

## Aboriginal Objects Due Diligence Assessment

St Peters College, Broulee, NSW

Eurobodalla Shire Local Government Area

Prepared for Colliers International Project Management

Prepared by Niche Environment and Heritage | 10 February 2023



*A leading independent specialist environmental and heritage consultancy*

10 February 2023

Michael Taurasi  
Project Manager  
Colliers International Project Management  
Via email: [Michael.Taurasi@colliers.com](mailto:Michael.Taurasi@colliers.com)

Dear Mr Taurasi,

**Re: St. Peters College, Broulee, NSW - Aboriginal Objects Due Diligence Assessment (Niche ref #7479)**

Niche Environment and Heritage Pty Ltd (Niche) was commissioned by Colliers International Project Management to undertake an Aboriginal Objects Due Diligence Assessment (DD) prior to proposed works associated with the St. Peters Community Hub & Sports & Recreation Centre project located at St. Peters College, 61 Train St, Broulee New South Wales (NSW; the Activity Area).

The desktop assessment and visual inspection undertaken for this DD concluded that the level of existing ground disturbance was significant and evident throughout large portions of the Activity Area including a major bushfire event in 2019, previous earthworks, vegetation clearance, underground utilities, the construction of various buildings and facilities, the installation of landscaping throughout the school grounds and the creation of various paths and roads. Previous ground disturbance was observed across large portions of the Activity Area during the site inspection, as documented in Section 2.5, Plate 2 to Plate 4, Plate 30 to Plate 39, Table 5 and Appendix B – Site inspection .

One previously recorded Aboriginal cultural heritage site, Candlagen Creek Scarred Tree (AHIMS ID# 58-4-0921) previously identified within the Activity Area could not be groundtruthed during the site inspection.

Six newly recorded Aboriginal cultural heritage sites were identified within the Activity Area during the site inspection including one scarred tree (Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541)), one midden and PAD site (Broulee Midden 1 (AHIMS ID# 58-4-1542)), one isolated shell find (Broulee Find 1 (AHIMS ID# 58-4-1540)), one PAD site (Broulee PAD 1 (AHIMS ID# 58-4-1538)), one artefact scatter (Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539)), and one isolated find and PAD (Broulee Isolated Find 1 (AHIMS ID# 58-4-1537)) (outlined in detail in Step 4). A summary of the site inspection results is provided in Step 4 of this DD assessment.

This due diligence assessment will inform the design options of the Project to avoid and minimise impact to known and potential Aboriginal cultural heritage sites.

The following recommendations have been made before development occurs on the land:

**Table 1: Recommendations**

Recommendations	
1.	No works are permitted in any of the identified site or site extents, or no-go zones demarcated in Figure 11, with the exception of Broulee PAD 1 where limited above- ground vegetation clearance works are permitted (as specified in Section 1.3 and Table 12). The Proponent and all associated contractors are reminded that Part 6 of the <i>National Parks and Wildlife Act</i> (1974) provides protection for all Aboriginal objects and declared Aboriginal places from harm. Harm is defined as

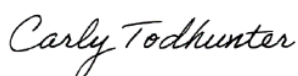


Recommendations	
	destroying, defacing, damaging or moving an object from the land. An Aboriginal Heritage Impact Permit (AHIP) is a legal document that grants you permission to harm Aboriginal objects or declared Aboriginal places and sets out any conditions you must comply with. An AHIP is required to disturb any Aboriginal objects or places.
2.	The harm avoidance measures outlined in Table 12 in relation to planned vegetation clearance works must be implemented.
3.	Any modifications outside of the proposed infrastructure footprint provided at the time of this report will require further archaeological assessment in the form of an ACHA.
4.	In the event that previously unknown Aboriginal object(s) and/or sites are discovered during the proposed activity, work must stop, and an appropriately qualified archaeologist be contacted to access the nature, extent and significance of the identified sites.
5.	If any harm to the Aboriginal cultural heritage sites (including observance of the temporary fencing locations, no-go zones and provisions related to the limited vegetation clearance permitted in the APZ zone in relation to identified heritage) as detailed during this assessment cannot be avoided, then further assessment in the form of an ACHA must be undertaken to fully assess the impact of the proposed works on Aboriginal objects and cultural heritage resources within the Activity Area. The ACHA is required to be completed in accordance with the <i>Guide to Investigating, Assessing, and Reporting on Aboriginal Cultural Heritage in NSW</i> (DECCW 2010c) and consultation conducted in accordance with the (DECCW 2010b) <i>Aboriginal Cultural Heritage Consultation Guidelines for Proponents 2010</i> . No consultation with the Aboriginal community has been undertaken to date for this project but must be undertaken for any works outside the identified development plan or within the no go zones identified. An Aboriginal Heritage Impact Permit (AHIP) and potential test excavation program would be required if harm to the identified sites could not be avoided.
6.	All new Aboriginal cultural heritage sites identified during the site inspection be registered through AHIMS.
7.	<p>Temporary fencing requirements and/or no-go zones should be observed in the following locations during the proposed works as detailed in Figure 11:</p> <ul style="list-style-type: none"> <li>• Around southern and western boundaries of Broulee PAD 1 (AHIMS ID# 58-4-1538) PAD</li> <li>• Along the northern, western, and southern sides of the cautionary boundary to Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539)</li> <li>• 10 m around AHIMS ID #59-4-0921</li> <li>• 10 m around Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541)</li> <li>• Around the extent of the cautionary boundary to Broulee Find 1 (AHIMS ID# 58-4-1540)</li> <li>• Along the western boundary of Broulee Isolated Find 1 (AHIMS ID# 58-4-1537) PAD</li> <li>• All site extent areas shown in Figure 8 (either with or without visual demarcations in the form of temporary fencing) must be identified as 'no go zones' on all construction management plans and site inductions. No works are allowed in these areas, with the exception of limited, above-ground impacts as to Broulee PAD 1 as specified in Section 1.3 and Table 12).</li> </ul> <p>Georeferenced GPS photographs must be undertaken to demonstrate construction of temporary high visibility fencing at those locations specified in Figure 8 to the qualified Niche heritage consultant who conducted the field survey for review and approval prior to any works proceeding.</p>
	<b>General</b>
8.	All school staff should be made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> before, during, and after any campus management that may result in ground disturbance.

Recommendations	
9.	All workers should be inducted into the Activity Area, so they are made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> and any conditions of any future AHIP prior and during and after construction activities.
10.	<p>The following Find Procedure should be put in place as a minimum response in the event of the identification of artefacts within the Activity Area during proposed works or before an ACHA can commence:</p> <ul style="list-style-type: none"> <li>• Work in the surrounding area is to stop immediately.</li> <li>• A temporary fence is to be erected around the Aboriginal cultural heritage site, with a buffer zone of at least 10 m around the known edge of the Aboriginal cultural heritage site.</li> <li>• An appropriately qualified archaeological consultant is to be engaged to identify the material; and</li> <li>• Should the material be confirmed as an Aboriginal object or archaeological site, facilitate, in co-operation with the appropriate authorities and the local Aboriginal community: <ul style="list-style-type: none"> <li>▪ The recording and assessment of the finds.</li> <li>▪ Compliance with any legal requirements and Heritage NSW directions.</li> <li>▪ The development and implementation of appropriate management strategies based on an assessment of significance of the finds.</li> <li>▪ Recommencement of ground disturbance works may only resume once legal requirements are fulfilled.</li> </ul> </li> <li>• An AHIP will be required.</li> </ul>
11.	<p>In the unlikely event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately and:</p> <ul style="list-style-type: none"> <li>• The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm.</li> <li>• The NSW Police must be contacted immediately.</li> <li>• No further action is to be undertaken until the NSW Police provide written notification the Proponent.</li> <li>• If the skeletal remains are identified as Aboriginal, the Proponent or their agent must contact: <ul style="list-style-type: none"> <li>▪ Heritage NSW's Enviroline on 131 555; and representatives of the RAPs.</li> </ul> </li> <li>• No works are to continue until Heritage NSW provides written notification to the proponent or their Agent.</li> </ul>

Please do not hesitate to contact me should you have any questions or would like to clarify details of this assessment.

Yours sincerely,



Carly Todhunter  
Heritage Consultant  
**Niche Environment and Heritage**



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# 1 Introduction

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## 1.1 The proponent

Niche Environment and Heritage Pty Ltd (Niche) was commissioned by Colliers International Project Management (hereafter referred to as the 'Proponent') to undertake an Aboriginal Objects Due Diligence Assessment (DD) in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW 2010; 'The Due Diligence Code') to assess existing Aboriginal heritage for the proposed works situated on Lot 1 DP 1037342, 61 Train St, Broulee, New South Wales (NSW; the Activity Area) (Figure 1). The proposed works are located on the St. Peters College campus and are associated with the St. Peters Community Hub & Sports & Recreation Centre Project.

## 1.2 Location

The Activity Area is bound by George Bass Dr to the west, Train Street to the south, Martin Place and Caitlin Crescent to the north and, Zanthus Drive to the east. The character of the wider area is predominately residential (Figure 3).

The Activity Area is situated within the Eurobodalla Shire Local Government Area (LGA), Mogo Local Aboriginal Land Council (LALC) boundary, on Yuin traditional lands. The entirety of the Activity Area is zoned as R2 Low Density Residential. The Activity Area is situated within the County of Dampier and the Parish of Broulee.

## 1.3 The proposed activity

The proposed St. Peters Community Hub & Sports & Recreation Centre project will involve ground surface disturbance (Figure 1, Figure 2 and Appendix A – Concept plan). Proposed activities may include, but are not limited to:

- Demolition/ removal of two demountable buildings (D1 and D2)
- Construction of 3 new buildings: Community Hub (Admin Building) (P7), Sport and Recreation Centre (Gymnasium) (P10), New Junior School (P5) and bike storage facility (P17)
- Extension to Culture and Performing Centre to the north (P6)
- Construction of a transparent acoustic fence (P18)
- Installation and connection to existing services
- Upgrades to existing southern carpark and bus drop off (P3, P4 and P13) to suit campus expansion requirements
- Changes to the entry concourse (P1)
- Changes to the uncovered external landscaped learning space (P9)
- Construction of a waste enclosure (P16) which has been subject to separate approvals
- Vegetation clearance to comply with Asset Protection Zone (APZ) requirements.

The vegetation clearance works are required in order to comply with APZ requirements. These works are described in detail in the Vegetation Management Plan (VMP) developed for the project (Harris Environmental Consulting 2023).

As per the VMP, vegetation clearance within the APZ will comprise:

- The removal of certain trees.



- The cutting of limbs using only hand tools. No machines or vehicles will be operated within the APZ to prevent harm to the ground surface.
- Shrubs below trees to be removed and clumps of shrubs to be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.
- The avoidance of any removal of significant native species where possible, and the prioritisation to remove noxious and environmental weeds first. The removal of thin understorey plants, trees and shrubs less than three metres in height.
- Manual removal of fine fuels including fallen leaves, small twigs and bark including raking.
- Mowing only with small mowers and no machines
- The avoidance of any vegetation clearance of any identified tree of cultural significance.

To avoid impacts to Aboriginal heritage identified during the due diligence assessment, a number of conditions have been formulated in consultation with the design team. These avoidance and harm mitigation measures are outlined in detail in Table 12 and Table 5 of this report.

Some additional portions of the school upgrade program are currently under construction and have been subject to prior approval (E9 and E14) (Figure 2). The P16 waste enclosure has also received prior planning approval. All three areas were investigated as part of the site inspection program for any evidence of Aboriginal cultural heritage on the surface.

## 1.4 Statutory controls

The *National Parks and Wildlife Act 1974* (NPW Act), administered by Heritage NSW, is the primary legislation for the protection of some aspects of Aboriginal cultural heritage in NSW<sup>1</sup>. Part 6 of the NPW Act provides specific protection for Aboriginal objects and declared Aboriginal places by establishing offences of harm. The NPW Act provides that a person who exercises due diligence in determining that their actions will not harm Aboriginal objects has a defence against prosecution if they later unknowingly harm an object without an Aboriginal Heritage Impact Permit (AHIP).

Under s.85 of the NPW Act, the Director General (DG) of the DPC is responsible for the protection of Aboriginal objects and places in NSW. In particular, the DG is responsible for the preservation and protection of any Aboriginal objects or places on land reserved under the NPW Act, and for the proper restoration of any such land that has been disturbed or excavated in accordance with an AHIP. Part 6 of the NPW Act provides specific protection for Aboriginal objects and places by making it an offence to harm or desecrate them. Harm means ‘... any act or omission that destroys, defaces or damages an object or place or, in relation to an object, moves the object from the land on which it had been situated’ (s.5).

The *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* sets out a process for individuals and organisations to follow to determine whether an Aboriginal object will be harmed by an activity, whether further investigation is needed, and whether that harm requires an AHIP.

## 1.5 Planning legislation

### 1.5.1 The *Environmental Planning and Assessment Act, 1979*

The NSW *Environmental Planning and Assessment Act 1979* (The EPA Act) establishes the framework for cultural heritage values to be formally assessed in the land use planning and development consent process and requires that environmental impacts be considered prior to land development; this includes impacts on

<sup>1</sup> For further information visit: <https://www.environment.nsw.gov.au/licences/achregulation.htm>

heritage items. The EPA Act also requires that local governments prepare planning instruments (such as Local Environmental Plans) in accordance with the principles of the legislation to provide guidance on the level of environmental assessment required.

#### **1.5.2 Bodalla Village Development Control Plan 2012**

The Bodalla Village Development Control Plan (DCP) outlines detailed local provisions for all land within the Eurobodalla Shire LGA. Section 1.7 of the Bodalla Village DCP states that people planning development within the village are encouraged to consult with Council's heritage advisor prior to developing and submitting their plans.

#### **1.5.3 Eurobodalla Local Environmental Plan 2012**

The Eurobodalla Local Environment Plan (LEP) 2012 provides a framework for proposed development and heritage protection within the Eurobodalla Shire LGA. Part two of the LEP establishes provisions for permitted development within R2 Low Density Residential zoned land (the Activity Area is zoned entirely as R2).

### **1.6 Objectives**

The aim of the assessment was to evaluate whether Aboriginal objects and/or places are present, or are likely to occur within, or near the Activity Area, if those Aboriginal objects and/or places may be harmed by the proposed works, and if further investigation is required.

### **1.7 Assessment methodology**

This DD follows the process outlined in Plate 1.

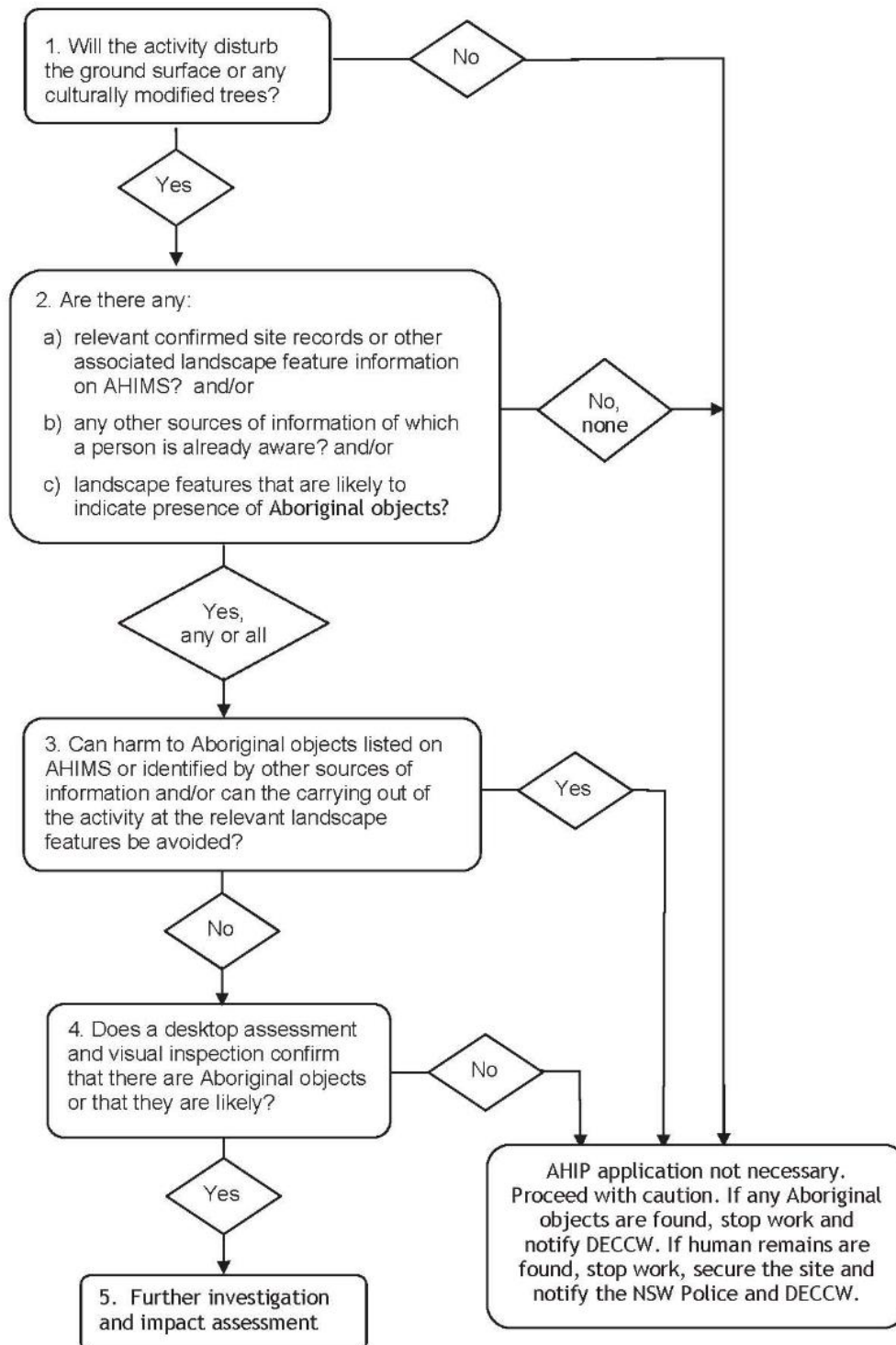


Plate 1: The due diligence assessment process





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## 2 Environmental context

### 2.1 Topography and landforms

The Activity Area is located within the coastal township of Broulee, NSW, and is situated in the Eurobodalla Shire LGA (Figure 1 and Figure 2). The Activity Area comprises a predominately flat disturbed landscape with cleared areas and remnant vegetation. The Illawong Nature Reserve is approximately 550 m west of the Activity Area, and the coast is approximately 700 m to the southeast. The coast is procumbent with dunes and precipitous cliff headlands. Broulee Island is approximately 2 kilometres (km) south-east of the Activity Area.

### 2.2 Geology and soils

Broulee is primarily comprised of Quaternary sands (Sullivan 1976) and is characterised by a series of beach ridges formed during the Holocene (Allen 2003). The Activity Area is situated over Rudosols (RU) and the land is considered to have very severe limitations and high infiltration (DPIE 2021 a,b,c). Such soils comprise well to excessively drained sands or soils even when thoroughly wetted, with a high rate of water transmission and low run-off (DPIE 2021 a,b,c).

A soil profile recorded approximately 400 m south-east of the Activity Area at Captain Oldney Oval identified a shallow profile of fine grey sands overlaying a yellow to brownish yellow fine sand (SALIS 2022). The upper 8 centimetres (cm) (A1 horizon) comprised a dark grey fine sand (10YR 4/1) overlaying an 18 cm deep A2 horizon comprising a grey to yellowish grey fine sand (2.5Y 5/1). Occurring between 26 and 53 cm was a fine yellow B1 horizon sand and beneath this, a fine brownish yellow sand (10YR 6/8). A test excavation program conducted nearby to the Activity Area at 56 Candlagen Drive found a very similar soil profile that had been impacted by disturbance over the last century (Allen 2003). This soil profile is explored in greater detail in Table 4.

The geology and soils of Broulee Island, south-east of the Activity Area, comprise Ordovician sediments capped by Tertiary basalt that contributes to the headland landforms (DECC 2008). Tertiary sandstone and quartz gravel sediments sit atop some areas of basalt (DECC 2008). Sandstone can be used for grinding during stone tool production and during meal preparation. Basalt and quartz are raw materials that can be utilised for stone tools.

### 2.3 Hydrology

The Activity Area is situated approximately 650 m inland from the coast, 350 m south of Candlagen Creek, 1.3 km southeast of Lynchs Creek and 600 m north of modified drainage lines. The Activity Area is approximately 1 km southwest of the perennial Tomaga River. Numerous other seasonal creeks and associated tributaries are located to the north and west. These riverine, estuarine and marine environments would have provided an abundance of plant and animal resources that could be used for medicine, food, implements, tools, clothing and structures.

Freshwater is a major determinant of where Aboriginal people lived and the Broulee area is conducive to either seasonal or permanent occupation.

### 2.4 Flora and fauna

Native vegetation includes swamp paperbark (*Melaleuca ericifolia*), southern mahogany (*Eucalyptus botryoides*), yellow tea tree (*Leptospermum flavescens*), sheoaks (*Allocasuarina verticillata*), saw banksia (*Banksia serrata*), coast banksia (*B. integrifolia*) and various wattle species (*Acacia spp*) (DECC 2008). Pigface (*Carpobrotus glaucescens*), *Sarcocornia quinqueflora*, grey saltbush (*Atriplex cinerea*), headache

vine (*Clematis glycinoides*), hairy spinifex (*Spinifex hirsutus*), storksbill (*Pelargonium australe*), sea box (*Alyxia buxifolia*), coastal saltbush (*Rhagodia baccata*), toothed daisy bush (*Olearia tomentosa*), common fan flower (*Scaevola aemula*), coastal bearded heath (*Leucopogon parviflorus*), boobialla (*Myoporum insulare*), and wandering jew (*Commelina cyanea*) also occur in the area (DECC 2008).

Vegetation communities in the area include open forest, coastal bushes, and littoral rainforest. In the littoral rainforest vegetation community, along drainage lines, lilly pilly (*Acmena smithii*), cheese tree (*Glochidion ferdinandi*), scentless rosewood (*Synoum glandulosum*), brush cherry (*Syzygium australe*), snake vine (*Stephania japonica* var *discolor*), kangaroo apples (*Solanum* sp), *Blechnum camfieldii*, sickle fern (*Pellaea falcata*) and tree ferns (*Cyathea australis*) occur (DECC 2008). This native vegetation is and was habitat to many animals that would have been utilised along with these plants for medicinal, food, tool, implement, clothing, and structures.

Native animals in the area include eastern grey kangaroos (*Macropus giganteus*), swamp wallabies, fur seals (*Arctocephalus pusillus*), a number of cormorants (*Phalacrocorax carbo*, *P. sulcirostris*, *P. melanoleucus*), white-faced storm-petrels (*Pelagodroma marina*), silver gulls (*Larus novaehollandiae*), Australasian gannets (*Morus serrator*), crested terns (*Sterna bergii*), short-tailed shearwaters (*Puffinus tenuirostris*), fluttering shearwaters (*Puffinus gavia*), sooty oyster catchers (*Haematopus fuliginosus*), pied oyster catchers (*Haematopus longirostris*), white-bellied sea eagles (*Haliaeetus leucogaster*), whistling kites (*Haliastur sphenurus*), little wattlebirds (*Anthochaera chrysoptera*), red-browed finches (*Neochmia temporalis*), welcome swallows (*Hirundo neoxena*), silvereyes (*Zosterops lateralis*), eastern spinebills (*Acanthorhynchus tenuirostris*), white-cheeked honeyeaters (*Phylidonyris nigra*) and superb fairy wrens (*Malurus cyaneus*) (DECC 2008). Reptile, fish, amphibian, marine and invertebrate fauna would also occur.

## 2.5 Past land use and disturbance

The Activity Area is located within the traditional lands of the Yuin people, which extends southwards from the Shoalhaven River to near the Victorian border and inland to the eastern edges of the tablelands (DECC 2008). The Yuin nation comprises several language groups including the Bugelli-Manji, Dharumba, Djirringanj, Dhawa, Dhurga and Brinja. Prior to European settlement, the land at Broulee would have been occupied by the Yuin and utilised for occupation, hunting and social and cultural practices.

After European settlement, many Aboriginal people were impacted by introduced diseases and illnesses. Colonisers began permanently settling Broulee in the 1820s, dispossessing local peoples from their lands and clearing the land for residential and agricultural use. Violent and amicable interactions are recorded in the wider area. In 1834, Francis Flanagan recorded 28 Aboriginal people in Broulee, however, Yuin continued to live in the area with Hermann Lau recording a corroboree in the 1850s (DECC 2008). Between the 1850s-1880s, Aboriginal people were recorded working as farmhands, domestic labourers, bark strippers, fishers, and whalers (DECC 2008). In the 1860s, many Yuin people were forcibly removed to government reserves, though fringe camps were still recorded in the late 1800s. Despite swift and significant changes during the colonial period, the Yuin people of Broulee retain their culture and identity and several Aboriginal cultural heritage sites within the area remain as physical evidence of past land use and occupation.

