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# **Appendix D Previous Aboriginal community consultation**

## D.1 Previous summary

The following summarises compliance with the Interim Community Consultation Requirements for Applicants 2005 and details of the consultation process for Wells Crossing to Iluka Road. This information comes directly from two reports prepared by Navin Officer (2009a; 2009b). Copies of available AFG minutes follow.

The following is copied from Navin Officer (2009b:7-9).

*The Aboriginal community consultation conducted for the Glenugie upgrade section forms part of, and builds upon an existing and on-going consultation program conducted for the larger Wells Crossing to Iluka Pacific Highway upgrade project. This program commenced with an inaugural Aboriginal focus Group (AFG) meeting on the 23 May 2005 and followed the upgrade assessment process through a route option analysis to the selection of a preferred alignment in 2006. Three additional AFG meetings were held prior to the selection of the preferred alignment: on the 7 November 2005, 6 February 2006 and the 24 February 2006. These meetings provided a forum for information exchange, and allowed for the accurate identification of stakeholders groups, and places of significance, and promoted discussion of cultural heritage issues and methodologies, field survey participation, and the review of significance assessments and draft reports.*

*The Wells Crossing to Iluka Pacific Highway upgrade assessment commenced in 2004, prior to the introduction of the then Department of Environment and Conservation Interim Community Consultation Requirements for Applicants. As a consequence, the first phase of AFG meetings were based around the invited participation of stakeholders identified initially from a wide base of consultation conducted by the RTA, and subsequently from AFG participant inputs. Following the selection of the preferred alignment in 2006, an invitation to Aboriginal stakeholders to register an interest in the project, as per the DECC Interim Community Consultation Requirements for Applicants, was published in February/March of 2007, and repeated in June 2007 in media including:*

- *Grafton Daily Examiner Feb/March 2007.*
- *Koori Mail – Feb/March 2007; May/June 2007.*
- *Yamba Lower Clarence Review- Feb/March 2007.*
- *National Indigenous Times – March 2007; May/June 2007.*
- *Deadly Vibe – March 2007; June 2007.*
- *In Vibe – March 2007; June 2007.*
- *Clarence Valley Review – June 2007.*
- *The Daily Examiner – May 2007.*

*The expressions of interest received, confirmed the stakeholder membership established in the initial phase of AFG meetings. Five local Aboriginal community organisations have been identified as Aboriginal stakeholders, and regularly attended AFG meetings. These are:*

- *Grafton-Ngerrie Local Aboriginal Land Council (LALC).*
- *Yaegl Local Aboriginal Land Council.*
- *Yaegl Native Title Group.*

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- *Yarrowarra Aboriginal Corporation (including the Garby Elders).*
- *Burra:way Wa:jad Traditional Owners group.*

*In addition, the Birrigan Gargle LALC was included in the consultation program during the route selection analysis in recognition that the study area for this analysis occurred immediately to the west of their Land Council boundary. This inclusion consisted of attendance at AFG meetings and participation in discussions about Aboriginal heritage sites and areas of significance.*

*During the route selection phase of the project, systematic archaeological survey of representative landscape sample areas was conducted with Aboriginal stakeholder participation in April of 2005. In March 2006, the RTA conducted a field inspection of the then three options with representatives of the Garby Elders with particular attention given to Glenugie Peak, the Coldstream River Valley, and Pillar Valley.*

*A key outcome of the Aboriginal stakeholder consultation program to 2006 was the identification and eventual selection of a route option which avoided direct impact to places of identified major cultural significance, such as Glenugie Peak and Pillar Valley. Where possible predicted archaeological impacts were also minimised by the refinement of route options.*

*The program of Aboriginal consultation conducted for the assessment of the Wells Crossing to Iluka Road preferred alignment has been undertaken in accordance with the NSW Department of Environment and Climate Change (DECC) Interim Community Consultation Requirements for Applicants, the Draft Guidelines for Aboriginal Cultural heritage Impact Assessment and Community Consultation (DEC, 2005) and the then RTA Draft Procedures for Aboriginal Cultural Heritage Consultation and Investigation.*

*A series of field inspections of proposed geotechnical test locations across the preferred alignment were conducted by the archaeologists and Aboriginal stakeholder representatives in June and August 2007. The following stakeholders were represented: the Yaegl and Grafton-Ngerrie LALCs, Yaegl Native Title Claimants Group, Garby Elders Group, and the Burra:way Wa:jad Traditional Owners group.*

*The fifth AFG meeting for the project was conducted on 6 September 2007. Registered Aboriginal stakeholders, comprising representatives from each of the above organisations attended to discuss among other things, the proposed methodology for the conduct of the Aboriginal cultural heritage assessment of the preferred alignment, which in turn was to inform the concept design. The methodology included details of the survey methodology and Aboriginal participation in that survey.*

*Following the 2007 AFG, each of the Aboriginal groups was provided with a copy of the proposed methodology and was requested to provide comment on it, and to nominate a site investigation officer from their group to participate in the field survey of the preferred route.*

*During late October and early November 2007, each of the above organisations responded to the above request. The Grafton-Ngerrie and Yaegl LALCs, and the Yarrowarra Aboriginal Corporation each nominated a site investigation officer from their groups. The Yaegl Native Title Group and the Burra:way Wa:jad Traditional Owners group did not nominate a site officer or participate in the field survey.*

*Arrangements were then made with the Grafton-Ngerrie and Yaegl LALCs, and the Yarrowarra Aboriginal Corporation for the participation of nominated representatives in the archaeological fieldwork program which was conducted across November and December of 2007. In this regard, the LALC representatives operated within their respective LALC boundaries, and the Yarrowarra Aboriginal Corporation (Garby Elders) operated in the southern section of the preferred route,*

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*generally south of Tucabia. Figures 2-1 and 2-2 provide graphic approximations of the areas of interest of the Grafton-Ngerrie LALC and other Aboriginal stakeholder groups relative to the Glenugie upgrade project area and to the broader preferred upgrade route alignment.*

*A 2008 draft of a report which documented the cultural heritage assessment of the Wells Crossing to Iluka preferred route alignment was reviewed and discussed at the sixth AFG meeting held on 17 September 2008. After approving of the suitability of the report for public access, the meeting agreed to the public release of the Concept Design Cultural Heritage Working Paper (RTA 2009b). That document did not contain precise location details of sensitive Aboriginal sites or areas within the project precincts.*

*The information provided in this report on Aboriginal sites and cultural values for the Glenugie upgrade project is based on the approved material presented in the Concept Design Cultural Heritage Working Paper (RTA 2009b).*

*On 2 June 2009, the seventh AFG meeting was held to:*

- *Advise that the Glenugie section of the Wells Crossing to Iluka Road upgrade was progressing to construction ahead of the remainder of the upgrade.*
- *Discuss the findings of previous heritage investigations, as reported in the Wells Crossing to Iluka Road Concept Design Report Heritage Working Paper.*
- *Advise that the findings of previous investigations were suitable for the environmental assessment of the Glenugie upgrade.*
- *Discuss the next steps of the project and Aboriginal participation in construction.*
- *Representatives from the following organisations attended:*
  - *Grafton-Ngerrie LALC.*
  - *Yaegl LALCs.*
  - *Yaegl Native Title Claimants Group.*
  - *Garby Elders.*

