. In all, the excavations retrieved a total of 32,866 stone artefacts with a total of 43 stone artefact types. Kuskie and Clarke (2004) identified a total of six activity categories including non-specific stone flaking, bipolar

flaking, microblade production, backing retouch of microliths, loss or intentional discard of microliths and loss or intentional discard of non-microlith tools.

A total of 16 discrete stone materials were identified with silcrete being the most common (59.4%) followed by tuff or IMT (indurated mudstone/tuff) (19.4%) and then, porcellanite (10%), quartz (4.3%) and petrified wood (3.5%). Other raw materials recorded (at much lower frequencies) included quartzite, chert, chalcedony, basalt, sandstone, volcanic glass, glass, ochre and two unidentified types of volcanic stone. Stone artefacts occurred at varying densities throughout the landscape and within the soil profile.

Comparative analysis to the Sandy Hollow project area

The Mount Arthur Salvage Project is located approximately 28km east of the project area, a considerable distance from the Sandy Hollow project area. This area is still within the Wonnarua Language group. Sites were located across a range of landforms, including slopes.

3.2.5 Junburra Aboriginal Consultancy Services (2006) Aboriginal Cultural Heritage Assessment for “Giants Creek Vineyard” Rural Land Sub-Division at Sandy Hollow. Report to John Flood and Co.

Junburra Aboriginal Consultancy Services (2005) undertook an Aboriginal Cultural Heritage Assessment report for the subdivision of farming land in Sandy Hollow, NSW, approximately 5 km to the west of the Sandy Hollow solar farm project area. The project area had been subject to past clearing as well as the establishment of roads, power and water dams and visibility across the site varied from 50-100%.

Four large Aboriginal heritage sites were located within the study area in close proximity to the Goulburn River. Of the 1,379 artefacts recorded, 1,180 were mudstone artefacts, 131 chert artefacts, 56 silcrete artefacts, 9 quartz artefacts, 2 basalt artefacts, and 1 petrified wood artefact were recorded.

Comparative analysis to the Sandy Hollow project area

The subdivision at land 5km to the west of the Sandy Hollow project area is located in (relative) close proximity to the project area within the same language group. Four large sites were found along the Goulburn River, a landform that is not within the Sandy Hollow project area.

3.2.6 Archaeological Risk Assessment Services (2006) Aboriginal Archaeology & Cultural Heritage Assessment Report of Drayton Mine Extension. Report to Anglo Coal (Drayton Management) Pty Ltd.

Archaeological Risk Assessment Services Pty Ltd (ARAS) (2006) was engaged by Anglo Coal to undertake an assessment of the Aboriginal archaeology and cultural heritage values associated with the proposed Drayton Extension Project, approximately 22km east of the project area. Over 80% of the vegetation across the site had been cleared for agricultural purposes and mining.

The assessment located and recorded 39 sites within the project area, with a total number of recorded Aboriginal objects being 480. Of the 39 sites, 22 were open stone artefact scatters of varying densities, and 17 were individual stone artefact isolated finds. Materials included yellow rhyolitic tuff and red rhyolitic tuff material (55%), followed by red and yellow silcrete (25%), porcellanite (14%) and quartz (4.6%). Artefact types consisted mainly of flakes, with some cores. Sites were located across a range of landforms including ridge crests, upper slopes, lower slopes, drainage channels and simple slopes.

Comparative analysis to the Sandy Hollow project area

The Drayton Extension Project is located 22km east of the project area, a considerable distance from the Sandy Hollow project area. This area is still within the Wonnarua Language group. Sites were located across a range of landforms including ridge crests, upper slopes, lower slopes, drainage channels and simple slopes. The Sandy Hollow project area is similarly located on a slope.

3.2.7 Myall Coast Archaeological Services (2007) Aboriginal Cultural Survey Stage 3 Mount Pleasant.

Myall Coast Archaeological Services (2007) undertook archaeological survey for the Mt Pleasant Coal Project Stage 3. A total of 346 Aboriginal archaeological sites were recorded. The total number of individual artefacts recorded was 1802, consisting primarily of silcrete (n= 1202), IMT (n=479), chert (n=52), quartz (20) petrified (18), porcellanite (14) and basalt (17).

Comparative analysis to the Sandy Hollow project area

The Mount Pleasant Coal Project Stage 3 is located 25km north-east of the project area, a considerable distance from the Sandy Hollow project area. This area is still within the Wonnarua Language group.