The overall landscape context of the Activity Area and surrounding region is one of significant historical disturbance since settlement and later urban development. Aerial imagery of Broulee from the twentieth century can provide further information about previous land-use and impact on the ground surface within the Activity Area. A review of historical aerial imagery shows that between 1961 and 1999 (Figure 5a-d) the township of Broulee experienced limited residential development. During this time, the Activity Area is

covered by thick vegetation and only a small track can be seen running east to west through the central portion of the Activity Area. Between 1961 and 1975 several residential homes were constructed to the east of the Activity Area and a two-laned road that is now George Bass Drive was constructed in the woodlands to the west. By 1975, an additional track running from the south to present-day Train Street had been formed. Due to the size of the clearing observed in aerial imagery of the time, it would be reasonable to suggest that the track was used by vehicles and may have been a maintenance track used for maintaining the vegetation (for instance during backburning operations).

St Peters Anglican College was established in 2004. In recent years, the school grounds have been heavily modified. A widescale refurbishment program was undertaken at the school following the 2019 major bushfire event, resulting in ground disturbance throughout large portions of the Activity Area. As part of this recovery program, the following interventions occurred (St. Peter's Anglican college, 2020:2):

- A new administration building was constructed as the previous building had been destroyed in the fire
- Most gardens were replaced. Large numbers of fruit trees and an edible garden were lost during the fires.
- Fencing was replaced.
- Over 100 large trucks of debris were removed from the school grounds.
- Garden sheds and maintenance sheds were rebuilt.
- Nine classrooms that were severely damaged by smoke were renovated.
- The oval and sporting facilities were improved.
- Two new playgrounds were built for the kindergarten and for the Junior School.
- The school's science laboratories were renovated.

To maintain the school grounds and to prevent the risk of future fires, regular maintenance of the school grounds is undertaken. This involves the trimming of trees and other plants, regular mowing, raking of bark and fallen leaves to reduce fire loads and the creation of formal garden beds with buffers to existing structures. A dedicated landscaping team from the school is responsible for undertaking this work.

Previous ground disturbance was observed across large portions of the Activity Area during the site inspection, as documented in Plate 2 to Plate 4, Plate 30 to Plate 39, Table 5 and Appendix B – Site inspection .





**Plate 2: Planned location of the P5 Junior Learning Area building. Showing the extent of previous disturbance including the reshaping of the area and the formation of mounded plant beds. No surface artefacts were identified during the site inspection. Photographed facing west.**



**Plate 3: Proposed location for the P6 Cultural Centre Extension. The raised area north of the present building has been heavily modified by previous earthworks and vegetation clearance for bushfire protection. Photographed facing south-west.**



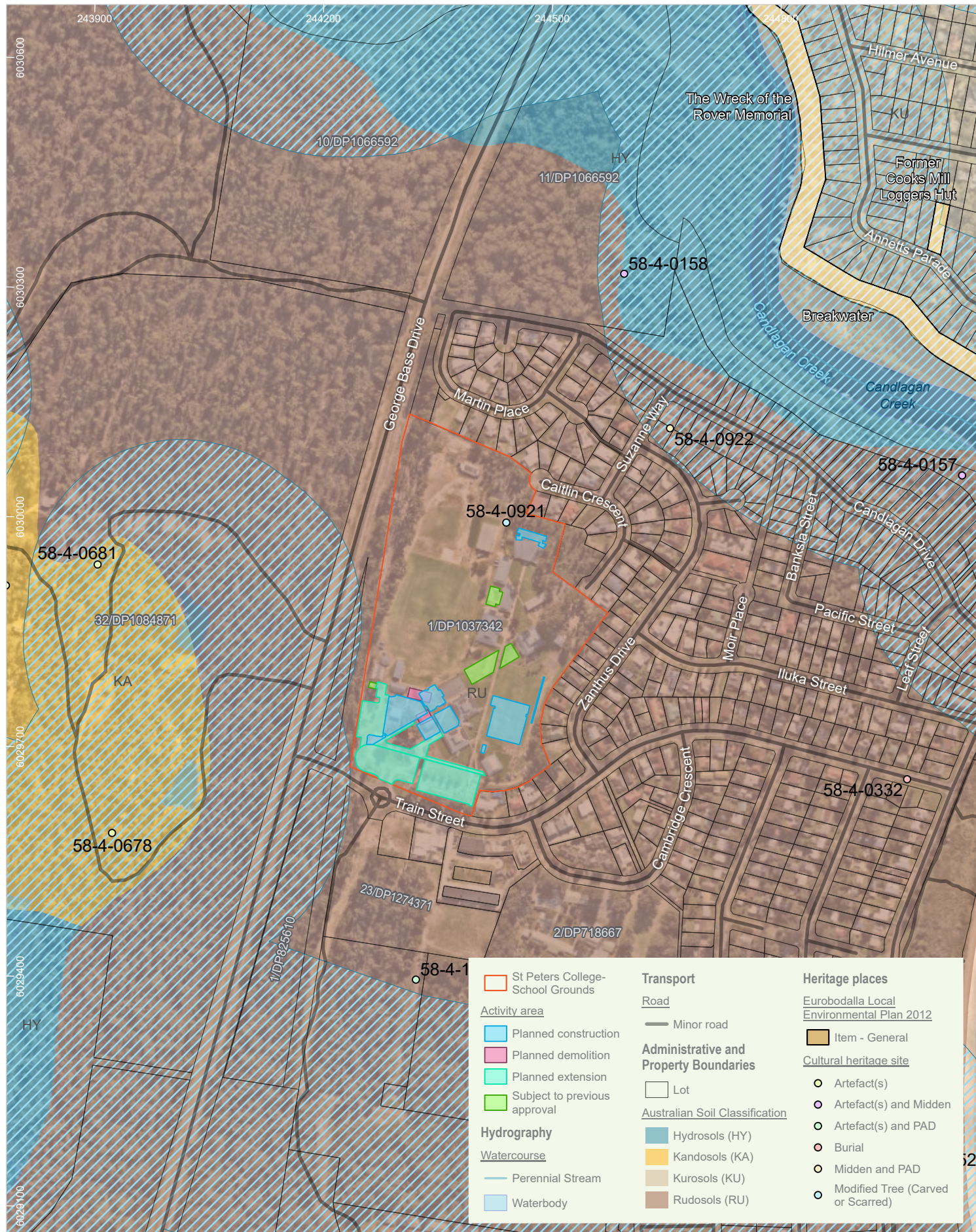


**Plate 4: Proposed location for P9 new Junior School. The surrounding area has been heavily modified by previous earthworks, landscaping, the installation of underground services and the construction of various concrete pathways. Photographed facing east.**

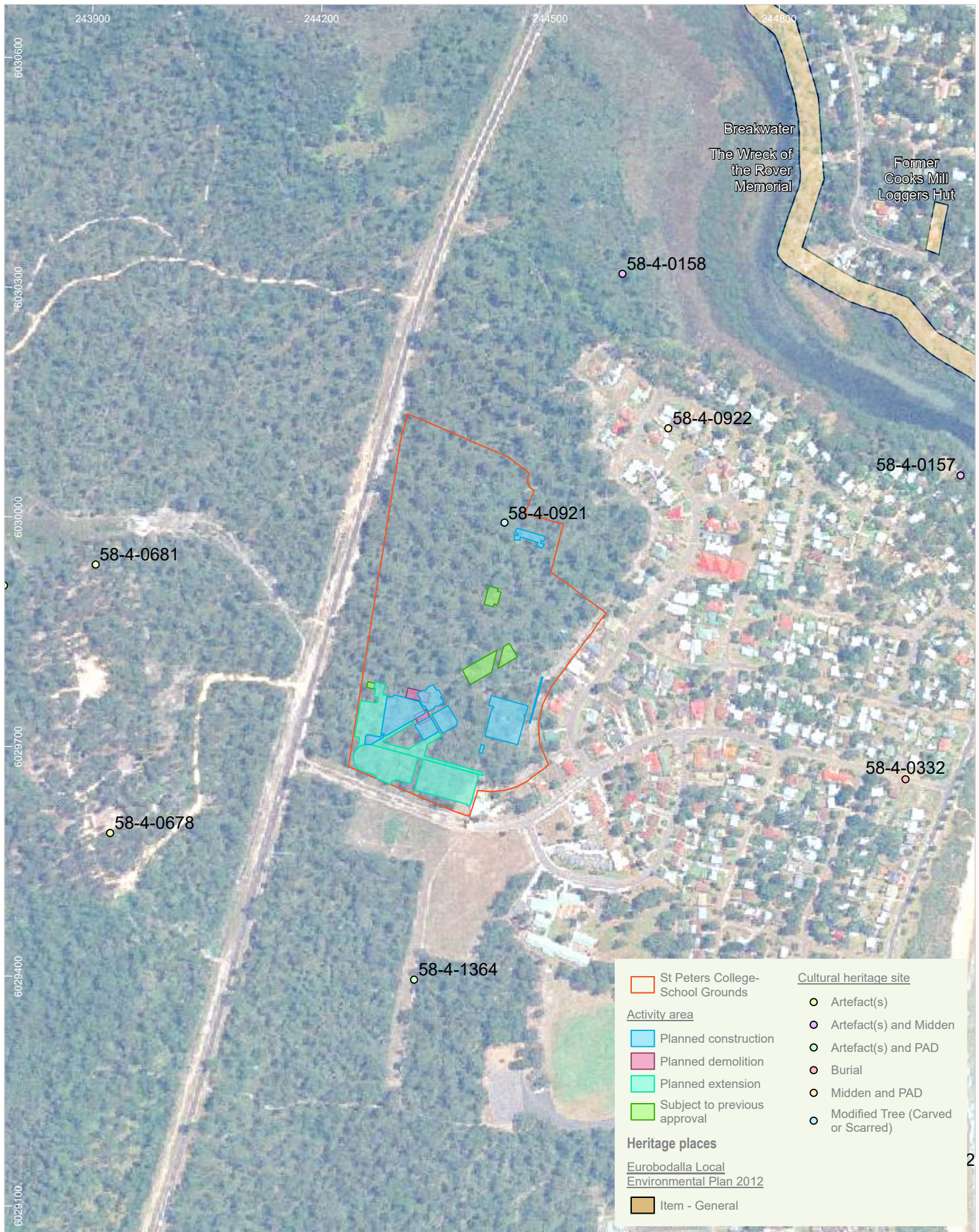
In summary, the overall context of the Activity Area provides a picture of a landscape that has been subject to significant levels of historical disturbance. These disturbances include clearing of native and introduced vegetation, hard landscaping including numerous concrete paths, the installation of underground services and the construction of buildings within the school (comprising both demountable structures and other permanent buildings constructed on concrete foundations). The present use of the Activity Area as a school has had ongoing impacts to the ground surface, in response to the maintenance of grassed and landscaped areas.

During the site inspection, it was found that the majority of the Activity Area is within an area that meets the definition of 'disturbed' under the Due Diligence Code. Some isolated areas, (identified in Step 4 and Figure 9) noted to have cultural heritage present, have been significantly less impacted.









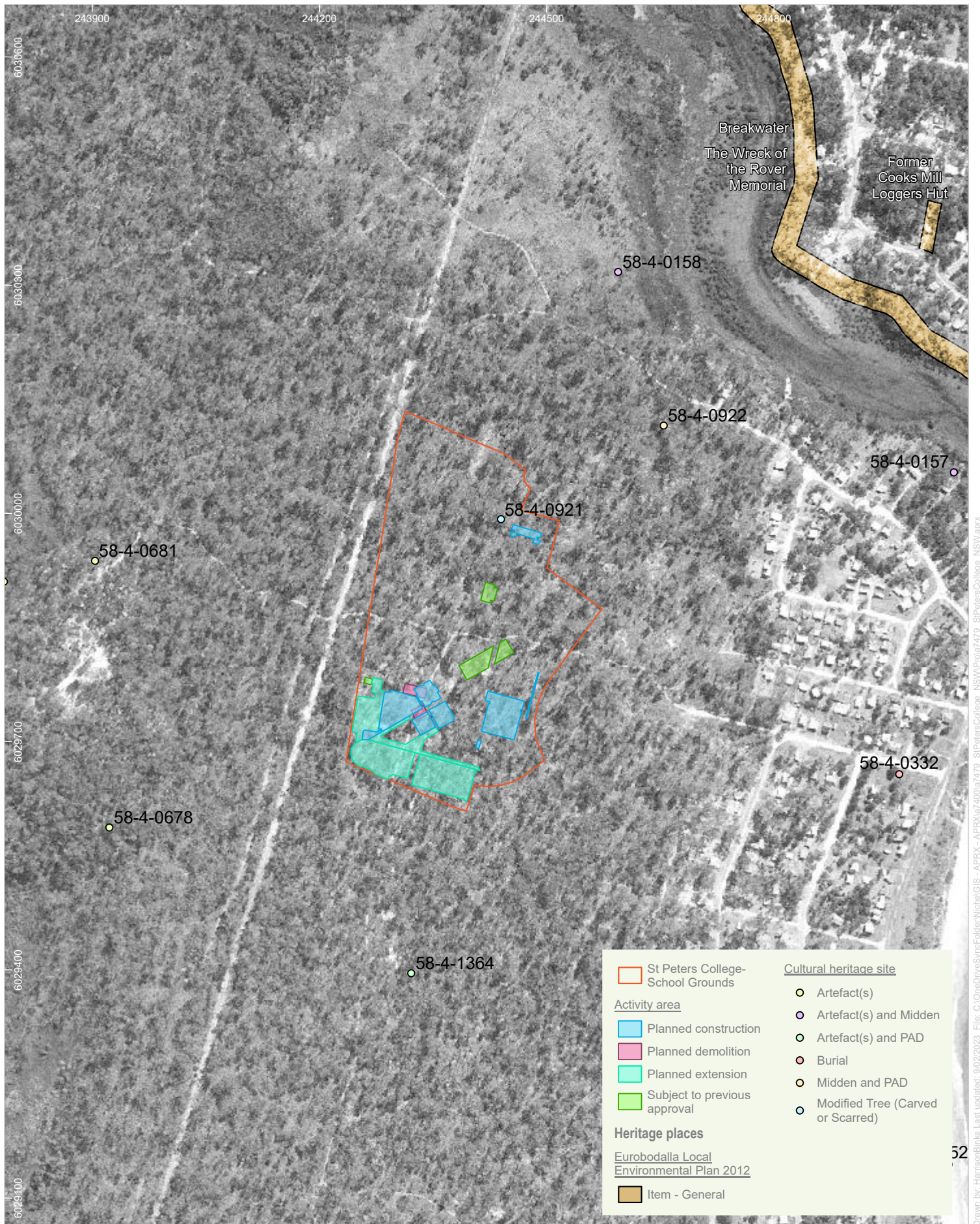
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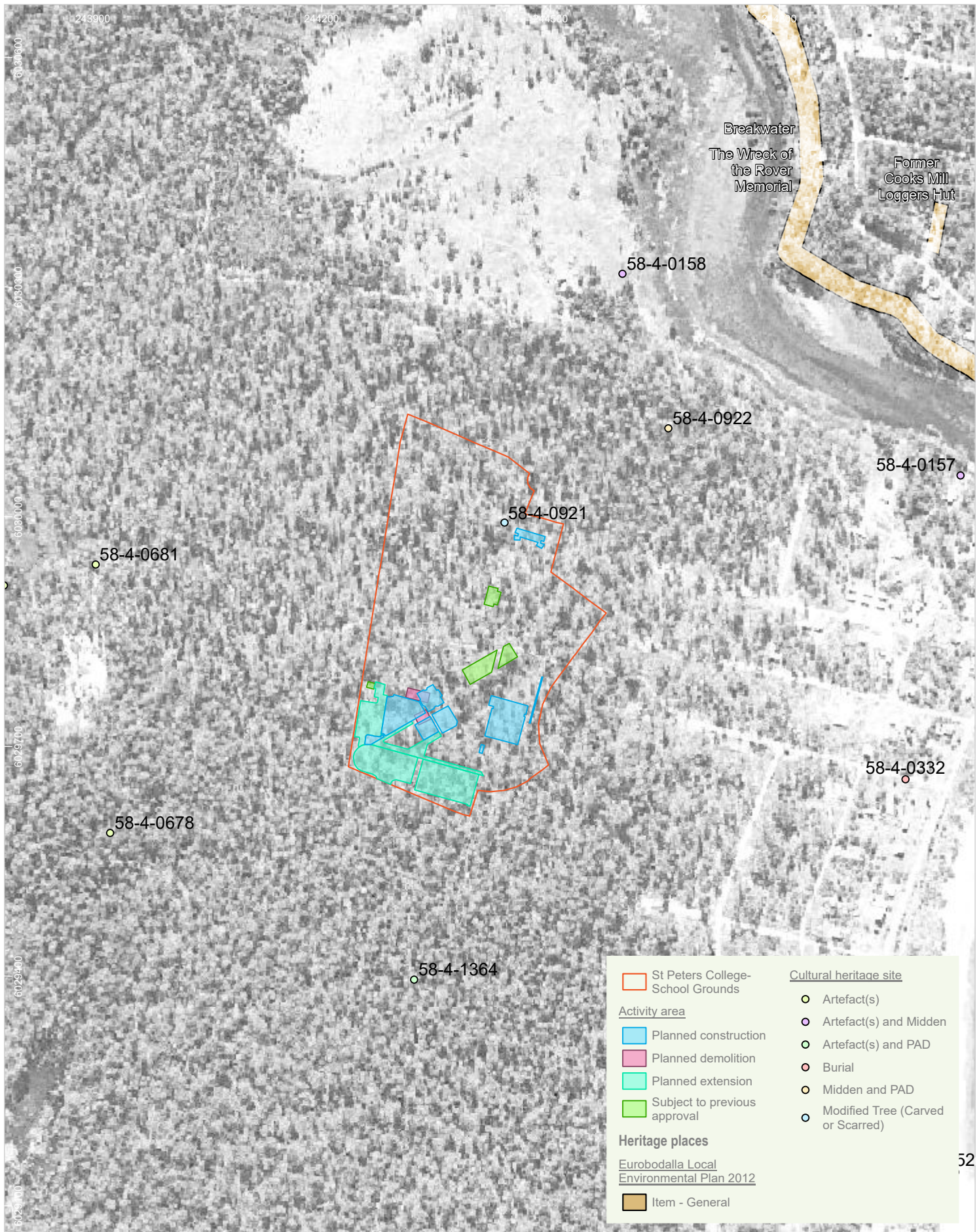




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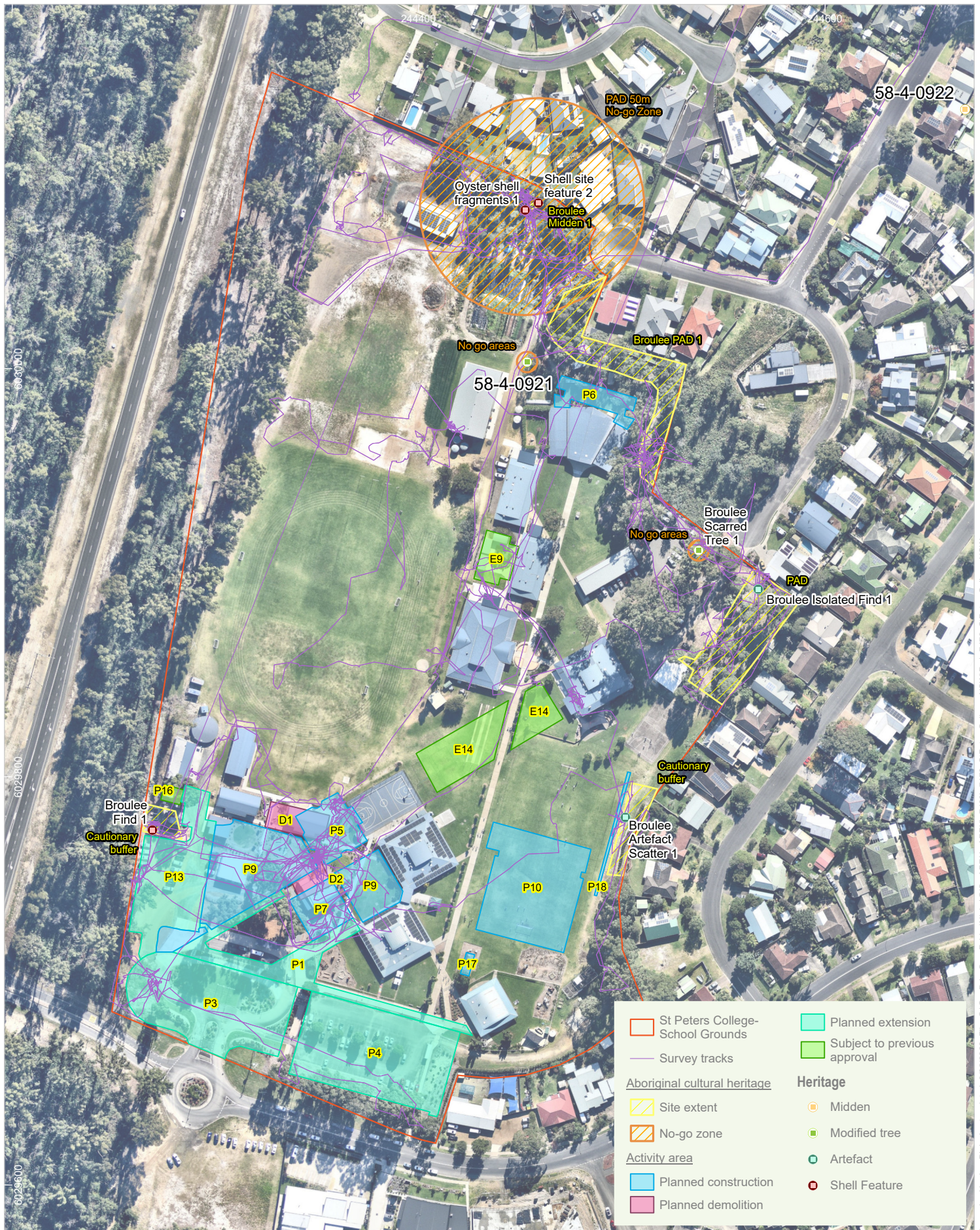


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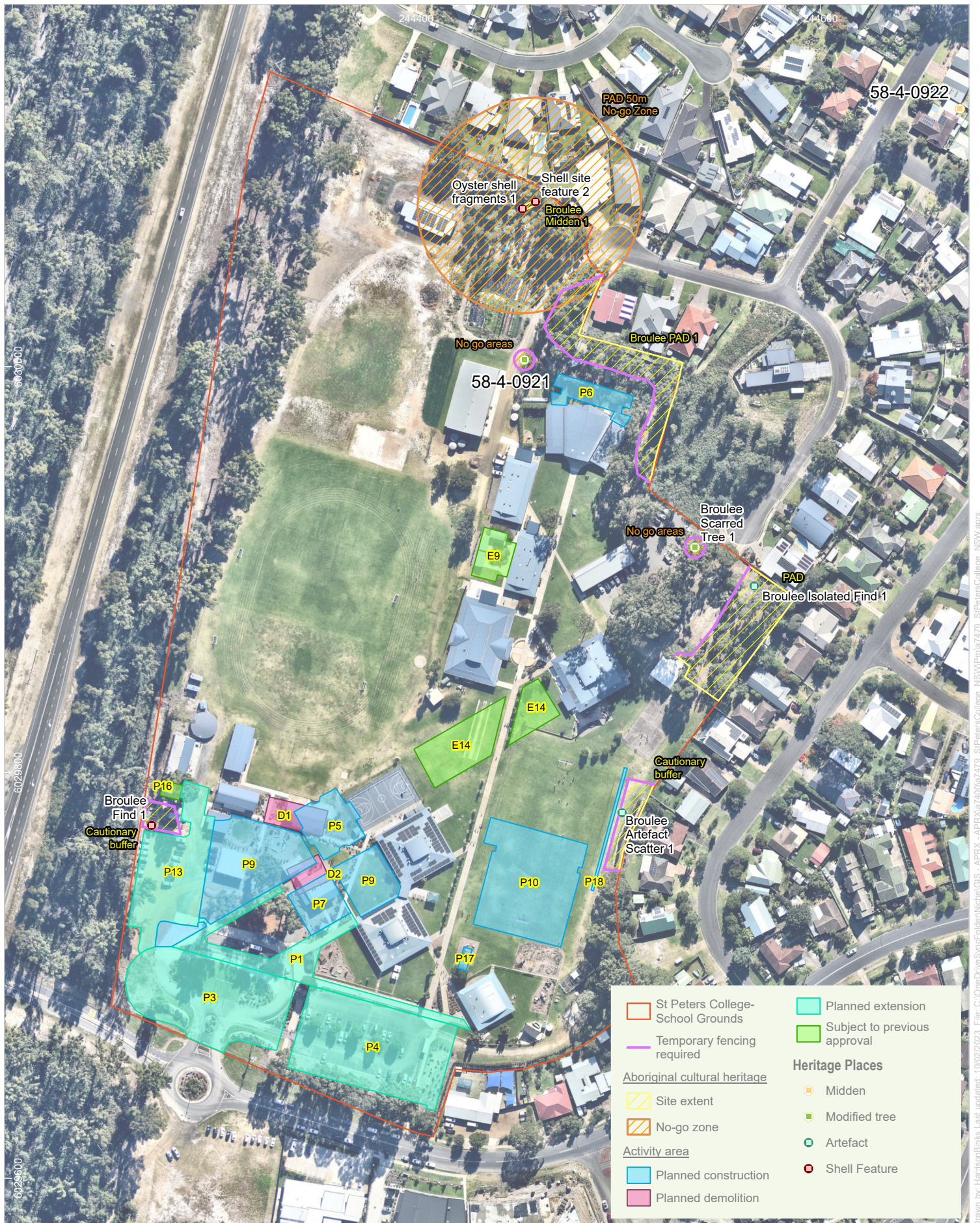












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### 3 Aboriginal objects due diligence assessment

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#### Is the proposed activity a low impact activity as defined by the Regulation?