*The following is copied from Navin Officer (2009a:5).*

*The study area falls within the area of interest of five local Aboriginal community organisations comprising the:*

- *Grafton-Ngerrie Local Aboriginal Land Council (LALC);*
- *Yaegl LALC;*
- *Yaegl Native Title Group;*
- *Yarrowarra Aboriginal Corporation (including the Garby Elders); and*
- *Burra:way Wa:jad Traditional Owners group.*

*Aboriginal consultation for this investigation was undertaken in accordance with the NSW Department of Environment and Climate Change (DECC) Interim Community Consultation Requirements for Applicants and the RTA Draft Procedures for Aboriginal Cultural Heritage Consultation and Investigation.*



Representatives from each of the above organisations attended an Aboriginal Focus Group (AFG) meeting on 6 September 2007 to discuss, among other things, the proposed methodology for the conduct of the next stage of the Aboriginal cultural heritage assessment component of the study.

That methodology included details of the survey methodology and Aboriginal participation in that survey. That AFG meeting was the fifth such meeting held with representatives from local Aboriginal community organisations since May 2005 to discuss various aspects of the proposed highway upgrade.

Following the September 2007 AFG, each of the Aboriginal groups was provided with a copy of the proposed methodology and was requested to provide comment on it, and to nominate a site investigation officer from their group to participate in the field survey of the preferred route.

During late October and early November 2007, each of the above organisations responded to the above request. The Grafton-Ngerrie and Yaegl LALCs, and the Yarrowarra Aboriginal Corporation each nominated a site investigation officer from their groups. The Yaegl Native Title Group and the Burra:way Wa:jad Traditional Owners group did not nominate a site officer or participate in the survey.

Arrangements were then made with the Grafton-Ngerrie and Yaegl LALCs, and the Yarrowarra Aboriginal Corporation to have that representative available for the fieldwork. In this regard, the LALC representatives operated within their LALC boundaries, and the Yarrowarra Aboriginal Corporation operated in the southern section of the preferred route, generally south of Tucabia. Figures 2.1 and 2.2 provide graphic approximations of each LALC area and other local Aboriginal groups' areas of interest, respectively, in relation to the preferred upgrade route.

Copies of the participation records for the Grafton-Ngerrie and Yaegl LALCs, and the Yarrowarra Aboriginal Corporation representatives are at Appendix 1. A copy of a 'Letter of Clearance' provided by the Grafton Ngerrie LALC is also at Appendix 1. No such correspondence has been received from any of the other Aboriginal organisations involved in this study.

Although not within the study area, the Birrigan Gargle LALC is situated immediately to the east of it. While that LALC was not involved in fieldwork for the preferred route investigation, it has been involved in project consultation for some years, including attendance at AFG meetings and discussions of Aboriginal heritage sites and areas of significance during the route options stage.

This report was reviewed and discussed at an AFG meeting held on 17 September 2008. That meeting agreed to the public release of this document. This public document does not contain precise location details of sensitive Aboriginal sites or areas within the project precincts.

## D.2 Previous documentation

**Table 1 Aboriginal Stakeholder consultation for Woodburn to Ballina**

Date/Title	Attendees and content
<b>June / August 2007</b> Field Inspections	<b>Attendees:</b> <ul style="list-style-type: none"> <li>■ Yaegl LALC.</li> <li>■ Grafton-Ngerrie LALC.</li> <li>■ Yaegl Native Title Claimants Group.</li> <li>■ Garby Elders Group.</li> <li>■ Burra:way Wa:jad Traditional Owners Group.</li> </ul>

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Date/Title	Attendees and content
<p><b>6 September 2007</b> AFG 5</p>	<p><b>Attendees:</b></p> <ul style="list-style-type: none"> <li>■ Yaegl LALC.</li> <li>■ Grafton Ngerrie LALC.</li> <li>■ Garby Elders Group.</li> <li>■ Burra:way Wa:jad Traditional Owners Group.</li> </ul> <p><b>Items Discussed:</b></p> <ul style="list-style-type: none"> <li>■ Lindsay Smith (Navin Officer) outlined the methodology of the project.</li> <li>■ Officer payment.</li> <li>■ Consideration of Burra:way Wa:jad protocols rather than RTA / DECC was raised.</li> </ul> <p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>■ Updated methodology to be sent out for comment.</li> <li>■ Nomination for field inspectors would be sent out.</li> <li>■ Field studies to commence in October.</li> </ul>
<p><b>22 September 2008</b> AFG 6</p>	<p><b>Attendees:</b></p> <ul style="list-style-type: none"> <li>■ Yaegl LALC.</li> <li>■ Grafton Ngerrie LALC.</li> </ul> <p><b>Items Discussed:</b></p> <ul style="list-style-type: none"> <li>■ Lindsay Smith (Navin Officer) provided a history of the Aboriginal cultural heritage component of the project and outlined Aboriginal sites and places of cultural significance within the project corridor.</li> <li>■ Lindsay Smith (Navin Officer) and Mary Lou Buck (RTA) explained that further work was required to document the history and stories of the local Aboriginal community.</li> <li>■ Rod Duroux (Grafton Ngerrie LALC) emphasised the need to make sure all activities associated with the upgrade are assessed and avoid Aboriginal sites and that such assessment is not only limited to the road.</li> <li>■ Mary Lou Buck confirmed that all project modifications need to be thoroughly assessed.</li> </ul> <p><b>Outcomes</b></p> <ul style="list-style-type: none"> <li>■ Adam Cameron (RTA) gave an overview of the way forward – concept design to be on public display by the end of the year.</li> <li>■ The survey methodology for sub-surface testing to be issued to the AFG during the environmental assessment stage.</li> </ul>
<p><b>October – November 2008</b> Request for comment on fieldwork methodology</p>	<p><b>Comments provided by:</b></p> <ul style="list-style-type: none"> <li>■ Yaegl LALC.</li> <li>■ Yaegl Native Title Group.</li> <li>■ Grafton Ngerrie LALC.</li> <li>■ Garby Elders Group.</li> <li>■ Burra:way Wa:jad Traditional Owners Group.</li> </ul> <p><b>Outcomes:</b></p> <ul style="list-style-type: none"> <li>■ Site investigation officer nominated from Grafton-Ngerrie LALC and Yarrawarra Aboriginal Corporation (incorporating the Garby Elders Group).</li> </ul>

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Date/Title	Attendees and content
2 June 2009 AFG 7	<p><b>Attendees:</b></p> <ul style="list-style-type: none"><li>■ Grafton-Ngerrie LALC.</li><li>■ Yaegl LALAC.</li><li>■ Yaegl Native Title Claimants Group.</li><li>■ Garby Elders Group.</li></ul> <p><b>Items Discussed:</b></p> <ul style="list-style-type: none"><li>■ Advised that the Glenugie section of the upgrade was progressing to construction ahead of the remainder of the upgrade.</li><li>■ Discussed the findings of previous heritage investigations, as reported in the Wells Crossing to Iluka Road Concept Design Report Heritage Working Paper.</li><li>■ Advised that the findings of previous investigations were suitable for the environmental assessment of the Glenugie upgrade.</li><li>■ Discussed the next steps of the project and Aboriginal participation in construction.</li></ul>