3.2.8 Umwelt (2008) Mt Arthur Underground Project.

Umwelt (2008) assessed the Mt Arthur Underground and examined approximately 1,233 ha (32.7%) of the Mt Arthur Underground Project Boundary (3,800 ha), located approximately 25km to the east of the Sandy Hollow project area. The assessment identified a total of 77 sites. Of these sites, 76 were occupation sites (46 stone artefact scatters and 30 isolated artefacts) and one was a scarred tree site. The number of artefacts recorded within each site ranged from 1 to 2,768.

The recorded assemblage contained 11 different types of artefacts, dominated by flakes and broken flakes. The primary raw materials utilised were IMT (indurated mudstone/tuff), followed by silcrete, with lower utilisation of porcellanite, quartz, chert, quartzite, hornfels, basalt, silicified sandstone, petrified wood, chalcedony, tuff and river pebbles (manuports) in site loci with larger assemblages.

The majority of recorded artefacts were identified on surfaces exposed by sheet erosion. Artefacts were also identified in areas of stream bank erosion, gully erosion, rill erosion, dense vegetation, aggrading surface deposits and modified surfaces.

Overall, artefact densities were relatively low throughout the Study Area, although densities were markedly higher on the spur crests and, to a lesser extent, on level to very gentle slopes.

Comparative analysis to the Sandy Hollow project area

The Mt Arthur Underground project is located approximately 25km east of the project area, a considerable distance from the Sandy Hollow project area. This area is still within the Wonnarua Language group.

3.2.9 Scarp (2009) Cultural Heritage Investigations Stage 5, Mt Pleasant Mine, Hunter Valley.

Scarp undertook archaeological survey for the Mt Pleasant Coal Project Stage 5. A total of 136 Aboriginal archaeological sites were recorded including 20 artefact scatters, 113 isolated artefacts and 3 possible scarred trees. The total number of artefacts recorded was 256, of which, 154 were flakes with 52 being retouched, and 48 were cores. Silcrete was the dominant raw material accounting for over 50% of the assemblage, with IMT

(indurated mudstone/tuff) accounting for 20%. Basalt, other volcanic material, quartz, quartzite, chalcedony, petrified wood and sandstone comprising the remainder of the assemblage. Scarp suggests lack of evidence for large or complex sites within the study area, combined with small assemblage numbers with high frequencies of retouched and worn artefacts, supports the proposition that use of the area was restricted to temporary or short term occupation.

Comparative analysis to the Sandy Hollow project area

The Mount Pleasant Coal Project Stage 5 is located 25km north-east of the project area, a considerable distance from the Sandy Hollow project area. This area is still within the Wonnarua Language group.

3.2.10 AECOM Australia Pty Ltd (2013) Bengalla Continuation of Mining Project: Aboriginal Archaeology and Cultural Heritage Impact Assessment. Report for Hansen Bailey Environmental Consultants.

AECOM Australia Pty Ltd (AECOM) was contracted by Hansen Bailey Environmental Consultants (Hansen Bailey) to undertake an Aboriginal archaeological and cultural heritage impact assessment for the Bengalla Continuation of Mining project. The project was located within the Muswellbrook Shire Council area, in the Upper Hunter Valley of NSW, approximately 21km north-east of the Sandy Hollow project area. The area of assessment for the continuation of the mine included a 1,356 ha area.

The project area was dominated by slopes of less than five degrees, with the gullies in the lower reaches of ephemeral streams draining into the Hunter River along with the ridge tops generally sloping at no more than two and a half degrees. The Hunter River alluvial floodplain was located on the southern boundary of the project area. Historically, land within the project area was impacted by processes related to agriculture, including land clearing for grazing. However, small patches of remnant woodland vegetation remained in the western portion of the Project Boundary that provides habitat for the majority of local flora and fauna.

235 previously recorded sites have been identified within the Study Area. These were comprised of 196 AHIMS sites and 39 sites identified within previous reports. Of these, approximately 121 sites, largely comprising of isolated artefacts, were not located during the survey due to significant grass cover and/or geomorphic processes.