No.

The proposed work involves extensive ground surface disturbance and is not a low impact activity as defined under Part 5 Division 2 Section 58 of the *National Parks and Wildlife Regulation 2019* ('the Regulation').

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

Yes.

The Project will include the following ground disturbance works:

- Vegetation clearance and trimming works
- Earthworks
- Upgrades or extensions of buildings, car parks and landscaped areas
- Construction of new buildings and access pathways
- Connection to existing roads
- Installation and connection to existing services.

These proposed works have the potential to disturb Aboriginal objects and places and therefore a site inspection was required to determine their potential impact.

Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541) is a culturally modified tree that is situated in the north-east portion of the Activity Area and in proximity to the northern car park. Limited vegetation clearance in the APZ area is proposed in proximity to the site but will not impact the site as long as the area is demarcated as a no-go area (Figure 11).

Candlagen Creek Scarred Tree (AHIMS ID# 58-4-0921) has previously been identified within the school grounds but could not be relocated during the site inspection in spite of an exhaustive survey of the school grounds.

However, both sites are still registered AHIMS, and impacts proposed require further archaeological assessment including an Aboriginal Heritage Impact Permit (AHIP).

#### Step 2a – Are there any relevant confirmed site records or other associated landscape feature information on AHIMS (or other heritage registers)?

Yes.

##### Heritage Registers

##### **AHIMS**

An extensive search of the Aboriginal Heritage Information Management System (AHIMS) was conducted on 27 June 2022 (AHIMS Client Service ID# 695716) for the following area at Lot 1 DP 1037342 with a buffer of 1 km. See Appendix C – AHIMS extensive search for details of the search and Aboriginal cultural heritage sites within the search area. The associated AHIMS site card records are provided in Appendix D – AHIMS site cards.

A total of twenty Aboriginal cultural heritage sites are located within the AHIMS search area (Appendix C – AHIMS extensive search and Table 2). No Aboriginal Places were identified within the AHIMS search area. One previously recorded Aboriginal cultural heritage site, Candlagen Creek Scarred Tree (AHIMS ID# 58-4-0921), was previously recorded as occurring within the Activity Area however it could not be relocated during the site inspection (Figure 3).

Within the wider AHIMS search area, Artefact(s) (Isolated or Scatter) (n=13) and Artefact(s) and Midden (n=3) were the most common Aboriginal site features documented on the AHIMS register (Table 2). The occurrence of these two site types is typical for a coastal setting in proximity to a tidal creek system where shellfish could be obtained from the sandy flats. Freshwater swamps situated further to the west could have also offered resident Aboriginal groups a reliable food source.

A test excavation program undertaken nearby to the school at 56 Candlagen Drive, Broulee produced an assemblage comprising flakes and flaked pieces produced from yellow chert, grey silcrete and white quartz (Allen 2003). Allen suggested that it is likely that the midden and artefacts that were identified may be associated with Candlagen Creek Midden (AHIMS ID# 58-4-0922).

Due to the presence of Holocene sand dunes, native woodlands and the proximity of the area to Candlagen Creek the site types that would be most likely to occur within the Activity Area include Artefact(s) (Isolated or Scatter), Potential Archaeological Deposits (PADs), Burials and Modified Trees (Carved or Scarred). It must be noted that care should be taken when using the AHIMS database to reach conclusions about site prevalence or distribution in the local area. The distribution of registered sites does not reflect patterns of occupation, but rather is often indicative of survey coverage and conditions. Though the majority of sites identified in the local area were investigated as part of proposed residential developments or modifications to the sewage network, it may be expected that further sites occur in areas that have not yet been developed and therefore have not been subject to a systematic archaeological survey.

**Table 2: Summary of AHIMS site features within the AHIMS Search Area**

Site features	Total
Artefact (Isolated or Scatter)	13
Artefact(s) and Midden	3
Artefact(s) and PAD	1
Burial	1
Midden and PAD	1
Modified Tree (Carved or Scarred)	1
<b>Total</b>	<b>20</b>

### ***Aboriginal Heritage Impact Permit***

A search was conducted of the Department of Planning, Industry and Environment (DPIE) AHIP register on 8 July 2022, covering the 2010-2022 period. It was determined that no AHIPs have been registered within the current Activity Area or immediate surroundings during this period.

### ***Other heritage registers***

Searches of the Australian World Heritage Database, the Commonwealth Heritage List, the National Heritage List, the State Heritage Register, the State Heritage Inventory, the Eurobodalla Local



Environmental Plan (LEP) (2012) and the Eurobodalla Residential Zones Development Control Plan (DCP) (2011) were conducted on 8 July 2022. The result of these searches is summarised in Table 3 below.

**Table 3: Summary of registered heritage places within or in proximity to the Activity Area**

Heritage register	Heritage item in the Activity Area	Nearby heritage item within 1 km of the Activity Area
World Heritage List	None	None
National Heritage List	None	None
Commonwealth Heritage List	None	None
State Heritage Register	None	Eight listings with local heritage significance that are listed in the Eurobodalla LEP 2012
State Heritage Inventory	None	Eight listings with local heritage significance that are listed in the Eurobodalla LEP 2012
Eurobodalla LEP 2012	None	<ul style="list-style-type: none"> <li>• Amaroo residence (Listing- I175)</li> <li>• Shops (Listing- I179)</li> <li>• Former RAAF hut (Listing- I177)</li> <li>• The wreck of the rover memorial (Listing- I171)</li> <li>• Greengates residence (Listing I178)</li> <li>• Former Cooks Mill loggers hut (Listing I173)</li> <li>• Araluen residence (Listing- I174)</li> <li>• Remnant rural fencing (Listing- I176)</li> </ul>
Eurobodalla Residential Zones DCP 2011	None	<p>DCP Controls apply to the above heritage items but will not impact the current proposed works.</p> <p>All lots zoned R2 Residential must comply with the Landscaping Code (Eurobodalla Shire Council 2012)</p>

The additional searches concluded that there are no additional recorded historic or Aboriginal heritage items within the Activity Area, though several sites occur within proximity.

Eight sites with local heritage listings in the Eurobodalla LEP 2012 are situated within the 1 km search area but are all situated within the Mossy Point settlement on the northern side of Candlagen Creek. The closest listings to the Activity Area are the Former Cooks Mill Loggers Hut (Listing I173) and Araleun Residence (Listing I174) which are both situated over 500 m from the Activity Area. None of the eight heritage sites listed in the Eurobodalla LEP 2012 will be impacted by the proposed schedule of works.

## **Step 2b – Are there any other sources of information of which a person is already aware?**

Yes.

### Previous heritage assessments within or relevant to the Activity Area

No previous heritage assessments have been undertaken within the Activity Area; however, several have been undertaken in relation to development applications in the vicinity.

The heritage assessments presented in Table 4 have occurred nearby to the Activity Area.

**Table 4: Previous heritage assessments within proximity of the Activity Area**

Author and date	Title	Relevance to Activity Area
Dibden, J. (2004)	Proposed subdivision part Lot 2 DP 1037342 Candlagen Drive, Broulee Aboriginal Archaeological Assessment	<p>An archaeological survey was conducted in response to a proposed subdivision of 39 residential lots at the southern boundary of the Activity Area. The survey identified a sparse scatter of shell with potential cultural origins. No stone artefacts nor areas of archaeological potential were identified. The land was assessed to have low archaeological sensitivity.</p> <p>Historical disturbances associated with vegetation clearance, grading and the dumping of sand, mulch and gravels were observed. The presence of old and recent tree stumps suggested that the area has been previously utilised for the harvesting of timber.</p> <p>As part of the survey program, an exposure of shells was identified associated with the Candlagen Creek Midden (58-4-0922). A total of 15 fragmented and relatively whole whelk shells were identified at 244586E 6030170N. The exposure had been disturbed by the installation of a sewer line, vegetation clearance and vehicle movements.</p> <p>This study has relevance to an assessment of the archaeological potential of deposits associated with the Candlagen Creek Midden (58-4-0922) which also is considered to extend into the school grounds.</p>
Allen, J. (2003)	Subsurface archaeological testing of Lot 30, DP 835881, 56 Candlagen Drive, Broulee NSW 2537	<p>A subsurface testing program comprising twenty-five 25 cm square shovel pits was excavated at approximately 5 m intervals. Each pit was excavated to a depth of 60 cm, with four out of the five artefacts that were identified occurring within the first 20 cm. The sandy deposits were dry sieved using a 6 millimetre (mm) mesh sieve.</p> <p>Broadly speaking, the test excavation revealed a stratigraphic sequence consisting of A-horizon grey sand that will grade over time from light grey to dark grey in the most recent levels (suggested to reflect the relatively higher humic content). The B-horizon consists of yellow dune sand. Allen suggested that the pattern, however, can be affected by concentrations of charcoal at any depth in the sequence. The presence of an overlying dark grey sand in the A horizon was observed at 4 test pits, whilst at 9 other pits there was no distinction. Allen suggested that the darker grey facies had been removed from these 9 locations.</p> <p>Eleven pits situated to the south displayed clear evidence for stratigraphic disturbance and reworking in the form of the B horizon sitting above the A horizon and/or intermixed A and B soil horizons. Allen concluded that the site was situated within a linear beach ridge running approximately north-east to south-west.</p> <p>Allen (2003) suggested that a ridge and swale present in the north-western portion of the site (Block B) was levelled and shifted into a lower swale zone in the south (Block A).</p> <p>A small area in the north-east of the site may have either reflected the original ground surface or may have been filled in with indistinguishable grey sand.</p>

		<p>Overall, between 80 to 100% of the tested area was found to be disturbed by these levelling works.</p> <p>Allen (2003) surmised that the stone artefacts that were identified in the southern portion of the site were likely moved or redistributed from their original location at the interface of A and B soil horizons along the higher ground of the beach ridge further to the north. The soils to the north-west (Block B) contained 4 artefacts at the boundary A- and B-horizon deposits. One artefact was excavated from a pit in the south (Block A) and was excavated from a depth of approximately 45 cm.</p> <p>A total of 29 complete and fragmented shells were recovered during the test excavation program, the majority of which were obtained from Pit 20 (22 shells) found in association with two stone tools at the interface of A- and B-horizon sands. All shells were from two species, the Hercules' Club Whelk (<i>Pyrazus ebeninus</i>) and the mud oyster (<i>Ostrea angasi</i>). Both estuarine species are still common in the Candlagen Creek sandy flats and mangroves nearby.</p>
Kuskie, P. L. (South East Archaeology) (2004)	An archaeological assessment of a proposed tourist recreation facility at Lot 3, George Bass Drive, Broulee, NSW	<p>An archaeological survey was conducted in response to a proposed tourist recreation facility west of George Bass Drive including land adjoining the western boundary of the school grounds (on the other side of George Bass Drive and adjoining vegetated areas).</p> <p>In total, two artefact scatters and three isolated finds were located during the survey. Broulee 1 (AHIMS ID# 58-4-0677) comprises two grey silcrete broken flakes that were identified on a low dune rise in the beach ridge plain along a vehicle track where surface visibility was 30%. The site had been disturbed by the construction and use of the vehicle track.</p> <p>Broulee 2 (AHIMS ID# 58-4-0678) comprises three artefacts that were identified on the lower slopes of a low hill with south-easterly aspect. The site has been disturbed by the construction and use of a vehicle track as well as vegetation clearance. The artefacts comprised a grey porphyry flaked piece, a red chert flake and a grey chert core measuring 54 mm x 44 mm x 32 mm.</p> <p>Broulee 3 (AHIMS ID# 58-4-0680) is a black acid volcanic flake that was identified on the lower slopes of a low hill (northerly aspect) and approximately 300 m east of Longvale Swamp.</p> <p>Broulee 4 (AHIMS ID# 58-4-0679) is a grey silcrete flaked piece that was identified on a low hill in proximity to an area bearing quartz.</p> <p>Broulee 5 (AHIMS ID# 58-4-0681) is a red jasper broken flake that was identified on the upper slope of a low hill and within a disturbed area of the vehicle track.</p> <p>The predictive model that was developed for the project suggested that archaeological sensitive areas for artefacts and shell midden material would be on banks and adjacent elevated areas of Candlagen Creek, Longvale Swamp and surrounding wetlands. Scarred trees were deemed to be possible in stands of mature vegetation, however, decades of logging in the local area have likely removed many mature trees that once stood there.</p>
Hughes, P. (Huonbrook Environment and Heritage) (2002)	An archaeological assessment of 22-24 (Lots 9 and 10) Massey Street, Broulee, NSW	<p>An archaeological survey was conducted in response to a proposed residential development at 22 and 24 Massey Street, Broulee. A field survey was conducted over one day by two archaeologists and one representative of the Mogo LALC. During the survey, no Aboriginal cultural artefacts were identified. Some shell was identified, however, this was considered to have been imported to the area as part of fill material.</p>
Lance, A. (1984)	An archaeological re-examination of the Broulee-	<p>An archaeological survey was conducted in response to the proposed construction of the Broulee- Mossy Point- Tomakin Sewerage Project. Much of the study area had previously been cleared of all but herbaceous vegetation or had been disturbed by housing subdivisions. The survey program involved the</p>

Mossy Point-Tomakin Sewerage Development Scheme	relocation of several sites previously identified by Gollan (1981) and recording these sites on NPWS site forms with representatives from the Batemans Bay and Mogo LALCs. Two midden sites situated in proximity to the present Activity Area were inspected including Candlagen Creek 1 (Mossy Point) (AHIMS ID# 58-4-0157) and Candlagen Creek 2 (Mossy Point) (AHIMS ID# 58-4-0158) were identified as containing a dark grey layer of sand containing mud oyster ( <i>Ostrea angasi</i> ) and Club Mud Whelk ( <i>Pyrazus ebeninus</i> ) were identified.
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These previous heritage assessments all provide information that contributes to the regional archaeological record. Coastal resources would have been widely utilised; however, the material remains of Aboriginal occupation of the region would not have been confined to these areas. The inter-tidal mudflats of Candlagen Creek and associated wetlands to the west would have made the area attractive as an important resource gathering place and for campsites. Various shell midden deposits have been identified in the local area, though their historical occurrence would have been broader and deeper than what can be observed in the modern-day following extensive vegetation clearance, grading and earthworks and various local residential developments. These interventions make it challenging to reconstruct specific patterns of occupation and resource exploitation for the Activity Area. The extensive disturbance observed within the Activity Area and at Broulee by European settlement has made it difficult to ascertain the extent of Aboriginal occupation in the region.

From these previous assessments, it can be concluded that the Activity Area would likely have been a location for both transitory and more intensive occupation by Aboriginal inhabitants, evidenced by the occurrence of the midden deposit and scarred tree. On a regional scale, the more intensive occupation would have been focused within areas containing diverse and plentiful resources, such as near the coast along beaches, at river mouths and on rock shelves, as well as along and near creek lines and within marshland and wetland areas. There is also the potential for intermittent campsites to have been present within the wider region, particularly in areas that were likely travelled through, for example near permanent water sources, and along spurs and ridgelines, which provide a vantage point to view the surrounding area. Isolated stone artefacts may be found in random situations within the disturbed landscape, though the extensive land clearing and development that occurred within the Activity Area has also likely resulted in the disturbance of previously intact archaeological deposits.

Within the area covered by the AHIMS search, a mix of sites are present including Artefacts (n=13), Artefacts and Midden (n=3), Artefacts and PAD (n=1), Burial (n=1), Midden and PAD (n=1) and Modified Tree (Carved or Scarred) (n=1). These features demonstrate how local Aboriginal populations had been modifying their environment and how they were able to make use of naturally occurring resources from the local area. However, only two registered AHIMS (scarred trees) exist within the Subject Area.

### **Step 2c - Are there landscape features that are likely to indicate the presence of Aboriginal Objects?**

Yes.

The following landscape features listed in the Due Diligence Code signify a high potential for the presence of Aboriginal Objects.

- Within 200 m of waters, or
- Located within a sand dune system, or
- Located on a ridge top, ridge line or headland, or
- Located within 200 m below or above a cliff face, or



- Within 20 m of or in a cave, rock shelter, or a cave mouth.

Based on the desktop assessment above (Section 2, Steps 2a and 2b) and the site inspection (Step 4), the Activity Area contains the following landscape features that are likely to indicate the presence of Aboriginal objects, as identified by the Due Diligence Code:

- Located within a sand dune system.

However, the Due Diligence Code clarifies that consideration of whether the proposed activity is within one of the landscape features above and is on land that is not disturbed land.

Throughout the school grounds, extensive portions of the Activity Area have been heavily modified in the past by previous excavation and levelling works or construction, resulting in the disturbance to the sandy deposit present. These earthworks have exposed large portions of the ground surface of the Activity Area, resulting in widespread loss of the A1 and A2 topsoils. Confined areas of minimal to lower levels of disturbance, however, were observed in some portions of the Activity Area including within the site boundaries of Broulee Midden 1, Broulee PAD 1 and Broulee Isolated Find 1 (Figure 9). All three areas have had limited prior ground disturbance in the form of track construction, vegetation clearance or through natural causes including erosion and bushfires. These areas retain significant vegetation cover over the majority of their extent. This vegetation cover is a constraint in regard to the site inspection. Within such areas there is a potential, given the sensitivity of the landscape and the lower levels of disturbance observed, that these areas contain intact deposits either comprising artefacts, shells or in rare cases, burials.

Despite there being various levels of disturbance evident throughout the Activity Area, caused by urban development and vegetation clearance, there are other areas with little to no previous disturbance and a site inspection of the Activity Area is warranted.

Two other areas, comprising Broulee Find 1 and Broulee Artefact Scatter 1 (Figure 9) display moderately disturbed deposits with areas of mixed A1, A2 and B1 horizon deposits. Though it is clear that previous adjoining construction have disturbed portions of these deposits, resulting in the intermixing and loss of some of the topsoils. As discussed below, cautionary boundaries around the shell and artefact objects are warranted so that they have no go zones during planned construction or ground disturbance works (as depicted in Figure 11).

### **Step 3 - Can the harm or the activity be avoided?**

Yes.

The due diligence assessment can be used to inform the design process for the Project in order to avoid harm to known Aboriginal cultural heritage sites. The site inspection and desktop research have established that extensive portions of the Activity Area have been subject to previous disturbance, including extensive earthworks to establish and maintain school facilities and teaching areas. The high ground surface visibility (GSV) available throughout large portions of the Activity Area (>25% GSV over at least 50% of the school grounds) has provided for a detailed impression of the extent of previous disturbance and the retention of intact A horizon soils in some areas. Some isolated areas with minimal disturbance and archaeological potential have been identified. In order to avoid impacts, planned works involving ground disturbance have either been removed from the project design or have been amended in order to prevent any ground surface impacts.

Regarding the proposed works, several options are available which would avoid harm to known Aboriginal cultural heritage sites. These avoidance measures have been discussed in consultation with other subconsultants to the project in order to avoid areas in proximity to known heritage. As a result of these negotiations, several amendments to the design and location of proposed works have been undertaken. Remaining cautionary measures to avoid or mitigate potential harm have been explored in detail in Table 5, Table 12 and in Section 1.3 The proposed activity.

Though sensitive landscape features and Aboriginal objects are present in the Activity Area, significant historical disturbance to the sensitive landscape have been observed. Throughout the entirety of the Activity Area, vegetation has been previously removed for previous construction either of physical school buildings, landscaped garden areas, numerous carparks and outside learning and recreation environments or for associated amenities.

No areas within the Activity Area are therefore strictly unaltered. The extent of previous ground disturbance negates the likelihood for intact and undisturbed landscape features with elevated archaeological potential to occur. Those areas that retain archaeological potential associated include Broulee Midden 1, Broulee PAD 1 and Broulee Isolated Find 1 (Figure 9). Nonetheless, the spatial extent of this archaeological potential as constrained by previous sub-surface disturbance cannot be ascertained within the boundaries defined in Figure 9 (owing to existing vegetation cover obscuring the ground surface). Consequently, to avoid potential harm, all forms of ground disturbance must be avoided in these areas (as detailed throughout this report).

The amended design of the planned works together with the requirement for temporary fencing to be installed prior to the planned works to visually identify and demarcate areas where no ground disturbance may occur (Figure 11) will provide a suitable approach to avoid harm to known heritage or to areas which cannot be adequately assessed in terms of archaeological potential.

#### **Step 4 - Does a desktop assessment and visual inspection confirm that there are Aboriginal Objects or that they are likely?**

Yes.

The desktop and visual inspection confirmed the presence of five Aboriginal cultural heritage sites within portions of the Activity Area that show limited disturbance (Figure 9).

A site inspection was conducted by Niche heritage consultant, Carly Todhunter, on 30 June and 1 July 2022. The inspection targeted areas of high visibility such as walking, vehicle trails and areas cleared of vegetation and included all areas of planned construction. The extent of the survey coverage is represented visually in Figure 10. Much of the Activity Area was covered by thick vegetation, grass, and leaf litter however frequent large exposures were present throughout. Overall, approximately 50% of the school offered good GSV (>25%) due to existing vegetation clearance. Across these areas, sandy soils were observed throughout, and it was possible to clearly identify whether A1 or A2 horizons were still present, and the extent to which they were intact.

Surface visibility was extremely low in some areas due to vegetation cover; however, several adjoining exposures could generally be inspected to provide some insight into the archaeological potential of the surrounding landscape and mature trees were inspected for evidence of cultural scarring.

Where surfaces were visible, a dark to light grey or yellow sand was identified. No raw material suitable to produce stone tools was observed. Throughout the Activity Area, various levels of disturbance were evident



because of extensive vegetation clearance, landscaping, building construction, path construction, drainage, underground utilities, sports facilities and associated infrastructure for the school. Several features were identified during the site inspection of relevance to this assessment and are summarised below.

In accordance with the Due Diligence Code of Practice, disturbed land is defined as land that has been *"...the subject of a human activity that has changed the land's surface, being changes that remain clear and observable."* (Due Diligence Code of Practice 2010: 18). Accordingly, while the Activity Area is located within a sand dune system, the potential for archaeological deposits is low due to the level of disturbance observed within portions of the Activity Area. The desktop assessment and visual inspection have both demonstrated that the entirety of the Activity Area has been disturbed to some extent. The vast majority of the ground surface of the Activity Area has been disturbed previously, and sub-surface disturbance has varied between very high levels within areas of previous extensive earthworks and construction to moderate to low in areas which have retained native vegetation or where introduced fill materials (crushed sandstone) have not been laid. Isolated areas with remnant A1 and A2 soils, though occurring in disturbed contexts due to previous vegetation clearance or construction, do remain within the Activity Area.

Three areas of archaeological potential (as identified in Figure 9 comprising the areas of Broulee Midden 1, Broulee PAD 1 and Broulee Isolated Find 1) have been identified. As a result of design changes comprising negotiations with other subconsultants to the project during the design phase, all ground surface and sub-surface impacts to these areas have been avoided. Planned construction to P6 (the Cultural Centre northern extension) is occurring within a thoroughly disturbed context subject to extensive previous ground disturbance (see Table 5). A combined approach of the temporary fencing around Broulee PAD 1 (as detailed in Table 12 and depicted in Figure 11) during construction works and the existence of a sufficient spatial buffer to this area will ensure that no potential harm to the identified area will occur.