## D.3 Previous Aboriginal focus group minutes

View: **AFG Meeting notes 060907.doc**



AFG Meeting notes 060907.doc

AFG 6 September 2007

### Meeting Notes

**Purpose of Meeting** Aboriginal Focus Group Meeting 5  
**Project** Upgrading the Pacific Highway Wells Crossing to Iluka Road  
**Place of Meeting** Grafton Community Centre      **Date** 6 September 2007  
12.30 – 2.30

<b>Present</b>	Ferlin Laurie (Yaegl LALC)	Diana Loges (RTA)
	Lionel Gardiner (Yaegl LALC)	Julian Siu (RTA)
	Zane Purcell (Yaegl LALC)	Ken Robinson (SKM)
	Rod Duroux (Grafton Ngerrie LALC)	Natasha Ray (RTA)
	Brett Duroux (Grafton Ngerrie LALC)	Mary-Lou Buck (RTA)
	David Walker (Burraway Wajad)	Lindsay Smith (NO)
	Betty Cameron (Burraway Wajad)	
	William Walker (Yaegl Native Title)	
	Colin and Joyce Claque	
	Tim Cowan (Garby Elders)	
	Maurie Maher (Grafton Ngerrie LALC)	
	David Daley (Grafton Ngerrie LALC)	
	David Watts (Heritage Officer)	

#### 1) **Introduction**

- All attendees introduced themselves

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work.

4) **The following were agreed as the next steps in the process:**

- It was agreed that an updated methodology would be sent out for comment, the comment to be returned within 21 days
- Nomination forms for field inspectors would also be sent out. The RTA will advise how many field workers it requires
- Nomination forms to be returned within 21 days. Information to be provided on insurances, PPE, green card etc to allow contracts to be signed. LALC representatives should provide supporting signature or letter from LALC
- RTA will include suggestions received in study methodology and will select field workers.
- Field studies will begin in the first week of October (after long weekend).

5) **Other issues raised:**

- Delays in payment. Process for payment to be identified in the package sent out. Where invoices will be sent etc.
- The need for full consultation of survey people with elders and with the LALC was emphasised
- Consideration of Burraway Wajad protocols rather than RTA / DECC was raised.

**Meeting closed at approximately 2:30**

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Aboriginal Focus Group Meeting 6  
22 September 2008



- RD emphasised that we need to make sure all activities associated with the upgrade (e.g. site offices, laydown areas, access roads etc) are assessed and avoid Aboriginal sites, and that such assessment is not only limited to the road.
  - MLB confirmed that all project modifications need to be thoroughly assessed.
  - LS asked those in attendance whether they gave their approval (on behalf of the LALCs) to release the document. Attendees agreed, but subject to minor amendments discussed at the meeting.
- 3) Other issues
- AC gave an overview of the way forward – concept design to be on public display by the end of the year
  - The survey methodology for sub-surface investigations will be issued to the AFG during the EA stage.
- 4) Close
- There being no further discussion the meeting was closed at 13:30.

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- Opportunistic transects may be undertaken to inspect areas of bare ground within the assessment area.

The number of survey transects conducted in any particular area will depend on the amount of bare ground visible. Where the assessment area is well vegetated and there is limited bare ground, only a single transect may be required. Where there is a large area of bare ground, numerous transects may be required.

All areas of bare ground within the assessment area will be inspected, excluding modern surfaces such as landfill or quarried bedrock.

In areas of limited exposure, an assessment will be made of the potential for that area to include Aboriginal sites below the ground.

All old growth trees within the assessment area will be inspected for Aboriginal scarring.

## **Aboriginal Participation**

During the survey, the findings of the survey and possible management strategies will be discussed with Aboriginal representatives present.

At the conclusion of the survey, each Aboriginal group that participated in the survey will be requested to provide a written response giving their organisation's views and assessments of the cultural values of the areas surveyed.

The results of the above discussions and, where appropriate, written response will be incorporated into the consultant's draft report. A copy of that draft report will be provided to each of the participant Aboriginal groups for comment.

Notice of the availability of the draft report for comment will also be provided to any other parties who have registered an interest in the AHCA in accordance with the *Interim Community Consultation Requirements for Applicants*.

All comments received within a suitable timeframe will be considered in the consultant's final report.

~ oOo ~

**GRAFTON NGERRIE LOCAL**



**ABORIGINAL LAND COUNCIL**

PHONE: 02 6642 6020  
FAX: 02 6642 6994  
EMAIL: [gnlalc@bigpond.com](mailto:gnlalc@bigpond.com)

50 WHARF ST  
SOUTH GRAFTON  
PO BOX 314  
SOUTH GRAFTON,  
NSW 2460

28 November 2007

Jo Moss,  
Sinclair Knight Merz,  
PO BOX 164 ST LEONARDS NSW 1590

## **LETTER OF CLEARANCE**

**RE: SITE CONSULTATION - WELLS CROSSING TO ILUKA**

TO WHOM IT MAY CONCERN:

I AM WRITING IN REGARDS TO THE SITE INSPECTION THAT TOOK PLACE ON THE ABOVE MENTIONED AREA.

OUR SITE OFFICERS HAVE INSPECTED THE PROPERTY AND HAVE INFORMED US THAT IN THE ABOVE MENTIONED AREA THERE WERE NO SIGNS OF ABORIGINAL ARTEFACTS OF ANY CULTURAL SIGNIFICANCE IN THE AREA STATED.

THEREFORE WE HAVE NO OBJECTIONS FOR DEVELOPMENTS TO BEGIN.

IF YOU COME ACROSS ANY THING YOU MAY IDENTIFY AS BEING AN ARTEFACT, PLEASE STOP WORK AND CALL OUR OFFICE IMMEDIATELY.

YOURS SINCERELY

RODNEY DUROUX,  
ABORIGINAL SITE CONSULTANT

SIGNED ON BEHALF

WESLEY FERNANDO  
ADMINISTRATIVE ASSISTANT

**Record of Aboriginal Representative Participation\***

Project Name: Pacific Highway Upgrade, Wells Crossing to Iluka  
 Aboriginal Organisation: Grafton Ngerrie Local Aboriginal Land Council  
 Client Name & Address: (Please send invoice to this address) Jo Moss, Sinclair Knight Merz, 100 Christie St PO Box 164 St Leonards NSW 1590  
 Archaeologist(s): name & address: Navin Officer Heritage Consultants Pty Ltd, 4/71 Leichhardt Street, KINGSTON, ACT 2604 (Tel: 02 6282 9415, Fax: 6282 9416)

Name of Representative	Date	Type of Participation	Start time	Finish time
ROD DUCOX	27/11/07	Archaeological Survey	8.30am	4.00pm

Issues raised: *No issues*

Signed (archaeologist): *[Signature]* Date *27/11/07*  
 Signed (Aboriginal representative): *[Signature]* Date *27/11/07*  
 Signed (Aboriginal representative): *[Signature]* Date *27/11/07*  
 Signed (Aboriginal representative): *[Signature]* Date *27/11/07*

\* Please note this form is not an invoice. For payment, please send an invoice from your organisation to the client name and address provided above.

