

JULY 2012

# CULTURAL HERITAGE DUE DILLIGENCE ASSESSMENT



# PLANIT CONSULTING

TERRANORA ROAD, TERRANORA N.S.W.

PREPARED FOR MR GEOF AND MRS. JULIE STONE ON BEHALF OF PLANIT CONSULTING



**Report Reference:**

Ingram, C., Piper, A. , and Robins, T. 2012 *Terranora Road, Terranora, NSW: Cultural Heritage Due Diligence Assessment (June 2012)*. Everick Heritage Consultants Pty Ltd unpublished report prepared for Mr Geoff and Mrs Julie Stone.

**Acknowledgements:**

Everick would like to acknowledge the following people for their assistance in the production of this report:

- Mr. Des Williams. Chairperson & Sites Officer, Tweed Byron Local Aboriginal Land Council (TBLALC)
- Tweed Shire Council Aboriginal Advisory Committee (AAC)

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**Document Status:**

Rev No.	Version	Author(s)	Amended Sections	Date	Authorised
1	Final Draft	A. Piper, T. Robins, C. Ingram	All	04. 07. 12	T. Robins

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## EXECUTIVE SUMMARY

The following is a report detailing the cultural heritage assessment of Aboriginal and non-Indigenous (historic) cultural heritage for the proposed re-zoning of lands adjacent to the Urban Release area known as Terranora 'Area E', Tweed South, N. S. W. The land subject to assessment is identified in Figure 2.

The Project Area comprises Lots 2 through to Lot 8 on DP 238597. Together these are Numbers 420 through to 434 Terranora Road, Terranora, NSW.

Everick Heritage Consultants (The Consultant) was commissioned by PLANIT Consulting (The Proponent) on behalf of Mr Geoff and Mrs Julie Stone to undertake this assessment.

The purpose of this assessment is to apply the first stages of the New South Wales Office of Environment and Heritage ('OEH') Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (2010). This assessment also provides preliminary advice on potential impacts to significant historic heritage places.

The methods used for this assessment involved:

- (a) a search of relevant historic and Aboriginal heritage registers;
- (b) a review of historic aerial photography and resources relating to past land uses of the Project Area;
- (c) a brief review of past archaeological studies of the Project Area and surrounds;
- (d) an assessment in accordance with the Due Diligence Code; and
- (e) consultation with the Tweed Shire Councils Aboriginal Advisory Committee ('AAC') and the Tweed Byron Local Aboriginal Land Council ('TBLALC').

The Project Area is within the area administered for Aboriginal cultural heritage purposes by the Tweed Byron Local Aboriginal Land Council (TBLALC).

As part of a desktop study, Everick undertook searches of the relevant Aboriginal and historic heritage registers. A search of applicable historic heritage registers did not identify any items of cultural heritage significance within the Project Area.

A search was conducted on 25 June 2012 of the OEH Aboriginal Heritage Information Management System ('AHIMS'), which identified 17 recorded sites for the broader search area. Of these 17 sites returned, only 1 site had GPS co-ordinates listed for public access. This location of this site is shown in Figure 3. The



remaining site's details are listed with the Bundjalung Mapping Project (BMP) register. The BMP register is a registry and library maintained by the Tweed Byron Local Aboriginal Land Council which is complimentary to the AHIMS register. A search of the BMP register was requested on 28 May, 2012, and which are discussed in Section 5.1.1 of this report.

A survey for historic and Aboriginal cultural heritage was carried out by Everick Senior Archaeologist Adrian Piper and Mr. Des Williams Chairman/ Sites Officer for the Tweed Byron LALC, on 14 June 2012.

The Tweed LALC were asked to provide written feedback on the contents and recommendations in this report. Their response to this report is currently pending, and will be forwarded to the Tweed Shire council as a separate Addendum to this report once it has been received.

## **RESULTS & RECOMMENDATIONS**

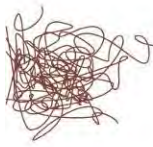
No Aboriginal Objects or Places were identified within the Project Area, or within proximity to the Project Area.

All evidence gained from the desktop analysis and from the results of the pedestrian survey undertaken on the 14<sup>th</sup> June, 2012, indicate that there are no historical cultural heritage constraints on the Project proceeding.

The Aboriginal community and the Tweed LALC are opposed to development proposals that do not take prior measures allowing them to identify whether their heritage is being impacted, and if so, participate in formulating appropriate, informed management strategies. Recommendations 1 - 6 have been drafted in consultation with the AAC and the Tweed Byron LALC, and are seen as an appropriate impact mitigation strategy having regard to the present planning process.

### **Recommendation 1: Aboriginal Human Remains**

It is recommended that if human remains are located at any stage during earthworks within the Project Area, all works must halt in the immediate area to prevent any further impacts to the remains. The Site should be cordoned off and the remains themselves should be left untouched. The nearest police station, the Tweed Local Aboriginal Land Council and the OEH Regional Office, Coffs Harbour are to be notified as soon as possible. If the remains are found to be of Aboriginal origin and the police do not wish to investigate the Site for criminal activities, the Aboriginal community and the OEH should be consulted as to how the remains should be dealt with. Work may only resume after agreement is reached between all notified parties, provided it is in accordance with all parties' statutory obligations.



It is also recommended that in all dealings with Aboriginal human remains, the Proponent should use respectful language, bearing in mind that they are the remains of Aboriginal people rather than scientific specimens.

### **Recommendation 2: Aboriginal Objects Find Procedure**

It is recommended that if it is suspected that Aboriginal material has been uncovered as a result of development activities within the Project Area:

work in the surrounding area is to stop immediately;

a temporary fence is to be erected around the site, with a buffer zone of at least 10 metres around the known edge of the site;

an appropriately qualified archaeological consultant is to be engaged to identify the material; and

if the material is found to be of Aboriginal origin, the Aboriginal community is to be consulted in a manner as outlined in the OEH guidelines: *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010).

### **Recommendation 3: Notifying the OEH**

It is recommended that if Aboriginal cultural materials are uncovered as a result of development activities within the Project Area, they are to be registered as Sites in the Aboriginal Heritage Information Management System (AHIMS) managed by the OEH. Any management outcomes for the site will be included in the information provided to the AHIMS.

### **Recommendation 4: Conservation Principles**

It is recommended that all effort must be taken to avoid any impacts on Aboriginal Cultural Heritage values at all stages during the development works. If impacts are unavoidable, mitigation measures should be negotiated between the Proponent, OEH and the Aboriginal community.

### **Recommendation 5: Cultural Heritage Inductions**

It is recommended that Staff and Contractors involved in the initial stripping of topsoil on the site should undergo a cultural heritage induction prior to commencing works. The induction should include:

- an introduction to Aboriginal culture and tradition, including why evidence of Aboriginal occupation is important to Aboriginal people;
- a summary of the requirements under New South Wales cultural heritage legislation
- a brief introduction on how to identify Aboriginal Objects; and
- a review of procedures in the event that Aboriginal cultural heritage is identified during the course of undertaking the project.



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## Table of Contents

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EXECUTIVE SUMMARY.....	2
1. INTRODUCTION .....	11
1.1 Purpose of the Archaeological Investigation .....	11
1.2 Proponent & Project Brief.....	11
1.3 Defining the Project Area .....	12
1.4 Report Authorship .....	12
1.5 Methodology used during this assessment.....	12
2. LEGISLATIVE AND PLANNING CONTEXT.....	15
2.1 The National Parks and Wildlife Act 1974 (NSW) and the National Parks and Wildlife Regulations 2009 (NSW).....	15
2.1.1 'Low Impact Activities'.....	17
2.2 Due Diligence Code of Practice for the Protection of Aboriginal Objects .....	17
2.2 The ACHCR (2010) .....	18
2.3 The Heritage Act 1977 (NSW) .....	18
2.4 The Tweed Shire Local Environmental Plan 2000.....	19
2.5 The State Environment Planning Policy (North Coast Regional Environmental Plan 1988).....	20
2.6 The NSW Heritage Manual .....	20
3. DESCRIPTION OF DEVELOPMENT PROPOSAL .....	22
4. ABORIGINAL COMMUNITY CONSULTATION .....	22
5. HERITAGE REGISTERS: ABORIGINAL AND HISTORIC (NON-INDIGENOUS) HERITAGE .....	23
5.1 The OEH Aboriginal Heritage Information Management System .....	23
5.1.1 The Bundjalung Mapping Programme (BMP).....	23
5.2 Other Heritage Registers: Aboriginal & Historic Cultural Heritage.....	26
6. LANDSCAPE CONTEXT.....	27
6.1 Environment Locality .....	27
6.2 Geology & Soils.....	27
6.3 Vegetation .....	27
6.4 Land Uses.....	27
7. SYNTHESIS OF ARCHAEOLOGY AND ETHNOHISTORY.....	29

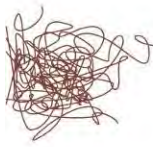


7.1	<i>Prehistory</i> .....	29
7.2	<i>Settlement</i> .....	32
7.3	<i>Movement</i> .....	33
7.4	<i>Economy – Material Culture</i> .....	34
8.	PREVIOUS CULTURAL HERITAGE ASSESSMENTS .....	37
8.1	<i>Previous Archaeological / Cultural Heritage Assessments</i> .....	37
9.	REVIEW OF HISTORIC AERIAL PHOTOGRAPHY .....	40
10.	THE PREDICTIVE MODEL .....	41
10.1	<i>Predictive Models - Land Use Strategies</i> .....	41
10.2	<i>Aboriginal Sites and Features</i> .....	41
10.2.1	<i>Isolated artefacts</i> .....	42
11.	FIELD METHODS & RESULTS .....	42
11.1	<i>Sampling Strategy &amp; Survey Methods</i> .....	42
11.2	<i>Survey Units</i> .....	44
11.3	<i>Survey Coverage</i> .....	44
11.4	<i>Results Aboriginal Cultural Heritage</i> .....	44
11.5	<i>Discussion of field results</i> .....	45
12.	CULTURAL HERITAGE DUE DILIGENCE ASSESSMENT .....	47
12.1	<i>Step 1: Will the activity disturb the ground surface?</i> .....	47
12.2	<i>Step 2a: Search of AHIMS Database</i> .....	48
12.3	<i>Step 2b: Is the activity in an area where landscape features indicate the presence of Aboriginal cultural heritage?</i> .....	48
12.4	<i>Step 2c: Is there evidence of past ground disturbance?</i> .....	49
13.	CONCLUSIONS AND RECOMMENDATIONS .....	49
	<i>Recommendation 1: Aboriginal Human Remains</i> .....	49
	<i>Recommendation 2: Aboriginal Objects Find Procedure</i> .....	50
	<i>Recommendation 3: Notifying the OEH</i> .....	50
	<i>Recommendation 4: Conservation Principles</i> .....	50
	<i>Recommendation 5: Cultural Heritage Inductions</i> .....	50
	PART C: HISTORICAL CULTURAL HERITAGE ASSESSMENT .....	52
14.	LAND-USE HISTORY AND PREDICTIVE MODELLING .....	52
14.1	A PREDICTIVE MODEL: LAND USE AND HISTORIC PARISH MAPS .....	52



15. FIELD METHODS & RESULTS .....	55
16 RECOMMENDATIONS – HISTORICAL HERITAGE.....	55
REFERENCES.....	56
APPENDIX A: CORRESPONDENCE – TWEED BYRON LALC .....	60
APPENDIX B: AHIMS SEARCH RESULTS.....	61
APPENDIX C: HISTORICAL AERIAL PHOTOGRAPHY .....	63





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## Figures

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FIGURE 1: PROJECT AREA GENERAL LOCALITY .....	13
FIGURE 2: LOCATION OF PROJECT AREA (RED OUTLINE) IN RELATION TO AREA E OF ALTITUDE PROJECT .....	14
FIGURE 3: AHIMS SEARCH RESULTS (INDICATIVE LOCATIONS ONLY) (GOOGLEEARTH 2012) .....	25
FIGURE 4: FIELD PHOTOGRAPH, VIEW EAST OVER THE PROJECT AREA, WITH TERRANORA ROAD VISIBLE ON RIGHT ....	45
FIGURE 5: VIEW EAST. EROSIONAL FEATURE VISIBLE, WITH MECHANICAL SCRAPES FROM HEAVY MACHINERY VISIBLE..	46
FIGURE 6: VIEW SOUTH BACK TOWARDS TERRANORA ROAD SHOWING DETAIL OF EROSIONAL FEATURE (DRAIN) .....	46
FIGURE 7: VIEW SOUTH, DETAIL OF DRAIN THAT IS EROSIONAL FEATURE.....	47
FIGURE 8: PARISH MAP 1913 WITH APPROXIMATE PROJECT AREA OUTLINED IN RED.....	52
FIGURE 9: PARISH MAP 1918 WITH APPROXIMATE PROJECT AREA OUTLINED IN RED .....	53
FIGURE 10: PARISH MAP 1924 WITH APPROXIMATE PROJECT AREA OUTLINED IN RED .....	53
FIGURE 11: PARISH MAP 1935 WITH APPROXIMATE PROJECT AREA OUTLINED IN RED .....	54
FIGURE 12: PARISH MAP 1959 WITH APPROXIMATE PROJECT AREA OUTLINED IN RED .....	54
FIGURE 13: 1962 HISTORICAL AERIAL PHOTOGRAPH WITH APPROXIMATE PROJECT AREA IN RED .....	63
FIGURE 14: 1970 HISTORICAL AERIAL PHOTOGRAPH WITH APPROXIMATE PROJECT AREA IN RED .....	64
FIGURE 15: 1976 HISTORICAL AERIAL PHOTOGRAPH WITH APPROXIMATE PROJECT AREA IN RED .....	65
FIGURE 16: 1987 HISTORICAL AERIAL PHOTOGRAPH WITH APPROXIMATE PROJECT AREA IN RED .....	66
FIGURE 17: 1996 HISTORICAL AERIAL PHOTOGRAPH WITH APPROXIMATE PROJECT AREA IN RED .....	67



## DEFINITIONS

The following definitions apply to the terms used in this report:

**Aboriginal Object** means any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.

**Aboriginal Place** means any place declared to be an Aboriginal place (under s. 84 of the NPW Act) by the Minister administering the NPW Act, by order published in the NSW Government Gazette, because the Minister is of the opinion that the place is or was of special significance with respect to Aboriginal culture. It may or may not contain Aboriginal Objects.