Vegetation clearance within or in proximity to Broulee PAD 1 will be limited to above-ground impacts as described in Section 1.3 The proposed activity and detailed in Table 12. These provisions will ensure that no surface or sub-surface impacts to the identified PAD will occur.

Planned construction of P13 and P18 areas (Figure 9) will take place with cautionary buffers around sites Broulee Find 1 and Broulee Artefact Scatter 1 as a conservative approach to ensure that ground surface impacts within proximity to these sites will not occur. Though Broulee Find 1 and Broulee Artefact Scatter 1 have both been identified in disturbed contexts, as part of a cautionary approach the no-go zones have been devised with the support of the civil contractors and project management to prevent access during construction work (as defined in Table 12 and depicted in Figure 11).

### ***AHIMS sites within the Activity Area targeted during the site inspection***

Aboriginal cultural heritage sites recorded on AHIMS within the Activity Area were targeted during the site inspection. Previously registered Aboriginal cultural heritage site Candlagan Creek Scarred Tree (AHIMS ID# 58-4-0921) could not be ground-truthed during the site inspection.

### ***New sites identified within the Activity Area***

A total of six previously unrecorded Aboriginal cultural heritage sites were identified during the site inspection. The location of these sites and any relevant site buffers are identified in Figure 9.

These include a scarred tree (Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541), one midden and PAD site (Broulee Midden 1 (AHIMS ID# 58-4-1542)), one isolated shell find (Broulee Find 1 (AHIMS ID# 58-4-1540), one PAD site (Broulee PAD 1 (AHIMS ID# 58-4-1538)), one artefact scatter (Broulee Artefact Scatter 1

(AHIMS ID# 58-4-1539)), and one isolated find and PAD (Broulee Isolated Find 1 (AHIMS ID# 58-4-1537)). These six Aboriginal cultural heritage sites are described below. The associated site cards records are provided in Appendix D – AHIMS site cards.

A detailed summary of the results of the site inspection are provided in Table 5, including an assessment of the extent of previous disturbance, archaeological potential, and recommended actions in relation to identified heritage or areas of sensitivity.

Some areas with planned works are recommended to have temporary fencing installed during the proposed works to visually demarcate areas of sensitivity and avoid potential impacts. Their location is identified in Figure 11.

**Table 5: Summary of potential impacts and recommended actions in relation to planned construction or demolition works**

Proposed Works Area	Ground disturbance proposed	Ground surface visibility during site inspection	Soils observed on ground surface	Disturbance observed	Recommended actions
<b>Demolition/ relocation works</b>					
D1	Removing demountable from area.	100% within exposures, generally 10% due to grass cover, concrete pathways and landscaped beds.	Mixed beige/ grey sand with leaf litter and charcoal inclusions from recent fire activity.	Concrete pathways, concrete slab under the demountable buildings, landscaped beds with 2-15 cm mulch cover, irrigation pipe, underground electricity cables, likely previous earthworks in area prior to concrete slab being laid. Landscaped areas appear to have been mounded with sand from adjoining areas.	<p>The area has already been heavily modified, and no PAD was assessed as likely to occur in this area.</p> <p>The proposed works may proceed pursuant to the Unexpected Finds Procedure.</p>
D2	Removing demountable from area.	20% due to mulch cover	Mixed beige/grey sand with introduced gravel inclusions in some areas. Area mostly covered by mulch	Existing demountable building which is built on stilts and has only a small concrete slab at the entry. Area surrounding demountable has been levelled by earthworks prior to being landscaped. A gravel and mulch cover is present on the surface.	<p>No surface artefacts were observed in exposed areas. The area is unlikely to retain any sub-surface potential for intact archaeological remains due to the extent of prior construction and earthworks that have occurred.</p> <p>Proposed works may proceed pursuant to the Unexpected Finds Procedure.</p>

Proposed Works Area	Ground disturbance proposed	Ground surface visibility during site inspection	Soils observed on ground surface	Disturbance observed	Recommended actions
<b>New construction or extensions</b>					
E9	Western additions to existing senior science building including the demolition of existing features, earthworks and construction of the extension.	100% within exposures, generally 10% due to grass cover, concrete pathways and landscaped beds	Disturbed B-horizon yellow sands with sand underneath the existing demountable buildings containing high gravel content.	Area has been heavily modified due to concrete pathways and landscaping. It has likely been graded and shaped prior to the establishment of nearby demountable buildings. Underground electrical and communication services run through this area.	<p>The area has already been heavily modified, and no PAD was assessed as likely to occur in this area.</p> <p>E9 is currently under construction, having been permitted by previous approvals. No heritage has been identified within the area or in vicinity to the works. .</p>
E14	Construction of VET Building	100% within exposures, generally 5% due to grass cover	Dark sandy soils with likely introduced topdressing	<p>Due to thick grass cover it was not possible to determine the extent of disturbance present however the ground surface has clearly been cleared of vegetation, levelled, appears to have a top dressing added and then turf has been laid. The construction of a concrete pathway on raised ground and the shaping of adjacent edges suggests that the area has been shaped for erosion control. Due to underlying sand deposit it is likely that this area is irrigated for lawn maintenance. Deciduous trees have been planted.</p>	<p>Construction of the E14 buildings have already been approved.</p> <p>The area has already been heavily modified, and no PAD was assessed as likely to occur in this area.</p> <p>Proposed works may proceed pursuant to the Unexpected Finds Procedure.</p>
P1	Entry concourse (access pathways)	100% in adjoining exposures and 5% across the	Within modified areas the soils have been heavily disturbed	The area has experienced high levels of previous ground disturbance including significant	Due to extensive previous modifications, no areas of potential



Proposed Works Area	Ground disturbance proposed	Ground surface visibility during site inspection	Soils observed on ground surface	Disturbance observed	Recommended actions
		majority of P1 due to previous construction		earthworks in the past. These works include site levelling, a scraping back of the topsoils and replacement with top dressing for planting grass as well as existing construction including bitumen and concrete covered areas.	deposits or heritage have been identified. Proposed works may proceed pursuant to the Unexpected Finds Procedure.
P3, P4 and P13 carpark areas	Extension of carpark in predominately previously disturbed area.	100% in adjoining exposures and 5% across the proposed carpark site due to previous construction.	Within modified areas the soils have been heavily disturbed, however A- and B-horizon sands in adjoining exposures observed (Broulee Find 1 (AHIMS ID# 58-4-1540)).	<p>Within the existing carpark the underlying soils are likely to have been heavily impacted by previous earthworks. The existing temporary carpark area has clearly been levelled, vegetation clearance has occurred, and a surface cover of crushed sandstone and gravel have been laid down (and later compacted with a roller).</p> <p>The area contained within the cautionary boundary around Broulee Find 1 (AHIMS ID# 58-4-1540) is far less disturbed, having only been covered by steel trusses, boulders and some construction waste. This area retains good sub-surface integrity and all impact to this area must be avoided.</p>	<p>Extensive modification of P3, P4 and P13 has already occurred in the form of previous earthworks to establish the carpark and school entrance.</p> <p>No ground disturbance may occur within the cautionary boundary around Broulee Find 1 (AHIMS ID# 58-4-1540) (Figure 9). This area must be defined during construction works by temporary fencing (Figure 11).</p> <p>Provided ground impacts within the cautionary boundary around Broulee Find 1 (AHIMS ID# 58-4-1540) is avoided, the proposed works may proceed pursuant to the Unexpected Finds Procedure.</p>
P9	Uncovered external	100% within exposures, generally 5%	Very few exposures were present. The	The ground surface has already been heavily modified	No areas of undisturbed potential deposits were

Proposed Works Area	Ground disturbance proposed	Ground surface visibility during site inspection	Soils observed on ground surface	Disturbance observed	Recommended actions
	landscaped learning space	due to thick grass cover	topsoil appears to have an introduced topdressing which obscures the underlying soils	due to previous landscaping works including the construction of various concrete pathways, garden beds, the levelling of the site and the laying of grass,	identified during the site inspection, nor were any Aboriginal objects identified within areas of exposed soils. The area has had previous clearance of the topsoils and is unlikely to contain any heritage.
P10	Construction of new sports and recreation centre including earthworks, and site levelling.	100% within exposures, generally 5% due to thick grass cover	Very few exposures were present. The topsoil appears to have an introduced topdressing which obscures the underlying soils. Within the eroded hillside to the east, an unconsolidated pale brown sand (2.5 Y 8/2) was observed. Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539) comprises an artefact scatter and associated cautionary buffer corresponding to an area of lower levels of ground disturbance.	Following previous vegetation clearance, the area was clearly levelled and it is possible that the level of the playing fields was lowered to improve water retention in a challenging sandy environment. The adjoining embankment to the east has been formed for water management and to stabilise the area between the elevation changes between the sporting ground and adjoining residential blocks. Though extensive disturbance to the embankment can be expected resulting from the earthworks, some areas of A horizon soils were observed and therefore a cautionary boundary around the artefact scatter has been identified.	Extensive modification of the sporting fields has resulted in the area being unlikely to retain any intact archaeological deposits.  Avoidance of ground disturbance within Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539) during adjoining fence construction (P18) and P10 must be observed during the construction phase to act as a cautionary approach to avoid impacts around the artefact scatter. Temporary fencing around Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539) would be an appropriate measure to avoid any inadvertent damage (Figure 11).
P5	Planned Junior Learning Areas	100% within exposures, generally 10% due to grass cover, concrete	Mixed grey and beige sands with leaf litter and charcoal inclusions	Concrete pathways, concrete slab under demountable buildings, landscaped beds with 2-15 cm mulch	Ground disturbance in the vicinity of existing demountable buildings will disturb the sandy deposit. However, given the

Proposed Works Area	Ground disturbance proposed	Ground surface visibility during site inspection	Soils observed on ground surface	Disturbance observed	Recommended actions
		pathways and landscaped beds.		cover, irrigation pipe, underground electricity cables, likely previous earthworks in area prior to concrete slab being laid. Landscaped areas appear to have been mounded with sand from adjoining area.	<p>extent of previous ground disturbance the area is unlikely to retain an intact archaeological deposit.</p> <p>The proposed works may proceed pursuant to the Unexpected Finds Procedure.</p>
P6	Extension to the Cultural Centre	GSV was 0% due to thick grass cover, with a small exposure at the base of the hillside.	Mixed beige sand that has been heavily modified by previous earthworks associated with the construction of the cultural centre.	The soils at the proposed extension location have been extensively disturbed to create a raised platform immediately north of the cultural centre. Further to the north, a cleared area where students engage in gardening has been modified by the construction of a greenhouse, tree removal and ground levelling. The current building has a concrete slab construction.	<p>Due to the extensive disturbance, which was observed, the area is unlikely to retain any archaeological potential.</p> <p>During construction, harm must be avoided to the ground surface within Broulee PAD 1. If harm to this area can be avoided, then the proposed works may proceed pursuant to the Unexpected Finds Procedure.</p> <p>All vegetation clearance work within Broulee PAD 1 must not impact the ground surface, including no access by vehicles/machinery, use of hand tools only, whipper snipping is permitted but with a 100 mm clearance from the ground and the existing mown lawn buffer can be maintained. Further information as to the restricted activities that can be undertaken within the APZ zone in relation to identified heritage at Broulee PAD 1 and the</p>



Proposed Works Area	Ground disturbance proposed	Ground surface visibility during site inspection	Soils observed on ground surface	Disturbance observed	Recommended actions
					planned adjoining vegetation clearance works are described in detail in Section 1.3 The proposed activity, Table 5 and harm avoidance/mitigation measures specified in Table 12.
P7	Planned Community Hub Administration building	100% within exposures, generally 5% due to landscaping and grass cover	Dark grey to yellow sand with rounded quartz pebbles.	The area has been modified by ground levelling works in the past with soil used to form the adjoining plant beds. Disturbance in the area includes underground electricity and irrigation, landscaping including the construction of concrete pathways and major reshaping of the surrounding area.	Due to the extensive disturbance, which was observed, the area is unlikely to retain any archaeological potential.  Proposed works may proceed pursuant to the Unexpected Finds Procedure.
P9	Uncovered external landscaped learning space including the planned construction of New Junior School	GSV was 5% with only limited exposures observed.	Mixed beige sand that has been heavily modified by previous earthworks	The area has been heavily modified by previous earthworks including grading and levelling works, landscaping, the construction of concrete paths and the installation of underground services.	Due to the extensive disturbance which was observed, the area is unlikely to retain any archaeological potential.  Proposed works may proceed pursuant to the Unexpected Finds Procedure.
P16	Construction of a waste enclosure requiring a concrete footing	100% within exposures, generally 10% due to vegetation	Mixed beige sand that has been heavily modified by previous earthworks	The area has been heavily modified by previous earthworks including extensive vegetation clearance, levelling works and landscaping.	Due to the extensive disturbance, which was observed, the area is unlikely to retain any archaeological potential. A single Hercules mud wheel was identified in an adjoining area to the south (Broulee Find 1). Works.

Proposed Works Area	Ground disturbance proposed	Ground surface visibility during site inspection	Soils observed on ground surface	Disturbance observed	Recommended actions
					Proposed works at P16 have been subject to previous approval. Proposed works may proceed pursuant to the Unexpected Finds Procedure.
P17	Construction of a bike storage facility	100% within exposures, generally 10% due to vegetation	Mixed beige sand that has been heavily modified by previous earthworks	The area has been previously modified by extensive earthworks including vegetation clearance, levelling works, path construction and landscaping.	Due to the extensive disturbance observed to the ground surface, the area is unlikely to retain any archaeological potential and no Aboriginal heritage was identified. Proposed works may proceed pursuant to the Unexpected Finds Procedure.
P18	Transparent acoustic fence	100% within exposures, generally 10% due to vegetation	Unconsolidated pale brown sand (2.5 Y 8/2) was observed along the embankment. Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539) comprises an artefact scatter and associated cautionary buffer corresponding to an area of lower levels of ground disturbance.	The embankment to the east has been formed for water management and to stabilise the area between the elevation changes between the sporting ground and adjoining residential blocks. Though extensive disturbance to the embankment can be expected resulting from the earthworks, some areas of A horizon soils were observed and therefore a cautionary boundary around the artefact scatter has been identified.	Extensive earthworks associated with the formation of the embankment and adjacent sporting fields has resulted in the area being unlikely to retain any intact archaeological deposits.  Avoidance of ground disturbance within the cautionary boundary around Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539) during adjoining fence construction (P18) and P10 must be observed during the construction phase as a cautionary approach to avoid impacts around the artefact scatter. Temporary fencing around Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539) would be an appropriate measure to avoid any



Proposed Works Area	Ground disturbance proposed	Ground surface visibility during site inspection	Soils observed on ground surface	Disturbance observed	Recommended actions
					inadvertent damage (Figure 11).

## Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541)

Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541) is a large, scarred *Eucalyptus botryoides* tree with an elongated eclipse scar on the northern side of the tree trunk. The shape of the scar suggests the bark may have been removed to produce a shield or coolamon. Some previous fire damage was observed at the base of the tree trunk.

An overview of Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541) is provided in Table 6 below while Plate 5 to Plate 6 presents the general location of the site.

**Table 6: Site details for Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541)**

Overview					
Site type	Scarred tree	Corrected MGAE	244545	Corrected MGAN	6029920
Previous recording	New recording: Carly Todhunter (Niche)	Date of original recording	1 July 2022	Date of Updated Recording	27 July 2022
Location description					
Landform	Beach dune (relict)	Land use/ disturbance	Vegetated area within school grounds	Impacts	Adjoining earthworks to establish the northern carpark
Landscape type	Stable	Visibility	<5%	Exposure	<5%
Proximity to water	Candlagen Creek is situated 460 m to the north-east.				
Site details					
1. Scar	Elongated eclipse scar on the northern side of the trunk near to the base.				



**Plate 5: Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541). Facing south.**



**Plate 6: Ground surface visibility in the vicinity of Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541) was poor due to the presence of leaf litter and vegetation. Facing south.**



## Broulee Midden 1 (AHIMS ID# 58-4-1542)

This newly recorded site consists of a midden and PAD and is situated within a vegetated area at the northern perimeter of the Activity Area. Three distinct areas of exposed shell were identified comprising a total of seven rock oyster fragments. A- horizon soils comprising dark grey sand were observed on the ground surface at each location, however, as each shell fragment observed were located next to roots it is highly likely that the shell has been brought to the surface during track construction. Broulee Midden 1 (AHIMS ID# 58-4-1542) was found during the site inspection to retain A-horizon soils and had only experienced limited vegetation clearance.

Disturbance to the site has occurred to a limited extent prior to the site inspection in the form of new track construction. This construction involved narrow excavation by a small excavator, laying down crushed sandstone (less than 5 cm) and subsequent mechanical compaction with a roller. Vegetation and some topsoil sands have been pushed off the tracks into adjoining areas. Limited vegetation clearance is apparent in the form of tree roots present on the ground surface which have been removed and brought shell material to the surface. However, there is still some potential for subsurface deposits to occur in relation to this site.

An overview of Broulee Midden 1 (AHIMS ID# 58-4-1542) is provided in Table 7 below while Plate 7 to Plate 10 presents the general location of the site and shell fragments associated with the site.

**Table 7: Site details for Broulee Midden 1 (AHIMS ID# 58-4-1542)**

Overview					
Site type	Shell Midden and PAD	Corrected MGAE	244461	Corrected MGAN	6030089
Previous recording	New recording: Carly Todhunter (Niche)	Date of original recording	30 June 2022	Date of Updated Recording	25 June 2022
Location description					
Landform	Beach dune (relict)	Land use/ disturbance	Forested area within school grounds	Impacts	Track construction and vegetation clearance.
Landscape type	Stable	Visibility	10%	Exposure	10%
Proximity to water	Candlagen Creek is situated 380 m to the north-east.				
Site details					
1. Shell midden	Shell visible along the edges of newly formed tracks cutting through a patch of forest to the north-east of the Bush School area. Three distinct areas were identified comprising a total of seven rock oyster fragments.				
2. PAD	A- horizon soils comprising dark grey sand were observed on the ground surface. Broulee Midden 1 is situated within an archaeologically sensitive sand dune system, retains A-horizon soils and has only experienced limited vegetation clearance.				



**Plate 7: Broulee Midden 1 (AHIMS ID# 58-4-1542).  
Facing north.**



**Plate 8: Broulee Midden 1 (AHIMS ID# 58-4-1542).  
Facing south-west.**



**Plate 9: Oyster shell fragment identified on the surface  
of exposure within Broulee Midden 1 (AHIMS ID# 58-4-  
1542).**



**Plate 10: Further oyster shell fragment identified on  
the surface of exposure within Broulee Midden 1  
(AHIMS ID#58-4-1542).**



## Broulee Find 1 (AHIMS ID# 58-4-1540)

This newly recorded site consists of an isolated fragment of Hercules mud whelk, found within a partially eroded area adjoining the north-westerly boundary of the carpark (AHIMS ID# 58-4-1540). The site consists of an isolated shell fragment identified in a disturbed context on the surface of mixed yellow to grey sand. Adjoining areas to the south have experienced extensive previous disturbance associated with the construction of a carpark including vegetation clearance, grading works, the laying of crushed sandstone and subsequent compaction with rollers. A cautionary buffer has been applied around the shell fragment corresponding to those areas where crushed sandstone has not been laid. Though the shell is unlikely to be associated with a midden deposit, a cautionary buffer around the shell fragment has been applied to prevent ground surface impacts to this area (Figure 9).

An overview of Broulee Find 1 (AHIMS ID# 58-4-1540) is provided in Table 8 below while Plate 11 to Plate 13 presents the general location of the shell fragment and cautionary site buffer associated with the site.

**Table 8: Site details for Broulee Find 1 (AHIMS ID# 58-4-1540)**

Overview					
Site type	Shell Midden	Corrected MGAE	244280	Corrected MGAN	6029775
Previous recording	New recording: Carly Todhunter (Niche)	Date of original recording	30 June 2022	Date of Updated Recording	25 June 2022
Location description					
Landform	Beach dune (relict)	Land use/ disturbance	School grounds	Impacts	Earthworks
Landscape type	Stable	Visibility	10%	Exposure	10%
Proximity to water	Candlagen Creek is situated 700 m to the north-east				
Site details – artefact descriptions					
1. Shell fragment	A single Hercules club whelk fragment identified on the ground surface of an area of previously disturbed mixed yellow to grey sands				
2. Cautionary buffer	Area of lower levels of ground disturbance associated with the shell fragment. Though a midden or deposit is not predicted at the location, a cautionary buffer has been applied to avoid works in the immediate vicinity.				



**Plate 11: Southern boundary of Broulee Find 1 (AHIMS ID# 58-4-1540) displaying the presence of A1 and A2**



**Plate 12: A single *Pyrazus ebeninus* (Hercules club whelk) fragment was visible on the surface of Broulee Find 1 (AHIMS ID# 58-4-1540).**

soil horizons mixed with B horizon yellow sands. Facing west.



**Plate 13: Disturbance observed at Broulee Find 1 (AHIMS ID# 58-4-1540).**



## Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539)

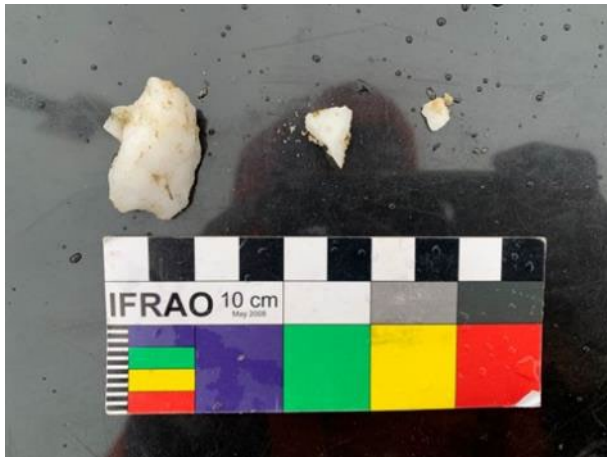
This newly recorded site details an artefact scatter comprising two quartz flakes and one quartz angular fragment found eroding from the mid-slope of a sandy bank running along the eastern boundary of the school, east of the planned Sports and Recreation Centre. Only limited areas of exposure were observed during the site inspection, however intact A-horizon soils were observed.

Disturbance to the site includes maintenance of the lawns and previous earthworks to establish the embankment and stabilise the slope. On the surface, B-horizon yellow sands were observed in some limited areas as evidence of this disturbance. Natural erosion was also noted at the site as well as disturbance through the continued use of the bank by students for fire drills and sporting events. A cautionary buffer around the site has been applied to ensure earthworks do not occur in the immediate vicinity of the artefact scatter. Due to the extent of previous disturbance, a PAD has not been identified in association with the site.

An overview of Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539) is provided in Table 9 below while Plate 14 to Plate 17 presents the general location of the site and artefacts associated with the site.

**Table 9: Site details for Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539)**

Overview					
Site type	Artefact scatter	Corrected MGAE	244513	Corrected MGAN	6029788
Previous Recording	New recording: Carly Todhunter (Niche)	Date of original recording	1 July 2022	Date of Updated Recording	25 July 2022
Location description					
Landform	Beach dune (relict)	Land use/ disturbance	School grounds- adjoining sports field	Impacts	Earthworks
Landscape type	Stable	Visibility	10%	Exposure	10%
Proximity to water	Candlagen Creek is situated 570 m to the north-east.				
Site details – artefact descriptions					
1. Flake	Bipolar quartz flake (L= 28.3mm, W= 20.37 mm and Th=10.79 mm)				
2. Flake	Quartz proximal flake (MD=11.97 mm)				
3. Angular fragment	Angular fragment of quartz (MD=6.62 mm)				
4. Cautionary buffer	A cautionary site buffer has been identified over an area 11 m × 40 m of visible A- and B-horizon soils. The area has been modified previously by vegetation clearance and the formation of the embankment, however, further artefacts may be present. A cautionary buffer has been applied in order to prevent adjoining construction from occurring in vicinity to the artefact scatter.				



**Plate 14: Artefacts at Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539).**



**Plate 15: Field embankment at Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539). Facing south-east. Soils were found to be disturbed by previous earthworks to create and maintain the adjacent playing fields.**



**Plate 16: Location of Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539). Facing east.**



**Plate 17: Soils present in adjacent exposure within Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539) showing the presence of intact A horizon soils. This location is approximately 10 m to the north of the artefact scatter.**



## Broulee Isolated Find 1 (AHIMS ID# 58-4-1537)

This newly recorded site comprises one quartzite flake and an associated PAD. The flake was identified on a small, mounded feature at the north-western boundary of the school. The mound was situated on the southern edge of a small walking track running parallel to the school's northern fence line. The walking track has only resulted in minimal ground disturbance. Soils present are a mix of dark to light grey sands (A1 and A2 horizons). The site has also been identified as a PAD due to the presence of intact A1 and A2 horizons within a sensitive dune landform and minimal disturbance to the deposits.

Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541) is situated approximately 20 m west of this area.

During the site inspection, the area surrounding the site was identified as having minimal disturbance. The northern portion of PAD has been impacted. A small track with only minimal ground impact has been formed along the northern boundary. In the vicinity, some vegetation clearance has occurred, and some small saplings have been planted. There is a pile of mounded dirt present at the location which has likely been scraped back from adjoining areas and should be considered to be in a disturbed context. A large tree stump to the south-east and other large cut branches in the area suggest that vegetation in this area has been maintained by the groundskeepers. The impact of these aforementioned activities has not been extensive and the entirety of Broulee Isolated Find 1 (AHIMS ID# 58-4-1537) should be considered to have archaeological potential.

An overview of Broulee Isolated Find 1 (AHIMS ID# 58-4-1537) is provided in Table 10 below while Plate 18 to Plate 25 presents the general location of the site, as well as the identified artefact.

**Table 10: Site details for Broulee Isolated Find 1 (AHIMS ID# 58-4-1537)**

Overview					
Site type	Artefact scatter and PAD	Corrected MGAE	244575	Corrected MGAN	6029902
Previous recording	New recording: Carly Todhunter (Niche)	Date of original recording	1 July 2022	Date of Updated Recording	25 July 2022
Location description					
Landform	Beach dune (relict)	Land use/ disturbance	Forested area within school grounds	Impacts	Earthworks
Landscape type	Stable	Visibility	20%	Exposure	10%
Proximity to water	Candlagen Creek is situated 430 m to the north-east.				
Site details – artefact descriptions					
2.    Flake	Quartzite flake, feather termination, retouch possible on the ventral surface (MD 24 mm, L 24 mm, W 13.2 mm and Th 39 mm)				
3.    PAD	Large area of a minimally disturbed sand deposit situated within a sensitive dune landform and having limited vegetation clearance. Soils present are a mix of dark to light grey sands (A1 and A2 horizons) with some B-horizon yellow sands observed in areas of disturbance associated with sheet wash.				



**Plate 18: Broulee Isolated Find 1 (AHIMS ID# 58-4-1537) PAD. Facing north.**



**Plate 19: Broulee Isolated Find 1 (AHIMS ID# 58-4-1537) disturbance. Facing north-east.**



**Plate 20: Soils present south of Broulee Isolated Find 1 (AHIMS ID# 58-4-1537). Facing south.**



**Plate 21: Western portion of Broulee Isolated Find 1 (AHIMS ID# 58-4-1537) showing previous disturbance in adjoining areas to the west including the construction of an access road. Facing north-west.**



**Plate 22: Sheet erosion was observed on the surface of Broulee Isolated Find 1 (AHIMS ID#58-4-1537). Facing south.**



**Plate 23: Northern boundary of Broulee Isolated Find 1 (AHIMS ID# 58-4-1537). Facing north.**





**Plate 24: Cleared track at the northern boundary of Broulee Isolated Find 1 (AHIMS ID# 58-4-1537). Facing south-east**



**Plate 25: Potential use-wear identified on the edge of the quartzite flake at Broulee Isolated Find 1 (AHIMS ID# 58-4-1537).**

## Broulee PAD 1 (AHIMS ID# 58-4-1538)

This newly recorded site comprised a PAD that extends over an area of approximately 1700 m<sup>2</sup>. The PAD has experienced low levels of disturbance compared to adjoining areas and still retains the potential for archaeological deposits. Soils are predominately comprised of dark to light grey A-horizon soils (though some yellow B-horizon sands were also observed and suggest that at least some of the area has lost A-horizon soils or these have been mixed with more humic-rich sands). Common plants in this area are bracken, acacia and old man's banksia. Limited ground disturbance was observed during the site inspection, including the planting of some trees and likely damage from historic fires through the area. Ground surface visibility within this area was very poor (<5%).

Potential risks resulting from planned construction works comprising the Cultural Centre extension (P6) and adjoining vegetation clearance works in accordance with APZ zones are being managed through the establishment of temporary fencing to define the PAD area (Figure 11) and through detailed consideration of permitted vegetation clearance activities as defined in Table 12. These provisions will ensure that no ground disturbance to the PAD area will occur.

An overview of Broulee PAD 1 (AHIMS ID# 58-4-1538) is provided in Table 11 below while Plate 26 to Plate 29 presents the general location of the site and artefacts associated with the site.

**Table 11: Site details for Broulee PAD 1 (AHIMS ID# 58-4-1538)**

Overview					
Site type	PAD	Corrected MGAE	244478	Corrected MGAN	6030035
Previous recording	New recording: Carly Todhunter (Niche)	Date of original recording	30 June 2022	Date of Updated Recording	25 July 2022
Location description					
Landform	Beach dune (relict)	Land use/ disturbance	Forested area within school grounds	Impacts	Earthworks
Landscape type	Stable	Visibility	<5%	Exposure	<5%
Proximity to water	Candlagen Creek is situated 400 m to the north-east				
Site details – artefact descriptions					
1. PAD	Extending approximately 1700 m <sup>2</sup> , this vegetated area of forest has experienced lower levels of disturbance compared to adjoining areas and still retains the potential for archaeological deposits. Soils are predominately comprised of dark to light grey A-horizon soils (though some yellow B-horizon sands) were also observed and suggest that at least some of the area has lost A-horizon soils or these have been mixed with more humic-rich sands.				





**Plate 26: Broulee PAD 1 (AHIMS ID# 58-4-1538). Facing west.**



**Plate 27: Ground surface visibility was very poor during the site inspection at Broulee PAD 1 (AHIMS ID# 58-4-1538). Facing west.**



**Plate 28: Previous vegetation clearance on the north-western edge of Broulee PAD 1 (AHIMS ID# 58-4-1538). Facing north.**



**Plate 29: A2 horizon soils were identified within an area of exposure in the northern portion of Broulee PAD 1 (AHIMS ID# 58-4-1538).**

## **Step 5 - Further investigations and impact assessment**

The Activity Area is located within a sand dune system and encompasses Aboriginal heritage objects. However, redesign of the proposed works as well as preventative mitigation measures indicate harm to Aboriginal objects and areas that have the potential to contain Aboriginal objects, will be avoided (Table 12).

During the due diligence assessment, a number of avoidance measures were considered and jointly approved by Niche and other sub consultants to the Proponent to avoid harm to identified surface Aboriginal cultural heritage sites. The measures that will be implemented to avoid any potential impacts are outlined in Table 12.

Through the measures outlined below in Table 12 and the details summarised in Table 5, all impacts to known heritage will be effectively managed and avoided.

If harm to the Aboriginal cultural heritage sites identified during this assessment cannot be avoided, either because the measures outlined in Table 12 are not observed or unexpected finds are encountered, then further assessment in the form of an ACHA to inform an AHIP application must be undertaken to fully assess the impact of the proposed works on Aboriginal objects and cultural heritage resources within the

Activity Area. The ACHA is required to be completed in accordance with the *Guide to Investigating, Assessing, and Reporting on Aboriginal Cultural Heritage in NSW* (DECCW 2010c). If an ACHA is required, Aboriginal community consultation is to be carried out in accordance with the *Aboriginal Cultural Heritage Consultation Guidelines for Proponents 2010* (DECCW 2010b).

**Table 12: Summary of measures to avoid potential impacts to identified heritage sites**

Proposed works element	Potential impact	Aboriginal cultural heritage site	Avoidance measures
Fence construction along the eastern boundary of the school (P18)	Ground disturbance of cautionary boundary around Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539) occurring adjacent to the proposed fence	Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539)	<p>The planned construction of P18 has been moved to provide a cautionary buffer to the known artefact scatter. The P18 fence will be constructed in an area with extensive levels of previous earthworks associated with the creation and maintenance of the eastern sports ground.</p> <p>In order to avoid potential impacts, temporary fencing along the northern, western and southern boundary of the embankment (as defined as the cautionary boundary in Figure 11) is required to clearly demarcate the site and prevent any potential ground disturbance. The no go zone of Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539) (the whole site as defined by Figure 9) must be observed at all times.</p>
Vegetation clearance within the APZ comprising the removal of vegetation debris on the ground surface	Ground disturbance in an area adjacent and partially including an identified PAD.	Broulee PAD 1 (AHIMS ID# 58-4-1538) and Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541)	<p>No works (vegetation clearance or otherwise) or vehicles/machinery may enter the designated no go zones shown in Figure 11. This includes the area of Broulee Scarred Tree 1 and the 50 m no go zone around Broulee Midden 1.</p> <p>Vegetation clearance/trimming is planned within Broulee PAD 1, however this can only be undertaken in a limited capacity with above-ground impacts to prevent any sub-surface impacts (see also Section 1.3).</p> <p>Removal of tree bark and branches is to be limited to manual removal (by hand/ raking) and may not occur at the site of Candlagen Creek Scarred Tree or at Broulee Scarred Tree 1 (Figure 9). No branch trimming is planned for either of these two areas.</p> <p>Any removal of trees, outside the designated no go zones, must be limited to the removal of the trunk leaving at least 20-30 cm of the trunk above the ground disturbance. Root systems cannot be disturbed.</p> <p>No branches can be cut below the ground surface that may cause any ground disturbance.</p> <p>All work to be conducted in accordance with the Unexpected Finds Procedure outlined in Section 4 Conclusions and Recommendations.</p> <p>All workers to be provided information as part of their induction as to the potential that shell deposits or stone artefacts may be present within this identified site boundary. A copy of relevant sections of this report including project mapping should be provided for their reference prior to the commencement of the</p>



Proposed works element	Potential impact	Aboriginal cultural heritage site	Avoidance measures
			<p>proposed works. This should occur prior to and at the stage of council approval of the works.</p> <p>Temporary fencing is to be installed around the southern and western boundaries of Broulee PAD 1 (AHIMS ID# 58-4-1538) as defined in Figure 11.</p> <p>Importantly, though no construction is proposed in proximity to Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541) or Candlagen Creek Scarred Tree (AHIMS# 58-4-0921) with potential to harm, as a cautionary approach, temporary fencing should be constructed around the sites to ensure that they are visually demarcated and treated as no-go zones during planned APZ vegetation clearance works or during the construction of P6 (as per Figure 11).</p>
Proposed extensions to the Cultural Centre (P6) and adjacent vegetation clearance works within the APZ zone	Though Candlagen Creek Scarred Tree (AHIMS# 58-4-0921) could not be relocated during the site inspection (Figure 9), temporary fencing is required at the location.	Candlagen Creek Scarred Tree (AHIMS# 58-4-0921)	<p>Temporary fencing to be installed with a 5 m buffer around the location of Candlagen Creek Scarred Tree (AHIMS# 58-4-0921) to demarcate the area during proposed construction and vegetation clearance works (as per Figure 11).</p> <p>This area is a no- go zone where workers may not enter or undertake any works.</p>
Proposed P13 carpark extensions and P16 waste enclosure	Cautionary buffer applied around location of isolated shell find at Broulee Isolated Find 1 (AHIMS ID# 58-4-1537) corresponding to an area of lower levels of previous ground disturbance.	Broulee Isolated Find 1 (AHIMS ID# 58-4-1537)	<p>Planned construction works at P13 and P16 will occur within previously heavily disturbed areas subject to previous earthworks and construction. Nonetheless, as a cautionary approach a buffer around Broulee Isolated Find 1 (AHIMS ID# 58-4-1537) has been established to demarcate the site and provide a buffer from planned activities (Figure 9).</p> <p>Temporary fencing is to be established around the full extent of the cautionary buffer (as per Figure 11).</p>

## 4 Conclusions and recommendations

Niche was commissioned by Colliers International Project Management to undertake an Aboriginal Objects DD assessment prior to proposed works associated with the St. Peters Community Hub & Sports & Recreation Centre project located at St. Peters College, 61 Train St, Broulee, NSW.

A site inspection was conducted on 30 June to 1 July 2022 by Carly Todhunter (Heritage Consultant, Niche) finding that the level of ground disturbance was already significant through large portions of the Activity Area. These disturbances included a major bushfire event in 2019, previous earthworks, vegetation clearance, underground utilities, the construction of various buildings and facilities, the installation of landscaping throughout the Activity Area and the creation of various paths and roads. Previous ground disturbance was observed across large portions of the Activity Area during the site inspection, as documented in Plate 2 to Plate 4, Plate 30 to Plate 39, Table 5 and Appendix B – Site inspection .

One previously recorded Aboriginal cultural heritage site, Candlagen Creek Scarred Tree (AHIMS ID# 58-4-0921) previously identified within the Activity Area could not be ground-truthed during the site inspection.

Six newly recorded Aboriginal cultural heritage sites were identified within the Activity Area during the site inspection including one scarred tree (Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541)), one midden and PAD site (Broulee Midden 1 (AHIMS ID# 58-4-1542)), one isolated shell find (Broulee Find 1 (AHIMS ID# 58-4-1540)), one PAD site (Broulee PAD 1 (AHIMS ID# 58-4-1538)), one artefact scatter (Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539)), and one isolated find and PAD (Broulee Isolated Find 1 (AHIMS ID# 58-4-1537)) (outlined in detail in Step 4).

A summary of the site inspection results is provided in Step 4 of this DD assessment.

This due diligence assessment has been used to inform the final design of the Project in order to avoid impact to known Aboriginal cultural heritage sites and areas where potential archaeology are likely to occur. All planned construction works will avoid impacts to identified Aboriginal cultural heritage. Through the implementation of measures outlined in Table 12, potential impacts associated with vegetation clearance will be appropriately managed.

Based on completion of this DD by Niche, the following recommendations have been made:

**Table 13: Recommendations**

Recommendations	
1.	No works are permitted in any of the identified site or site extents, or no-go zones demarcated in Figure 11, with the exception of Broulee PAD 1 where limited above-ground vegetation clearance works are permitted (as specified in Section 1.3 and Table 12). The Proponent and all associated contractors are reminded that Part 6 of the <i>National Parks and Wildlife Act</i> (1974) provides protection for all Aboriginal objects and declared Aboriginal places from harm. Harm is defined as destroying, defacing, damaging or moving an object from the land. An Aboriginal Heritage Impact Permit (AHIP) is a legal document that grants you permission to harm Aboriginal objects or declared Aboriginal places and sets out any conditions you must comply with. An AHIP is required to disturb any Aboriginal objects or places.
2.	The harm avoidance measures outlined in Table 12 in relation to planned vegetation clearance works must be implemented.
3.	Any modifications outside of the proposed infrastructure footprint provided at the time of this report will require further archaeological assessment in the form of an ACHA.



Recommendations	
4.	In the event that previously unknown Aboriginal object(s) and/or sites are discovered during the proposed activity, work must stop, and an appropriately qualified archaeologist be contacted to access the nature, extent and significance of the identified sites.
5.	If any harm to the Aboriginal cultural heritage sites (including observance of the temporary fencing locations, no-go zones and provisions related to the limited vegetation clearance permitted in the APZ zone in relation to identified heritage) as detailed during this assessment cannot be avoided, then further assessment in the form of an ACHA must be undertaken to fully assess the impact of the proposed works on Aboriginal objects and cultural heritage resources within the Activity Area. The ACHA is required to be completed in accordance with the <i>Guide to Investigating, Assessing, and Reporting on Aboriginal Cultural Heritage in NSW</i> (DECCW 2010c) and consultation conducted in accordance with the (DECCW 2010b) <i>Aboriginal Cultural Heritage Consultation Guidelines for Proponents 2010</i> . No consultation with the Aboriginal community has been undertaken to date for this project but must be undertaken for any works outside the identified development plan or within the no go zones identified. An Aboriginal Heritage Impact Permit (AHIP) and potential test excavation program would be required if harm to the identified sites could not be avoided.
6.	All new Aboriginal cultural heritage sites identified during the site inspection be registered through AHIMS.
7.	<p>Temporary fencing requirements and/or no-go zones should be observed in the following locations during the proposed works as detailed in Figure 11:</p> <ul style="list-style-type: none"> <li>• Around southern and western boundaries of Broulee PAD 1 (AHIMS ID# 58-4-1538) PAD</li> <li>• Along the northern, western, and southern sides of the cautionary boundary to Broulee Artefact Scatter 1 (AHIMS ID# 58-4-1539)</li> <li>• 10 m around AHIMs ID #59-4-0921</li> <li>• 10 m around Broulee Scarred Tree 1 (AHIMS ID# 58-4-1541)</li> <li>• Around the extent of the cautionary boundary to Broulee Find 1 (AHIMS ID# 58-4-1540)</li> <li>• Along the western boundary of Broulee Isolated Find 1 (AHIMS ID# 58-4-1537) PAD</li> <li>• All site extent areas shown in Figure 8 (either with or without visual demarcations in the form of temporary fencing) must be identified as 'no go zones' on all construction management plans and site inductions. No works are allowed in these areas, with the exception of limited, above-ground impacts as to Broulee PAD 1 as specified in Section 1.3 and Table 12).</li> </ul> <p>Georeferenced GPS photographs must be undertaken to demonstrate construction of temporary high visibility fencing at those locations specified in Figure 8 to the qualified Niche heritage consultant who conducted the field survey for review and approval prior to any works proceeding.</p>
<b>General</b>	
8.	All school staff should be made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> before, during, and after any campus management that may result in ground disturbance.
9.	All workers should be inducted into the Activity Area, so they are made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> and any conditions of any future AHIP prior and during and after construction activities.
10.	<p>The following Find Procedure should be put in place as a minimum response in the event of the identification of artefacts within the Activity Area during proposed works or before an ACHA can commence:</p> <ul style="list-style-type: none"> <li>• Work in the surrounding area is to stop immediately.</li> <li>• A temporary fence is to be erected around the Aboriginal cultural heritage site, with a buffer zone of at least 10 m around the known edge of the Aboriginal cultural heritage site.</li> <li>• An appropriately qualified archaeological consultant is to be engaged to identify the material; and</li> <li>• Should the material be confirmed as an Aboriginal object or archaeological site, facilitate, in co-operation with the appropriate authorities and the local Aboriginal community:</li> </ul>

## Recommendations

	<ul style="list-style-type: none"> <li>▪ The recording and assessment of the finds.</li> <li>▪ Compliance with any legal requirements and Heritage NSW directions.</li> <li>▪ The development and implementation of appropriate management strategies based on an assessment of significance of the finds.</li> <li>▪ Recommencement of ground disturbance works may only resume once legal requirements are fulfilled.</li> <li>• An AHIP will be required.</li> </ul>
11.	<p>In the unlikely event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately and:</p> <ul style="list-style-type: none"> <li>• The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm.</li> <li>• The NSW Police must be contacted immediately.</li> <li>• No further action is to be undertaken until the NSW Police provide written notification the Proponent.</li> <li>• If the skeletal remains are identified as Aboriginal, the Proponent or their agent must contact: <ul style="list-style-type: none"> <li>▪ Heritage NSW's Enviroline on 131 555; and representatives of the RAPs.</li> </ul> </li> <li>• No works are to continue until Heritage NSW provides written notification to the proponent or their Agent.</li> </ul>



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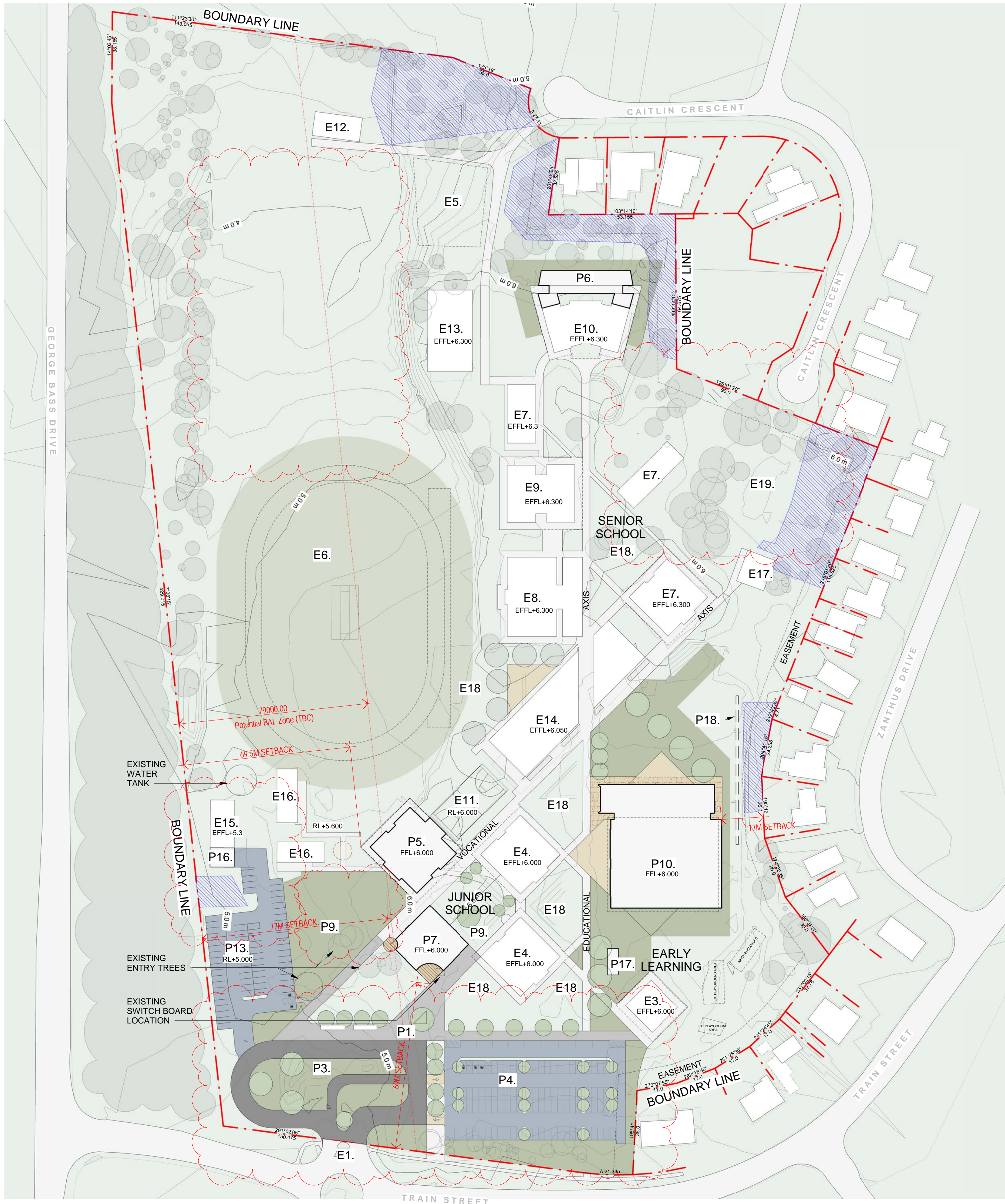
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## 6 Appendix A – Concept plan





### LEGEND

- | EXISTING  | PROPOSED   |
|---|--|
| E1. EXISTING VERGE CROSSING   | P1. ENTRY CONCOURSE  |
| E2. PEDESTRIAN THOROUGHFARE   | P2. NATURE PLAY  |
| E3. EARLY LEARNING CENTRE   | P3. EXTENDED BUS DROP-OFF                                  |
| E4. JUNIOR LEARNING AREAS   | P4. PROPOSED PARKING                                       |
| E5. EXISTING GARDEN   | P5. JUNIOR LEARNING AREAS                                  |
| E6. MAIN OVAL   | P6. SPECIALIST MUSIC AREAS                                 |
| E7. SENIOR LEARNING AREAS   | P7. COMMUNITY HUB - ADMIN                                  |
| E8. CAMPUS LIBRARY  | P9. UNCOVERED EXTERNAL LANDSCAPED LEARNING SPACE           |
| E9. SENIOR SCIENCE EXTENSION - UNDER CONSTRUCTION (SUBJECT TO SEPARATE APPROVALS) | P10. PROPOSED SPORTS & RECREATION CENTRE                   |
| E10. CAMPUS PREFORMING ARTS CENTRE  | P11. INFORMAL PARKING                                      |
| E11. OUTDOOR PLAYING COURTS   | P13. PROPOSED STAFF PARKING                                |
| E12. BUSH SCHOOL  | P16. WASTE ENCLOSURE (SUBJECT TO SEPARATE APPROVAL)        |
| E13. D&T TRADE WORKSHOP   | P17. BIKE STORAGE  |
| E14. CAMPUS HUB - UNDER CONSTRUCTION (SUBJECT TO SEPARATE APPROVALS)              | P18. TRANSPARENT ACOUSTIC FENCE - REFER TO ACOUSTIC REPORT |
| E15. MAINTENANCE  |  |
| E16. DEMOUNTABLES   |  |
| E17. DEMOUNTABLE  |  |
| E18. EXISTING OUTDOOR LEARNING  |  |
| E19. EXISTING INFORMAL PARKING  |  |

LEGEND: SITE PLANS		LEGEND: BUILDINGS		LEGEND: LANDSCAPE	
FFL X.XXX	PROPOSED FINISHED FLOOR LEVEL (METRES) ABOVE DATUM.	E.no	EXISTING BUILDING	GR	PROPOSED TREE
FSL X.XXX	PROPOSED FINISHED SLAB LEVEL (METRES) ABOVE DATUM.	P.no	PROPOSED BUILDING	GR	PROPOSED TREE
RL X.XXX	PROPOSED REDUCED SPOT LEVEL (METRES) ABOVE DATUM.		PROPOSED SOFT LANDSCAPING		
EFFL X.XXX	EXISTING FINISHED FLOOR LEVEL (METRES) ABOVE DATUM.		PROPOSED LANDSCAPING		
EFSL X.XXX	EXISTING FINISHED SLAB LEVEL (METRES) ABOVE DATUM.		PROPOSED BITUMEN ROAD/PARKING		
ERL X.XXX	EXISTING REDUCED SPOT LEVEL (METRES) ABOVE DATUM.		PROPOSED ROADWAY BUS		

**NOTES:**  
1. TO BE READ IN CONJUNCTION WITH LANDSCAPE DRAWINGS.  
2. REFER TO LANDSCAPING, CIVIL AND HYDRAULIC DOCUMENTATION.  
3. RLS SHOWN ARE INDICATIVE. SUBJECT TO DETAIL DESIGN & FINAL FOOTPATH / CIVIL LEVELS.  
4. READ DRAWING IN COLOUR.  
5. HERITAGE FEATURES APPROXIMATE.