**Record of Aboriginal Representative Participation\***

Project Name: Pacific Highway Upgrade, Wells Crossing to Iluka  
 Aboriginal Organisation: Yarrawarra Aboriginal Corporation/Garby Elders  
 Client Name & Address: (Please send invoice to this address) Jo Moss, Sinclair Knight Merz, 100 Christie St PO Box 164 St Leonards NSW 1590  
 Archaeologist(s): name & address: Navin Officer Heritage Consultants Pty Ltd, 4/71 Leichhardt Street, KINGSTON, ACT 2604 (Tel: 02 6282 9415, Fax: 6282 9416)

Name of Representative	Date	Type of Participation	Start time	Finish time
MILTON DUBOUX ✓	27/11/07 28/11/07	Archaeological survey ✓	8.30a 8.30a	4.00p 4.00p

Issues raised: The site is not as well defined as the PAD on the plan of the site.

Signed (archaeologist) *[Signature]* (Aboriginal representative): M. J. DUBOUX Date 28/11/07  
 (Aboriginal representative): Date  
 (Aboriginal representative): Date  
 (Aboriginal representative): Date

\* Please note this form is not an invoice. For payment, please send an invoice from your organisation to the client name and address provided above.



**Record of Aboriginal Representative Participation\***

**Project Name:** Pacific Highway Upgrade, Wells Crossing to Iluka  
**Aboriginal Organisation:** Yaegl Local Aboriginal Land Council  
**Client Name & Address:** (Please send invoice to this address) **Jo Moss, Sinclair Knight Merz, 100 Christie St PO Box 164 St Leonards NSW 1590**  
**Archaeologist(s): name & address:** Navin Officer Heritage Consultants Pty Ltd, 4/71 Leichhardt Street, KINGSTON, ACT 2604 (Tel: 02 6282 9415, Fax: 6282 9416)

Name of Representative	Date	Type of Participation	Start time	Finish time
Felini Lamine	29/11/07	Archaeological Survey	8.30am	3.30pm
Anthony Micheling	✓	✓	✓	✓
Felini Lamine	3/12/07	✓	1.00pm	4.30pm
Dale Mercy	✓	✓	✓	✓
Felini Lamine	4/12/07	✓	8.30am	4.30pm
Dale Mercy	✓	✓	✓	✓
Felini Lamine	5/12/07	✓	8.30am	12.30pm
Dale Mercy	✓	✓	✓	✓

**Issues raised:** Generally poor to nil visibility but a number of PAD (best identified during Survey).

**Signed (archaeologist):**  (Aboriginal representative): **Dale Mercy** Date **5/12/07**  
 (Aboriginal representative):  Date **5/12/07**  
 (Aboriginal representative): ..... Date .....  
 (Aboriginal representative): ..... Date .....

\* Please note this form is not an invoice. For payment, please send an invoice from your organisation to the client name and address provided above.



**Record of Aboriginal Representative Participation\***

**Project Name:** Pacific Highway Upgrade, Wells Crossing to Iluka

**Aboriginal Organisation:** Yarrawarra Aboriginal Corporation/Garby Elders

**Client Name & Address:** (Please send invoice to this address) **Jo Moss, Sinclair Knight Merz, 100 Christie St PO Box 164 St Leonards NSW 1590**

**Archaeologist(s): name & address:** Navin Officer Heritage Consultants Pty Ltd, 4/71 Leichhardt Street, KINGSTON, ACT 2604 (Tel: 02 6282 9415, Fax: 6282 9416)

Name of Representative	Date	Type of Participation	Start time	Finish time
MILTON DUREUX	4/12/07	Archaeological Sitey.	1.30pm	3.30pm

**Issues raised:** .....

Signed (archaeologist):  (Aboriginal representative):  Date 4/12/07

(Aboriginal representative): ..... Date .....

(Aboriginal representative): ..... Date .....

(Aboriginal representative): ..... Date .....

\* Please note this form is not an invoice. For payment, please send an invoice from your organisation to the client name and address provided above.

Woolgoolga to Ballina Pacific Highway Upgrade  
Aboriginal Heritage Assessment – Wells Crossing to Iluka Road  
Volume 2: Appendices

## **Appendix E Current Aboriginal community consultation**

## E.1 Current Summary

Table 2 Summary of consultation

Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
16 August 2010	NA	Josie Basilio	Email/mail	Registered Aboriginal stakeholders		<ul style="list-style-type: none"> <li>▪ Meeting invites:                             <ul style="list-style-type: none"> <li>▪ 19–20 August 2010 AFG Meeting</li> </ul> </li> </ul>	
19 August 2010	2.00 pm-4.00 pm	Kate Wiggins Vanessa Edmonds	AFG 1	Darryl Mercy Lee (Ferlin) Laurie  Ken Laurie  Rod Duroux Brett Duroux Brett Tibbett Wes Fernandez  Diane Randell Craig Craigie  Mary-Lou Buck Adam Cameron Scott Smith	Yaegl LALC  Birrigan Gargle LALC  Grafton-Ngerrie LALC  NSW Aboriginal Land Council  RTA	From agenda: <ul style="list-style-type: none"> <li>▪ Update on Woolgoolga to Ballina Planning Alliance project.</li> <li>▪ Update on Woolgoolga to Wells Crossing project.</li> <li>▪ Draft methodology for Aboriginal heritage assessment.</li> <li>▪ Nomination of people for specific Aboriginal cultural heritage services.</li> <li>▪ Nomination of Aboriginal field assistants.</li> <li>▪ Ongoing consultation – next steps</li> <li>▪ Other matters.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Agenda items discussed.</li> <li>▪ Other matters raised:                             <ul style="list-style-type: none"> <li>▪ Further consultation with Aboriginal stakeholders regarding the PACHCI document was required. Concern that PACHCI allowed no scope for negotiation of rates by individual Land Councils or groups.</li> <li>▪ Grafton-Ngerrie LALC expressed discontent with the way consultation was undertaken on the Glenugie upgrade project. LALC advised RTA that the survey was signed off as completed by heritage consultant, although Grafton-Ngerrie LALC requested more survey due to heavy vegetation.</li> <li>▪ Member suggested that other stakeholders such as Council and DECCW should be in attendance at these meetings. Mary-Lou Buck suggested this would need to happen at a zone level rather than a regional level.</li> <li>▪ Permission was requested from Yaegl for access to information through AHIMS.</li> </ul> </li> <li>▪ Outcomes:                             <ul style="list-style-type: none"> <li>▪ Yaegl and Birrigan-Gargle LALCs each appointed a senior sites officer and a trainee to undertake the ground survey.</li> </ul> </li> <li>▪ Actions arising:                             <ul style="list-style-type: none"> <li>▪ Brett Duroux requested a copy of the topographic map of survey area.</li> <li>▪ Letter of request for permission to access Yaegl LALC sites on AHIMS to be sent.</li> </ul> </li> <li>▪ See minutes for more detail.</li> </ul>
24 August 2010	7.00 am (approx)	Victor Williams	Phone	Vanessa Edmonds	SKM	Called in morning to say that he did not think himself fit for survey and apologised for any inconvenience.	
24–27 August 2010	All day	Vanessa Edmonds	Fieldwork	Lee Laurie Mark Laurie  Ken Laurie Ronald Williams	Yaegl LALC/Yaegl People NT claimants  Birrigan Gargle LALC & Yaegl NT claimants	Aboriginal site survey.	Outcomes: <ul style="list-style-type: none"> <li>▪ Birrigan Gargle and Yaegl LALC sites officers worked together across boundaries.</li> <li>▪ Surveyed on foot all accessible properties. Approximately 70% of previously unsurveyed portions of project corridor undertaken.</li> <li>▪ Identified 10 new PADs for survey or sub-surface testing and three new Aboriginal sites.</li> <li>▪ Discussed subsurface testing methodology and significance in the field.</li> <li>▪ Unable to survey small property areas in Grafton-Ngerrie area.</li> </ul>
31 August 2010		Josie Basilio	Email/mail	Registered Aboriginal stakeholders		Minutes of 19/20 August 2010 AFG meeting	