Approximately 1098 individual artefacts were recorded during the archaeological survey from a combination of existing AHIMS sites, sites identified in previous reports and newly recorded sites. Artefacts were identified across all landforms with varying densities. A total of 54 newly recorded archaeological sites were identified within the study area comprising 29 artefact scatters, 25 isolated artefacts, 4 scarred trees, and 1 stone quarry.

The majority of the artefacts were recorded within 50 meters of a watercourse, with site numbers declining when located more than 100 meters from water. Artefact distribution varied across landforms, with the majority of artefacts found on lower slopes (n = 885, 81%), a landform generally associated with creek lines. Relatively few artefacts were located on upper slopes or hilltops, crests or ridges.

Silcrete was the dominant raw material overall, accounting for the 67.1% (n = 737) of the total assemblage. At 21.1%, IMT (indurated mudstone/tuff) was the second most common raw material, followed by quartz (3.5%, n = 38), 'other' materials (2.6%, n = 28), chert (2.2%, n = 24), quartzite (1.5%, n = 17), porcellanite (0.7%, n = 8), volcanic rock (0.6%, n = 7), petrified wood (0.5%, n = 6) and chalcedony (0.1%, n = 1).

Comparative analysis to the Sandy Hollow project area

The Bengalla Mining Project is located 21km east of the project area, a considerable distance from the Sandy Hollow project area. This area is still within the Wonnarua Language group. The majority of sites were located

within close proximity (within 100m) of a watercourse, a landform that is not within the Sandy Hollow project area.

3.2.11 MACH Energy (2017) Mount Pleasant Operation: Aboriginal Heritage Management Plan. Report for Hansen Bailey Environmental Consultants.

The Mount Pleasant Operation (MPO) area is located in the Upper Hunter Valley of New South Wales (NSW), north-west of Muswellbrook, approximately 10km north of the Sandy Hollow project area. MACH Energy prepared an Archaeological Heritage Management Plan (20017) to describe the management of Aboriginal heritage associated with the construction and operation of the MPO. A total number of sites to be salvaged was 1,382, including open artefact scatters, scarred trees, and stone sources.

Comparative analysis to the Sandy Hollow project area

The Mount Pleasant Operation is located 25km north-east of the project area, a considerable distance from the Sandy Hollow project area. This area is still within the Wonnarua Language group.

3.2.12 Predictive Model

There are no previous predictive models for the area of Sandy Hollow, however a list of predictions can be made based upon the results of the local archaeological investigations outlined above;

- Sites are most commonly found close to watercourses;
- Potential for sites to occur at a greater distance than 200m from a watercourse is low;
- Distribution varies across landforms, with the majority of artefacts located on lower slopes (a landform generally associated with creek lines);
- There is less potential for artefacts to be located on upper slopes, hilltops, crests or ridges; and
- Artefact densities along gullies are likely to be higher than along hill slopes and ridges.

With consideration of the environment of the Sandy Hollow Solar Farm project area, a working predictive model for the project area has been created:

- Artefacts with associated PADs are the most common type of site in the area;
- The majority of scatters will occur in association with creek lines;
- Scatters are also likely to occur on hill slopes and ridge crests, often at a vantage point over the surrounding landscape;
- Stone artefacts will be the most likely site type to occur within the project area;
- Isolated finds can be identified across all varieties of landscapes; and
- Scarred trees may only occur where original remnant vegetation remains.

3.3 LANDSCAPE ASSESSMENT

Step 2b. Are there undisturbed landscape features likely to contain Aboriginal objects?

The Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales outlines a range of landscape features that have higher potential to contain Aboriginal objects. It is also necessary to consider whether there are landscape features of undisturbed land that may contain Aboriginal objects. These include land that is:

- within 200 m of water,

- located within a sand dune system,
- located on a ridge top, ridge line or headland,
- located within 200 m below or above a cliff face, or
- within 20 m of a cave, rock shelter or cave mouth.

There is only one site recorded within one kilometre of the project area, recorded 930m to the north-east of the project area. This data is indicative of smaller focused investigations sporadically across the region, largely driven by development and in this instance the quarries within the Muswellbrook Shire. No previous archaeological assessments have been undertaken within the project area.

Based upon the currently recorded AHIMS sites in the area, and predictive modelling of the region, there is potential for open camp site locations, artefact scatters, isolated artefacts, PADs, and culturally modified trees where old growth trees remain across the Muswellbrook Shire.