**ACHCR Guidelines** means the OEH Aboriginal Cultural Heritage Consultation Requirements for Proponents (2010).

**Archaeological Code of Practice** means the OEH Code of Practice for Archaeological Conduct in New South Wales (2010). c

**Due Diligence Code** means the OEH Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (2010).

**EPA Act** means the Environmental Planning and Assessment Act 1979 (NSW).

**NCREP 1988** means the North Coast Regional Environmental Plan 1988.

**NPW Act** means the National Parks and Wildlife Act 1974 (NSW).

**NPW Regulations** means the National Parks and Wildlife Regulations 2009 (NSW).

**OEH** means the New South Wales Office of Environment and Heritage.

**Pedestrian Survey** means an archaeological inspection for evidence of Cultural Heritage (Aboriginal or non-Indigenous), by walking the landscape which is the Project Area.



**Project Area** means The land subject to assessment, and is situated at Terranora Road, Tweed Head South NSW, and is identified as: Lot 2 DP28597; Lot 3 DP28597; Lot 4 DP28597; Lot 5 DP28597; Lot 6 DP28597; Lot 7 DP28597 and Lot 8 DP28597.

**Proposed Works** means all activities associated with construction and landscaping within the Project Area (Figures 2), including activities undertaken by subsequent landholders.

**Proponent** means PLANIT CONSULTANTS and all employees and contractors of the Proponent.

**The Project** means the proposed re-zoning of the lands as described under Project Area, as identified in Figure 2.

**The Consultant** means qualified archaeological staff and/or contractors of Everick Heritage Consultants Pty Ltd.

**Tweed LALC** means the Tweed Byron Local Aboriginal Land Council.



## 1. INTRODUCTION

### 1.1 Purpose of the Archaeological Investigation

The following report is a Due Diligence Assessment of Indigenous and non-Indigenous (historic) cultural heritage relating to the proposed re-zoning of lands adjacent to the Residential Urban Release known as Terranora 'Area E', Tweed South, N.S.W. The land subject to assessment is identified in Figure 2, and comprises Lots 2 through to Lot 8 on DP 238597. Together these are Numbers 420 thorough to 434 Terranora Road, Terranora, NSW. The intent of the investigation was to identify any archaeological or cultural heritage constraints to the proposed development.

### 1.2 Proponent & Project Brief

Everick Heritage Consultants (The Consultant) was commissioned by PLANIT Consulting (The Proponent) on behalf of Mr Geoff and Mrs Julie Stone to undertake this assessment.

The brief for this project was to undertake a heritage assessment of suitable standard to be submitted as a standalone report in support of a Re-zoning Application to the Tweed Shire Council. In accordance with the relevant administrative and legislative standards for New South Wales (see Section 2 below), the methods employed in this assessment included:

- (a) consultation with the Tweed LALC;
- (b) searches of applicable heritage registers;
- (c) a review of historic aerial photography;
- (d) archaeological survey of the Project Area;
- (e) assessment of the Project impacts in accordance with the Due Diligence Code; and
- (f) report on findings and recommended management strategies.



### 1.3 Defining the Project Area

The land subject to assessment is situated at Terranora Road, Tweed Head South NSW, and is identified as: Lots 2; 3; 4; 5; 6; 7 and Lot 8 on DP28597.

The Project Area is bounded by Terranora Road to the south, with the 'Azura' rural living estate located directly opposite the Project Area, on the southern side of Terranora Road. To the east and to the west of the Project Area are residential dwellings on similar sized allotments to those within the Project Area. Directly to the north of the Project Area is the Terranora Area E residential release.

The land is currently zoned 1(b1) Agricultural Protection under Tweed LEP 2000 and would be considered Draft R2 Low Density Residential Zone under the Draft Tweed LEP 2010. The Project Area is approximately 0.65 ha in size.

### 1.4 Report Authorship

The site survey was undertaken by qualified archaeologist Adrian Piper, assisted by Mr. Des Williams, Chairman/Sites Officer of the Tweed Byron Local Aboriginal Land Council (Tweed LALC). The desktop study was undertaken by Adrian Piper, Tim Robins and Caroline Ingram. This report was written by Caroline Ingram and Adrian Piper, assisted by Tim Robins.

### 1.5 Methodology used during this assessment

The methods used for this assessment are in compliance with the OEH '*Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales*' 2010 and all relevant legislation as described in Section 2 of this Report. The following are the broad requirements for compliance with the Code of Practice.

- 1) Review previous archaeological work.
- 2) Review the landscape context.
- 3) Summarise the local and regional character of Aboriginal land use and its material traces.
- 4) Formulate a predictive model.
- 5) Conduct an archaeological survey.
- 6) Consult with the Tweed Byron Local Aboriginal Land Council (Tweed Byron LALC) and the Tweed Shire Councils Aboriginal Advisory Committee (AAC).



Figure 1: Project Area General Locality





Figure 2: Location of Project Area (red outline) in relation to Area E of Altitude Project



## 2. LEGISLATIVE AND PLANNING CONTEXT

The following legislation provides the context for cultural heritage in NSW: the *National Parks and Wildlife Act 1974* (NSW), the *Environmental Planning and Assessment Act 1979* (NSW) and the *Heritage Act 1977* (NSW) and local council Environmental Plans and Development Control Plans. The Commonwealth also has a role in the protection of nationally significant cultural heritage through the *Environmental Protection and Biodiversity Conservation Act 1999* (Cth).

For the purposes of this assessment it is the State and local legislation that are relevant. The consent authorities will be the Tweed Shire Council and, where a referral agency is required, the OEH. Approval from the OEH will also be required should the Project impact on identified Aboriginal Objects. The information below lists the legislative and policy framework within which this assessment is set.

As of 1 October 2010, a range of legislative amendments came into operation in New South Wales affecting Aboriginal heritage. The methods used in this assessment have been informed by these legislative amendments, which are discussed in further detail below.

### 2.1 The *National Parks and Wildlife Act 1974* (NSW) and the *National Parks and Wildlife Regulations 2009* (NSW)

The *National Parks and Wildlife Act 1974* (NSW) (NPW Act) is the primary legislation concerning the identification and protection of Aboriginal cultural heritage. It provides for the management of both Aboriginal Objects and Aboriginal Places. Under the NPW Act, an Aboriginal Object is any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area, regardless of whether the evidence of habitation occurred before or after non-Aboriginal settlement of the land. This means that every Aboriginal Object – regardless of its size or seeming isolation from other Objects – is protected under the Act.

An Aboriginal Place is an area of particular significance to Aboriginal people which has been *declared* an Aboriginal Place by the Minister. The drafting of this legislation reflects the traditional focus on Objects, rather than on areas of significance such as story places and ceremonial grounds. However, a gradual shift in cultural heritage management practices is occurring towards recognising the value of identifying the significance of areas to Indigenous peoples beyond their physical attributes. With the introduction of the *National Parks and Wildlife*





*Amendment Act 2010* (NSW) the former offence provisions under Section 86 of ‘disturbing’, ‘moving’, ‘removing’ or ‘taking possession’ of Aboriginal Objects or Places have been replaced by the new offence of ‘harming or desecrating’. The definition of ‘harm’ is ‘destroying, defacing or damaging an Object’. Importantly in the context of the management recommendations in this assessment, harm to an Object that is ‘trivial or negligible’ will not constitute an offence.

The new amendments also significantly strengthen the penalty provisions. The issue of intent to harm Aboriginal cultural heritage has been formally addressed by separating it from inadvertent harm. The penalty for individuals who inadvertently harm Aboriginal Objects has been set at up to \$55,000, while for corporations it is \$220,000. Also introduced is the concept of ‘*circumstances of aggravation*’ which allows for harsher penalties (up to \$110,000) for individuals who inadvertently harm Aboriginal heritage in the course of undertaking a commercial activity or have a record for committing similar offences. For those who knowingly harm Aboriginal cultural heritage, the penalty will rise substantially. The maximum penalty will be set at \$275,000 or one year imprisonment for individuals, while for corporations it will rise to \$1,100,000.

Where a land user has or is likely to undertake activities that will harm Aboriginal Objects, the Director General (OEH) has a range of enforcement powers, including stop work orders, interim protection orders and remediation orders. The amended regulations also allow for a number of penalties in support of these provisions. The NPWA also now includes a range of defense provisions for unintentionally harming Aboriginal Objects, including:

- Undertaking activities that are prescribed as ‘*Low Impact*’.
- Acting in accordance with the new Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (2010) (‘Due Diligence Code’);
- Using a consulting archaeologist who correctly applies the OEH *Code of Practice for Archaeological Conduct in New South Wales* (2010) (‘Archaeological Code of Practice’) (see Appendix B); and
- Acting in accordance with an Aboriginal Heritage Impact Permit (AHIP).



### 2.1.1 'Low Impact Activities'

The new regulations allow for a range of low impact activities to be undertaken without the need to consult the OEH or a consulting archaeologist. Generally, those who undertake activities of this nature will not be committing an offence, even if they inadvertently harm Aboriginal Objects. These activities include:

- (a) Maintenance – For example on existing roads and tracks, or on existing utilities such as underground power cables and sewage lines.
- (b) Farming and Land Management – for land previously disturbed, activities such as cropping, grazing, bores, fencing, erosions control etc. \*
- (c) Removal of dead or dying vegetation – only if there is minimal ground disturbance.
- (d) Environmental rehabilitation – weed removal, bush regeneration.
- (e) Development in accordance with a Development Certificate issued under the EPA Act 1979 (provided the land is previously disturbed). \*
- (f) Downhole logging, sampling and coring using hand held equipment.
- (g) Geochemical surveying, seismic surveying, costeaning or drilling. \*

\* This defense is only available where the land has been disturbed by previous activity. Disturbance is defined as a clear and observable change to the land's surface, including but not limited to land disturbed by the following: soil ploughing; urban development; rural infrastructure (such as dams and fences); roads, trails and walking tracks; pipelines, transmission lines; and storm water drainage and other similar infrastructure.

## 2.2 Due Diligence Code of Practice for the Protection of Aboriginal Objects

The Due Diligence Code has been applied to this assessment, and is addressed in Section 10 of this assessment. It operates by posing a series of questions for land users before they commence development. These questions are based around assessing previous ground disturbance. An activity will generally be unlikely to harm Aboriginal Objects where it:

- (a) will cause no additional ground disturbance; or
- (b) is in a developed area; or
- (c) is in a significantly disturbed area.

Where these criteria are not fulfilled, further assessment for Aboriginal cultural heritage will typically be required prior to commencing the activity.



## 2.2 The ACHCR (2010)

The OEH has recently published the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010) (ACHCR). These requirements replaced the former *Interim Community Consultation Requirements for Applicants* (2004) (ICCR) as of 12 April 2010. The ACHCR provide an acceptable framework for conducting Aboriginal community consultation in preparation for Aboriginal Heritage Impact Permits. Proponents are also required to follow the ACHCR where undertaking a project that is likely to impact on cultural heritage and/or where required by the consent authority.

## 2.3 The Heritage Act 1977 (NSW)

The Heritage Act 1977 (NSW) ('Heritage Act') is aimed at identifying and protecting significant items of historic (as opposed to Aboriginal) cultural heritage. The focus of the legislation is on identifying places of either local or state heritage significance, and protecting them by registration on heritage registers. Significant historic heritage items are afforded little protection (other than at the discretion of councils) where they are not on a heritage register.