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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
9 September 2010	N/A	Josie Basilio	Email/mail	Registered Aboriginal stakeholders & Aboriginal stakeholders	All sections	AFG 2 invite sent out.	
10 September 2010	N/A	Josie Basilio	Email/mail	Registered Aboriginal stakeholders & Aboriginal stakeholders	All sections	Statement of findings for each section sent out to relevant stakeholders.	<ul style="list-style-type: none"> <li>■ Response on 14 September 2010 from Wes Fernando (Grafton-Ngerrie LALC) see below.</li> <li>■ Response on 15 September 2010 from Tracey King (Ngulingah LALC) see below.</li> </ul>
14 September 2010	10.35 am	Josie Basilio	Email	Wes Fernando (CEO)	Grafton-Ngerrie LALC	<p>From Wes Fernando:</p> <p><i>I must say I am disheartened by the amount of notice given, 5 days notice is absolutely not sufficient, I am not available to attend this meeting because of the lack of notice given, these meetings are highly important to the Aboriginal community.</i></p> <p><i>I also received a document entitled 'Agreement to provide services'</i></p> <p><i>As you were informed at the first AFG meeting we will not be dictated to, this agreement is dictation at the highest level.</i></p> <p><i>I am letting you know we will not sign anything until you provide sufficient timeframes to review these documents and negotiate terms.</i></p> <p><i>You need to understand that we are not at your 'beck and call' we expect meaningful consultation with suitable timeframes which will produce the expected outcomes for all parties through negotiation.</i></p> <p><i>Please contact me ASAP to negotiate terms.</i></p>	
15 September 2010	10.00 am-12.00 pm	Kate Wiggins Vanessa Edmonds	AFG 2	Darryl Mercy Lee (Ferlin) Laurie  Rod Duroux and Brett Duroux  Leon Avuri- Williams  Scott Smith Graham Purcell	Yaegl LALC  Grafton-Ngerrie LALC  NSW Aboriginal Land Council  RTA	No formal agenda.	Items discussed/outcomes: <ul style="list-style-type: none"> <li>■ Discussed results of field survey as per fieldwork summary.</li> <li>■ Discussed that potential PAD to be identified through desktop assessment of contours showed that it was on low land and therefore not a PAD but Tony requested this be marked as a PAD for survey anyway.</li> </ul> See minutes for more detail.

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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
16 September 2010	9.00 am	Kate Wiggins Vanessa Edmonds	Meeting	Sarah Paddington Rosalie Neve	DECCW-Coffs Harbour	Meeting to discuss project.	<ul style="list-style-type: none"> <li>■ Use DOP guidelines ICCR 2004.</li> <li>■ Re consultation – will for documentation above and beyond. Include any letters, emails in Appendices.</li> <li>■ EA-proposed locations must be identified for compounds, storage, haulage areas etc. Many community members disappointed that ALL associated activities NOT identified at assessment stage. These locations, like proposed quarries must be introduced into talks at an early stage of the process so there are no surprises.</li> <li>■ Geotech, from the 1 October 2010 not legal under due diligence. Need AHIP but need to liaise with DOP.</li> <li>■ No DGRs yet so still needs to be assessed under DECCW guidelines.</li> <li>■ Discussed new Code of Practice and Due Diligence and how these will need to be followed to comply with Part 6 of the NPW Act of DGRs not received.</li> <li>■ It was mentioned that Ballina people were happy that the alignment had been moved during the options assessment.</li> <li>■ Landform testing – elevated areas around swamps.</li> <li>■ Discussed definition of PAD – scientific vs cultural (must have good information/oral history or sites present).</li> <li>■ Where PAD identified for cultural reasons can use machinery for testing but not on scientific PADs.</li> <li>■ Recommended liaison with Ashley Moran (DECCW Aboriginal Sites Officer for Ballina area).</li> </ul>
7 October 2010		Josie Basilio	Email	Registered Aboriginal stakeholders		Site Officers' contracts.	Chased-up signed contracts.
8 October 2010	Various	Vanessa Edmonds	Email	Registered Aboriginal stakeholders	Yaegl LALC Yarrawarra Aboriginal Corporation Grafton-Ngerrie LALC	Sent fieldwork summaries including proposed methodology; template letter for methodology approval and RTA nomination form for Aboriginal Sites Officers	No response as yet.
8 October 2010		Vanessa Edmonds	Mail	Registered Aboriginal stakeholders	Yaegl People NT claimants Burraway Wadj Traditional Owners	Sent fieldwork summaries including proposed methodology; template letter for methodology approval and RTA nomination form for Aboriginal Sites Officers	No response as yet.
11 October 2010	12.30 pm	Vanessa Edmonds	Phone	Norma Collins	Birrigan Gargle LALC	Informed Norma Collins about proposed work along Shark Creek realignment and that if BGLALC were interested they would need to nominate Sites Officers through Yaegl LALC. Vanessa Edmonds said she would also talk to Yaegl LALC and explains situation.	Norma Collins was unclear as to why they were not registered Aboriginal stakeholders for that section. Norma Collins said she would also talk to Yaegl LALC.
11 October 2010	1.30 pm	Vanessa Edmonds	Phone	Noeline Kapeen	Yaegl LALC	Informed NK about proposed work along Shark Creek realignment and that if BGLALC were interested they would need to nominate Sites Officers through Yaegl LALC. Also requested response to methodology by letter but stated it would also be discussed at AFG 21 October 2010.	Noeline Kapeen said she was fine with that information and would talk to Norma Collins at Birrigan Gargle LALC.