## 7 Appendix B – Site inspection photographic records



**Plate 30: D2 Demountable, showing the extent of ground disturbance, facing south-east.**





**Plate 31: Area of exposure on the north-western side of D2 demountable building, showing the intermixing of sand and introduced gravel and mulch, photo facing north-west towards D1 demountable building (right).**



**Plate 32: Grassed area adjoining D1 demountable building, showing the extent of grass cover and sand exposure to the east. Photographed facing west.**





**Plate 33: Exposed area of sand on the eastern side of D1 demountable building. A large area of exposed sand ranging in colour from grey to yellow was visible on the ground surface. No surface shell or artefacts were identified. Identified previous disturbance includes the presence of underground irrigation and electricity cables. Concrete slab present under the demountable buildings. Landscaped area to the east (left) has a shallow mulch cover of less than 5 cm.**





**Plate 34:** Close- up of exposure east of the D1 demountable building. Soils in the exposure are generally A-horizon with visible charcoal fragments and leaf litter. An area of disturbance is situated close to the demountable with B-horizon yellow sands present around the concrete slab foundation.



**Plate 35:** Landscaped areas in near E9 building. Disturbance in this area includes the concrete pathways, underground electrical and communication services. Area is sloped slightly to the east.





**Plate 36: Exposures in the vicinity of E9 building were inspected. No shell fragments or other artefacts were observed on the ground surface. The surrounding area has likely been levelled and the slope to the playing grounds shaped for erosion control.**



**Plate 37: Planned location of E14 VET Building (western side) in area presently covered by lawns, landscaped areas and a concrete pathway. Previous earthworks in this area have likely disturbed the ground surface, though very few exposures were present in this area.**





**Plate 38: Planned location of E14 VET Building (eastern side) in area presently covered by lawns, landscaped areas and a concrete pathway with a wall on the northern side. The area has been landscaped and the edge of the higher ground is bordered by a short wall to the east. Earthworks have likely occurred throughout the proposed location as part of previous landscaping works. Photographed facing north-west.**



**Plate 39: Location of the planned P10 Sports and Recreation Centre. The current grounds have been heavily disturbed by previous vegetation clearance, maintenance of the playing fields and the installation of irrigation. Grass cover reduced the GSV to 5% with few exposures present. Photographed facing south.**



## 8 Appendix C – AHIMS extensive search

# AHIMS Web Services (AWS)

## Extensive search - Site list report

Your Ref/PO Number : 7479 Broulee

Client Service ID : 695716

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
58-4-0680	Broulee 3	AGD	56	243620	6029850	Open site	Valid	Artefact : -	Isolated Find	98117,98608
	<u>Contact</u>	<u>Recorders</u>	Mr.Peter Kuskie					<u>Permits</u>		
58-4-0679	Broulee 4	AGD	56	243700	6029720	Open site	Valid	Artefact : -	Isolated Find	98117,98608
	<u>Contact</u>	<u>Recorders</u>	Mr.Peter Kuskie					<u>Permits</u>		
58-4-1364	Broulee SPS PAD	GDA	56	244358	6029411	Open site	Valid	Potential Archaeological Deposit (PAD) : 1, Artefact : -		104049
	<u>Contact</u>	<u>Recorders</u>	Doctor.Julie Dibden,Doctor.Julie Dibden,NSW Archaeology Pty Ltd,NSW Archaeolog					<u>Permits</u>	4179	
58-4-0681	Broulee 5	AGD	56	243820	6029750	Open site	Valid	Artefact : -	Isolated Find	98117,98608
	<u>Contact</u>	<u>Recorders</u>	Mr.Peter Kuskie					<u>Permits</u>		
58-4-1096	Broulee Beach Estate - BBE3	AGD	56	244293	6028522	Open site	Valid	Artefact : -		99524,99702
	<u>Contact</u>	<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd					<u>Permits</u>	2253,2254,2791	
58-4-1095	Broulee Beach Estate - BBE2	AGD	56	244342	6028610	Open site	Valid	Artefact : -		99524,99702
	<u>Contact</u>	<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd					<u>Permits</u>	2253,2254,2791	
58-4-1094	Broulee Beach Estate - BB E 1	AGD	56	244363	6028672	Open site	Valid	Artefact : -		99524,99702
	<u>Contact</u>	<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd					<u>Permits</u>	2253,2254,2791	
58-4-0157	Mossy Point;Candalagan Creek 1;	AGD	56	244950	6029900	Open site	Valid	Shell : -, Artefact : -	Midden	815,98117
	<u>Contact</u>	<u>Recorders</u>	Mr.Allan Lance					<u>Permits</u>		
58-4-0677	Broulee 1	AGD	56	243880	6030520	Open site	Valid	Artefact : -	Open Camp Site	98608
	<u>Contact</u>	<u>Recorders</u>	Mr.Peter Kuskie					<u>Permits</u>		
58-4-1093	Broulee Beach Estate - BB E 4	AGD	56	244525	6028707	Open site	Valid	Artefact : -		99524,99702
	<u>Contact</u>	<u>Recorders</u>	Navin Officer Heritage Consultants Pty Ltd					<u>Permits</u>	2253,2254,2791	
58-4-0158	Mossy Point;Candalagan Creek 2;	AGD	56	244500	6030150	Open site	Valid	Shell : -, Artefact : -	Midden	815
	<u>Contact</u>	<u>Recorders</u>	Mr.Allan Lance					<u>Permits</u>		
58-4-1362	Banksia Extension 1	GDA	56	244339	6029055	Open site	Valid	Artefact : -		103694,104308
	<u>Contact</u>	<u>Recorders</u>	Access Archaeology and Heritage Pty Ltd,Mr.Douglas Williams					<u>Permits</u>	4306	
58-4-1363	Banksia Extension 2	GDA	56	244346	6029016	Open site	Valid	Artefact : -		103694,104308
	<u>Contact</u>	<u>Recorders</u>	Access Archaeology and Heritage Pty Ltd,Mr.Douglas Williams					<u>Permits</u>	4306	
58-4-0678	Broulee 2	AGD	56	243850	6029400	Open site	Valid	Artefact : -	Open Camp Site	98117,98608
	<u>Contact</u>	<u>Recorders</u>	Mr.Peter Kuskie					<u>Permits</u>		
58-4-1351	BBE5	GDA	56	244234	6028736	Open site	Destroyed	Artefact : 15		103540,103719,104278
	<u>Contact</u>	<u>Recorders</u>	Doctor.Julie Dibden,NSW Archaeology Pty Ltd,NSW Archaeology Pty Ltd					<u>Permits</u>	3971,4120,4740	
58-4-1361	Banksia Extension 3	GDA	56	244356	6028986	Open site	Not a Site	Artefact : -		103693,103694,104308
	<u>Contact</u>	<u>Recorders</u>	DPIE - Armidale,Access Archaeology and Heritage Pty Ltd,Ms.Sarah Robertson,Mr.I					<u>Permits</u>	4102,4712	

Report generated by AHIMS Web Service on 27/06/2022 for Carly Todhunter for the following area at Lot : 1, DP:DP1037342, Section : null with a Buffer of 1000 meters.. Number of Aboriginal sites and Aboriginal objects found is 20

This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.





Client Service ID : 695716

<p><b>** Site Status</b></p> <p><b>Valid</b> - The site has been recorded and accepted onto the system as valid</p> <p><b>Destroyed</b> - 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.</p> <p><b>Partially Destroyed</b> - 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</p> <p><b>Not a site</b> - 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</p>
---

Page 2 of 2

## 9 Appendix D – AHIMS site cards





# National Parks and Wildlife Service

Box 1967, Hurstville NSW 2220. Tel: (02) 9585 6444

Standard Site Recording Form

Revised 5/88

1:250,000 map sheet:

Ulladulla

NPWS Code

15.81

AMG Grid reference

Full reference - please include leading digits

GDA (Please Circle)

Scale of map used for grid reference

Please use largest scale available

250K

2 4 4 3 5 0 mE

25K

Yes ☒ No ☐

☒ 25K, 50K (preferred)

☐ 100K

☐ 250K

5/6

250K

6 2 9 8 2 0 mN

25K

1:25K, 50K, 100K map name:

Mogo 8926-III-N

HEAD OFFICE USE ONLY:

NPWS Site no: 58-4-0921

Site types:

Accessioned by: \_\_\_\_\_ Date: \_\_\_\_\_

Data entered by: \_\_\_\_\_ Date: \_\_\_\_\_

Owner/Manager: Eurobodulla Shire Council

Address: Morya

Site name: Candlagen Creek

Locality/property name: Bronte

NPWS District: Narooma

Region: Southern (Far South Coast)

Reason for investigation

Found during Flora & Fauna survey

Portion no:

Parish:

Photos taken? Yes

How many attached? none

How to get to the site (refer to permanent features, give best approach to site eg. from above, below, along cliff (Draw diagram on separate sheet.)

Other sites in locality? Yes

Are sites in NPWS Register? Yes

Site Types include: Scattered trees, antechinus middens

Have artefacts been removed from site? No

By whom?

When?

Deposited where?

Is site important to local Aborigines? Yes

Give contact(s) name(s) + address(es) Mogo LALC

Contacted for this recording? No

(Attach additional information separately) If not, why not? change find

Verbal/written reference sources (including full title of accompanying report)

NPWS Report Catalogue #

Checklist  
surface visibility,  
damage/disturbance/  
threat to site

Condition of site

living + in good health - upper canopy  
dead from old age & tree

Recommendations for management & protection (attach separate sheet if necessary)

Preserve in situ.

Site recorded by: P. Boot, D. Towers

Date: 19/12/01

Address/institution: NPWS

# SITE POSITION & ENVIRONMENT

OFFICE USE ONLY: NPWS site no:

1. Land form a. beach/hill slope/ridge top, etc: *beach ridge (ndict)*

b. site aspect: *360°*

c. slope: *0°*

d. mark on diagram provided or on your own sketch the position of the site:

e. Describe briefly:

*Scared tree on  
forested beach ridge*



f. Local rock type: *sand*

g. Land use/effect: *Crown land*

2. Distance from drinking water:

Source:

3. Resource Zone associated with site (estuarine, riverine, forest etc):

*Estuarine / forest*

4. Vegetation: *Open eucalypt forest*

5. Edible plants noted:

6. Faunal resources (include shellfish):

7. Other exploitable resources (river pebbles, ochre, etc):

Site type:

*Scared  
tree*

## DESCRIPTION OF SITE & CONTENTS.

Note state of preservation of site & contents. Do NOT dig, disturb, damage site or contents.

Site 1 – Scared tree – This tree is located within the proposed Broulee Anglican College site. It appears to be a Red Bloodwood. A gps generated grid reference places the tree slightly west of the geographic centre of the proposed school site at 244354e 6029820n. The tree has been marked with red flagging tape tied around the trunk. The scar is an elongated ellipse on the southern side of the trunk. It is consistent with the characteristics of a scar created by Aboriginal people as a result of bark removal for the purpose of producing a shield or bark container. The scar is approximately 100 cm long and 20 cm wide. There has been considerable regrowth since the scar was created, suggesting that it is very old. The tree also appears to be of considerable age due to its size and senescent nature (most of the crown has died). The original scar may have been up to 80 cm wide.

### CHECKLIST TO HELP:

length, width, depth, height of site, shelter, deposit, structure, element eg. tree scar, grooves in rock.

DEPOSIT: colour, texture, estimated depth, stratigraphy, contents-shell, bone, stone, charcoal, density & distribution of these, stone types, artefact types.

ART: area of surface decorated, motifs, colours, wet, dry pigment, technique of engraving, no. of figures, sizes, patination.

BURIALS: number & condition of bone, position, age, sex, associated artefacts.

TREES: number, alive, dead, likely age, scar shape, position, size, patterns, axe marks, regrowth

QUARRIES: rock type, debris, recognisable artefacts, percentage quarried.

OTHER SITES EG. structures (fish traps, stone arrangements, bore rings, mia mias), mythological sites, rock holes, engraved groove channels, contact sites (missions massacres cemeteries) as appropriate

Attach sketches etc. eg. plan & section of shelter, show relation between site contents, indicate north, show scale.

Attach annotated photos (stereo where useful) showing scale, particularly for art sites.



AHIMS site ID: 58-4-1537

Date recorded: 23-01-2023

## Site Location Information

Site name: Broulee Isolated Find 1

Easting: 244575

Northing: 6029902

Coordinates must be in GDA94 (MGA)

Horizontal Accuracy (m):

4

Zone: 56

Non-Differential GPS

## Recorder Information

(The person responsible for the completion and submission of this form)

Title	Surname	First name
Ms.	Todhunter	Carly
Organisation:	Niche Environment and Heritage	
Address:	2 Rixon Avenue Bulli NSW 2524	
Phone:	0458001164	E-mail: ctodhunter@niche-eh.com

## Site Context Information

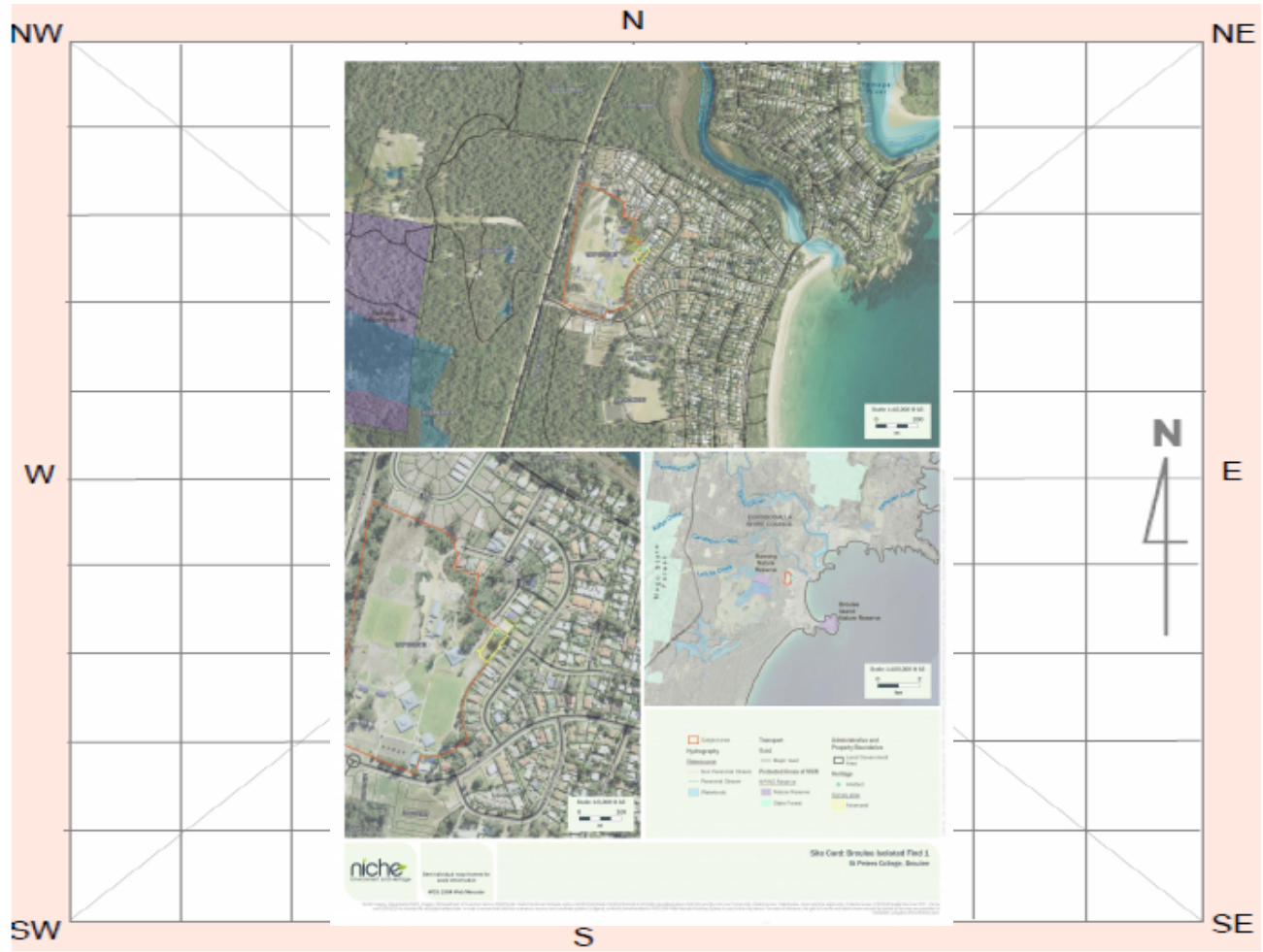
Land Form Pattern:	Coastal Plain	Land Use:	Established Urban
Land Form Unit:	Dune	Vegetation:	Isolated clumps of trees
Distance to Water (m):	430	Primary Report:	Niche 2023 St Peters College Broulee upgrades DD

How to get to the site: The flake was identified on a small, mounded feature at the north-western boundary of the school on the southern edge of a small walking track running parallel to the school's northern fence line.

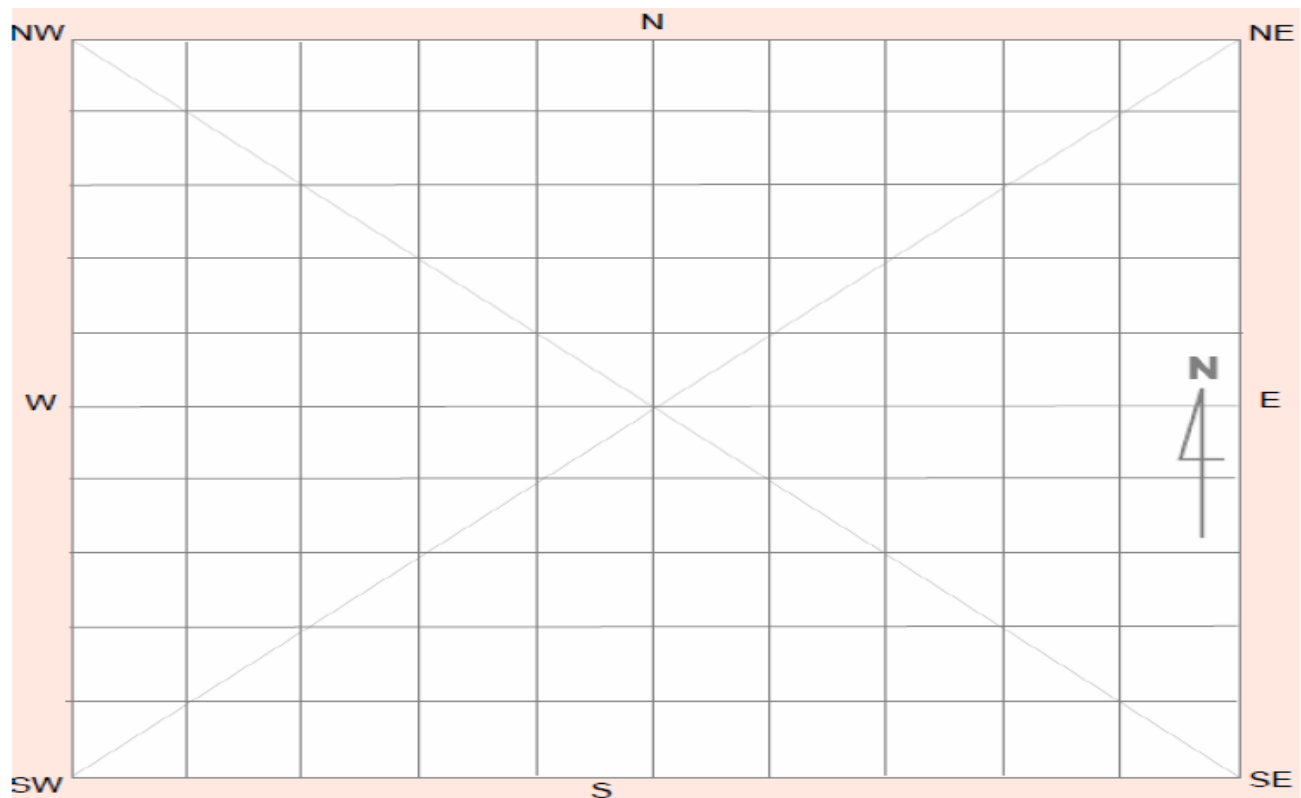
### Other site information:

In the vicinity of the quartzite flake, some vegetation clearance has occurred, and some small saplings have been planted. There is a pile of mounded dirt present at the location which has likely been scraped back from adjoining areas and should be considered to be in a disturbed context. A large tree stump to the south-east and other large cut branches are evidence of ongoing grounds maintenance.

## Site location map



## Site plan





Site contents information

open/closed site:

Site condition:

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
1.	<input type="text" value="Artefact"/>	<input type="text" value="1"/>	<input type="text" value="0.5"/>	<input type="text" value="0.5"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Feature condition:

Description:

This newly recorded site comprises one quartzite flake and an associated PAD. The artefact is a quartzite flake, feather termination, retouch possible on the ventral surface (MD 24 mm, L 24 mm, W 13.2 mm and Th 39 mm). The artefact has been exposed by previous track construction works.

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
2.	<input type="text" value="Potential Archaeological Deposit"/>	<input type="text"/>	<input type="text" value="60"/>	<input type="text" value="20"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Feature condition:

Description:

Large area of a minimally disturbed sand deposit situated within a sensitive dune landform and having limited vegetation clearance. Soils present are a mix of dark to light grey sands (A1 and A2 horizons) with some B-horizon yellow sands observed in areas of disturbance associated with sheet wash.

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
3.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Feature condition:

Description:

### Features:

4.

Feature condition:

Description:

### Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

### Features:

5.

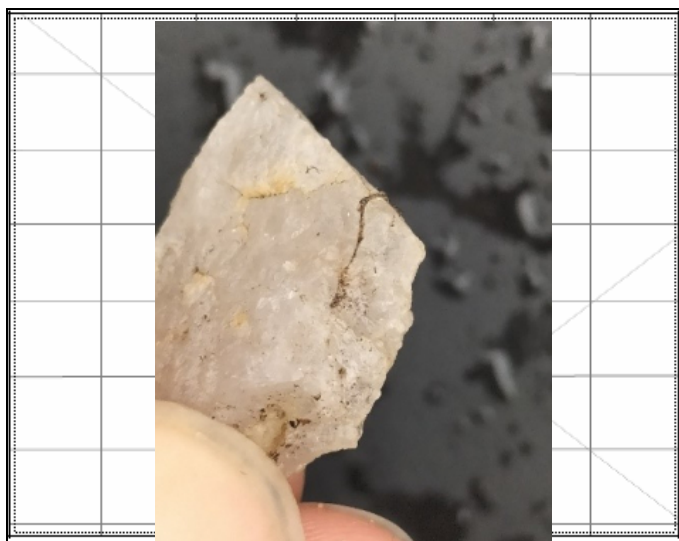
Feature condition:

Description:

### Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

## Site photographs



Description:

Potential use-wear identified on the edge of the quartzite flake at Broulee Isolated Find 1



Description:

Cleared track at the northern boundary of the school (facing south). Pink flag at artefact location.