Of note are the provisions allowing for interim heritage orders (Part 3), which grants the Minister or the Minister's delegates, (which importantly may include a local government agent) the power to enter a property and provide emergency protection for places that have not yet been put on a heritage register but that may be of local or State significance.

The Heritage Act 1977 (NSW) also makes allowances for the protection of archaeological deposits and relics (Part 6). An archaeological "relic" means any deposit, object or material evidence which relates to the settlement of the area, not being Aboriginal settlement. Importantly, a former requirement for an archaeological relic to be 50 years or older has recently been repealed. The focus is now on the item's potential heritage significance, not its age. As will be discussed below, it is highly unlikely that archaeological relics of significant historic sites are located within the Project Area.



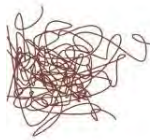
## 2.4 The Tweed Shire Local Environmental Plan 2000

The Tweed Shire LEP 2000 provides statutory protection for items already listed as being of heritage significance (Schedule 2), items that fall under the ambit of the *Heritage Act 1977* (NSW) and Aboriginal Objects under the *National Parks and Wildlife Act 1974* (NSW). It ensures that essential best practice components of the heritage decision making process are followed.

For listed heritage items, relics and heritage conservation areas, the following action can only be carried out with the consent of the Tweed Shire Council:

- a) demolishing, defacing, damaging or moving a heritage item or a building, work, relic, tree or place within a heritage conservation area, or
- b) altering a heritage item or a building, work or relic within a heritage conservation area by making structural changes to its exterior, or
- c) altering a heritage item or a building, work or relic within a heritage conservation area by making non-structural changes to the detail, fabric, finish or appearance of its exterior, except changes resulting from any maintenance necessary for its ongoing protective care, which does not adversely affect its heritage significance, or
- d) moving a relic, or excavating land for the purpose of discovering, exposing or moving a relic, or
- e) erecting a building on, or subdividing, land on which a heritage item is located or which is within a heritage conservation area.

In addition, Council may not grant development consent without considering whether the lands contain potential Aboriginal archaeological deposits (Section 44).



## 2.5 The *State Environment Planning Policy (North Coast Regional Environmental Plan 1988)*

The North Coast Regional Environmental Plan 1988 ('NCREP 1988') recognises the importance of regionally significant heritage items and places to the State of NSW. It provides statutory protection for a select number of state and regionally significant heritage items and places in northern NSW. A "heritage item" means a building, work, relic, tree or place of heritage significance to the North Coast Region specified or described in Schedule 2 or 3 of the NCREP 1988. For these items, the Ballina Shire Council remains the consent authority. Under the NCREP 1988 Council must consider:

- the views of the Heritage Council;
- the heritage significance of the item to the State or region;
- the extent to which the carrying out of the development would affect the heritage significance of the item and its site;
- whether the setting of the item, and in particular, whether any stylistic, horticultural or archaeological features of the setting should be retained;
- measures taken to conserve and preserve the heritage item, including where appropriate, any conservation plan; and
- whether the item constitutes a danger to the users or occupiers.

The main difference between the NCREP 1988 and other Council planning controls is that it focuses on regional significance rather than local significance. It also involves referral to the NSW Heritage Council, regardless of whether the item is on the NSW Heritage Register.

## 2.6 The NSW Heritage Manual

The NSW Heritage Manual lists an 8-step process that is generally considered a best practice guide to assessing significant items. The process steps are:

1. Summarise what is known about the item.
2. Describe the previous and current uses of the item and the associations it may have to individuals or groups and its meaning for those people.



3. Assess the significance using the NSW heritage criteria.
4. Check if a sound analysis of the item's heritage significance can be made.
5. Determine the item's level of significance.
6. Prepare a succinct statement of heritage significance.
7. Get feedback.
8. Write up the information.

Contrary to common belief, a significant heritage item need not be particularly 'old' (the exception to the rule being the definition of an Archaeological Relic discussed above). Rather, the focus is on identifying what aspects of a particular item may be significant.

The NSW Heritage Manual contains a set of 7 assessment criteria that act as a guide to assessing significance. They are:

- **Criterion (a):** An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area);
- **Criterion (b):** An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area);
- **Criterion (c):** An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area);
- **Criterion (d):** An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons;
- **Criterion (e):** An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area);
- **Criterion (f):** An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area); and
- **Criterion (g):** An item is important in demonstrating the principal characteristics of a class of NSW's
  - cultural or natural places; or
  - cultural or natural environments.



### 3. DESCRIPTION OF DEVELOPMENT PROPOSAL

The proposed development is defined as a re-zoning application to the Tweed Shire Council. The proposed re-zoning of the Project Area is from 1(b1) Agricultural Protection to 2(a) Low Density Residential under the Tweed Local Environmental Plan 2000. The proposed development will allow for a small area of land which is currently unviable as agricultural lots to be rezoned as residential, thereby making them able to be included in the greater Area E urban residential release.

For the purposes of this assessment, it has been assumed that all of the Project Area may be the subject of significant surface and subsurface ground disturbance.

As this proposal relates to a rezoning application, development plans are yet to be finalised at this stage of the planning process.

### 4. ABORIGINAL COMMUNITY CONSULTATION

In accordance with the ACHCR, the Tweed Byron LALC were invited to attend the site inspection undertaken on the 14<sup>th</sup> June, 2012. Mr Des Williams, Chairman / Sites Officer for the Tweed Byron LALC, attended this survey of the Project Area with Everick Senior Archaeologist Adrian Piper.

Mr Des Williams and Adrian Piper discussed the implications of the of the survey once it had concluded, and Mr Williams agreed there were no Aboriginal Sites observed during the survey, and agreed there were no concerns regarding the proposed re-zoning of the Project Area.

The Tweed Byron LALC received a copy of the draft of this report, and have been asked to provide written feedback on the contents and recommendations in this report. Their response to this report is currently pending, and will be forwarded to the Tweed Shire council as a separate Addendum to this report once it has been received.



## 5. HERITAGE REGISTERS: ABORIGINAL AND HISTORIC (non-INDIGENOUS) HERITAGE

### 5.1 The OEH Aboriginal Heritage Information Management System

Care should be taken when using the AHIMS database to reach conclusions about site prevalence or distribution. For example, a lack of sites in a given area should not be seen as evidence that the area was not occupied by Aboriginal people. It may simply be an indication that it has not been surveyed, or that the survey was undertaken in areas of poor surface visibility. Further, care needs to be taken when looking at the classification of sites. For example, the decision to classify a site an Open Campsite containing shell rather than a Midden can be a highly subjective exercise, the threshold for which may vary between archaeologists. There are also errors with the data.

A search was conducted on 14 October 2009 of the OEH Aboriginal Heritage Information Management System (AHIMS service number 27631) over 5km surrounding the Project Area. This search identified 40 registered Aboriginal sites within 5km of the Project Area. Of these 40 sites, only 11 had GPS co-ordinates available, with the remainder being listed on the Bundjalung Mapping Project (BMP), and as such were not available for public access. No sites registered at this time were located within the Project Area.

The second search of the AHIMS register was undertaken on the 29<sup>th</sup> June, 2012 (AHIMS service number 73746) in order to update the existing information, and returned results of there being 17 sites within the 3km square area searched centred on the Project Area. Of these 17 sites returned, only 1 site had GPS co-ordinates listed for public access. This location of this site is shown in Figure 3 below. The remaining site's details are listed with the BMP register. A search of the BMP register was requested on 28 May, 2012, and for which the results are still pending at time of this report finalisation.

#### *5.1.1 The Bundjalung Mapping Programme (BMP)*

The BMP is a privately run cultural heritage database for the Tweed Region. It is accessed with the permission of the Tweed Byron LALC and participating Aboriginal community members. The BMP has records for the Tweed region from anecdotal and literature sources of Aboriginal cultural heritage information as well as the data derived from the OEH AHIMS.





A search of the BMP records was requested on 28 May, 2012. The results from this search indicate the Project Area falls within Map H of the updated, *Draft Cobaki and Terranora Broadwater Aboriginal Cultural Heritage Management Plan*. (Converge 2011 prepared for Tweed Shire Council). The Project Area is not identified as either an area of a "Registered Site" or "High Probability of Sites". (This mapped area is roughly bounded by Terranora Road, Sunshine Avenue and Nassau Avenue). The predictive mapping criteria for the locality include proximity to the watershed ridgeline, elevated observation location and potential plateau or level saddle areas (Fox, I. 07-06-2012).

The BMP register did not return any sites as being within the Project Area itself, or within proximity to the Project Area.

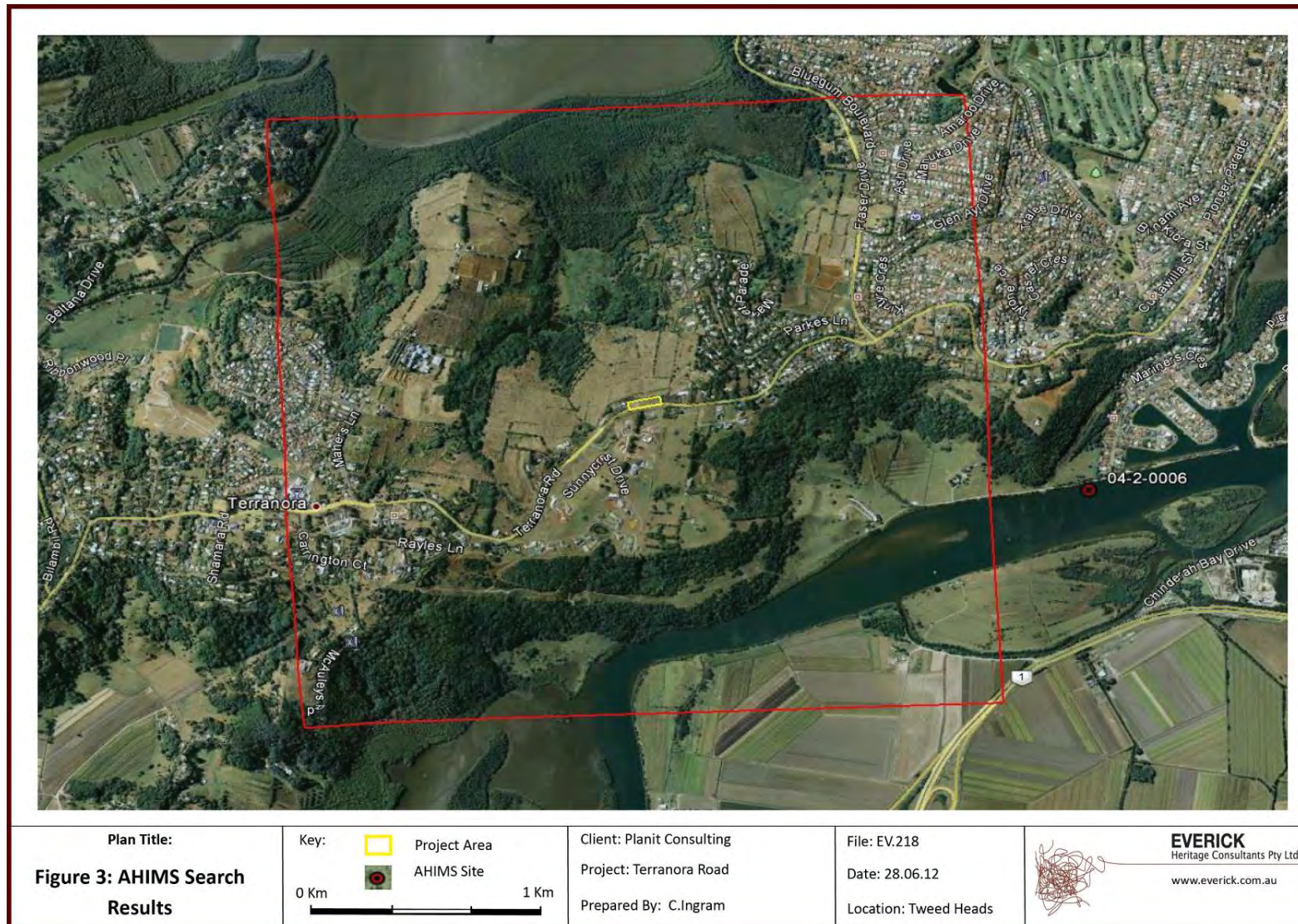
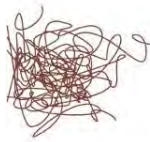


Figure 3: AHIMS search results (indicative locations only) (GoogleEarth 2012)



## 5.2 Other Heritage Registers: Aboriginal & Historic Cultural Heritage

The following heritage registers were accessed on 29 February 2012, and was revisited on 25 June, 2012, for Aboriginal and historic places within the Tweed Shire LGA:

- **The World Heritage List:** Contains one place, the Gondwana Rainforest, which is not within close proximity to the Project Area.
- **Commonwealth Heritage List** (Australian Heritage Council): Contains no places within close proximity to the Project Area.
- **The National Heritage List** (Australian Heritage Council): Contains no places within close proximity to the Project Area.
- **Register of the National Estate** (Australian Heritage Council): Contains 23 place listings for the locale of Murwillumbah. None of these are within close proximity to the Project Area.
- **The State Heritage Register** (NSW Heritage Office): Contains 1 place listing for the Murwillumbah locality. This Place is not within close proximity to the Project Area.
- **Tweed Shire Local Environment Plan 2000 (LEP):** Contains nine listings for Murwillumbah. There are no areas of Aboriginal or historic heritage significance or cultural sensitivity within close proximity to the Project Area.
- **Draft Tweed Shire-wide Local Environment Plan 2010:** Lists 24 heritage places. None are within close proximity to the Project Area.
- **Tweed Shire Community Based Heritage Study 2011:** The nearest heritage item is the 'Bungalora' residence (Heritage Item ID: 2520409) at 858 Terranora Road. The residence is a heritage item for inclusion on the Tweed Shire Council Heritage List.