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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
11 October 2010	1.46 pm	Vanessa Edmonds	Phone	Wes Fernandez	Grafton-Ngerrie LALC	Discuss email sent regarding fieldwork summary, letter of agreement for fieldwork methodology (Shark Creek alignment) and nomination form for Aboriginal Sites Officers.	Wes away till next week.
19 October 2010	9.16 am	Vanessa Edmonds	Email	Noeline Kapeen	Yaegl LALC	Vanessa Edmonds reminded NK of AFG Thursday 21 October and re-attached letter of permission for access to Yaegl site cards from AHIMS.	No response.
19 October 2010			Letter	Agencies seeking nomination of stakeholders.		Letters to agencies seeking nomination of stakeholders were sent on 19 October 2010 with a closing date of 3 November 2010.	
20 October 2010	1.49 pm	Vanessa Edmonds	Email	Noeline Kapeen	Yaegl LALC	Sent Agenda for AFG 3.	No response.
22 October 2010	11.21 am	Vanessa Edmonds	Email	Tina Williams	Northern Zone NSWALC	Tina Williams sent apologies for not being able to attend AFG 3 (21 October 2010), but said she would be available for future meetings.	
25 October 2010	4.44 pm	Vanessa Edmonds	Email	Tim Cowan	Yarrawarra Aboriginal Corporation	Acknowledgement of nomination forms and agreed methodology received from Yarrawarra.	
26 October 2010		Josie Basilio	Email/Mail	Registered Aboriginal stakeholders		Minutes of 15 September 2010 meeting sent out.	
2 November 2010		Josie Basilio	Email/Mail	Registered Aboriginal stakeholders	Minutes of 21 October 2010 meeting sent out.		
3 and 17 November 2010			Advertisement	Any stakeholder with interest		Advertisement in the <i>The Koori Mail</i> regarding the AFG on the 8 December 2010.	
11 November 2010	2.15 pm	Vanessa Edmonds	Email	Tim Cowan	Yarrawarra Aboriginal Corporation	Pointed out no sites/PADs in early works in that section Woolgoolga to Wells Crossing therefore unlikely there will be any action till next but I will keep them informed.  Talk about process from here and potential for work at later stage of project.  Asked if Yarrawarra close down over Christmas and if so what are dates.	No response.
11 November 2010			Letter		DECCW nominated stakeholders	DECCW nominated 11 potential stakeholders. Letters were sent on the 11 November 2010 to those nominated stakeholders seeking registration of interest. The closing date for registration was 2 December 2010.	
11 and 25 November 2010			Advertisement	Any stakeholder with interest		Advertisement in the <i>Ballina Shire Advocate</i> regarding the AFG on the 8 December 2010.	
11 and 25 November 2010			Advertisement	Any stakeholder with interest		Advertisement in the <i>National Indigenous Times</i> regarding the AFG on the 8 December 2010.	

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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
19 November 2010	11.57 am	Vanessa Edmonds	Email	Yaegl LALC	Yaegl LALC	Requesting signed letter to access AHIMS data re Yaegl site cards.	<p>Noeline Kapeen responded by email on on 22 November 2010 at 10.11 requesting me to send through my fax number.</p> <p>I responded by email on 22 November 2010 at 5.32 that it would be better to wait until 26 November 2010 as I was out of office.</p> <p>Noeline responded 23 November 2010 at 8.37 saying that was OK.</p>
November 2010			Advertisement	Any stakeholder with interest		Advertisement in <i>The Northern Star</i> regarding the AFG on the 8 December 2010.	
November 2010			Advertisement	Any stakeholder with interest		Advertisement in <i>Deadly Vibe Magazine</i> regarding the AFG on the 8 December 2010.	
November 2010			Advertisement	Any stakeholder with interest		Advertisement in <i>In Vibe Magazine</i> regarding the AFG on the 8 December 2010.	
19 November 2010	11.49 am	Vanessa Edmonds	Phone	Norma Collins	Birrigan Gargle LALC	Wanted to ask about Birrigan Gargle involvement in Shark Creek fieldwork.	No answer but left contact number. Norma called back at 12.07 and I reminded Norma that if they wanted to participate in Shark Creek fieldwork they would need to get Yaegl to nominate for them as they weren't registered stakeholders for that area. Norma said she would talk with Noeline but could I also chase up with Yaegl. Also requested copy of documents.
19 November 2010	12.31 pm	Vanessa Edmonds	Email	Norma Collins	Birrigan Gargle LALC	Reminded Norma that Birrigan Gargle is not actually a registered Aboriginal stakeholder for Shark Creek. Reminded her that was discussed at the last AFG that she would need to talk to Yaegl about them nominating two Aboriginal Sites Officers as well as two from Yaegl if they wanted to participate in fieldwork. Apologised for the confusion.	
26 November 2010	10.48 am	Joseph Brooke	Email	Noeline Kapeen Michael Randell	Yaegl LALC	<p>Attached sub-surface testing methodology for review and comments/approval to conduct sub-surface testing at an early works site for the Woolgoolga to Ballina Pacific Highway Upgrade.</p> <p>Also attached :</p> <ul style="list-style-type: none"> <li>■ Letter of agreement with the methodology (if you agree with the methodology, could please sign and return this, by fax/email ASAP that would be much appreciated).</li> <li>■ Sites Officer nomination form – please nominate a Sites Officer to be involved in fieldwork, and return at your soonest convenience.</li> <li>■ Asked if they could please return all correspondence to Vanessa Edmonds.</li> </ul> <p>If you have any questions, please contact Vanessa Edmonds on the contact details included in the methodology.</p>	



