



## **SALVAGE REPORT SUMMARY**

Residential Subdivision and Development

21 Tweed Coast Road, Hastings Point, NSW

Aboriginal Heritage Impact Permit # C0003718



**Phone:** 0439 703 886  
(02) 6676 4354

**Email:** [mj.sutton@virtusheritage.com.au](mailto:mj.sutton@virtusheritage.com.au)

**Website:** [www.virtusheritage.com.au](http://www.virtusheritage.com.au)

**Facebook:** <https://www.facebook.com/virtusheritagensw/>



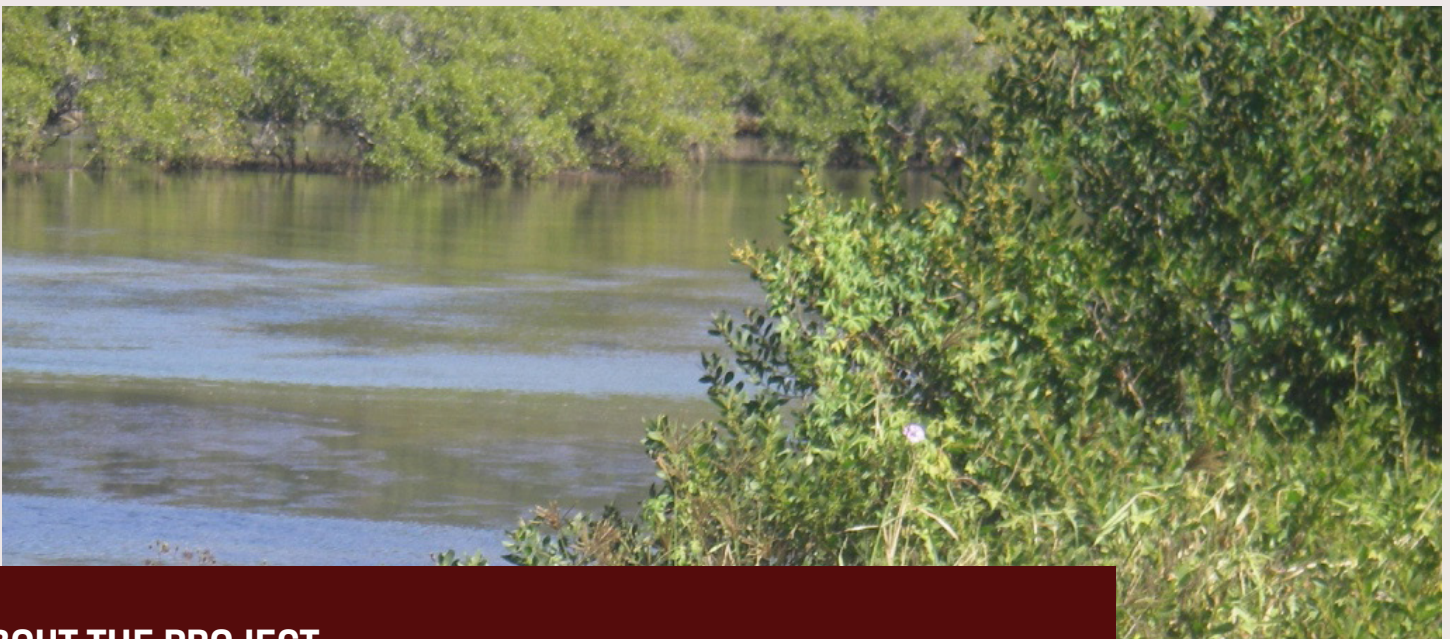
## **ACKNOWLEDGEMENT**

Virtus Heritage would like to acknowledge all Aboriginal peoples who belong and are historically associated with the Hastings Point area. Virtus Heritage respects the rights of Aboriginal people to their cultural heritage and acknowledges their connection and rights to country.

This summary report has been compiled with respect to Aboriginal cultural heritage and connection to country.