Description: Sheet erosion was observed on the surface of Broulee Isolated Find 1. Facing south



Description: Site overview. Facing north.

## Site restrictions

Do you want to  
Restrict this site?: ☐

Restriction type: Gender ☐ General ☐ Location ☐  
N/A

Why is this site restricted?:

## Further information contact

Title  Surname  First name   
Organisation:   
Address:   
Phone:  E-mail:

## Site interpretation and community statement

The impact of these aforementioned activities has not been extensive and the entirety of the PAD should be considered to have low to moderate archaeological potential.

AHIMS site ID: 58-4-1538

Date recorded: 23-01-2023

## Site Location Information

Site name: Broulee PAD 1

Easting: 244478

Northing: 6030035

Coordinates must be in GDA94 (MGA)

Horizontal Accuracy (m):

4

Zone: 56

Non-Differential GPS

## Recorder Information

(The person responsible for the completion and submission of this form)

Title	Surname	First name
Ms.	Todhunter	Carly
Organisation: Niche Environment and Heritage		
Address: 2 Rixon Avenue Bulli NSW 2524		
Phone: 0458001164	E-mail: ctodhunter@niche-eh.com	

## Site Context Information

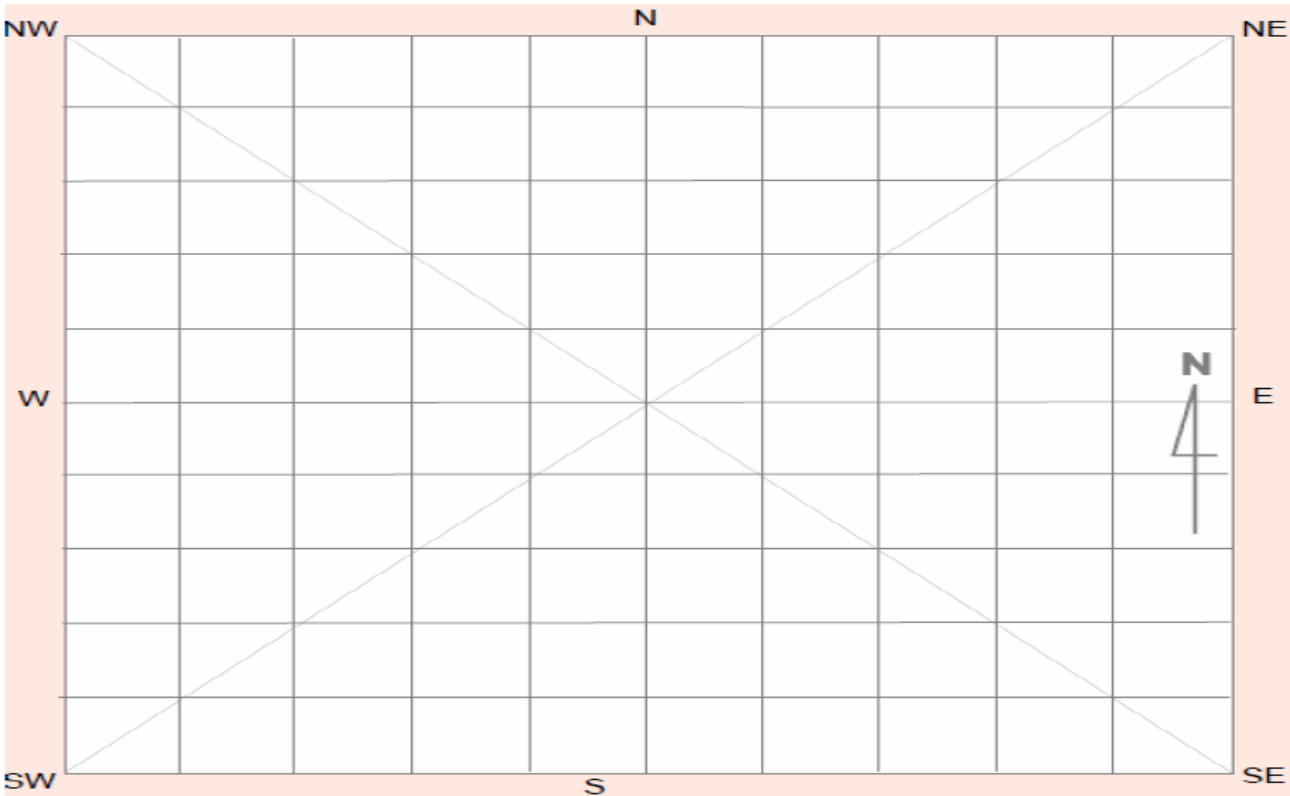
Land Form Pattern:	Coastal Plain	Land Use:	Established Urban
Land Form Unit:	Dune	Vegetation:	Isolated clumps of trees
Distance to Water (m):	400	Primary Report:	Niche 2023 St Peters College Broulee upgrades DD
How to get to the site:	The PAD is situated in a patch of forest at the northern boundary of St. Peters College Broulee, commencing close to the Caitlin Crescent school entry.		
Other site information:	Common plants in this area are bracken, acacia and old mans banksia. Limited ground disturbance was observed during the site inspection, including the planting of some trees and likely damage from historic fires through the area. Ground surface visibility within this area was very poor (<5%). Regrowth species predominate due to previous vegetation clearance.		



Site location map



Site plan



Site contents information

open/closed site:

Site condition:

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
1.	<input type="text" value="Potential Archaeological Deposit"/>	<input type="text"/>	<input type="text" value="95"/>	<input type="text" value="70"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Feature condition:

Description:

Extending approximately 1700 m2, this vegetated area of forest has experienced lower levels of disturbance compared to adjoining areas and still retains the potential for archaeological deposits including a potential sub-surface midden deposit. Soils are predominately comprised of dark to light grey A-horizon soils (though some yellow B-horizon sands) were also observed.

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
2.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Feature condition:

Description:

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
3.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Feature condition:

Description:



#### Features:

4.

Number of features  Length of feature(s) extent (m)  Width of feature (s) extent (m)

Feature condition:

Description:

#### Scarred Trees

Scar Depth (cm)  Regrowth (cm)  Scar shape  Tree Species

#### Features:

5.

Number of features  Length of feature(s) extent (m)  Width of feature (s) extent (m)

Feature condition:

Description:

#### Scarred Trees

Scar Depth (cm)  Regrowth (cm)  Scar shape  Tree Species

## Site photographs



Description:

Site overview, facing west.



Description:

Ground surface visibility was very poor during the site inspection at Broulée PAD 1. Facing west



Description: Previous vegetation clearance on the north-western edge of Broulee PAD 1, facing north.



Description: A2 horizon soils were identified within an area of exposure in the northern portion of Broulee PAD 1

## Site restrictions

Do you want to  
Restrict this site?: ☐

Restriction type: Gender ☐ N/A General ☐ Location ☐

Why is this site restricted?:

## Further information contact

Title  Surname  First name   
Organisation:   
Address:   
Phone:  E-mail:

## Site interpretation and community statement



AHIMS site ID: 58-4-1539

Date recorded: 10-02-2023

## Site Location Information

Site name: Broulee Artefact Scatter 1

Easting: 244513

Northing: 6029788

Coordinates must be in GDA94 (MGA)

Horizontal Accuracy (m):

4

Zone: 56

Non-Differential GPS

## Recorder Information

(The person responsible for the completion and submission of this form)

Title	Surname	First name
Ms.	Todhunter	Carly

Organisation: Niche Environment and Heritage

Address: 2 Rixon Avenue Bulli NSW 2524

Phone: 0458001164

E-mail: ctodhunter@niche-eh.com

## Site Context Information

Land Form  
Pattern:

Land Use:

Land Form  
Unit:

Vegetation:

Distance to  
Water (m):

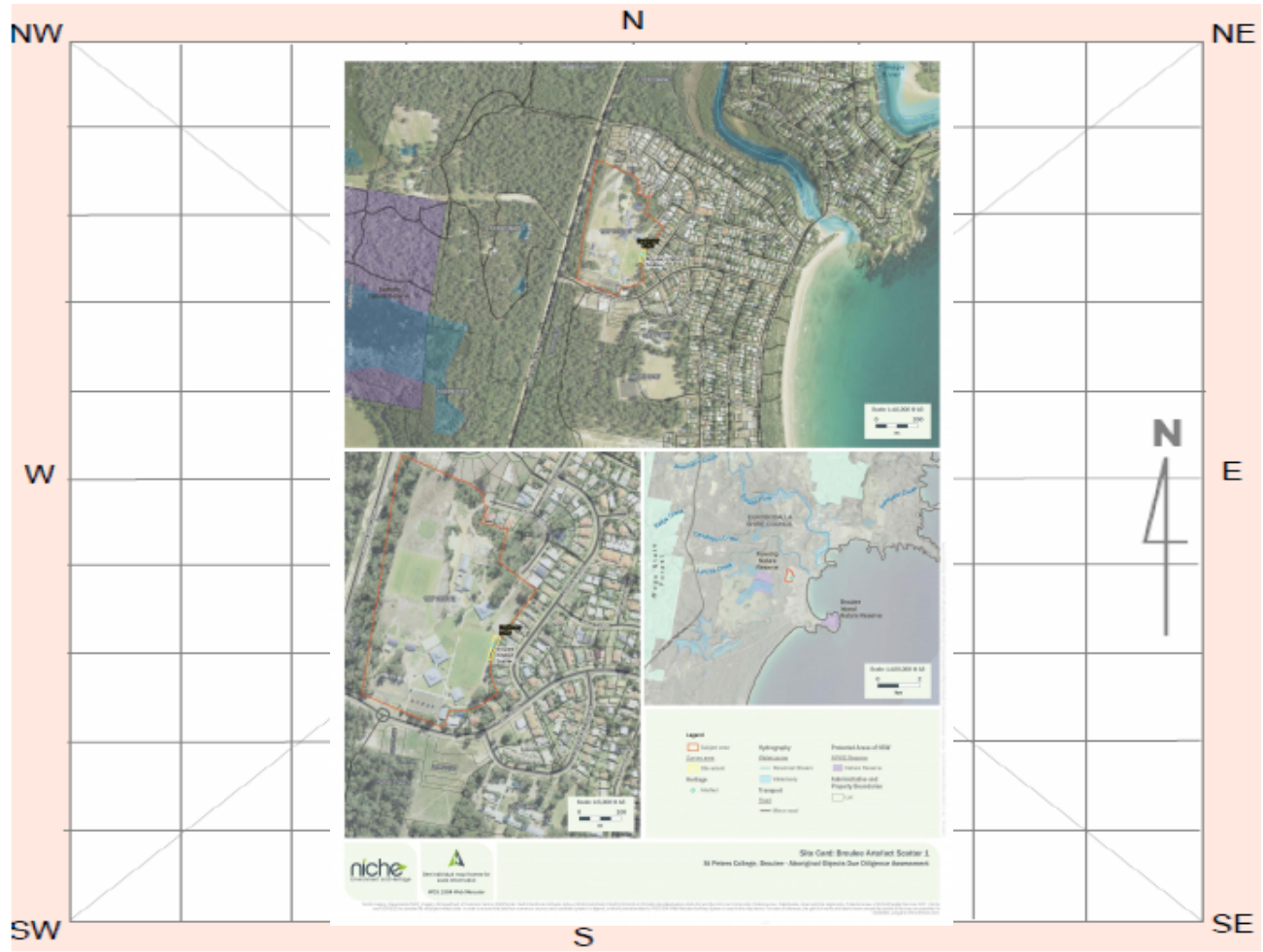
Primary  
Report:

How to get  
to the site:

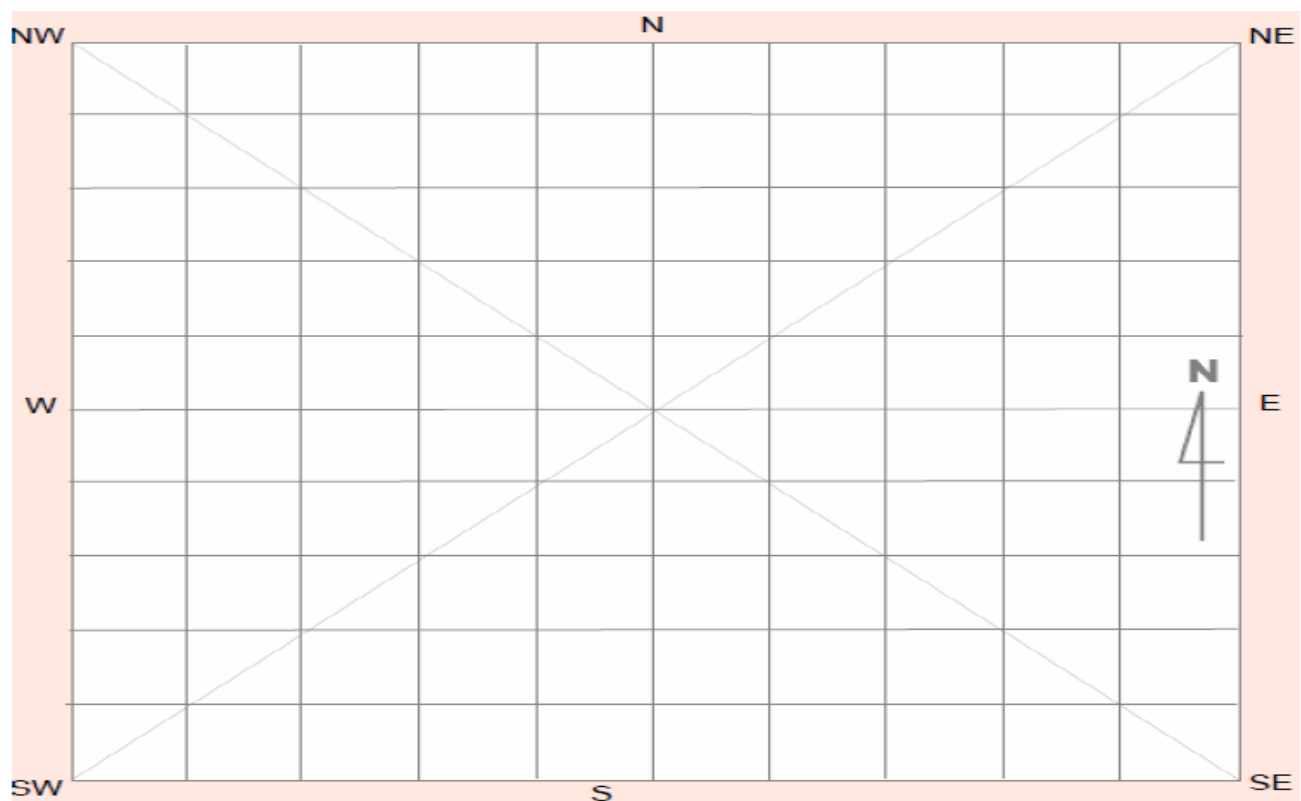
Other site  
information:

Previously a PAD was identified in relation to the artefact scatter, however due to the extensive disturbance present at the site comprising substantial earthworks to establish and maintain the embankment and adjoining sports fields a PAD is no longer identified in relation to the site. A cautionary boundary around the artefacts has been applied in regards to planned construction works.

## Site location map



## Site plan





Site contents information

open/closed site:

Site condition:

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
1.	<input type="text" value="Artefact"/>	<input type="text" value="3"/>	<input type="text" value="0.5"/>	<input type="text" value="0.5"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Feature condition:		<input type="text" value="Disturbed"/>						

Description:

An artefact scatter comprising three artefacts were identified in a disturbed context. A Bipolar quartz flake (L= 28.3mm, W= 20.37 and Th=10.79), Quartz proximal flake (MD=11.97 mm) and angular quartz fragment (MD=6.62 were identified.

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
2.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Feature condition:		<input type="text"/>						

Description:

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
3.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Feature condition:		<input type="text"/>						

Description:

Features:

Number of  
features

Length of  
feature(s)  
extent (m)

Width of  
feature (s)  
extent (m)

Scarred Trees			
Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

4.

Feature condition:

Description:

Features:

Number of  
features

Length of  
feature(s)  
extent (m)

Width of  
feature (s)  
extent (m)

Scarred Trees			
Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

5.

Feature condition:

Description:

## Site photographs



Description:

Artefacts at Broulee Artefact Scatter 1



Description:

Sloped embankment




Description:


Description:

## Site restrictions

Do you want to

Restrict this site?:

☐

Restriction type:

Gender

☐

General

☐

Location

☐

Why is this site restricted?:

## Further information contact

Title

Surname

First name

Organisation:

Address:

Phone:

E-mail:

## Site interpretation and community statement

AHIMS site ID: 58-4-1540

Date recorded: 10-02-2023

## Site Location Information

Site name: Broulee Find 1

Easting: 244280

Northing: 6029775

Coordinates must be in GDA94 (MGA)

Horizontal Accuracy (m):

4

Zone: 56

Non-Differential GPS

## Recorder Information

(The person responsible for the completion and submission of this form)

Title	Surname	First name
Ms.	Todhunter	Carly
Organisation:	Niche Environment and Heritage	
Address:	2 Rixon Avenue Bulli NSW 2524	
Phone:	0458001164	E-mail: ctodhunter@niche-eh.com

## Site Context Information

Land Form Pattern:		Land Use:	
Land Form Unit:		Vegetation:	
Distance to Water (m):		Primary Report:	

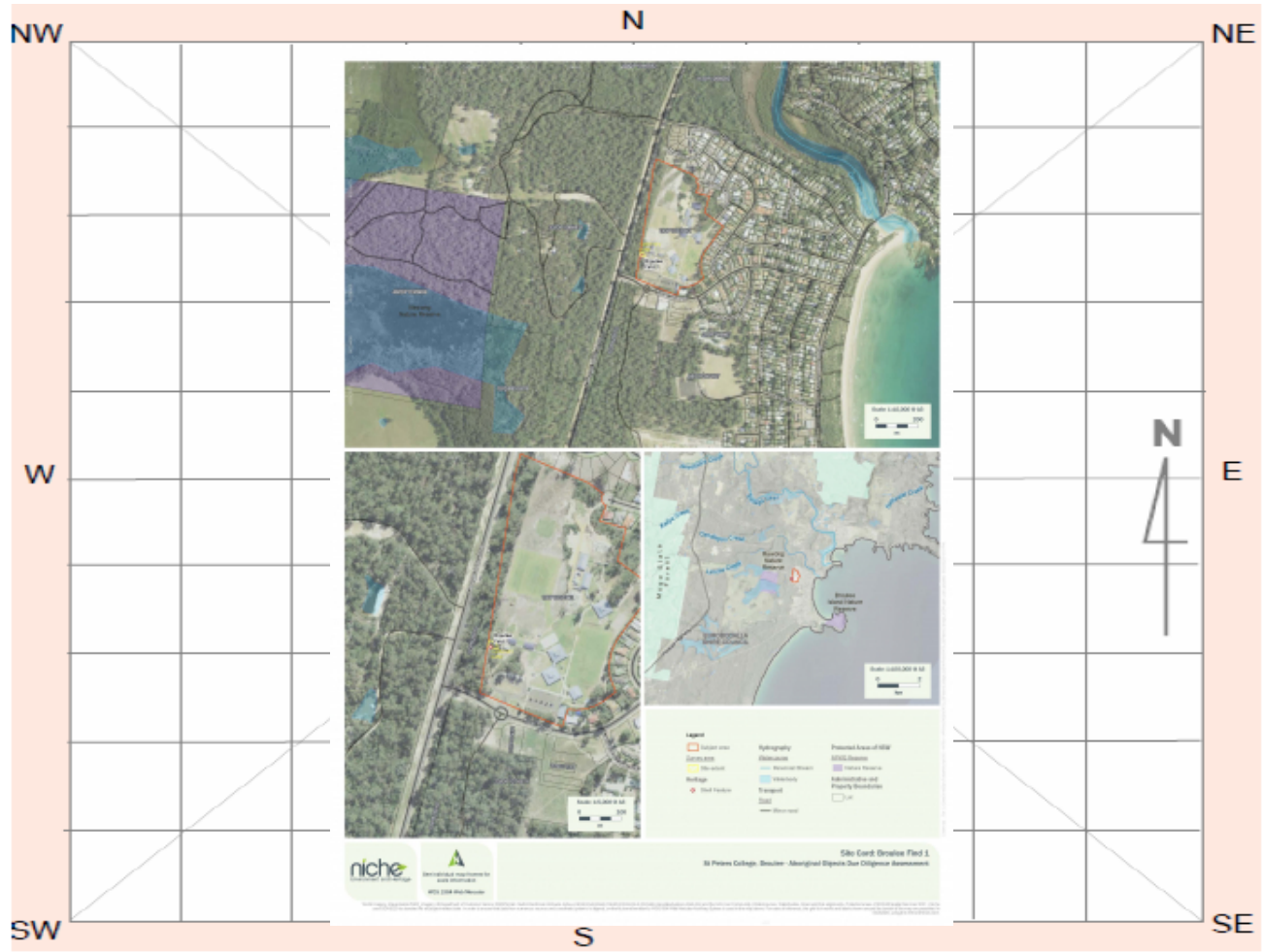
How to get to the site:

Other site information:

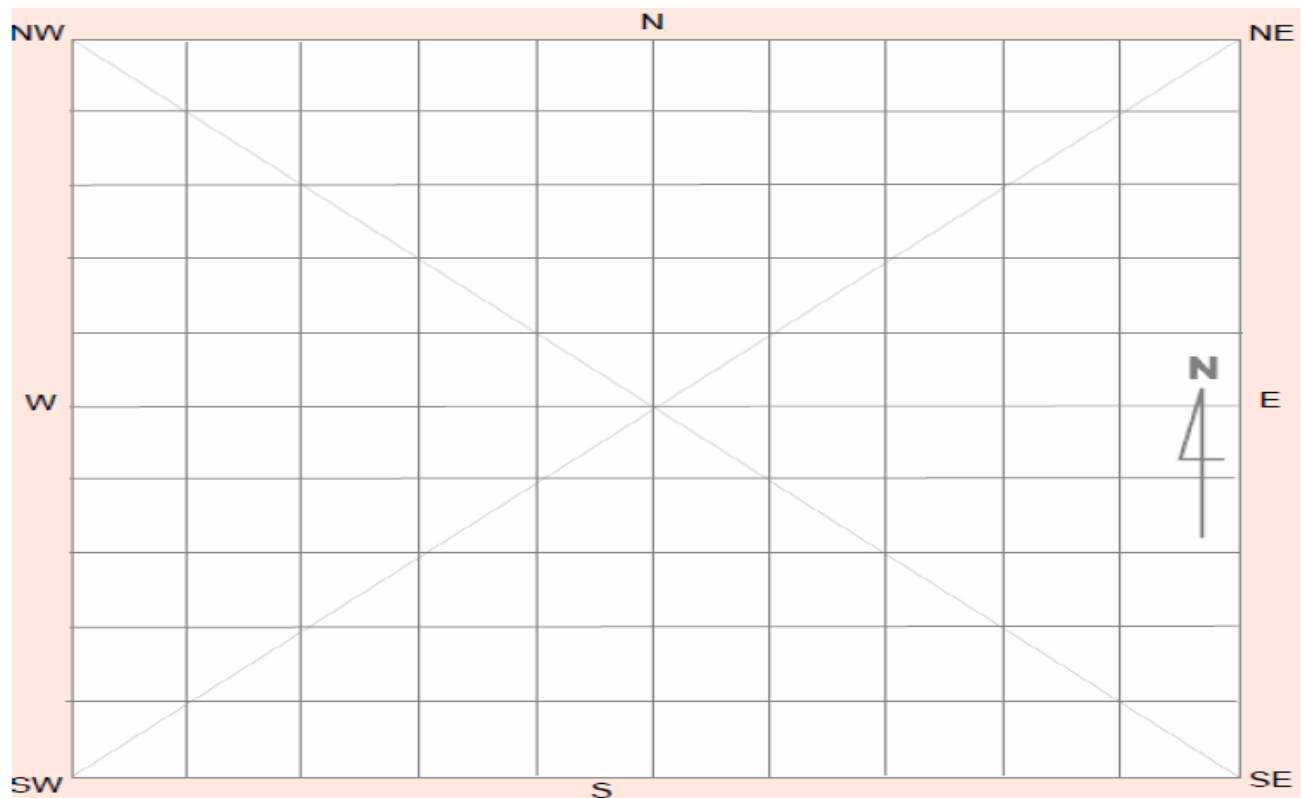
A PAD was previously identified in association to the isolated shell fragment however given previous sub-surface ground disturbance and the lack of evidence for a potential midden or artefacts to be present, the site card has been updated to include only reference to the shell fragment and a cautionary buffer identified. This cautionary buffer is indicative of an area of lesser ground disturbance.