Whilst the project area does not meet the OEH criteria for a sensitive landscape (*The Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales, 2010*), it was agreed to undertake a site visit as part of a cautious and best practice approach as the nature of the works being undertaken at this site will involve moderate to severe ground disturbance which has the potential to impact upon any Aboriginal sites or objects present.

Description:

The project area lies within the central western part of the Hunter region and has been used primarily for grazing on native and improved pasture and cropping. The landscape includes gently undulating plain to undulating rises comprised of drainage plains and foot slopes on Triassic and Permian sedimentary rocks and derived colluvium in the central western part of the Hunter Region.

Geology:

The geology of the Sandy Hollow site includes colluvial materials that are largely derived from Narrabeen Group sedimentary rocks consisting of pebbly lithic-quartz to quartz sandstone, red-brown to green mudstone and sporadic lenses of quartz paraconglomerate. Bedrock rises consist of Permian Wollombi Coal Measures comprised of coal seams, tuffaceous claystone, siltstone, sandstone, and conglomerate.

Also present is the medium to coarse-grained sandstone of the Watts Sandstone and Permian undifferentiated sediments consisting of coal seams, claystone, siltstone, sandstone, conglomerate, tuff and shale.

Topography and vegetation:

The topography of the project area includes gently inclined foot slopes and undulating rises with slopes <10%, local relief <30 m and elevation 100 - 300 m. This unit is geomorphologically complex with deep gravelly (quartz) colluvial deposits forming foot slopes and fans derived from the rugged Narrabeen Sandstones upslope intermingled with Permian, bedrock controlled, undulating rises. Foot slopes and fans are usually concave whilst rises are usually convex. Drainage is primarily via sheet flow but can become concentrated into gullies.

Goulburn River, a permanent water source, is present approximately 700meters to the south of the project area.

Vegetation within the area has been predominately cleared in major valleys, with native vegetation mainly surviving on some surrounding slopes. Vegetation of the area consists of dry sclerophyll forest or woodlands with *Eucalyptus melliodora* (yellow box), *E. tereticornis* (forest red gum), *E. crebra* (narrow-leaved ironbark), *Callitris endlicheri* (black cypress pine) and *Angophora floribunda* (narrow-leaved apple).

Soils:

Soils within the area include moderately deep to deep (50 - <150 cm), rapidly drained Tenosols and Rudosols (Earthy Sands and Siliceous Sands), which occur adjacent to the Lees Pinch (lpt) soil landscape. Moderately deep to deep

(50 - <150 cm), well-drained Red Kandosols (Red Earths) occur below some sandstone outcrops. Very deep (150 - 500 cm), imperfectly drained Red, Yellow and Brown Sodosols (Red Brown Earths, Red and Yellow Solodic Soils) are common on foot slopes.

This soil landscape has areas of high run-on and is prone to sheet erosion if the surface is disturbed. If water becomes concentrated and the dispersible sodic subsoils are exposed, gully erosion is likely to occur. Localised salinity may also be present.

The soil type within the project area is the Sandy Hollow soil, however the area is close to two other soil profiles located to the north (Wingen Maid soil) and south (Goulburn River soil).