## TABLE OF CONTENTS

Acknowledgement	1
About the Project	3
Bundjalung Country	4
European Expansion in the Tweed Region	4
Resources (Flora)	5
Resources (Fauna)	5
Archaeology in the Region	6
Potential Archaeological Sites	7
Subsurface Testing	8
Salvage	8
Surface Collection	9
Artefact Analysis	9
Intepretation and Conclusion	11
Reburial	13



## ABOUT THE PROJECT

Virtus Heritage Pty Limited was engaged by Paul Wolfe Constructions to undertake archaeological works under Aboriginal Heritage Impact Permit (AHIP) #C0003718 as part of proposed subdivision and partial residential development of 21 Tweed Coast Road, Hastings Point.

The project area is located approximately 25 kilometres south of Tweed Heads town centre within the Tweed Shire Council local government area, and includes Lot 9 DP 14141, Tweed Coast Road, Hastings Point, NSW.

The necessity to obtain an AHIP from the Office of Environment and Heritage (OEH) was due to the identification of the project area within a registered Aboriginal midden site (AHIMS 04-2-0066). The works approved under AHIP C0003718 were conducted over a four day period in July 2018.

The project area is located within the boundary of the Tweed Byron Local Aboriginal Land Council, and the traditional lands of the Bundjalung people. The Bundjalung territory extends from Grafton and the Clarence River in the south, to Beaudesert in the north and as far west as Allora in Queensland and Tenterfield in the New England Tablelands in New South Wales. The dialect spoken in the Hastings Point area is Minyungbal, where the word 'Minyung' means 'what' or 'something'.

Aboriginal people of the north coast exploited coastal, estuarine and riverine environments as well as sub-tropical rainforest, swamps and lightly timbered country which all provide food, technological resources and habitation areas to sustain large groups. People would also have gathered and travelled together within the region for trade and other purposes. A famous example is the tri-annual gathering for the bunya-nut feasts. Vast quantities of nuts were harvested from the Bunya trees and Aboriginal groups from as far south as Grafton would travel to the Blackall Ranges in southeast Queensland to take part in feasting and ceremony. During this time rite of passage were provided and particular pathways were used for travelling groups, as the rules regarding trespass were relaxed.



## EUROPEAN EXPANSION IN THE TWEED REGION

European settlement of the Tweed began around 1823 when John Oxley sailed north from Sydney to search for a place to establish a secondary penal colony, and travelled up a river he called the Tweed. Following the early European explorers, non-Aboriginal people began to visit the area as timber getters for cedar. Although there were attempts at timber getting on the Tweed River as early as 1829, white settlement of the area really began with the establishment of the timber getting and boat building industries in 1844. As cedar resources began to disappear, the Tweed was opened up to settlement by farmers around the mid-1860s. Sugar cane was the main crop for several decades until banana growing, dairying and commercial fishing were established when rail links to major centres such as Lismore and Brisbane opened at the turn of the century.

Habitat areas in the vicinity of the project area would have included rainforests and riparian communities, melaleuca and eucalypt forests, swamps, coastal complexes, freshwater wetlands, littoral rainforest, wet and dry sclerophyll forest, and heathlands. These communities are represented by distinct suites of flora. Dominant species include gum varieties, cedar, banksia and bangalow palms, wattle, hoop pine, blackbutt, tea tree, paperbark and mangrove communities.



## RESOURCES (FAUNA)

The permanent freshwater and estuarine streams and channels, and the Pacific Ocean to the east, would have provided suitable habitats for a vast range of amphibians, reptiles and mammals including platypus, water birds, fish species, shellfish, edible bivalves, and crustacean resources. Mangrove creeks are also important habitats for fish, crabs, birds and other animals. Seagrass beds would support many small organisms such as prawns and fish. The diverse forest associations support a range of ground and arboreal animals including snakes, lizards, bandicoots, antechinus, wallabies, possums, gliders, forest birds and bats. Koalas are also recorded as within the eucalypt forests surrounding the project area.