## 6. LANDSCAPE CONTEXT

### 6.1 Environment Locality

The Project Area is a small area (0.65ha) situated within an upper slope of the 'Carool' (caa variant) soil landscape, rolling hills that broadly comprise basaltic ridge crests that slope moderately (av 20%) to gently (av 6%) to the Terranora Broadwater to the north. The lower slopes are relatively long (250-750m), steep ridges and crests are narrow (50-100m) basalt caps with lower relief and gentler slopes of 10-15%. At the 'foot slopes' the 'Carool' landscape merges with an estuarine/alluvial landscape of level extensive marine plains and estuarine in-fills (Morand 1996: 30). Elevations in the Project Area vary between 130 metres at Terranora Road and 120 metres.

### 6.2 Geology & Soils

The geology within the Project Area is Lamington volcanic, with soils being kraznozems derived from tertiary basalts that are highly erodible, particularly on the steeper slopes, and prone to stoniness (Morand 1996:30).

### 6.3 Vegetation

Original vegetation was assessed by Morand to have been closed-forest (rainforest) and open-forest (wet sclerophyll) (Morand 1996:30). Present vegetation is slashed grassland with scattered macadamia stumps. Council vegetation mapping from 2009 has the site as being highly disturbed (Planit Consulting 2012).

### 6.4 Land Uses

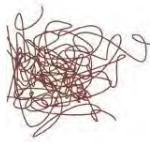
Historically the Terranora 'plateau' was exploited for its timbers and later cleared in 'pockets', for growing sugar cane. In the late 1880's and 1890's the high land at Terranora was taken up by selectors principally for cane growing. However due to the shallow condition of Terranora Creek and Terranora Broadwater, coupled with a lack of contracts from the sugar producing company CSR, only 200 acres of 600 cleared acres were contracted for growing. Dairy farming instead became the major land use from the mid 1890's for many years, followed by



extensive cultivation of small crops from the mid twentieth century (Keats 1999: pp118-120). It is highly likely that the Project Area was used for one or several of these purposes over time.

It was observed during the pedestrian survey that surface stone has been moved down slope from the Project Area to form a rough wall on the northern boundary. The northern shoulder of Terranora Road is parallel to the southern boundary of the Project Area. To what extent fill from the Project Area has been used to form the shoulder of Terranora Road remains unclear. A deep open drain carries 'run off' from above Terranora Road across the central sector of the PA. At the time of inspection overflow waters from Terranora Road had eroded a broad shallow channel onto the property. From the evidence of previous Land Uses over time, and in regards to Aboriginal cultural heritage and the Due Diligence Code of Practice perspective the Project Area can be assessed as highly disturbed.





## 7. SYNTHESIS OF ARCHAEOLOGY AND ETHNOHISTORY

### 7.1 Prehistory

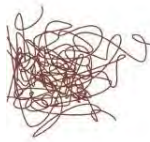
Evidence for occupation of coastal N. S. W. and QLD is dated into the Pleistocene at Wallen Wallen Creek on North Stradbroke Island where an occupation phase between  $20560 \pm 250$  years and the early Holocene period is evident. Analysis of faunal materials from the site suggests an economy initially based upon the hunting of terrestrial fauna changed to one based upon a reliance on marine fish and shellfish which may reflect changing local ecologies caused by gradual rises in sea levels during the late Pleistocene (Neal and Stock 1986).

Coastal sites in northern N. S. W. date to within the Holocene period. The earliest of these is a shell midden at the base of East Banora Point on the lower Tweed River where an occupation phase was dated between 4,700 BP and 4,200 BP (Appleton 1993:34). Faunal material showed a predominance of oyster, cockle and whelk by volume, in addition to remains of pademelon, kangaroo, bream, whiting, flathead and snapper. The stone component exhibited few diagnostic traits, only four artefacts appearing to be of a deliberately manufactured shape (Appleton 1993:17-18).

An earlier excavation of an estuarine shell midden 2.5 km upstream yielded a basal date of  $605 \pm 90$  BP. A column sample revealed compacted fish bone remains at the lower levels, with a greater content of shellfish in the upper levels. Bone points were also recovered. It was concluded that the diet, initially based upon fish and possibly terrestrial fauna, changed to one more reliant upon shellfish, which probably reflected the gradual siltation of the Tweed River to a mudflat ecology (Barz 1980), in that location at least.

Excavations at the Bushrangers Cave at the head of the Numinbah and Tweed Valleys (elevation c. 700m AHD) indicate people began to use the shelter about 10,000 years ago. The cave's occupants exploited rainforest food sources present today namely, pademelons, possums and pythons together with regular consumption of crayfish and bush turkey eggs (Ulm and Hall 1996:45-62).

A shell midden on Chickiba Creek (Richmond River) was found to have accumulated between 1,750 BP and c. 100 BP (Bailey 1975:52). Shell samples from the nearby Angels Beach area are dated between 800 BP and 530 BP, with one sample at 900 - 1,000 BP (Rich 1994:195). Stone artefacts were assessed on technological grounds to date to within the past 2,000 years (Rich 1994:161). Bailey's basal date of 1,750 BP suggests that the modern resource-rich environment may not have been productive enough at an earlier time to support any

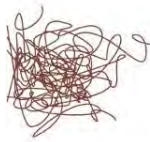


more than small groups (Roy in Rich 1994). By contrast, the Tweed River estuarine site below Sextons Hill was in use some 3,000 years earlier than this (Appleton 1993).

Beach foreshore sites investigated to date have been associated with more recent phases of occupation than estuarine sites. Fore dune sites typically take the form of narrow bands of pipi shells, or surface scatters of pipi and a few stone artefacts. Pipi horizons at South Ballina and Broadwater have been dated to 260 years BP and 200 years BP respectively (McBryde 1982:77). A more substantial pipi midden (O4-O6-0061) investigated on the foreshore at Byron Bay had been formed between approximately 1,000 and 400 years BP. The 80cm deep midden deposit was overwhelmingly dominated by pipi shell, with minor inclusions of periwinkle, limpet, sand snail, oyster and cartrut. Bream was the most abundant vertebrate species. Although in lower quantities relative to bream, a broad range of fauna was represented in the midden, including other types of fish, tortoise, macropods, bandicoot, possums, rodents, birds and reptiles. The midden's stone assemblage was characterised by primary flaking debitage which reflected the poor knapping quality of the raw materials used. All of these materials are believed to have been collected from intertidal pebble beds adjacent to the site (Collins 1994).

An archaeological test excavation at a site in relation to the Tugan Bypass (Zone 7) produced an assemblage of 388 stone artefacts and 132 manuports (or otherwise unidentifiable fragments) from 28 excavation squares. These comprised 26 assemblage elements (or different categories of stone artefacts) and 12 varieties of raw material (Ozark 2006b:28). The site was considered to possess a number of unusual features: the richness of the assemblage was high; the site was intact and showed patterning that could indicate an intact cultural stratigraphy; the number of backed blades point to areas of the site likely used as knapping floors for backed artefacts (an extremely rare find in the region), the preponderance of large red, yellow and black ochre crayons with abundant signs of use suggest decorative activities were an important part of the use of the site (Ozark 2006b:52-53). A radiocarbon determination of a charcoal sample returned a relatively modern age for the site at 298 BP (or c. 1600AD) (Ozark 2006b:50).

A subsequent salvage excavation programme at pier construction impact points over the Zone 7 site produced 389 stone artefacts from 24 excavation squares comprising 12 classes of artefacts on nine types of raw materials. From the mean artefact density of the 1x1 m excavated squares it was estimated that 76,418 artefacts and ochre fragments were contained in the pier cluster areas (Ozark 2007:29,30). A radiocarbon determination of 7,258 BP was obtained from a charcoal sample. However the authors urged caution in accepting the date as one that necessarily related to Aboriginal occupation as there were no intact archaeological features from which a date could be obtained. Early dates (9,000 – 15,000 years ago) are referenced in the report as a possible context for the Tugan sites if the date can be accepted (Ozark 2007:37).



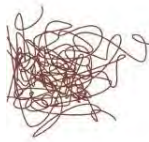
A salvage excavation of a small disturbed midden deposit 200m above the entrance to Cobaki Broadwater was found to be composed of estuarine shell species, mainly oyster, and one stone artefact. The report postulates the shell deposit represents a ‘...single ephemeral event – possibly a single meal for a small group of Aboriginal people...’ The archaeological significance of the site was assessed as low. The social/cultural significance of the site to the local Aboriginal community was assessed as culturally significant (Converge 2008:26). Two shell samples indicated occupation at 463 +/- 35 BP and 379 +/- 36 BP (I. Fox pers comm. ).

In the landscape of the greater region in which the Project Area sits, the majority of recorded Aboriginal Cultural Heritage Sites are middens clustered along the shores of Terranora Creek, the eastern banks of the Terranora Broadwater and the lower slopes of the Terranora ridge adjoining the northern banks of the Tweed River. The main concentration of sites is along the margins of the waterways of the Tweed River, Terranora Creek and Terranora Broadwater. Two of these sites (#04-02-0006 and #04-02-00071) have been excavated and produced dates of occupation of c. 600 BP (Barz 1980) and c. 4700 BP (Appleton 1993) respectively. Both were salvage excavations and both sites are now under residential developments.

Few archaeological sites have been found on the kraznozem soils of the ridges and slopes forming the coastal headwaters of the Tweed River system. Two isolated finds of stone artefacts are recorded on the crest of the Terranora ridge. The brief details of those sites are as follows. Terranora 14 (04-2-0026) a flaked axe and Terranora 15 (04-2-0027) two axes one with hafting groove. ) The edge ground stone axes were shown to the consultant when compiling a report on archaeological sites between Banora Point and Terranora (Piper 1980). The isolated artefact (#04-2-0026) was a flaked axe found during earthworks in the vicinity of a dam constructed near Winchelsea Way, Terranora. The axe was found and removed from the property prior to 1974. A shell scatter/midden Terranora 17 (04-2-0029) on the site of the old Banora Point Public School is approximately 2.25km east of the proposed development if you were to follow the ridge crests. Sites of single artefacts are not normally referred to as occupation sites. Technically two artefacts within 50 metres of each other can be referred to as an occupation site. The Aboriginal community will generally regard all sites as evidence of their prior occupation and refer to as occupation sites.

In addition to site #04-2-0026 there are four sites within 1 km at the base of an escarpment and steep slopes to the east. These are two open campsites (#04-2-0028, #04-2-0030) to the south, and an open campsite (#04-2-0025) and midden (#04-2-0024) to the south-east. The three sites are located on the lower slopes adjoining the river flats of the Tweed River.





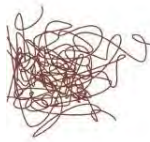
Few of the sites recorded on the northern bank of the Tweed River are still in existence. Residential developments on river foreshores have eliminated numbers of registered sites. The largest midden sites were mounds on low spurs projecting from the eastern base of Terranora ridge. One of these sites, Terranora 12 (#04-02-0024) survives. The only group of sites not heavily disturbed by development is the midden sites on the eastern bank of Terranora Broadwater and Terranora Creek (#04-02-0080 to #04-02-0085). These are middens of estuarine shell species on the foreshores of extensive shellfish gathering areas, immediately below high basalt soil ridges.

It would appear that the occupants of all the estuarine sites on the lower Tweed River waterways had immediate access to extensive tracts of rainforests. However, no occupation sites have been found on the higher elevations which supported sub-tropical rainforests with the exception of the midden located at the site of the old Banora Point Public School on Terranora Road. Other than the two isolated artefact sites and a midden there have been no other site types recorded on the higher plateaus and slopes of Terranora. However this area is well within the hunting and gathering range of the inhabitants of substantial sites on the Tweed River.