Table 3. Soil type and description

Soil Type	Description
Sandy Hollow (syu)	Soil profile within the project area. <u>Landscape</u> – Gently undulating plain to undulating rises comprised of drainage plains and foot slopes on Triassic and Permian sedimentary rocks and derived colluvium in the central western part of the Hunter Region. <u>Soils</u> – Moderately deep to deep (50 - <150 cm), rapidly drained Tenosols and Rudosols (Earthy Sands and Siliceous Sands); moderately deep to deep (50 - <150 cm), well-drained Red Kandosols (Red Earths); and very deep (150 – 500 cm), imperfectly drained Red, Yellow and Brown Sodosols (Red Brown Earths, Red and Yellow Solodic Soils). <u>Limitations</u> – Localised recharge zone, localised discharge zone, localised salinity hazard, localised gully erosion hazard, widespread sheet erosion hazard, widespread high run-on, localised poor drainage, widespread seasonal waterlogging, localised flood hazard.
Wingen Maid (wxy)	To the north of the project area. <u>Landscape</u> – Rugged rolling hills to very steep hills on Triassic Narrabeen Group sediments in the Hunter Region. Slopes 25 - 80%, local relief <120m (total relief to 270m), elevation 370 - 650 m. Mostly uncleared woodland and open forest on exposed slopes, with wet forest in sheltered sites. <u>Soils</u> – Very shallow to shallow (<25 - <50 cm), well to moderately well-drained Clastic Rudosols (Lithosols) and Orthic Tenosols (Earthy Sands); moderately deep (50 - <100 cm), moderately well-drained Grey Tenosols and Dermosols (minimal Brown Podzolic Soils); and shallow (25 - 50 cm), poorly drained Clastic Rudosols (Alluvial Soils). <u>Limitations</u> – widespread shallow soils, widespread poor moisture availability, widespread noncohesive soils, widespread steep slopes, widespread rock outcrop hazard, widespread rockfall hazard, widespread mass movement hazard, widespread foundation hazard, widespread recharge zone, widespread sheet erosion hazard, localised high run-on.
Goulburn River (grp)	To the south of the project area. <u>Landscape</u> – Level plain to gently undulating plain comprised of narrow floodplains and moderately broad levees and terraces on Quaternary alluvium of the Goulburn River and its tributaries in the west of the Hunter Region. <u>Soils</u> – Shallow (25 - <50 cm), rapidly drained Stratic Rudosol (Alluvial Soils) occur on the floodplains, often with gravel/cobble lenses at depth. Levees have deep (100 - <150 cm), rapidly drained Stratic Rudosols (Alluvial Soils). Occasional giant (>500 cm), moderately well-drained Black and Brown Dermosols (Chernozems) occur on upper terraces.

Soil Type	Description
	<u>Limitations</u> – localised shallow soils, localised non-cohesive soils, localised steep slopes, localised foundation hazard, widespread productive arable land, widespread recharge zone, localised gully erosion hazard, localised streambank erosion hazard, widespread high run-on, localised flood hazard.

4 IMPACT AVOIDANCE

Step 3. Can any AHIMS listed objects, or landscape features be avoided?

There are no Aboriginal sites or objects recorded in AHIMS at the proposed location of the solar farm or substation. However, the proposed location has been identified to encompass sensitive landscapes, indicative of archaeological potential.

The desktop assessment has not provided sufficient data to conclusively appraise the archaeological potential of the landscape or the location of any sites. The next step in the process, a visual inspection, must be conducted to properly appraise the presence and potential for Aboriginal sites to occur.

5 DESKTOP ASSESSMENT AND VISUAL INSPECTION

The assessment process is primarily a desktop exercise, using available information such as the AHIMS search results and relevant archaeological reports that have been previously completed in the area. Visual inspection is also required where undisturbed landscape features are present that may contain sites.

A visual inspection of the project area was undertaken on the 27 March 2019 by qualified archaeologists Bronwyn Partell and Ingrid Cook.

5.1 SITE DESCRIPTION

The project area was located on a north-south slope elevated at the northern end, immediately to the south of the Golden Highway on private property at Sandy Hollow. The proposed program of works includes the installation and construction of both a solar farm and substation facility.

The project area is located in a cleared paddock which currently contains low grass cover, some small shrubs, and some mature trees. Upon field inspection, ground exposure was good across the site, ranging from 100% in some areas to around 10% in more vegetated sections. Average visibility across the entire site was good at approximately 40%.

Some mature iron bark Eucalypt trees were present within the northern section project area. A number of the trees displayed natural scars, with no cultural markings identified on any of the trees across the site.

No permanent natural water sources were present within the project area, with the closest water source being the Goulburn River, located approximately 800 metres to the south.

Switching station

The switching station area would be located to the east of the solar farm and will include power poles and control panels inside an area of roughly 150 m². There will be underground cabling coming from the solar farm into the substation as well as a 3 - 4 m (approximately 70 m long) wide internal access track.

The station is located immediately south of the Golden Highway on a low slope of <10°. Topographically it appears that this area may have been levelled off, potentially during works to the Golden Highway.

Soils within the station area were dark brown-red and brown-orange silty loams with numerous pebble inclusions. Ground exposure across the substation area was varied, ranging from 15% to 100%. Overall visibility within the station area was good at c.30%. Any existing cuts, exposures and areas of disturbance within the property were visually inspected for any evidence of eroding and/or subsurface cultural material or Aboriginal objects however no cultural layers or objects were noted.