Historic research indicated that the project area has been subject to impacts such as clearing of original vegetation, several phases of residential development with associated infrastructure, their subsequent demolition, re-grading and filling of the site, and the construction and upgrade of Tweed Coast Road. The project area has also been impacted by natural processes such as weathering and erosion.

Existing archaeological research in the greater Tweed area indicated that the project area is within a landscape steeped in cultural significance, and with high sensitivity for previous Aboriginal occupation. The project area is also, as shown by the AHIMS site search results in proximity to rich cultural sites including bora grounds/ceremonial grounds, fish traps in the nearby creek, burials, cultural places, story places, middens, artefact scatters, isolated finds, scarred and carved trees.

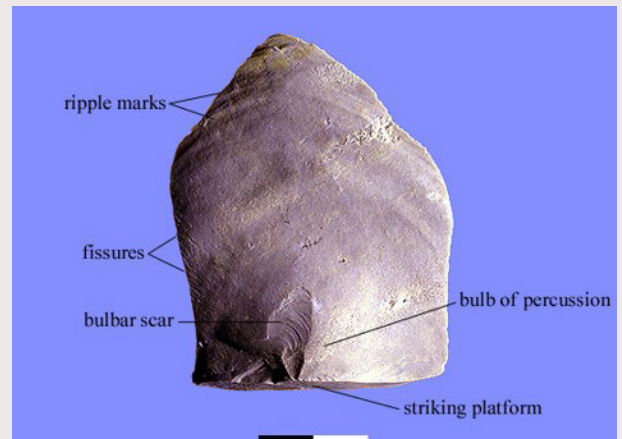
The general location of the project area is a favorable place for a midden as Aboriginal people could have drawn on the food resources from the open beach, the tidal estuary of Cudgera Creek, and the rock platform around the headland. Aboriginal human remains cannot be dismissed from middens as being of potential. Aboriginal human remains can be found cremated and buried in middens and sandy soils dating to pre-contact. The discovery of an Aboriginal child's tooth in an NBN trench approximately 100 meters east of the project area is a significant find.

Survey and geomorphological assessment of the project area indicated that despite previous land use history of disturbance described above, there remained some potential for AHIMS site 04-2-0066 midden material containing Aboriginal human remains (from cremations and burials) dating to pre-contact, to exist in any areas with intact soil profiles.

AUTHOR	DATE	LOCALITY	INVESTIGATION	RECORDED SITES	SITES WITHIN THE PROJECT AREA
<b>Hastings Point</b>					
RPS	2016	Tweed Coast Road	Aboriginal Cultural Heritage Assessment	AHIMS 04-02-0066	1
Everick Heritage Consultants	2017	Tweed Coast Road	Cultural Heritage Assessment	"Low Density Shell Scatter" which is also part of AHIMS 04-2-0066	1
Remnant Archaeology	2017	Tweed Coast Road	Aboriginal Cultural Heritage Assessment	Stratified Shell Deposit 1 Isolated Find, which we understand is part of AHIMS 04-2-0066	1
<b>Pottsville</b>					
Everick Heritage Consultants	2008	Pottsville Industrial Estate	Cultural Heritage Assessment	0	0
<b>Cudgen</b>					
Heritage Surveys Archaeological Consultants	2008	Cudgen Lakes	Aboriginal Heritage Assessment	AHIMS 04-2-109	0
Davies Heritage Consultants	2004	Cudgen Road	Cultural Heritage Assessment	0	0

Based on the known archaeological, environmental and landscape context of the locality, a predictive model for evidence of Aboriginal occupation was developed for the project area, and included:

- Previous land use history has decreased the possibility of scarred/carved trees surviving within the project area due to extensive historical tree clearing.
- Middens often occur within close proximity to freshwater and saltwater sources which have potential to contain mussels, oysters and other types of edible bivalves. Middens are identified within sand dunes, beaches, terraces above water courses and inland near lagoons and water holes. There is a known shell midden within the project area.
- Isolated artefacts and open camp sites (artefact scatters) are the locations of discarded stone artefacts, often material that has been discarded as part of making stone tools or discarded over frequent episodes of occupation/visitation in an area. Within the project area, isolated artefacts and artefact scatters would be most likely to include silcrete or mudstone artefacts (flakes and or broken flakes) which dominate many of the assemblages of sites identified in the region. These sites are most likely to be found within 200 meters of a water course in well drained alluvial flats, alluvial terraces, spurs, lower slopes, swamps, lagoons, coastal and estuarine landscapes and confluences where the landscape has not been heavily modified. Isolated artefacts and small open camp sites (artefact scatters) are also likely to be found on ridges, crests, saddles or floodplains which are not heavily impacted by previous land use, as they provide excellent outlook over the surrounding area. There is some potential for these site types within sections of the project area that still contain midden and intact soil deposits.
- Two areas of near natural surface on the eastern boundary and north-eastern corner remain sufficiently intact that they may contain some remnants of intact midden deposit AHIMS site 04-2-0066. Due to the find of the Aboriginal child's tooth approximately 100 metres east of the project area opposite Tweed Coast Road, there is also some potential for Aboriginal human remains within any remaining midden PAD.
- Other site types are unlikely to occur within the project area due to lack of suitable topography and geology, and the significant extent of ground disturbance across most of the project area.





## SUBSURFACE TESTING

Subsurface testing was undertaken at two areas of potential near natural surface (PAD) on the eastern boundary and north-eastern corner of the block, and involved the manual excavation of seven 50cm x 50cm test pits. Test pit 2 was abandoned at spit 6 (25-30cm) due to the presence of a Telstra cable. This pit was relocated 50cm to the west and excavation of test pit 2A was commenced. Test pit 5 was abandoned at spit 3 (10-15cm) due to unacceptable amounts of asbestos and relocated 50cm to the west and excavation of test pit 5A was commenced.

A single artefact was recovered from test pit 5A and a single artefact was recovered from test pit 3. The two artefacts recovered were small broken silcrete flakes with no cortex. No evidence of AHIMS site 04-2-0066 was located.

The approved methodology for test excavations required any 50cmx-50cm test pit with one or more artefacts located be expanded to a one metre by one meter square excavation. Conditions on site hampered the expansion of both test pits. Test pit 5A was in an area heavily contaminated by asbestos, and test pit 3 was in the vicinity of an underground Telstra cable. No further artefacts were recovered during possible expansions and no evidence of AHIMS site 04-2-0066 was located.



## SALVAGE



The approved methodology for salvage excavation stated that if 10 or more artefacts were located within a one metre square excavation pit, manual salvage of an adjoining one by one metre excavation square would be excavated to follow the area of highest artefact density.

Further if features such as heat treatment pits, heaths, evidence of knapping events, and/or more than five formal tool types (i.e. backed artefacts, retouched artefacts, scrapers, axes, or other tool types considered rare in a local and/or regional context) were located in a single test pit, manual salvage of an adjoining one by one metre excavation square would be excavated to follow the area of highest artefact density. No triggers were encountered in any test pit to necessitate salvage excavation.

Due to the disturbance from previous land use history across the remainder of the project area not subject to subsurface testing, the opportunity for inspection and surface collection was provided after initial vegetation clearance works and top soil stripping, and during excavations for proposed works that was within the natural ground surface. This methodology included raking through any mounds of excavated sand or eroded deposit that had moved downslope of the boundaries of the site.

No artefacts were recovered, however 11 shell/shell fragments (predominantly pipi) were collected. The shell/fragments were not in-situ and had been heavily disturbed by the cut and levelling of the site in the past.