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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
30 November 2010	8.55 am	Vanessa Edmonds	Email	Noeline Kapeen	Yaegl LALC	Noeline Kapeen emailed Vanessa to see if she was in office so that she could fax forms over. Requested Vanessa Edmonds to call her.	Vanessa phoned Noeline at 9.14 am and discussed fax numbers.
30 November 2010	12.07 pm	Vanessa Edmonds	Fax	Noeline Kapeen	Yaegl LALC	Site Officer nomination forms and signed letter of access faxed to SKM Melbourne office by Noeline Kapeen.	Nominated Sites Officers are Ferlin Laurie (Senior) and Shane McLeay (Trainee).
2 February 2011		Vanessa Edmonds	Mail	All registered Aboriginal parties		Attached sub-surface testing methodology for review and comments/approval to conduct sub-surface testing at an early works site for the Woolgoolga to Ballina Pacific Highway Upgrade.  Also attached : <ul style="list-style-type: none"> <li>■ Letter of agreement with the methodology Sites Officer nomination form.</li> <li>■ Included self-addressed envelope postage paid.</li> </ul>	
11 February 2011	2.54 pm	Vanessa Edmonds	Phone	Noeline Kapeen	Yaegl LALC	Called to enquire about letter of support for methodology and Site Officer nomination forms.	Secretary said Noeline away until next week.
5 October 2011	9.30-11.20am	Vanessa Edmonds Joseph Brooke Chris Gorman	AFG 3	Wes Fernando Rod Duroux  Milton Duroux  Noeline Kapeen Eileen McLeay	Grafton Ngerrie LALC  Garby Elders and Yarrawarra  Yaegl LALC and Yaegl Native Title Claimant	<ul style="list-style-type: none"> <li>■ Discussion of the project being considered as one upgrade (Woolgoolga to Ballina).</li> <li>■ Explanation of sub-surface testing methodologies.</li> <li>■ Timing of excavations introduced.</li> </ul>	<ul style="list-style-type: none"> <li>■ Joseph Brooke to send testing schedule out.</li> <li>■ Discussion and questions concerning testing methodology.</li> </ul>
18 November 2011		Garry McPherson	Letter	All registered and other Aboriginal stakeholders		AFG invitation	
8 December 2011	3 pm	Josie Basilio				The members for the AFGs have been confirmed for the 13 and the 14 of December 2011.	
13 December 2011	2:40 pm	Josie Basilio	Email	Wesley Fernando	Grafton-Ngerrie LALC	An invite has been sent to Wesley Fernando and the Grafton-Ngerrie.	
13 December 2011	2.00 – 4.00 pm	Vanessa Edmonds Joseph Brooke Simon Wilson David Groth Roy Marsh Ben Churton Garry McPherson Graham Purcell Rowena Mitchell Ken Robinson	AFG 4	Rod Duroux  Noeline Kapeen  Deidre Randall  Clarris Randall  Norma Collins	Grafton Ngerrie LALC  Yaegl LALC and Yaegl Native Title Claimant  Yaegl LALC  Yaegl Native Title Claimant  Birrigan-Gargle LALC	<ul style="list-style-type: none"> <li>■ Discussion of sub-surface testing results for each site.</li> <li>■ Discussion of the design changes.</li> <li>■ Discussion of the ancillary sites and need to survey areas outside the current design boundary.</li> <li>■ Discussion of geotechnical works.</li> </ul>	<ul style="list-style-type: none"> <li>■ Next meeting would be held in Jan/Feb some time.</li> </ul>
6 February 2012	9.52 pm	Vanessa Edmonds	Email	Rosie	Yaegl	Vanessa called Rosie and reiterated that the burial would not be disturbed. Outlined the consultation process with Yaegl. Rosie also stated that she/Yaegl did not want any artefacts removed or sites disturbed.	

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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
22 May 2012	11:55 am	Joseph Brooke	Email	Norma Collins Noeline Kapeen	Birrigan-Gargle LALC Yaegl LALC and Yaegl Native Title Claimant	Will there be site officers on Wednesday 22 May available for a ½ day site inspection?	
22 May 2012	12:48 pm	Joseph Brooke	Email	Norma Collins	Birrigan-Gargle LALC	Norma will organise the Site Officer	
24 May 2012	9:04 am	Joseph Brooke	Email	Noeline Kapeen	Yaegl LALC and Yaegl Native Title Claimant	Corection of date of site inspection. The site officer will be needed on the 30 May 2012	
24 May 2012	9:24 am	Joseph Brooke	Email	Norma Collins	Birrigan-Gargle LALC	Correction of date of site inspection. The site officer will be needed on the 30 May 2012. Jo will be leaving Ferry Park at 1:30, so the site officers will need to be there before that.	
24 May 2012	9:26 am	Joseph Brooke	Email	Noeline Kapeen	Yaegl LALC and Yaegl Native Title Claimant	The work will only be for about an hour, but will be paid for the ½ day. The site officer will need to be at Ferry Park before 1:30pm.	
31 May 2012	11:15 am	Joseph Brooke	Email	Charley vo Rotterdam	Birrigan-Gargle LALC and Yaegal LALC	Would like confirmation of the hours that the site officers worked.	
1 June 2012	8:45 am	Joseph Brooke	Email	Charley vo Rotterdam	Birrigan-Gargle LALC and Yaegal LALC	Malcom Brown (Birrigan Gargle LALC) and Ferlin 'Lee' Laurie (Yaegl LALC) worked for five house each on 30 May 2012.	
20 June 2012		Vanessa Edmonds	Letter	Lance Manton Norma Collins Tori Edwards Bill Drew EJ Williams Wes Fernando Ms Rowe Chris Spencer Carla Di Giusto Mr Gardiner Ms. Kapeen Lois Cook Mr Hinton Veronica Williams	Bogal LALC Birrigan Gargle LALC Banjalang Native Title Claimants Bandjalang LALC Yarrowarra Aboriginal Corporation Grafton-Ngerrie LALC Garlambirla Guuyu- girrwaa Corpotation Coffs Harbour and District LALC Yaegl Native Title Claimants Burra:way Wa:jad Traditional Owners Group Yaegl LALC Burabi Aboriginal Corpotation Ngulingah LALC Jali LALC	CHARs sent out for review, Woolgoolga to Wells Crossing, Wells Crossing to Iluka Road and Iluka Road to Woodburn.	

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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
22 June 2012		Vanessa Edmonds	Letter		Garlambirla Guuyu-girrwa Corportation Burra:way Wa:jad Traditional	CHARS returned: address incorrect.	
26 June 2012	11:30 am	Vanessa Edmonds Joseph Brooke David Collard	AFG 5	Rod Duroux Brett Duroux Wes Fernando  Graham Purcell Simon Wilson Chris Clarke	Grafton-Ngerrie LALC  RMS	<ul style="list-style-type: none"> <li>■ Presentation of site specific recommendations.</li> <li>■ Discussion of the desire for monitoring (from Grafton-Ngerrie) and their dissatisfaction with it not being allowed.</li> <li>■ Suggestion of a site visit for Grafton-Ngerrie sites early in construction.</li> <li>■ Reminder that CHARs need to be reviewed within 28 days of receiving them.</li> </ul>	<ul style="list-style-type: none"> <li>■ VE/JB to provide Grafton-Ngerrie LALC with a copy of the WC-IR survey report.</li> </ul>
26 June 2012		Vanessa Edmonds	Phone	Ken Laurie	Birrigan Gargle LALC	Ken requested a copy of the WC2IR report. Vanessa suggested he needed to look at the cultural places and recommendations.	
29 June 2012		Vanessa Edmonds	Letter	Ken Laurie	Birrigan Gargle LALC	CHARs sent out for review, Wells Crossing to Iluka Road, Iluka Road to Woodburn.	
6 July 2012		Joseph Brooke	Phone	Wes Fernando	Grafton-Ngerrie LALC	Rang to discuss CHARs, no answer	
6 July 2012		Joseph Brooke	Phone	Noeline Kapeen	Yaegl LALC	Rang to discuss CHARs, no answer	
19 July 2012	2.30 pm	Dave Collard	Phone	EJ Williams	Yarrowarra Aboriginal Corp	<p>Progress of CHAR (W2WC) review. Possible timing of ancillary survey/SST (mid-late August) EJ stated he hasn't yet had a chance to look at it. Needs to get the Garby Elders together to also look at it. Gave him a reminder that the review period ends next Wednesday, and that it would be difficult to incorporate any comments received after this date due to the tight timeframes involved with the project.</p> <p>EJ said he is meeting with Garby elders on Monday (23 July) and should be able to submit comments that afternoon.</p>	
19 July 2012	2.40 pm	Dave Collard	Phone	Wes Fernando	Grafton-Ngerrie	<p>Progress of CHAR CHAR review. Possible timing of ancillary survey/SST (mid-late August) No answer. Left voicemail message.</p>	
19 July 2012	3.30 pm	Dave Collard	Phone	Ken Laurie	Birrigan Gargle LALC	<p>Progress of CHAR review. Possible timing of ancillary survey/SST (mid-late August) Gave Ken a reminder that the review period ends next Wednesday, and that it would be difficult to incorporate any comments received after this date due to the tight timeframes involved with the project.</p> <p>Ken Stated that he had no concerns with the current recommendations, but was concerned that the corridor might impact upon swampy areas between Tyndale and Tucabia.</p> <p>I confirmed with Ken that the corridor is located to the east of this area, along higher ground.</p>	