## 7.2 Settlement

The Aboriginal people of the Tweed Valley were part of a larger linguistic group, the Bundjalung, which spoke a range of dialects in the area between the Clarence and Logan Rivers extending west to Tenterfield. Dialect groups and sub clans composed of interlinked family groups occupied distinct areas within the wider Bundjalung association. Land belonged to individual clans whose territorial boundaries had been established in mythology (Godwin and Creamer 1984). The Project Area is within the territory of the Minjungbal people, with the Kalibal/Widjabal to the west and the Arakwal to the south (Tindale 1974; Crowley 1978). The Minjungbal occupied the coastal plain and river valleys from a short distance north of Byron Bay to Southport and west to the coastal ranges. Curr provides some evidence for this model suggesting that dialects between the Albert River and Tweed River were closely related (Curr 1887:321). Tindale recognised a similar common language group extending between Byron Bay and Southport and west to Murwillumbah, which he called Minjanbal (Tindale 1974:191).

Keats (1988) and Crowley (1978) differ from Tindale's interpretation in that they generally agree on the northern boundary of the Arakwal but place the southern boundary of the Minyanbal on Cudgera Creek at Hastings Point (Keats 1988:30). Bray writing of his personal observations of the disbursement of the Tweed 'tribes' in the 1860s states that a probable coastal horde or clan groups the Coodjingburra '... had the part along the coast



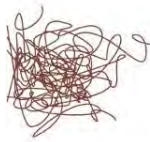
between the Tweed and Brunswick Rivers, about ten miles back from the coast...' (Bray 1901:9). Keats and Crowley for unstated reasons cut the southern boundary of the Coodjimburrá on Cudgera Creek at Hastings Point (Keats 1988:15, 30).

### 7.3 Movement

From the few eye witness sources available for the North Coast we can suggest that contact between elements of the coastal clans was frequent and may have involved relatively large numbers. Bray records that the coastal Coodjimburrá '...used to mix very much with the Ballina Richmond River Blacks' (Bray 1901:9). However it may have been a way of life that rapidly disappeared under the impacts of disease and restrictions on Aboriginal groups by 'authorities' on the movement of Aboriginal people. A review of sightings of Aboriginal coastal groups in Coleman's review of ethno historical sources led her to a conclusion that in the initial stages of European contact, observers of coastal groups describe, '...consistently high, semi sedentary local populations on the coast with a highly sophisticated organic material culture which vanished almost overnight with European contact' (Coleman 1982:7).

Population estimates for the Tweed Valley and coast have been based upon general reports to government authorities and on estimates from specific sightings. In the mid 1800's Commissioner of Crown Lands, Simpson estimated the population between Point Danger and Fraser Island at not less than 5000 (Simpson 1844:484-486). Bray, from near his residence at Kynnumboon observed 600 people camped on the Wollumbin Plain west of Murwillumbah in the 1860's (Bray 1901). A party of 200 men armed with spears had been observed by John Oxley's party on Fingal Head in 1823 (Uniacke 1825:40). Pierce suggested that this gathering of men would indicate a population of about 500 for the Tweed District and a population density between the Tweed and Brunswick Rivers and inland for some miles, '... of about three per square mile...' (Pierce 1971:13). Population estimates by eye witnesses of Aboriginal numbers for the coastal regions immediately after European settlement are highly likely to be underestimates of pre contact numbers due to the impacts of diseases particularly small pox that spread throughout coastal groups prior to official settlement.

Bray also observed that for ceremonial occasions Tweed people would travel up to forty miles (Bray 1901:8). Here Bray was referring to a Bora ceremony west of Mount Warning. Movement within the Coodjimburrá/Minjungbal territory is most likely to have been in response to seasonal availability of foods (Piper 1976:74). A number of observers refer to movement from the coastal plain to foothills during wet seasons on the Richmond/Tweed



(Moehead: n. d. ). During the wet season on Moreton Bay, Backhouse observed, ‘... the Aborigines resort to elevated situations contiguous to those parts of the coast abounding with oysters. In these situations their huts are said to be large enough to stand up in...’ (Backhouse 1843:274). Jones (1896) in Piper (1976:73) stated that the Tweed coastal group moved to the shoreline during the mullet season. It appears that in the normal course of food foraging, the boundaries of the local land holding groups were clearly defined and crossed under threat of death. For agreed purposes between adjoining groups it was possible to cross boundaries, such as the movement to the Bunya Mountains, every third year so ‘...Under a sort of “Truce of God”.... For the blacks went through each other territories unharmed...’ (Bundock 1898 in McBryde 1978:265).

Models to describe possible patterns of settlement and movement in the North Coast region vary considerably. One suggests that clan groups ranged between the seacoast and foothills of the coastal ranges on a seasonal basis (McBryde 1974). Early sources support this view to some extent as there are records describing the movement of inland groups of the Clarence to the coast during winter (McFarlane 1934; Dawson 1935 in McBryde 1978). A second model suggests that movement of coastal people was not frequent, and that semi-sedentary groups moved north and south within the coastal plain rather than to the upper rivers (Coleman 1982). This model is based upon reports of numbers of small villages composed of dome-shaped weatherproof huts between the mid-NSW coast and Moreton Bay. Flinders described a small group of huts in the vicinity of Yamba in 1799, and Perry described two villages on the banks of the lower Clarence in 1839. Similar sightings were reported by Rous on the Richmond (McBryde 1974), Oxley near Chinderah on the Tweed (Piper 1976) and in Moreton Bay (Hall 1982). The ‘solid’ construction methods described for these huts seem to suggest occupation for a period of months at a base camp rather than a constant wide-ranging pattern of low-level land use. Godwin (1999:211-217) argues that neither of the above ‘models’ is supported by the archaeological record and that local conditions dictated exploitation strategies on the North Coast of NSW.

## 7.4 Economy – Material Culture

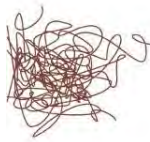
The Aboriginal people of the Tweed River flood plain had access to a wide variety of resource rich, food and raw material producing zones. These include extensive belts of rainforest on basalt soils, tracts of ‘Wallum swamp’, open beaches, estuaries, dry sclerophyll forest on poorer inland soils and littoral rainforest on foredune terraces. Records of coastal diet emphasised the role of marine foods. Ainsworth (1922) suggests the principal diet in spring and summer was, ‘... fish and oysters and the varied produce of the chase’. According to Ainsworth (1922:43-44) the coastal Arakwal (Tindale 1974) or Nyangbal (Keats 1988, Crowley 1978) people relied on ‘...



fish and oysters and the varied products of the chase ...' He refers to the spearing of salmon on the beaches and the netting of estuarine fish by means of '... a "tow-row"-a finely meshed net attached to a stick of bamboo bent in the shape of a bow. In the Tweed area a ship's crew, who spent Christmas with Aboriginal people on Kirra Beach in 1875, described '... feasts consisting of roast scrub turkey, crabs, fish, oysters and pademelon' (Piper 1976:62). ' Terrestrial animal foods mentioned by Ainsworth (1922:43) include pademelons, wallabies, bandicoots, and iguanas. He reports that flying foxes provided a source of food and were easily brought down with the boomerang and pademelon stick. Bundock also records the hunting of flying fox '... by going into the camps where they sleep during the day, when it is raining heavily, as they will not fly...' (Bundock: 1898). At Byron Bay flying fox were so prolific and reliable that the natives though often shifting camp, seldom went far away on account of this source of food supply (Anon. n. d. , b: 1 in Sullivan 1978:107).

Ethnohistorical records are largely directed towards descriptions of hunting techniques which employed large groups of people and obvious types of technology requiring demonstrable physical skills-the use of spears, clubs, boomerangs, the 'tow-row' (hand held net) etc. The role of plant foods in the local economy is often understated or overlooked entirely. Certainly, vegetable foods are given no particular prominence in Ainsworth's recollections at Ballina. He refers to yams obtainable in the scrubs, and to bread made from nuts which grew on the coastal headland (Ainsworth 1922:43). McFarlane (1934) writing of the Clarence River placed greater emphasis on the role of vegetable foods '... the woods supply much variety in the shape of fruit or berries but every description of vegetable contributed to the digestive requirements of the collector of food necessities.

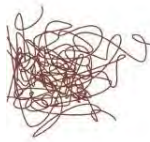
An indication of the importance of rainforest foods and material resources can be synthesised from chapters of '*Records of Times Past*', dealing with ethnohistory (Sullivan 1978:101) and *Museum Collections from the Richmond River District*, edited by Isabel McBryde (1978). Items of material equipment and weapons fashioned from rain forest materials that are detailed in these sources include water carrying vessels (Bangalow Palm), string bag, woven bag (Stinging tree), shield (Stinging tree), nets (Stinging tree) tow row (Stinging tree, lawyer cane), axe handles (lawyer cane), necklets (lawyer cane, shelter supports (lawyer cane), cane bugles (lawyer cane) cordage (Stinging tree, fig tree), clubs (Black bean). Food sources identified include possums, paddymelon, bandicoot, Moreton Bay Chestnut, cunjevoi, macadamia, wild grapes, Burrawang tree or palm, wild cherries. These items are identified as pertaining to the Richmond River area and do not include more generally available resources more widely utilised such as rainforest birds and medicinal plants. The above would be equally relevant to the Tweed Valley.



J. J. Byrne wrote a number of newspaper articles for the Tweed Daily in 1945 in which he reflects on aspects of customs and incidents involving Aboriginal people of the Murwillumbah area between c 1863 and the 1870's. He emphasises that fish was the primary diet and that along with fish "...they ate all the birds and reptiles that abounded in the Northern Rivers..." (Byrne1945). Tools and weapons mentioned are stone axes, shield, nulla nulla, 'battle spears', lighter spears, digging sticks, bags, nets, bangalow palm watertight containers and fire sticks. In addition to fish in general he refers to sea mullet and catfish, quail, scrub turkey and their eggs and honey. Byrne mentions group hunting, describes tree climbing technique, hut construction and how movement between camps was undertaken.

The most detailed analysis of material culture of the North Coast has been that undertaken by McBryde (1978). The region of the Tweed, Richmond and Clarence Rivers would seem to form a distinct unit. This is particularly so in the case of fishing technology. The multi-pronged fishing spear and the shellfish hook are both absent from this region. Fish were caught in nets or speared in the shallows (McBryde 1978:187). Spears were single pointed fire hardened weapons (Dawson 1935 in McBryde 1978), of both a lighter and heavier variety (Byrne 1946:3). Neither the woomera nor the spear throwing stick was used in this region (Dawson 1935 in McBryde 1978). The range of materials is considered wider than that of central Australian tribes with fewer all-purpose items, few composite tools and a number of specialised ones. This may reflect a more sedentary life style in a rich environment requiring fewer specialised tools (McBryde 1978:187).

The stone tool element in the material culture was small and unspecialised. The archaeological evidence suggests changes to a simpler stone technology took place only centuries before European settlement. The stone tools in use immediately prior to European settlement, '... show little typological sophistication and did not demand highly skilled craftsmanship' (McBryde 1978:198). Stone materials can be found in isolation, at the sites of shell middens, scarred trees, stone quarries or open campsites. Evidence of ceremonial/spiritual life can be identified by Bora grounds, stone arrangements and natural mythological site such as Mount Warning. These sites can be considered by Aboriginal people and the OEH to have a scientific/archaeological significance or a social/cultural significance to the Aboriginal community, or a combination of both.



## 8. PREVIOUS CULTURAL HERITAGE ASSESSMENTS

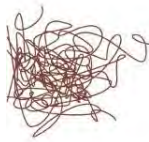
The purpose of a review of previous archaeological and cultural heritage assessments "... is to provide a context and baseline for what is known about Aboriginal cultural heritage in the subject area. This contributes to the assessment of archaeological significance of the proposed development area. " (OEH, COPAI: 6). The previous assessments are both archaeological in their sampling strategies and methodology in addition to more recent cultural heritage assessments that draw conclusions as to significance from traditional owner informants as well as archaeological findings.

### 8. 1 Previous Archaeological / Cultural Heritage Assessments

The results of previous field assessments indicate the main concentration of recorded Aboriginal sites is in the immediate vicinity of the waterways of the Tweed River estuary, be it a small proportion of the original number. A far lesser concentration of recorded sites occurs in the upland areas of Terranora, Bilambil, Carool and Tumbulgum which form catchments adjacent to the coastal plain and the creek systems, which flow from them. Few studies have been conducted in these areas where the impact of land clearing is arguably greatest and the spread of urban development less concentrated.

**Piper (1991)** undertook a study of the foreshores of Terranora Creek and Terranora Broadwater and recorded nine midden sites between Barneys Point Bridge and Tommy's Island in Terranora Broadwater within a distance of approximately 5.0 km. These sites ranged in content from thin bands of estuarine shell eroding from slopes falling to the river to compacted (20–50 cm) deposits of shell and stone artefacts many metres in extent. The shell contents of these sites were estuarine shell species; oyster, cockle and whelk. A small number of stone artefacts including a retouched flake were observed at Site 5 (# O4-O2-79) and a bevelled pounder and stone axe were recorded at Site 10 (# O4-O2-83). Poor visibility due to dense vegetation bordering the waterways hampered the effectiveness of the survey. However, 14 estuarine shell middens were located. The bank of midden sites (Sites 6–13) on the eastern shore of Terranora Broadwater was considered to be of high archaeological and Aboriginal significance (Piper 1991:16-18) because of there being few sites of concentrated deposits remaining.