## Site location map



## Site plan



Site contents information

open/closed site:

Site condition:

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
1.	<input type="text" value="Shell"/>	<input type="text" value="1"/>	<input type="text" value="0.5"/>	<input type="text" value="0.5"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Feature condition:

Description:

Isolated Hercules mud whelk fragment has been exposed within a potential sub-surface midden feature. The fragment was identified in a disturbed context on the surface of a mixed yellow to grey sand.

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
2.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Feature condition:

Description:

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
3.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Feature condition:

Description:



**Features:**

Number of  
features

Length of  
feature(s)  
extent (m)

Width of  
feature (s)  
extent (m)

4.

**Feature condition:**

Description:

**Scarred Trees**

Scar Depth (cm)

Regrowth (cm)

Scar shape

Tree Species

**Features:**

Number of  
features

Length of  
feature(s)  
extent (m)

Width of  
feature (s)  
extent (m)

5.

**Feature condition:**

Description:

**Scarred Trees**

Scar Depth (cm)

Regrowth (cm)

Scar shape

Tree Species

**Site photographs**

Description:



Description:





AHIMS site ID: 58-4-1541

Date recorded: 23-01-2023

## Site Location Information

Site name: Broulee Scarred Tree 1

Easting: 244545

Northing: 6029920

Coordinates must be in GDA94 (MGA)

Horizontal Accuracy (m):

4

Zone: 56

Non-Differential GPS

## Recorder Information

(The person responsible for the completion and submission of this form)

Title	Surname	First name
Ms.	Todhunter	Carly
Organisation:	Niche Environment and Heritage	
Address:	2 Rixon Avenue Bulli NSW 2524	
Phone:	0458001164	E-mail: ctodhunter@niche-eh.com

## Site Context Information

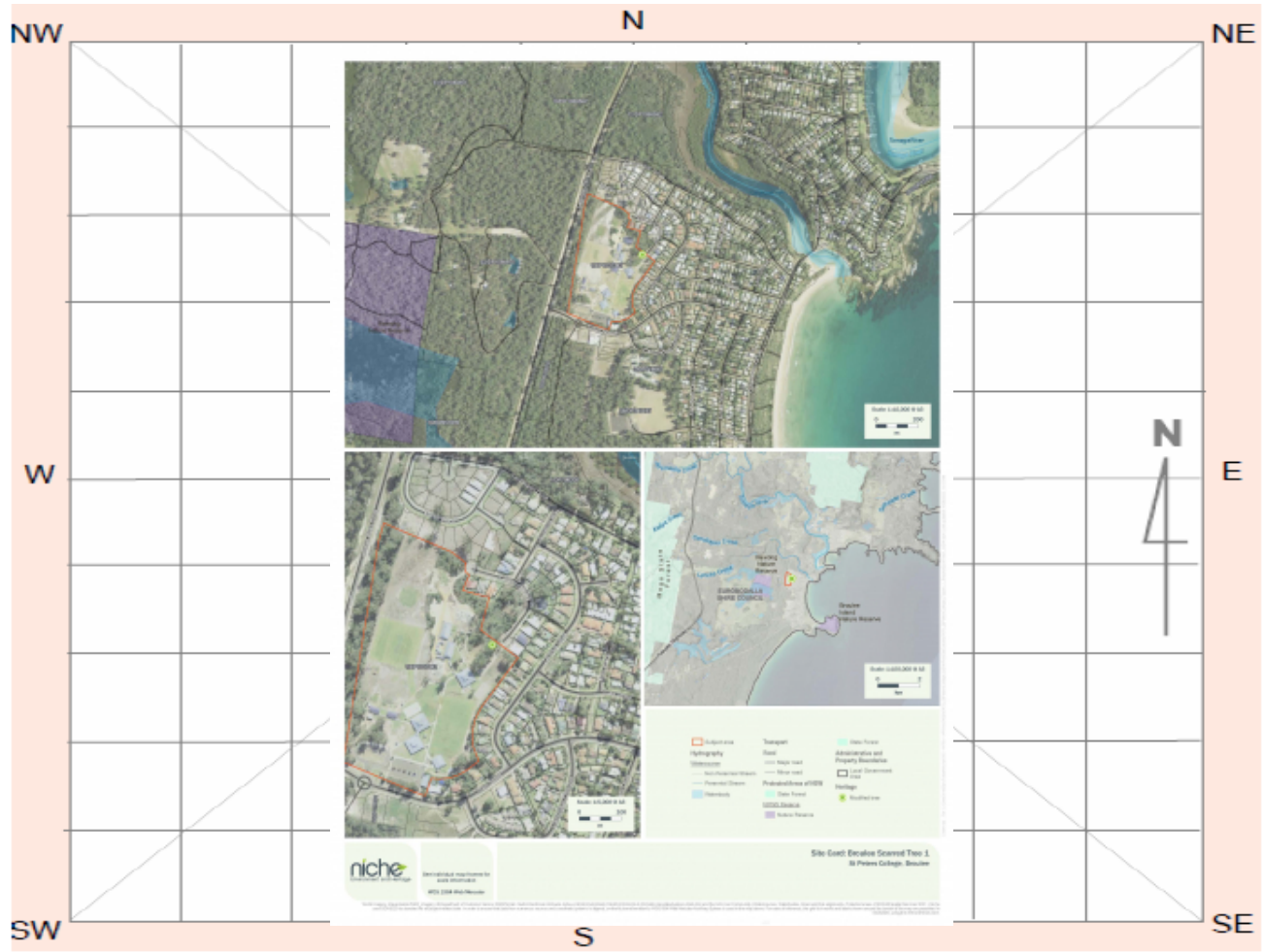
Land Form Pattern:	Coastal Plain	Land Use:	Established Urban
Land Form Unit:	Dune	Vegetation:	Isolated clumps of trees
Distance to Water (m):	460	Primary Report:	Niche 2023 St Peters College, Broulee upgrades DD

How to get to the site: The tree is situated in the north-eastern carpark of St Peters College, Broulee

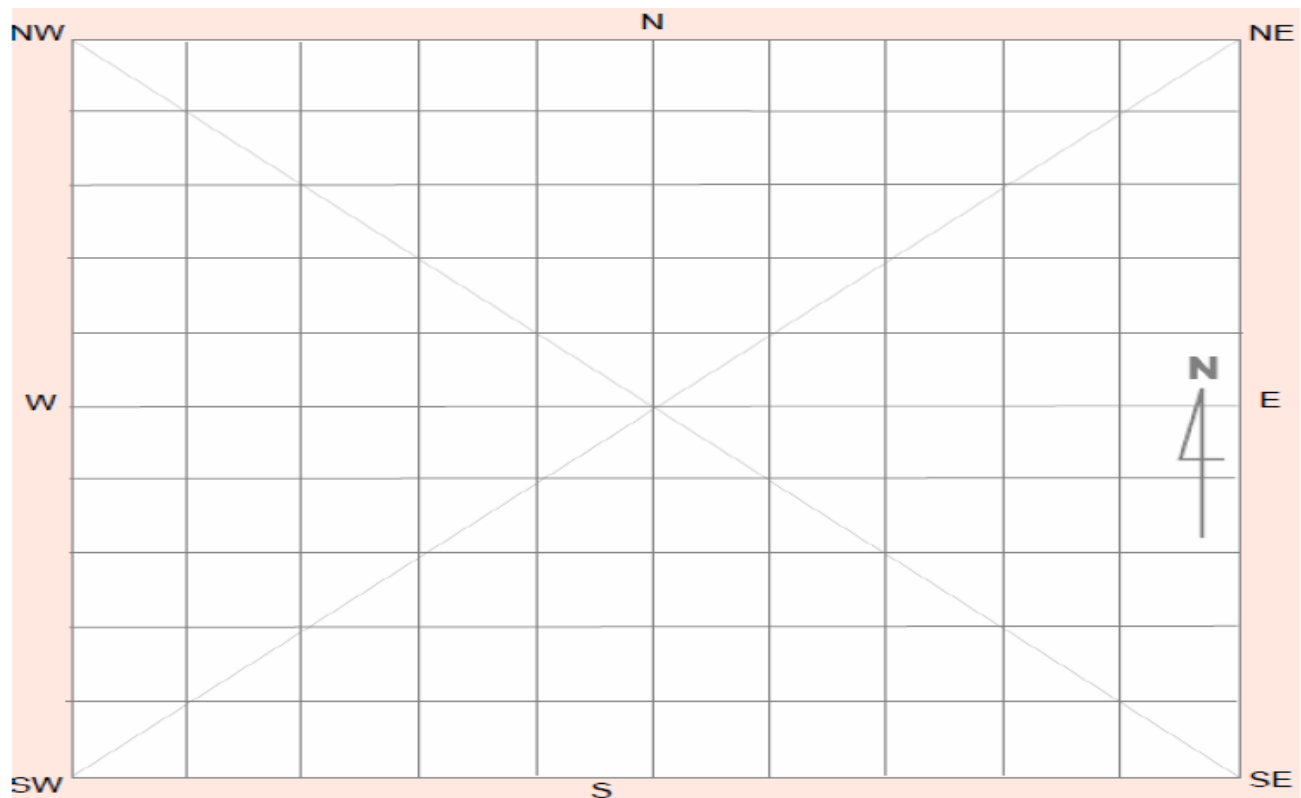
### Other site information:

The tree is situated in a garden bed within the north-eastern carpark. As part of the planned school upgrades, no proposed works are proposed in vicinity to the tree. The tree is situated on an area of relict beach dunes which have been extensively cleared in the past for the establishment of the school and as a consequence of previous fires.

## Site location map



## Site plan



Site contents information

open/closed site: 

Open

Site condition: 

Good

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
1.	<div>Modified Tree</div>	<div>1</div>	<div>90</div>	<div>20</div>	<div>40</div>	<div>20</div>	<div>Elongated</div>	<div></div>
Feature condition: <div>Fire Damage</div>								

Description:

Broulee Scarred Tree 1 (AHIMS ID# pending) is a large scarred Eucalyptus botryoides tree with an elongated eclipse scar on the northern side of the tree trunk. The shape of the scar suggests the bark may have been removed to produce a shield or coolamon. Some previous fire damage was observed at the base of the tree trunk.

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
2.	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Feature condition: <div></div>								

Description:

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
3.	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
Feature condition: <div></div>								

Description:



### Features:

4.

Feature condition:

Description:

### Features:

5.

Feature condition:

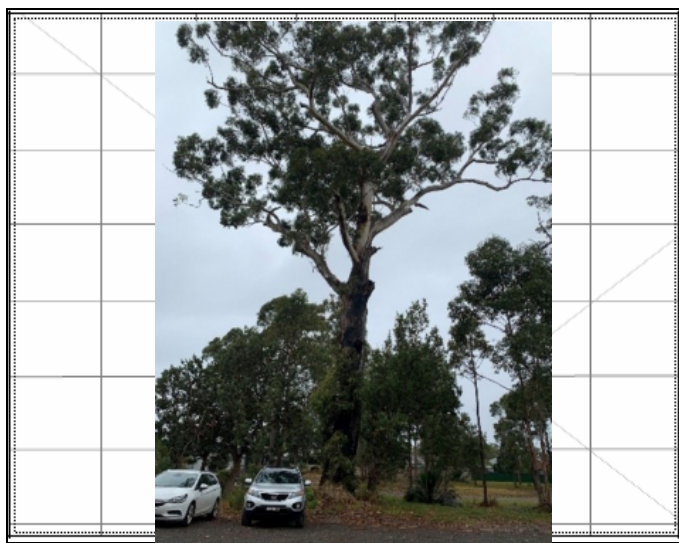
Description:

Scarred Trees			
Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Other

Scarred Trees			
Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

## Site photographs



Description:

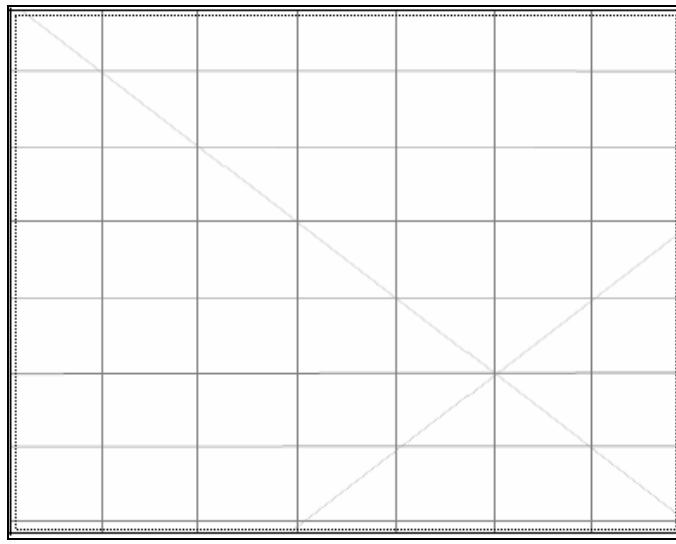


Description:



Description:

Tree canopy



Description:

## Site restrictions

Do you want to

Restrict this site?:

☐

Restriction type:

Gender

General

Location

N/A

☐
☐

Why is this site restricted?:

## Further information contact

Title

Surname

First name




Organisation:

Address:

Phone:

E-mail:

## Site interpretation and community statement

AHIMS site ID: 58-4-1542

Date recorded: 23-01-2023

## Site Location Information

Site name: Broulee Midden 1

Easting: 244461

Northing: 6030089

Coordinates must be in GDA94 (MGA)

Horizontal Accuracy (m):

4

Zone: 56

Non-Differential GPS

## Recorder Information

(The person responsible for the completion and submission of this form)

Title	Surname	First name
Ms.	Todhunter	Carly
Organisation:	Niche Environment and Heritage	
Address:	2 Rixon Avenue Bulli NSW 2524	
Phone:	0458001164	E-mail: ctodhunter@niche-eh.com

## Site Context Information

Land Form Pattern:	Coastal Plain	Land Use:	Recreation
Land Form Unit:	Dune	Vegetation:	Open Forest
Distance to Water (m):	380	Primary Report:	Niche 2023 St Peters College, Broulee upgrads DD

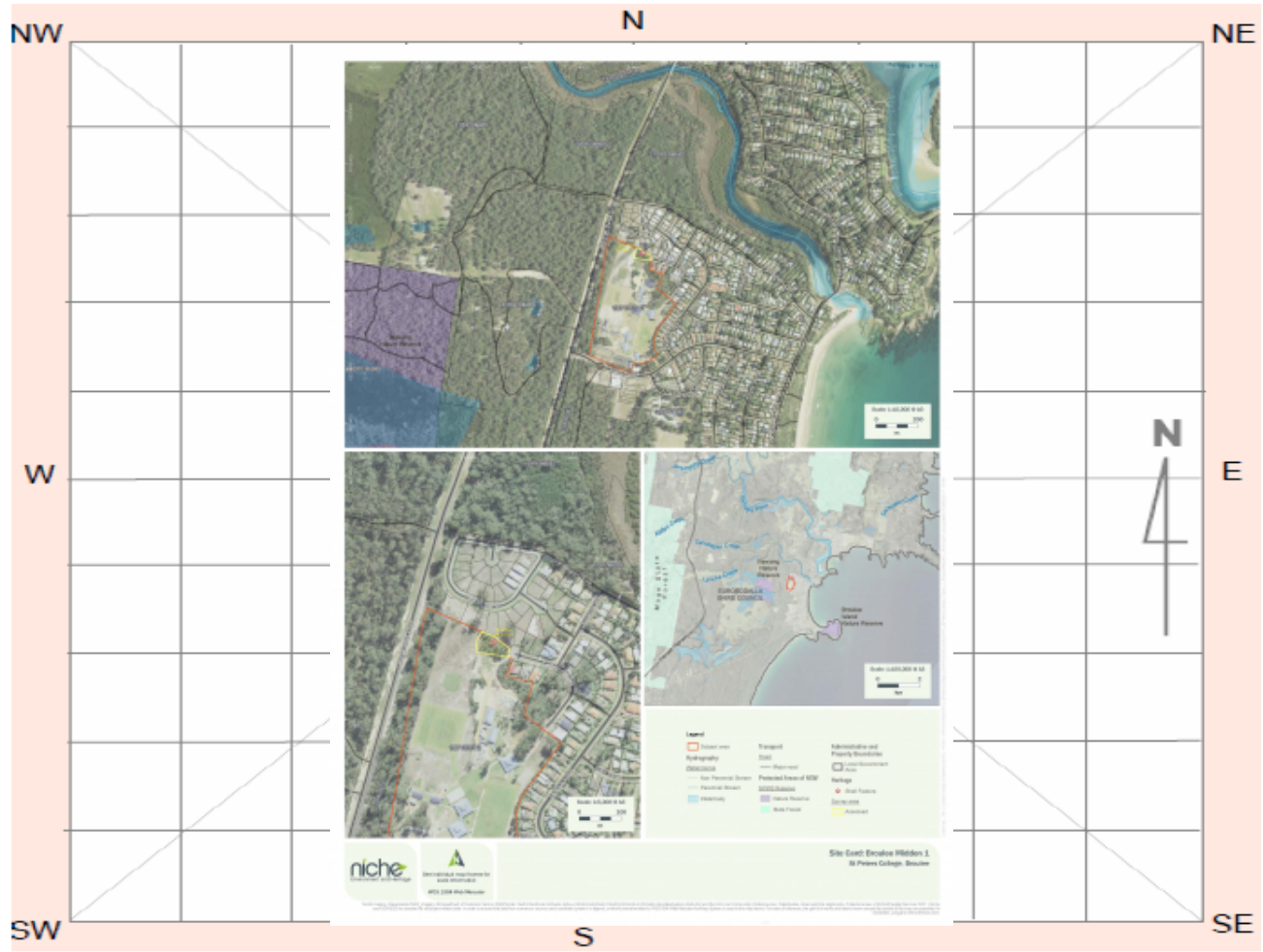
How to get to the site: Broulee Midden 1 consists of a midden and PAD situated within a vegetated area at the northern perimeter of the St Peters College school grounds. Three distinct areas of exposed shell were identified comprising a total of seven rock oyster fragments.

### Other site information:

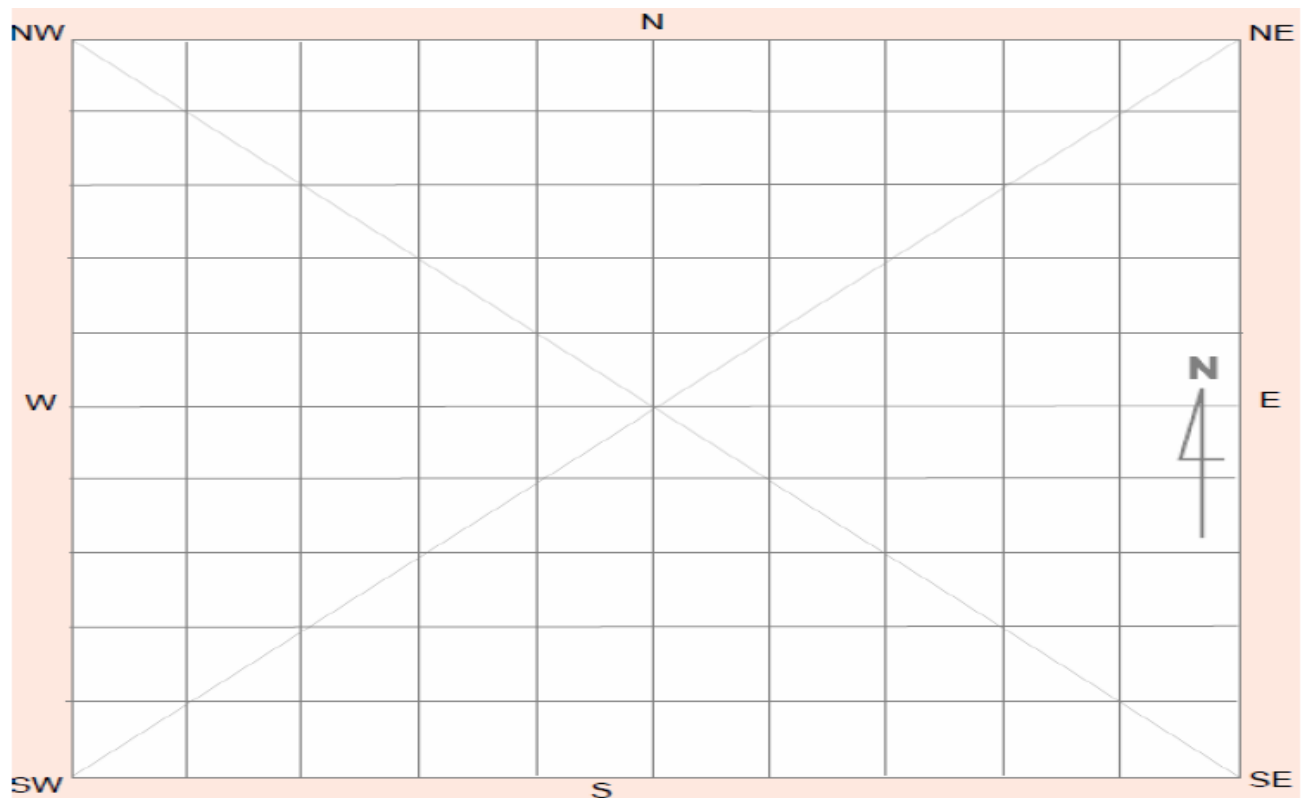
Disturbance to the site has occurred to a limited extent prior to the site inspection in the form of new track construction. This construction involved narrow excavation by a small excavator, laying down crushed sandstone (less than 5 cm) and subsequent mechanical compaction with a roller. Vegetation and some topsoil sands have been pushed off the tracks into adjoining areas.



## Site location map



## Site plan



Site contents information

open/closed site:

Site condition:

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
1.	<input type="text" value="Potential Archaeological Deposit"/>	<input type="text"/>	<input type="text" value="60"/>	<input type="text" value="30"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Feature condition:		<input type="text" value="Erosion"/>						

Description:

A- horizon soils comprising dark grey sand were observed on the ground surface. Broulee Midden 1 is situated within an archaeologically sensitive sand dune system, retains A-horizon soils and has only experienced limited prior vegetation clearance.

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
2.	<input type="text" value="Shell"/>	<input type="text" value="7"/>	<input type="text" value="3"/>	<input type="text" value="3"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Feature condition:		<input type="text" value="Erosion"/>						

Description:

Seven rock oyster fragments identified on the ground surface. These have been exposed during track construction through the patch of forest. A- horizon soils comprising dark grey sand were observed on the ground surface at each location

Features:

		Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scarred Trees			
					Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
3.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Feature condition:		<input type="text"/>						

Description:

#### Features:

4.

Feature condition:

Description:

#### Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

#### Features:

5.

Feature condition:

Description:

#### Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

## Site photographs



Description:

Broulee Midden 1; facing north.



Description:

Broulee Midden 1; facing south-west.





Description: Oyster shell fragment identified on the surface of an exposure within Broulee Midden 1



Description: Further oyster shell fragment identified on the surface of an exposure within Broulee Midden 1

## Site restrictions

Do you want to Restrict this site?: ☐

Restriction type: Gender ☐ N/A General ☐ Location ☐

Why is this site restricted?:

## Further information contact

Title  Surname  First name   
 Organisation:   
 Address:   
 Phone:  E-mail:

## Site interpretation and community statement

## Contact Us

Niche Environment and Heritage  
02 9630 5658  
info@niche-eh.com

NSW Head Office – Sydney  
PO Box 2443 North Parramatta  
NSW 1750 Australia

QLD Head Office – Brisbane  
PO Box 540 Sandgate  
QLD 4017 Australia

Sydney  
Brisbane  
Cairns  
Port Macquarie  
Illawarra  
Coffs Harbour  
Central Coast  
Gold Coast  
Canberra



## Our services

### Ecology and biodiversity

Terrestrial  
Freshwater  
Marine and coastal  
Research and monitoring  
Wildlife Schools and training

### Heritage management

Aboriginal heritage  
Historical heritage  
Conservation management  
Community consultation  
Archaeological, built and landscape values

### Environmental management and approvals

Impact assessments  
Development and activity approvals  
Rehabilitation  
Stakeholder consultation and facilitation  
Project management

### Environmental offsetting

Offset strategy and assessment (NSW, QLD, Commonwealth)  
Accredited BAM assessors (NSW)  
Biodiversity Stewardship Site Agreements (NSW)  
Offset site establishment and management  
Offset brokerage  
Advanced Offset establishment (QLD)