Small pebble inclusions across the site were generally of quartz and mudstone and were <1cm diameter and not suitable for working due to their size. One small (<30cm diameter) sedimentary rock outcrop was also noted within the substation area but was also not identified as a common resource for cultural modification.

A number of mature iron bark Eucalypt trees were noted within the substation area and were examined for cultural markings. It was noted that some natural scars were present on these trees, however there were no trees that displayed cultural markings.

Field examination of the Substation area has revealed that the area does not naturally contain suitable working materials and is located approximately 1km to the north of the permanent water source of the Goulburn River. The site is located on an area of potential ground disturbance and is not located on a ridgeline or a spur, areas noted

for their archaeological sensitivity. The good surface visibility of the site resulted in effective coverage of the area, with no surface finds located. As a result, there is no indication of subsurface potential within the Substation area. No Aboriginal places, objects or potential were identified within this sector during the visual inspection.



Plate 1. Area of proposed substation facing east. Low, patchy grass cover across the majority of the area. Situated on a north-south slope of less than 10°.



Plate 2. Substation footprint facing west. Orange brown soil and patchy grass cover. Overall ground exposure within the substation area was c.50%.



Plate 3. Area of 95% ground exposure within the substation footprint. Red-brown silty soil with quartz and chert pebble inclusions <1cm diameter. Unsuitable for working.



Plate 4. A mature iron bark tree with a naturally occurring (not culturally modified) scar located within the substation area.

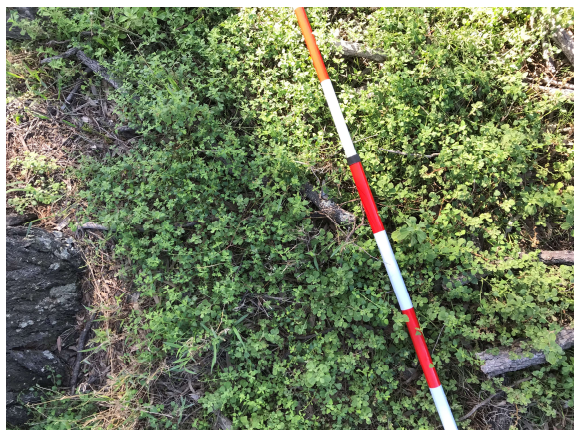


Plate 5. Area of ground cover in substation footprint.
Ground exposure approximately 15%.



Plate 6. One conglomerate rock of <15cm diameter
located within substation footprint.

Solar Farm

The solar farm footprint is located immediately to the south of the Golden Highway and to the west of the proposed substation area on a north-south slope. The slope across the area is varied and is sloping to the north at an angle of approximately 20° in the northern section of the site, flattening off to be c.10° gradient in the southern section.

The solar farm footprint is located within a cleared paddock with low (<10cm) grass cover and a section of mature trees in the north-eastern sector of the site. Of the mature trees present within northern section of the solar farm area, a number of natural scars were noted, however no cultural markings were present.

Water sources present within the solar farm area were limited to two man made dams and a drainage channel located on the southern section of the project area.

Soils across the area ranged from brown-orange silty-sand in the north with some small pebble inclusions (<1cm diameter), to dark brown sandy-silt in the southern section of the site. Ground exposure across the solar farm site was generally around 30%, with good visibility across the site at c.40%.

It was noted that the northern-most section of the project area has undergone some ground disturbance with the creation of the Golden Highway, resulting in some areas of cut and fill and effectively reducing any archaeological potential in these areas.

Field examination of the Solar Farm area has revealed that the area is located approximately 800m to the north of the permanent water source of the Goulburn River and does not naturally contain suitable working materials. Within this project area there was one small (<30cm diameter) sedimentary rock outcrop and small pebbles (<1cm diameter) of mainly chert and quartz. The size of these pebbles across the site would not have been conducive for napping. No colluvial boulders or river pebbles available across the site, suggesting that if stone tools had been fashioned at the site then the raw materials would have had to have been imported.

The site contains areas of ground disturbance in the north (Goulburn Highway cut and fill) and the south (two man made dams and drainage channel). It is noted that the gradient of the slope at the location of the proposed solar farm area would not be conducive for Aboriginal camping, reducing potential for surface and subsurface archaeology. The good surface visibility of the site resulted in effective survey coverage of the area, with no surface finds located. As a result, there is no indication of subsurface potential within the Solar Farm area.