**Piper (1994)** undertook an archaeological study of an earth/rock quarry site above Duroby Creek found no evidence of Aboriginal materials. The quarry location is on a ridgeline terminating at the Duroby Creek flats. An archaeological assessment (**Piper 1996**) over approximately 100 ha of ridge crest and slopes on red/brown



krasnozem soils overlooking Cobaki Creek produced a similar result. Surface visibility was poor due to heavy grass cover. The assessment concluded that the land held no Aboriginal archaeological significance. The Tweed Byron LALC had no objections to the Development Application (Piper 1996:16 and Appendix A).

An archaeological assessment by **Piper (2004)** over 12.3 ha at McAllisters Road Bilambil Heights found no Aboriginal archaeological evidence in an area of moderate red/brown krasnozem soil slopes. The Tweed Byron LALC had no objections to the proposed rezoning of the land to Residential (Piper 2004:27).

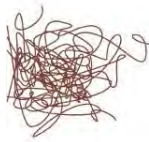
**Robins and Piper (2006)** investigated 14.0 ha of the Terranora plateau over an area where a stone axe had previously been recorded and collected, however no further Aboriginal artefacts were found. The PA in question is bounded by Winchelsea Way on the opposite side of Terranora Road at the south east corner of the present PA. The 2006 PA was gently sloping to level plateau with slopes to the northern banks of the Tweed River. No additional Aboriginal or non-Indigenous cultural heritage sites or materials were found.

**Piper (2000) and Robins and Piper (2007)** carried out an assessment over land at Fraser Drive, Tweed Heads South. That survey found that there were no areas of significance to the Tweed Byron LALC in the immediate vicinity. A recorded midden site (#04-2-0088) is located within Tweed Council land at the intersection of Champagne Drive and Fraser Drive.

**Robins and Piper (2009)** conducted a cultural heritage assessment of the proposed Rise Development at Bilambil Heights and located no Aboriginal archaeological sites. The assessment encompassed the 'Norvill' property assessed by Piper 1996. The land is highly disturbed through clearing and cultivation over many years.

A system of small crop terraces dating from the mid- 20th century was identified on a ridge in the northern part of the proposed site. This site was identified as significant to Aboriginal and South Sea Islander individuals who were employed to pick the crops. The terraces have high local significance with strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.

It was recommended that the terraces and associated infrastructure be mapped in detail by a surveyor, remaining infrastructure should be documented and photographed, Aboriginal/South Sea Islander people should be interviewed. It was concluded the entire system of walls was not of such cultural significance that they be retained. However, it was recommended that those terraces within reserve land (parks, open space or conservation areas) be retained and incorporated into the planning of those areas (Everick 2009: 8).



**Converge (2008:26)** undertook a salvage excavation of a small disturbed midden deposit 200m above the entrance to Cobaki Broadwater was found to be composed of estuarine shell species, mainly oyster, and one stone artefact. The report postulates the shell deposit represents a ‘...single ephemeral event – possibly a single meal for a small group of Aboriginal people...’ The archaeological significance of the site was assessed as low. The social/cultural significance of the site to the local Aboriginal community was assessed as culturally significant.

**Everick (2009)** conducted a cultural heritage assessment over 297ha adjoining the PA to the north. The ‘Altitude’ development comprised 297ha of slopes falling to the Terranora Broadwater. Precinct 2 of the development adjoins the PA on the northern boundary. There were no specific recommendations for the management of Aboriginal or non-Indigenous cultural heritage.

**Azure Estate development.** During the 2006 assessment of the land on Winchelsea Way I was informed by the TBLALC Sites Officer that the Azure development had been assessed for Aboriginal cultural heritage by members of the TBLALC and that no sites had been found. The Azure development is a ‘broad acre’ residential sub-division on the opposite side of Terranora Road to the present PA.

The total evidence of Aboriginal use/occupation of the coastal uplands of the Terranora plateau is restricted to a small number of isolated stone artefacts and a midden. The effectiveness of Aboriginal archaeological assessments in these uplands is invariably diminished by poor surface visibility and the impacts of previous land uses.

In terms of coverage by previous archaeological and cultural heritage assessments, all of the adjoining lands to the PA have been subject to previous assessments. These are the ‘Altitude’ development (2009) to the north, the ‘Buttons with Bow’ development (2006) and ‘Azure’ development (c2006) to the south east and south. One stone axe (OEH #04-02-0026) had been reported on the 2006 Winchelsea Way property prior to the field inspection. No other Aboriginal or non-indigenous cultural heritage has been found.





## 9. REVIEW OF HISTORIC AERIAL PHOTOGRAPHY

It is evident from the review of the Historical Aerial Photography available for the Project Area that this land has undergone minimal change since the first photograph available, from 1962.

The 1962 photograph shows the area in question has already undergone significant vegetation clearing in the past, with the vegetation remaining indicative of small, juvenile regrowth types. The majority of the Project Area appears to be low grasses in this photograph. The surrounding region appears to be used for rural purposes, including cropping and cattle grazing.

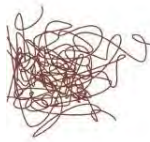
The available photography is from 1970, which shows minimal change to the Project Area itself, as well as minimal changes to the surrounding landscape or plots.

1976 sees little dramatic change, although from this photograph it appears that a number of the cropping fields to the north and west of the current Project Area are no longer in use as cropping fields. Some of the regrowth vegetation is now missing from the Project Area, however there remains little substantial change to the surrounding landscape.

The 1987 photograph again shows little dramatic change to either the Project Area or the surrounding landscape, although some tree regrowth is visible within the greater region.

The 1996 photograph, however, begins to show evidence of the encroaching urban sprawl onto the region surrounding the Project Area, with more small housing developments visible to the east and west of the Project Area. No other significant changes are visible.

**Conclusions:** Due to the size of the Project Area, the poor resolution of some of the historical photographs and the lack of clear features, identification of more specific impacts on the Project Area is problematic. The initial clearing of vegetation were likely to have caused significant ground disturbance and subsequent erosion would have likely had a significant impact to the depositional integrity of any Aboriginal Objects. Additional disturbance would have been caused by building the nearby Terranorra Road. However, over all it is evident from the historical photography that the Project Area itself has undergone little use or significant change in usage over the time visible from the photography available.



## 10. THE PREDICTIVE MODEL

### 10.1 Predictive Models - Land Use Strategies

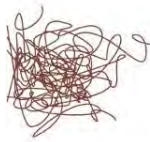
It is probable that Aboriginal camp sites, (also known as Open Sites) if they had existed, would be found on the ridge crest/plateau above the southern boundary of the PA. Aboriginal occupants of the Terranora area would have had access to the terrestrial foods of the rainforest and to a lesser extent vegetable foods in the form of the cunjevoi lily, Moreton Bay Chestnut and seasonally available fruits and berries. Marine and aquatic food resources principally fish and shellfish could be procured from the Tweed River and Terranora Broadwater. Stone resources include basalt stone pieces commonly used in the production of edge ground stone axes and fine grained siliceous stone used to produce small or wood working tools. The use of rainforest/sclerophyll forest by Aboriginal groups is not well researched, one reason being that few sites have been located unless in rock shelters protected from land clearing. However, the use of rainforests for both food, medicinal resources, together with their technological materials, is referred to by Bundock (1898), Ainsworth (1922).

### 10.2 Aboriginal Sites and Features

The following predictive model is based upon the results of previous archaeological and cultural heritage assessments and previous predictive models therein, evaluation of landscape features, land use history informed in part by historic aerial photography, previously known Aboriginal site features and their distribution in this region and locality.

Previous land use practices over the site appear to have entailed land clearing of original forest vegetation probably for dairying purposes and subsequent 'episodes' of cleaning exotics such as camphor laurel. There appears to be evidence of ground disturbances through cultivation. Archaeological sites that may owe their origins to campsites or use as a transit corridor would be confined to the ridge crest to the south and not the slopes of the PA. There is a low to nil possibility of intact archaeological sites on the slope of the Project Area and a low to moderate possibility of disturbed low density artefact scatters.

Given the destructive impacts of previous land use practices the following sites can be excluded. There are no trees of sufficient age or original growth in the PA, therefore scarred or carved trees are not possible. Bora/Ceremonial areas which may have contained above ground earth or rock structures would have long since



been cleared and levelled had they existed. As there are not suitable rock outcrops or known sources of siliceous material in the Project Area the potential for quarry sites to be found is minimal. While basalt is known as a raw material source for stone artefacts, it has not been known to be found in a quarried situation, but rather a case of collection of isolated, suitable pieces or stones. There are no rock shelters within the PA. Middens that contain high volumes of shell fish remains can be excluded. There is no possibility that cultural materials of organic materials such as wood, fibre or cordage would survive. The following type of archaeological sites have a low/moderate potential to occur in the PA.

#### *10.2.1 Isolated artefacts*

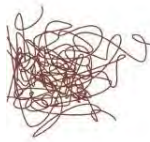
These consist of single stone artefacts, which may have been randomly discarded or lost. They may occur in almost any environmental context exploited by Aboriginal people. They are commonly stone axes, single cores, hammer stones, bevelled pounders, pebbles and flakes. Their presence may indicate that more extensive scatters of stone artefacts exist or existed nearby, perhaps obscured by vegetation or dispersed by mechanical means.

## 11. FIELD METHODS & RESULTS

### 11.1 Sampling Strategy & Survey Methods

The purpose of this survey was to comply with recent amendments to the *National Parks and Wildlife Act 1974* (NSW) as recommended by the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (2010) (COPAI) and the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010) ('ACHCRP').

The effectiveness of a sampling or whole site inspection strategy is based upon the extent (% per sq m) and 'quality' (e.g. 5%, 90%) of surface visibility. The available area of surface visibility and its 'quality' is dependent upon natural erosional processes and man-made (accelerated) erosional process e.g. construction, cultivation (McDonald et al. 1990:92) 'Quality' is impeded or enhanced by a lack of vegetation cover.



The Project Area (0.65ha) is an elongated section of upper slope bounded by Terranora Road on the 'up-side' and a stone wall on the lower northern side. Landform element is upper slope falling from an upper plateau, the 'Azure' residential sub-division. The property is narrow, width approximately 45m, length approximately 143m.

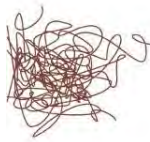
The main erosion processes in the past and ongoing appear to be 'accelerated' or man-made. Erosion features within the Project Area include an open drain from a catchment above Terranora Road. This drain is through exposed kraznozom soils approximately 3.5m width and 1.5m deep, which extend for the width of the PA. A second erosion feature includes a broad wash-out from overflow from Terranora Road approximately 0.75m in depth, fans across approximately half the width of the PA. Clearing of surface stone, slashing and stump removal has been carried out.

The implication for Aboriginal cultural heritage materials, particularly stone artefacts, that may remain within the surface and near sub surface soils of the Project Area is some movement can be expected down slope and or be buried by aggregating sediments.

In such a small Project Area as this an intensive survey on foot in systematic transects of the whole site was feasible. This was conducted in transects across the slope. All of the Project Area was traversed by pedestrian survey, with locations of exposed soils specifically targeted for detailed inspection. The majority of the Project Area was densely gassed, severely restricting ground surface visibility, with the exception of the two drainage features and small areas around removed trees.

The field inspection was conducted on foot by Everick Heritage Senior Archaeologist Adrian Piper, accompanied by Mr Des Williams Chairperson and Sites Officer of the Tweed Byron LALC on 14 June 2012.

Photographs were taken as a record of general features and conditions, to indicate the degree of surface visibility and the content of any sites found. Notes were made of the degree of surface visibility, the area of visibility, ground cover, land uses and any other relevant features. An over-view of surface conditions and site detection conditions is given in Section 10.2 and 10.3 below, and can be seen in the field photographs (Figures 4-8). The field inspection was an assessment of all exposed soils.



## 11.2 Survey Units

The inspected area is considered as a single survey unit reflecting the whole of the PA's landform element. The general conditions for survey are indicated below and shown in the photographs from the field survey, Figures 4 – 8.

**Upper slope:** c 130m-120m (AHD) moderate slope c 20% falling north.

Surface conditions: cleared and grassed

Erosion conditions: unstable, subject to gully and sheet wash, grassed over red/brown kraznozom soils.

Area of surface exposure c 10 %. Surface visibility: 100%.

## 11.3 Survey Coverage

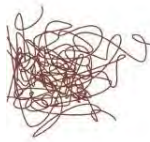
The total Area for Site Detection is approximately 6435 sq m or approximately 10% of the total Project Area.