## ARTEFACT ANALYSIS

In total, two artefacts were recovered from the subsurface investigations during AHIP works. Both were broken silcrete flakes with no cortex. The two broken flakes were of comparable lengths and varied from 1.3cm to 1.5cm. The artefact breakage for the two broken flakes consisted of transverse breakage. The raw material for both broken flakes was silcrete, one being white/grey and the other a reddish/orange.

Silcrete is formed through the impregnation of a sedimentary layer with silica. Silcrete consists of quartz grains in a matrix of either amorphous or fine grained silica. Because it varies in texture, silcrete varies in the way it fractures when knapped. Some silcretes resemble chert in their flaking properties, while others are more likely to be compared to quartzite. The coarser grained silcretes tend to produce more durable working edges, even though these edges may be more irregular and less sharp than those produced from finer grained varieties.

Due to the very low number of artefacts recovered during AHIP works, any statistically meaningful analysis is not possible and therefore only basic quantitative analysis is presented.



### Re-touched Flake Forms

The process of retouch is responsible for the alteration of the shape or angle of a flake edge for an intended use. Retouch may also be undertaken to increase the life of an artefact as a response to localised pressures on raw material availability. No artefacts within the assemblage had been retouched. Due to the very small assemblage size, it is difficult to extrapolate assumptions from the lack of retouch due to the small number of artefacts potentially biasing the results.

### Cores

The analysis of cores can provide information relating to site provisioning, and any potential localised pressures on raw material availability. A general indicator of a site being provisioned (i.e. raw materials being brought to a location for later use rather than immediate use) is a high percentage of cores and low percentages of cores which are exhausted. No cores were identified within the assemblage. Due to the very small assemblage size, it is difficult to extrapolate assumptions from the lack of cores due to the small number of artefacts potentially biasing the results.

### Dorsal Scars

Dorsal scars are the negative flake scars on the dorsal surface of the artefact. A count of dorsal scars indicates the intensity of reduction (and includes the count of partial negative flake scars), and the orientation of the scars informs about reduction method (i.e. was the artefact being rotated during reduction). It is also useful to consider the termination type on the dorsal surface (where available) as when the wrong platform thickness or angle is used, this is generally considered to result in either a hinge or step termination. One of the artefacts contained three dorsal scars, and the other contained two dorsal scars. Only one of the artefacts had evidence of dorsal scar rotation. This preliminary information does not provide much insight into artefact manufacture patterns apart from observations that some level of reduction had occurred prior to the recovered artefacts being manufactured, and that the artefacts were less inclined to be rotated during reduction. One of the artefacts is a proximal flake and thus the termination is missing. The other retains a hinge termination. Due to the small number of artefacts in the assemblage, inferences regarding reduction strategy could not be determined.



## Cortex

It is generally accepted that as the raw material moves away from its source the cores will reduce in size as the flakes are removed. Further, it is also accepted that as this reduction occurs the percent of cortex present will also reduce accordingly. Examining the cortex present on complete flakes assists with understanding the linear distance, or the amount of time passed since leaving the source (e.g. people may be returning to a source location). The type of cortex present also assists with determining the type of landscape from which the raw materials may have been sourced. No cortex was identified within the assemblage. Due to the very small assemblage size, it is difficult to extrapolate assumptions from the lack of cortex due to the small number of artefacts potentially biasing the results.

## Knapping Method

Three main methods are used in the production of stone artefacts and include freehand percussion; bipolar reduction; and pressure flaking. Freehand percussion is the technique of striking a nodule of stone (core) held in the hand with a hammerstone (commonly hammerstones are cobbles of quartzite or basalt). Bipolar reduction is the technique of resting a core on an anvil and holding the core with one hand while striking it with a hammerstone. The third common reduction technique is pressure flaking whereby small flakes are removed from the edge of a core or the edge of a flake by exerting pressure (commonly with billet of wood or bone) along that edge rather than striking. The knapping method for both artefacts within the assemblage was freehand percussion.