No Aboriginal places, objects or potential were identified within this sector during the visual inspection.



Plate 7. Main project area facing south towards the railway line. Some mature trees present in the north-eastern section of the lot.



Plate 8. Facing north in the main project area towards the area of mature trees.



Plate 9. Naturally occurring scars were present on a number of the mature trees present in the north-eastern slope section of the main project area.



Plate 10. Ground cover in the north-eastern slope section of the main project area. Ground exposure c.40%.



Plate 11. Main project area facing south. Low vegetation and ground exposures shown.



Plate 12. Southern section of project area ground exposure c.50% in this area.



Plate 13. Man made dam in the south-eastern section of the main project area.



Plate 14. Man-made dam and drainage channel in south-western section of the main project area.



Plate 15. Man-made dam in south-western section of the main project area.



Plate 16. Facing north from the southern section of the main project area towards the steeper sloped northern section.



Plate 17. Facing south from the north-west slope section of the main project area.



Plate 18. Area of ground exposure in north-western slope section of the main project area. Ground exposure c.60% in this area.

6 FURTHER ASSESSMENT

Step 5. Is further investigation or impact assessment required?

The Due Diligence Code of Practice states that if, after the desktop research and visual inspection is completed, it is evident that harm will occur to Aboriginal objects or heritage places, then further and more detailed assessment is required. If, however, the research and inspection conclude that there are no, or unlikely to be any, objects impacted by the proposed activity, then the activity can proceed with caution.

Background investigations have determined that historic farming has occurred across the project area, resulting in the substantial clearing of vegetation. None of the mature trees that have been left on site display markings of cultural modification. Sections of the project area have undergone considerable ground disturbance with the creation of two man made dams and a drainage channel in the southern section of the project area, and the building up of the road in the northern section. No suitable materials for making stone artefacts were naturally present within the project area as pebble inclusions across the site were <1cm in diameter and would have been difficult to work.

The field assessment concludes that the project area does not require further investigation and assessment, as the results of the visual inspection indicate that there are no identified areas of sensitivity. No Aboriginal sites or objects were located during the site survey of the project area and no PADs were identified across the site.

Further investigation or impact assessment is therefore not required.

7 RECOMMENDATIONS

The following recommendations are based on a number of considerations including:

- Background research into the area;
- Landscape assessment;
- Field inspection;
- Consideration of the proposed works, and
- Legislative context for the development proposal.

No new sites or areas of potential were identified during the site inspection of the proposed solar farm at Sandy Hollow, NSW. It is therefore recommended that:

1. The proposed works may proceed with caution;
2. In the event that previously undiscovered Aboriginal finds are identified during any part of the construction, all works in the vicinity of the find must cease and the 'Unexpected Finds Procedure' (Appendix A) should be adhered to, with a qualified archaeologist/heritage consultant called in to inspect the find and provide recommendations on proceeding;
3. In the event that human skeletal remains are identified during any aspect of the proposed construction works, all work in the vicinity of the find must stop and OEH/Police must be notified to inspect the site; and
4. Any alterations to the design footprint for the proposed project area will require further heritage assessment to be undertaken.

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APPENDIX A UNEXPECTED FIND PROTOCOL

An unexpected heritage item means any unanticipated discovery of an actual or potential heritage item, for which the Proponent does not have prior approval to disturb or does not have a safeguard in place to manage the disturbance.

These discoveries are categorised as either:

- a) Aboriginal objects
- b) Historic/non-Aboriginal heritage items
- c) Human skeletal remains

If any of the above items are suspected or identified during construction activities, then a series of steps must be followed. These are outlined below:

1. All work should cease in that area and notify a Project Manager or Supervisor immediately of the find;
2. A 'no-go' zone should be established around the find, using visibility fencing (where applicable);
3. Inform all on-site personnel and staff of the find and the demarcated 'no-go' zone;
4. Contact a qualified archaeologist/heritage consultant/OEH to inspect the find and provide recommendations.
5. In the event that human remains are identified, complete steps 1-3. Replace Step 4 by immediately contacting the local police to investigate if the find relates to a criminal investigation. The police may take command of part or all of the site.

Once clearance of the site has been given by either the qualified archaeologist/heritage consultant and/or the local police then works may proceed within the 'no-go' zone UNLESS specifically instructed by the professional(s) that no further works can be completed in these areas.