**Table 1: Survey Coverage**

LANDFORM ELEMENT	AREA (sqm)	EXPOSURE %	AREA OF EXPOSURE (sq m)	VISIBILITY %	AREA FOR SITE DETECTION (sq m)	% of LF For SITE DETECTION	SITES FOUND
Upper slope	6435	10	643	100	643.0	0.10	0

## 11.4 Results Aboriginal Cultural Heritage

There were no Aboriginal archaeological sites identified as a result of the field inspection. No areas with a potential to contain significant Aboriginal cultural material were identified during the site inspection. The view of Mr Des Williams the Chairperson/Sites Officer of the Tweed Byron LALC onsite, as to the cultural heritage significance of the Project Area was, the Project Area was of no interest to the Land Council (Des Williams pers comm. June 14<sup>th</sup> 2012).



## 11.5 Discussion of field results

The predictive model proposed that the Project Area was unlikely to contain substantial archaeological sites but allowed for the possibility of single artefacts and low density artefact scatters. The results of the field inspection support that proposition. The small area (0.62ha) of upper hill slope was considered to have a low cultural heritage potential. The highest potential landform to contain archaeological sites is the plateau to the south of Terranora Road on the basis that ridge crests provided transit corridors between river valleys and between major river tributaries. It was conceded that at least a low level or background scatter of artefactual materials (stone artefacts) may have been discarded in the Project Area if the area was a transit corridor. However there is nothing in the topography of the Project Area that would lead to that conclusion. It is therefore reasonable to make statements as to a probable absence of significant Aboriginal archaeological cultural heritage materials with confidence.



Figure 4: Field photograph, view east over the Project Area, with Terranora Road visible on right





**Figure 5: View east. Erosional feature visible, with mechanical scrapes from heavy machinery visible**



**Figure 6: View south back towards Terranorra Road showing detail of erosional feature (drain)**





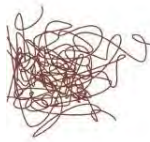
**Figure 7: View south, detail of drain that is erosional feature**

## 12. CULTURAL HERITAGE DUE DILIGENCE ASSESSMENT

As discussed in Section 2 above, the Due Diligence Code recommends a staged analysis of cultural and archaeological factors. This section discusses the analysis of the Project Area when compared against these guidelines.

### 12.1 Step 1: Will the activity disturb the ground surface?

Yes. If the current rezoning is approved, subsequent building for residential purposes has the potential for ground disturbance.



## 12.2 Step 2a: Search of AHIMS Database

A search was conducted on 14 October 2009 of the OEH Aboriginal Heritage Information Management System (AHIMS service number 27631) over 5km surrounding the Project Area. This search identified 40 registered Aboriginal sites within 5km of the Project Area. Of these 40 sites, only 11 had GPS co-ordinates available, with the remainder being listed on the Bundjalung Mapping Project (BMP), and as such were not available for public access. No sites registered at this time were located within the Project Area.

The second search of the AHIMS register was undertaken on the 29<sup>th</sup> June, 2012 (AHIMS service number 73746) in order to update the existing information, and returned results of there being 17 sites within the 3km square area searched centred on the Project Area. Of these 17 sites returned, only 1 site had GPS co-ordinates listed for public access. This location of this site is shown in Figure 3. The remaining site's details are listed with the BMP register. A search of the BMP register was requested on 28 May, 2012, and for which the results are still pending at time of this report finalisation.

## 12.3 Step 2b: Is the activity in an area where landscape features indicate the presence of Aboriginal cultural heritage?

Aboriginal objects are often associated with particular landscape features such as ridge-lines, waterways and wetlands. The Due Diligence Code lists a range of landscape features that are considered likely to contain Aboriginal cultural heritage. These include proximity to watercourses, ridgelines and resource areas.

The Project Area is an upper slope adjoining a plateau on which a residential sub-division is located. The location cannot be considered favourable to specific resources or a suitable camp site location. Prior to European settlement the area may have been peripheral to more productive food and resource environments and more desirable campsite locations. The BMP search (Section 4) and review of previous assessments (Section 7.2) suggest ridge crests and level areas on plateaus and saddles contain the known Aboriginal cultural heritage and archaeological sites.



## 12.4 Step 2c: Is there evidence of past ground disturbance?

All of the Project Area has been cleared and possibly cultivated on occasions, constituting 'disturbance' under the meaning of the Due Diligence Code. Under the Due Diligence Code, no further assessment or impact mitigation activities are required.

However, having regard to the cultural significance of the Terranora locality in general, a cautionary approach to managing heritage is recommended.

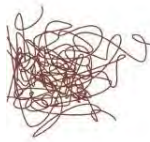
## 13. CONCLUSIONS AND RECOMMENDATIONS

The potential for Aboriginal cultural heritage to be located within the Project Area is minimal. The following recommendations are cautionary in the event that future works associated with residential construction disturb Aboriginal heritage sites/objects.

### Recommendation 1: Aboriginal Human Remains

It is recommended that if human remains are located at any stage during earthworks within the Project Area, all works must halt in the immediate area to prevent any further impacts to the remains. The Site should be cordoned off and the remains themselves should be left untouched. The nearest police station, the Tweed Local Aboriginal Land Council and the OEH Regional Office, Coffs Harbour are to be notified as soon as possible. If the remains are found to be of Aboriginal origin and the police do not wish to investigate the Site for criminal activities, the Aboriginal community and the OEH should be consulted as to how the remains should be dealt with. Work may only resume after agreement is reached between all notified parties, provided it is in accordance with all parties' statutory obligations.

It is also recommended that in all dealings with Aboriginal human remains, the Proponent should use respectful language, bearing in mind that they are the remains of Aboriginal people rather than scientific specimens.



## Recommendation 2: Aboriginal Objects Find Procedure

It is recommended that if it is suspected that Aboriginal material has been uncovered as a result of development activities within the Project Area:

- (a) work in the surrounding area is to stop immediately;
- (b) a temporary fence is to be erected around the site, with a buffer zone of at least 10 metres around the known edge of the site;
- (c) an appropriately qualified archaeological consultant is to be engaged to identify the material; and
- (d) if the material is found to be of Aboriginal origin, the Aboriginal community is to be consulted in a manner as outlined in the OEH guidelines: *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (2010).

## Recommendation 3: Notifying the OEH

It is recommended that if Aboriginal cultural materials are uncovered as a result of development activities within the Project Area, they are to be registered as Sites in the Aboriginal Heritage Information Management System (AHIMS) managed by the OEH. Any management outcomes for the site will be included in the information provided to the AHIMS.

## Recommendation 4: Conservation Principles

It is recommended that all effort must be taken to avoid any impacts on Aboriginal Cultural Heritage values at all stages during the development works. If impacts are unavoidable, mitigation measures should be negotiated between the Proponent, OEH and the Aboriginal community.

## Recommendation 5: Cultural Heritage Inductions

It is recommended that Staff and Contractors involved in the initial stripping of topsoil on the site should undergo a cultural heritage induction prior to commencing works. The induction should include:



- (a) an introduction to Aboriginal culture and tradition, including why evidence of Aboriginal occupation is important to Aboriginal people;
- (b) a summary of the requirements under New South Wales cultural heritage legislation
- (c) a brief introduction on how to identify Aboriginal Objects; and
- (d) a review of procedures in the event that Aboriginal cultural heritage is identified during the course of undertaking the project.





## PART C: HISTORICAL CULTURAL HERITAGE ASSESSMENT

### 14. LAND-USE HISTORY AND PREDICTIVE MODELLING

Refer to Section 4 of this report for the discussion of the Heritage Register search results. Please refer to Section 8 of this report for a discussion of the Historical Aerial Photography

#### 14.1 A Predictive Model: Land Use and Historic Parish Maps

A search of the Parish Mapping available for this location indicate the location of the Project Area has remained basically unchanged over time. The parish maps available date between 1913 and 1959. During this time, the property on which the Project Area is located measured 40 acres and was owned by one N.A. Joubert. The property remained in that family the entire span of the maps. He also owned properties to directly over the road from this property. The surrounding areas seem to be made up of rural parcels and small acreage blocks. Some of the larger blocks nearby were owned by banks in Sydney, or trust funds.



Figure 8: Parish Map 1913 with approximate Project Area outlined in red



Figure 9: Parish Map 1918 with approximate Project Area outlined in red

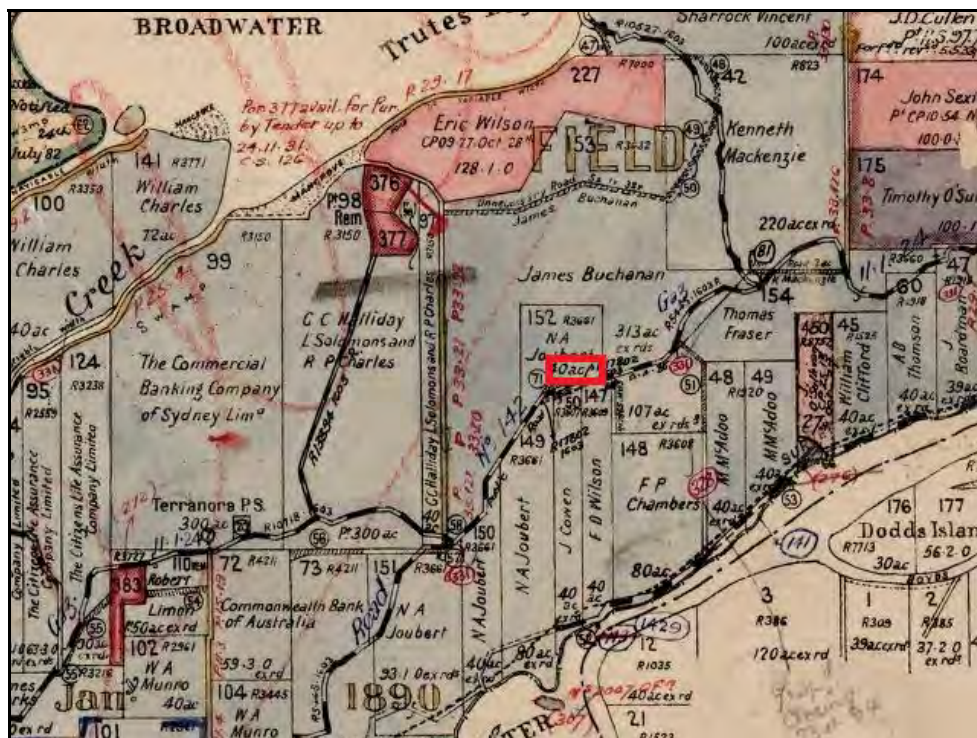


Figure 10: Parish Map 1924 with approximate Project Area outlined in red



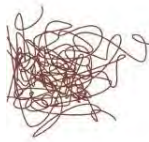
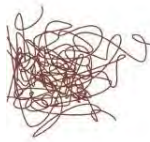


Figure 11: Parish Map 1935 with approximate Project Area outlined in red



Figure 12: Parish Map 1959 with approximate Project Area outlined in red



Also visible from the parish maps are that the surrounding landscape seems to change but little, with roads and the river line keeping their configuration throughout the period of mapping. It can clearly be seen from these maps that there is no record of historic places or objects – buildings etc – being located within the Project Area.

## 15. FIELD METHODS & RESULTS

The field inspection of the Project Area was undertaken concurrently with the Aboriginal archaeological sites inspection. The Project Area was assessed via pedestrian survey. The survey coverage and percentage of the ground surface visibility at time of survey can be seen in Table 1.

During the field inspection, no items of historic cultural heritage were identified.

As no items of historic cultural heritage were found, either a significance assessment nor historic cultural heritage impact assessment is warranted.

## 16 RECOMMENDATIONS – HISTORICAL HERITAGE

With no historical evidence located within the Project Area by the field assessment, and no items of historical significance located through the desktop analysis of the historical aerial photographs or the parish mapping records, there are no further actions or recommendations regarding Historic Cultural Heritage warranted for the Project Area.