## Heat Treatment

Heat treatment is the process of applying controlled heat to stone with the intention of improving the knapping quality of the material. Heat treated stone can be distinguished from untreated stone through colour change and the surface becoming shiny and greasy (i.e. greasy lustre). In contrast, stone exposed to uncontrolled heat (e.g. bush fires) exhibit different attributes such as pot-lidding (small circular fragments pop off the stone), crazing (tiny cracks within the stone), and heat shatter. No evidence of heat treatment was identified within the assemblage.

## INTERPRETATION AND CONCLUSION

Two broken silcrete flakes with no cortex were located during AHIP works, one in test pit 3 and one in test pit 5A. Both test pits were extended as per the approved methodology but conditions on site (disturbance and contamination) hindered the expansion of these pits.

In total sixteen 50cm x 50cm pits were investigated. Test pit 2, 3B and 3D were abandoned at spit 6 (23-30cm) due to the presence of a Telstra cable. Test pit 5 was abandoned at spit 3 (10-15cm), test pit 5B was abandoned at spit 2 (5-10cm), and test pit 5D was abandoned at spit 1 (0-5cm) all due to the unacceptable levels of asbestos contamination.

Surface collection recovered no artefacts, but eleven shell/shell fragments and one coral fragment were identified. The shell/fragments and coral fragment were not in-situ and had been heavily disturbed by the cut and levelling of the site in the past.

No evidence of intact shell midden AHIMS site 04-2-0066 was located in any of the test pits. No features such as heat treatment pits, heaths, evidence of knapping events, and/or more than five formal tool types (i.e. backed artefacts, retouched artefacts, scrapers, axes, or other tool types considered rare in a local and/or regional context) were located in any test pit. No human remains were located. No triggers were encountered in any test pit to necessitate salvage excavation. Disturbance was evident in all test pits in the form of glass, nails plastics pieces of ceramic, asbestos and underground services.

Therefore, we argue that the cultural material obtained is out of context and redeposited as all test pits and areas of surface collection appeared to be in significantly disturbed ground. Results of AHIP works by Everick (2018) at 23 Tweed Coast Road and by Remnant Archaeology (2018) at 27 Tweed Coast Road, which are also within AHIMS site 04-2-0066, need to be considered in conjunction with this document to form a broader understanding of how and how intensively Aboriginal people were utilising the local landscape over time, and how artefact types and materials compare with others in the locality and greater Tweed region. These reports were unavailable or not yet finalised during the preparation of this document.

Consultation with RAPs indicates that all Aboriginal objects are important to Aboriginal people and have cultural value; the project area was identified as a place where Aboriginal people lived repeatedly or intensively in large family groups all year round; the project area is part of a broader cultural landscape of the Greater Tweed region which is steeped in cultural significance; and AHIMS site 04-2-0066 has high cultural significance. The descendants of the Aboriginal people of the region still live in the local area and are actively involved in continuing their culture and history.

Reburial of the salvaged artefacts on country was favoured by RAPs. All RAPs agreed that the recovered artefacts should be re-buried on the adjoining property, also part of AHIMS site 04-2-0066 where test/salvage works had occurred under a separate AHIP, and placed with artefacts already re-buried in a location protected from development impacts between small juvenile palm trees and a Red Robin plant.

Reburial occurred in a simply ceremony with RAPs on 29 January 2019. An AHIMS site card for the reburial was recorded, completed and lodged with the Office of Environment and Heritage.





## CONTACT US:

p: (02) 6676 4354

m: 0439 703 886

e: [mj.sutton@virtusheritage.com.au](mailto:mj.sutton@virtusheritage.com.au)

w: [www.virtusheritage.com.au](http://www.virtusheritage.com.au)

https: //www.facebook.com/virtusheritage



**Phone:** 0439 703 886  
(02) 6676 4354

**Email:** [mj.sutton@virtusheritage.com.au](mailto:mj.sutton@virtusheritage.com.au)

**Website:** [www.virtusheritage.com.au](http://www.virtusheritage.com.au)

**Facebook:** <https://www.facebook.com/virtusheritagensw/>