## REFERENCES

<i>Ainsworth, J 1922</i>	<i>Reminiscences 1847 – 1922, Beacon Printery, Ballina.</i>
<i>Appleton, M 1993</i>	<i>'An Archaeological Investigation of a shell midden at Sextons Hill south of Tweed Heads'. Unpublished report to Ian Hill &amp; Associates Pty Ltd, Tweed Heads.</i>
<i>Backhouse, J 1843</i>	<i>A Narrative of a Visit to the Australian Colonies, Hamilton Adams &amp; Co, London.</i>
<i>Bailey, GN 1975</i>	<i>'The Role of Molluscs in Coastal Economies: the Results of Midden Analysis in Australia', Journal of Archaeological Science, vol 2, pp. 45-62.</i>
<i>Barz, RK 1980</i>	<i>'Report on the Terranora Midden (Lilly Waters Estate)'. Unpublished report to Sinclair Knight &amp; Partners, .Newcastle.</i>
<i>Bray, J 1901</i>	<i>'Tribal Districts and Customs', Science, vol 4, no 1, February. p. 9.</i>
<i>Bundock, M (n.d)</i>	<i>'Notes on the Richmond River Blacks', Manuscript, Bundock Family Papers, Mitchell Library, Sydney.</i>
<i>Byrne, J.J 1945</i>	<i>'Hundreds of Blacks Lived on Tweed in Early 70's', The Tweed Daily, December 18 1945 p.3.</i>
<i>Byrne, JJ 1946</i>	<i>'More About the Tweed Aborigines', The Tweed Daily, 5 January 1946.</i>
<i>Byrne, J.J 1946</i>	<i>'Customs of Tweed Aborigines', The Tweed Daily, 26 January 1946</i>
<i>Byrne, J.J 1946</i>	<i>'Incident in Early Days on Tweed'. The Tweed Daily, February 16 1946</i>
<i>Coleman, J 1982</i>	<i>'A new look at the north coast: fish traps and villages', in S Bowdler (ed.), Coastal Archaeology in Eastern Australia, Australian National University, Canberra, pp. 1-10.</i>
<i>Collins, JP 1994</i>	<i>'Archaeological Assessment and Conservation of Aboriginal Midden Site #4-5-61 at The Pass, Byron Bay, NSW'. Unpublished report to Cape Byron Headland Reserve Trust. Byron Bay.</i>
<i>Converge Heritage and Community, 2008</i>	<i>Archaeological Excavation and Cultural Heritage Assessment of the Piggabeen Road Shell Midden. Unpublished report to Tweed Shire Council, West Tweed Heads.</i>
<i>Crowley, T 1978</i>	<i>'The Middle Clarence dialects of the Bundjalung', Australian Institute of Aboriginal Studies, Canberra.</i>
<i>Curr, EM 1887</i>	<i>The Australian Race, Government Printery, Melbourne.</i>
<i>Everick, 2009</i>	<i>Draft Preliminary Archaeological Assessment For Precinct 1,2 and 3 Altitude Development Terranora NSW. Unpublished report for Metricon Qld Pty Ltd.</i>
<i>Everick, 2009</i>	<i>Cultural Heritage Assessment For The Rise Development MP 08-0234, Bilambil Heights NSW. Unpublished report for Terranora Group Management Pty Ltd.</i>



<i>Fox, I 2003</i>	<i>'An Aboriginal Heritage Study of a Traditional Pathway, Linking Coastal and Upland Resources, Northern New South Wales', B App Sc, Hons thesis, Southern Cross University, Lismore.</i>
Godwin, L and Creamer, W 1984	<i>'Ethnography and archaeology on the north coast of NSW', Queensland Archaeological Research, vol 1, pp. 103-116.</i>
<i>Godwin, L 1999</i>	<i>'Two steps forward, one back: some thoughts on the settlement models for the north coast of New South Wales', in Hall, J &amp; McNiven, IJ (eds), Australian coastal archaeology, Research papers in archaeology and natural history, 31, ANH Publications. Department of Archaeology and Natural History RSPAS, Australian National University, Canberra, pp. 211-217.</i>
<i>Hall, J 1982</i>	<i>'Sitting on the crop of the bay: an historical/archaeological settlement and subsistence, in Moreton Bay', in Bowdler, S (ed), Coastal Archaeology in Eastern Australia, Australian National University, Canberra. Pp79-95</i>
<i>Keats, W 1999</i>	McGregor and Cooloon. Lower Tweed River Historical Society Inc. Tweed Heads NSW.
<i>McBryde, I 1974</i>	<i>Aboriginal Prehistory in New England, University of Sydney Press, Canberra.</i>
<i>McBryde, I 1978</i>	Records of Times Past: Ethno historical essays on the culture and ecology of the New England tribes, Australian Institute of Aboriginal Studies, Canberra.
<i>McBryde, I 1982</i>	<i>Coast and Estuary: archaeological investigations on the north coast of NSW at Wombah and Schnapper Point, Australian Institute of Aboriginal Studies, Canberra.</i>
<i>McDonald, RC. Isbell, R.F. Walker, J. and Hopkins, S. 1990</i>	Australian Soil and Land Survey Field Handbook Second Edition, Inkata Press, Sydney.
<i>McFarlane, D 1934</i>	<i>'The mode of living of the Clarence River tribes', Richmond River Historical Society, Aborigines File, Lismore.</i>
Morand, D.T. 1996	Soil Landscapes of the Murwillumbah – Tweed Heads 1:100000 Sheet. Department of Land and Water Conservation NSW.
<i>Neal, R &amp; Stock, E 1986</i>	<i>'Pleistocene occupation in the south east Queensland coastal region', Nature, vol 323, pp. 618-721.</i>
<i>NSW National Parks and Wildlife Service 1997</i>	<i>'Aboriginal Cultural Heritage, Standards and Guidelines Kit', NPWS, Sydney.</i>

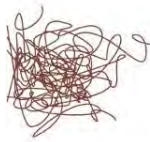




<i>OzArk Environmental and Heritage Management Pty Ltd 2006</i>	'Archaeological Salvage Excavation Zone 7, Tugan Bypass'. Unpublished report to QLD Department of Main Roads.
<i>OzArk Environmental and Heritage Management Pty Ltd 2007</i>	'Geomorphological and Archaeological Assessment: The Tugan Bypass C4 Corridor (Stage 2 Cultural Heritage Management Plan). Unpublished report to Qld Department of Main Roads.
<i>Pierce, RG 1971</i>	'The effects of aquatic foods on the diet and economy of the Aborigines on the north coast of NSW at the time of first settlement', BA Hons thesis, University of New England, Armidale.
<i>Piper, A 1976</i>	'Ocean Beach to Mountain Top, the Tweed Valley in Prehistory', B Litt Thesis, University of New England, Armidale.
<i>Piper, A 1991,</i>	'Archaeological Assessment in Relation to the Lower Tweed River Management Plan'. Unpublished report to the NSW Public Works Department, Tweed Heads.
<i>Piper, A 1996</i>	'An Archaeological Survey at Lot 5 Cobaki Road, West Tweed Heads'. Unpublished report to Terranora Group Management Pty Ltd, Coorparoo, Qld.
<i>Piper, A 2000</i>	'An Archaeological Assessment at Fraser Drive, Tweed Heads South, NSW'. Unpublished report to Jim Glazebrook & Associates Pty Ltd, Murwillumbah.
<i>Piper, A 2004</i>	'An Archaeological Assessment at No 38 McAllister's Road, Bilambil Heights, via Tweed Heads West'. Unpublished report to Masterbuilt Pty Ltd, Round Corner, NSW.
<i>Piper, A and Robins, R 2006</i>	'An Archaeological Assessment at Lot 1 DP 595863 and Lot 3 DP Winchelsea Way Terranora, Tweed Heads NSW'. Unpublished report to Buttons with Bows Pty Ltd and Daryl Anderson Consulting Pty Ltd Tweed Heads.
<i>Rich, E 1994</i>	' <i>Archaeological Salvage of Angels Beach Estate, North Ballina, NSW</i> '. Unpublished report to Ballina - North Creek Aboriginal Sites Management Committee and Ballina Shire Council.
<i>Simpson, S.1844</i>	'Report to Colonial Secretary, January 1 <sup>st</sup> 1844'. H.R.A. Ser. 1. Vol. 23.
<i>Sullivan, S 1978</i>	'Aboriginal diet and food gathering methods in the Richmond and Tweed River Valleys, as seen in early settler records', in McBryde, I (ed) <i>Records of Times Past: Ethno historical essays on the culture and ecology of the New England tribes</i> , Australian Institute of Aboriginal Studies, Canberra.
<i>Tindale, N 1974</i>	Aboriginal Tribes of Australia: their terrain, environmental controls, distributions, limited and proper names, Australian National University Press, Canberra.



<i>Uniacke, J 1825</i>	'Narrative of Mr. Oxley's expedition to survey Port Curtis and Moreton Bay', in Field, B (ed) Geographical memoirs on New South Wales: by various hands: together with other papers on the Aborigines, the geology, the botany, the timber, the astronomy, and the meteorology of New South Wales and Van Diemen's Land, Murray, London. p. 41
<i>Ulm, S and Hall, J 1996</i>	Radiocarbon and cultural chronologies in Southeast Queensland prehistory. <i>Tempus</i> 6:45-62



## APPENDIX A: CORRESPONDENCE – TWEED BYRON LALC

### CURRENTLY PENDING

In accordance with the ACHCR, the Tweed Byron LALC were invited to attend the site inspection undertaken on the 14<sup>th</sup> June, 2012. Mr. Des Williams, Chairman / Sites Officer for the Tweed Byron LALC, attended this survey of the Project Area with Everick Senior Archaeologist Adrian Piper.


Mr Des Williams and Adrian Piper discussed the implications of the of the survey once it had concluded, and Mr Williams agreed there were no Aboriginal Sites observed during the survey, and agreed there were no concerns regarding the proposed re-zoning of the Project Area.

The Tweed Byron LALC received a copy of the draft of this report, and have been asked to provide written feedback on the contents and recommendations in this report. Their response to this report is currently pending, and will be forwarded to the Tweed Shire council as a separate Addendum to this report once it has been received.





## APPENDIX B: AHIMS SEARCH RESULTS

 <b>Office of Environment &amp; Heritage</b>	<b>AHIMS Web Services (AWS)</b> Search Result	Your Ref Number : EV.218 Terranora Rd Client Service ID : 73746				
Caroline Ingram 47 Arthur Toe RED HILL Queensland 4059 Attention: Caroline Ingram Email: c.ingram@everick.com.au Dear Sir or Madam:		Date: 29 June 2012				
<u>AHIMS Web Service search for the following area at Datum :GDA, Zone : 56, Eastings : 549070 - 552316, Northings : 6874987 - 6878194 with a Buffer of 1000 meters, Additional Info : Due Diligence conducted by Caroline Ingram on 29 June 2012</u>						
A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:						
<table border="1"><tr><td>17</td><td>Aboriginal sites are recorded in or near the above location.</td></tr><tr><td>0</td><td>Aboriginal places have been declared in or near the above location. *</td></tr></table>			17	Aboriginal sites are recorded in or near the above location.	0	Aboriginal places have been declared in or near the above location. *
17	Aboriginal sites are recorded in or near the above location.					
0	Aboriginal places have been declared in or near the above location. *					
<b>If your search shows Aboriginal sites or places what should you do?</b>						
<ul style="list-style-type: none"><li>• You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.</li><li>• If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.</li><li>• You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the <a href="http://www.nsw.gov.au/gazette">NSW Government Gazette</a> (<a href="http://www.nsw.gov.au/gazette">http://www.nsw.gov.au/gazette</a>) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request</li></ul>						
<b>Important information about your AHIMS search</b>						
<ul style="list-style-type: none"><li>• The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.</li><li>• AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;</li><li>• Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,</li><li>• Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.</li><li>• Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.</li><li>• This search can form part of your due diligence and remains valid for 12 months.</li></ul>						
PO BOX 1967 Hurstville NSW 2220 43 Bridge Street HURSTVILLE NSW 2220 Tel: (02)9585 6345 (02)9585 6741 Fax: (02)9585 6094		ABN 30 841 387 271 Email: <a href="mailto:ahims@environment.nsw.gov.au">ahims@environment.nsw.gov.au</a> Web: <a href="http://www.environment.nsw.gov.au">www.environment.nsw.gov.au</a>				



**Table 2: AHIMS Search Results**

Site ID	Site Name	Easting (AGD)	Northing (AGD)	Context / Type	Features
04-2-0086	Restriction applied				
04-2-0006	Terranora 19, BMP-05-0161	552800	6876200	Shell : Artefact : Burial	Burial/s, Midden
04-2-0008	Restriction applied				
04-2-0088	Restriction applied				
04-2-0021	Restriction applied				
04-2-0022	Restriction applied				
04-2-0023	Restriction applied				
04-2-0024	Restriction applied				
04-2-0025	Restriction applied				
04-2-0026	Restriction applied				
04-2-0027	Restriction applied				
04-2-0028	Restriction applied				
04-2-0029	Restriction applied				
04-2-0030	Restriction applied				
04-2-0033	Restriction applied				
04-2-0085	Restriction applied				
04-2-0157	Restriction applied				



## APPENDIX C: HISTORICAL AERIAL PHOTOGRAPHY



Figure 13: 1962 Historical Aerial photograph with approximate Project Area in red





**Figure 14: 1970 Historical Aerial photograph with approximate Project Area in red**



**Figure 15: 1976 Historical Aerial photograph with approximate Project Area in red**





**Figure 16: 1987 Historical Aerial photograph with approximate Project Area in red**





Figure 17: 1996 Historical Aerial photograph with approximate Project Area in red