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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
19 July 2012	2.50 pm	Dave Collard	Phone	Lionel Gardner	Burra:way Wa:jad Traditional Owners Group	Progress of CHAR CHAR review. Possible timing of ancillary survey/SST (mid-late August) Number not connected.	
19 July 2012	2.50 pm	Dave Collard	Phone	Noeline Kapeen	Yaegl LALC	Progress of CHAR (W2WC) review. Possible timing of ancillary survey/SST (mid-late August) No answer. Left voicemail message.	
20 July 2012	10:02 am	Amanda Goldfarb	Email	Carla Di Giutso	NATSCORP Limited	<p><i>Dear Carla,</i></p> <p><i>I hope you are well.</i></p> <p><i>I would just like to follow up on the CHAR/Arch Assessment that I sent in June:</i></p> <ul style="list-style-type: none"> <li>■ <i>How is the review going?</i></li> <li>■ <i>Have the Yaegl Native Title Claimants Group come across any issues, or have any questions, they would like to discuss about any of the recommendations (or general issues)?</i></li> <li>■ <i>The period where the Yaegl Native Title Claimants Group can provide comment on the CHARs/Arch Assessments ends for the Iluka Road to Woodburn and the Wells Crossing to Iluka Road sections next week (Wednesday 25 July). Please make sure any comments are sent by this date, so they can be incorporated into the report.</i></li> <li>■ <i>When providing feedback, is it possible to do so in written form, on letter head? (We are happy to receive it scanned and emailed, by fax or post).</i></li> <li>■ <i>Please ensure that any response is done is as much detail as possible, and that the comments are broken down (for example, "We agree with this part, but not this part").</i></li> <li>■ <i>Also, if the Yaegl Native Title Claimants Group would like information on certain features of the CHAR/Arch Assessment (such as sites) to be restricted from public view, could you please provide information on which aspects.</i></li> </ul> <p><i>While not in relation to the CHAR review, I'd also like to inform you that SKM is planning to undertake the ancillary areas survey/sub-surface testing work in mid-late August. We will be in touch with more information closer to the date.</i></p> <p><i>Kind regards,</i> <i>Amanda</i></p>	

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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
20 July 2012	1.30 pm	Dave Collard	Phone	Wes Fernando	Grafton-Ngerrie	Progress of CHAR CHAR review. Possible timing of ancillary survey/SST (mid-late August) Was not able to talk. Said he would call me back on Monday.	
23 July 2012	2.10 pm	Dave Collard	Phone	Noeline Kapeen	Yaegl LALC	Progress of CHAR review. Possible timing of ancillary survey/SST (mid-late August) No answer. Left voicemail message.	
24 July 2012	9:04 am	Amanda Goldfarb	Email	Carla Di Guisto	NTSCORP Limited	Dear Carla,  I just wanted to follow up and confirm that you received my email on Friday.  Could you please provide any feedback as soon as possible?  Thank you.  Kind regards, Amanda	
24 July 2012	10:02 am	Amanda Goldfarb	Email	Carla Di Guisto	NTSCORP Limited	Good morning Amanda,  Thank you for your follow-up email. I received your email Friday and forwarded it on to NTSCORP's Principal Legal Officer, Mishka Holt, who has primary responsibility over this matter.  We will endeavour to get back to you as soon as we can.  Thanks very much.  Kind Regards,  Carla	
24 July 2012	10:07 am	Amanda Goldfarb	Email	Carla Di Guisto	NTSCORP Limited	Thank you, Carla!	
27 July 2012	2.45 pm	Dave Collard	Phone	Noeline Kapeen	Yaegl LALC	Chasing up submissions from CHAR review. No Answer. Left Message.	
27 July 2012	2.36 pm	Dave Collard	Phone	EJ Williams	Yarrawarra AC	Chasing up submissions from CHAR review. Went through report with Garby Elders on Monday 24 <sup>th</sup> and left paperwork with Uncle Milton. Hasn't received anything in return. Will chase up on Monday 31 <sup>st</sup> . I explained that if there are any concerns with the recommendations in the report, it is up to them to let us know.	
27 July 2012	2.45 pm	Dave Collard	Phone	Wes Fernando	Grafton-Ngerrie	Chasing up submissions from CHAR review. No Answer. Left Message.	

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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
30 July 2012	2:33	Vanessa Edmonds	Email	Noelene Kapeen	Yaegl LALC	<p>I understand the LALCs have been really busy lately with end of year audits etc. The review period for the CHAR was up last Wednesday and as we will be finalising the CHAR this week I was hoping to get comments.</p> <p>We have not been able to get any comments from Norma either, in Fact have not been able to get hold of her at all, but received comments back from Ken Laurie who had no issues with the report. We have also had no response from Yaegl NT claimants (NTSCORP).</p>	
30 July 2012	10:35am	Vanessa Edmonds	Email	Wes Fernando	Grafton-Ngerrie LALC	The review period for the CHARs ended last Wednesday, just needed to confirm that there were no comments.	
30 July 2012	11:03am	Vanessa Edmonds	Email	Wes Fernando	Grafton-Ngerrie LALC	It is incorrect to assume that there are no comments. Wes is the only person in the office and he is currently on sick leave. He will look at the CHAR when he has time to, hopefully in the next week.	
30 July 2012	11:05am	Vanessa Edmonds	Email	Wes Fernando	Grafton-Ngerrie LALC	Thank you for the clarification. Please advise if help is needed.	
30 July 2012	2:40pm	Rebecca Andrews	Email	Carla Di Guisto	Yaegl Native Title Claimants	<p>The review period for the CHAR was up last Wednesday and as we will be finalising the CHAR this week I was hoping to get any comments that Yaegl Native Title Claimants had.</p> <p>Could you please advise if there are any comments or concerns from Yaegl Native Title Claimants?</p>	
30 July 2012	2:50pm	Rebecca Andrews	Email	Carla Di Guisto	Yaegl Native Title Claimants	Will inquire and get back to you.	
1 August 2012	12:24pm	Vanessa Edmonds	Email	Wes Fernando	Grafton Ngerrie LALC	Attached the comments for the CHAR and cc in all the other LALCs in the area.	
1 August 2012	12:56pm	Vanessa Edmonds	Email	Wes Fernando Veronica Williams	Grafton Ngerrie LALC Jali LALC	Forwarded Wes's Comments to Veronica	

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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
1 August 2012	2:35 pm	Vanessa Edmonds	Email	Wes Fernando	Grafton Ngerrie LALC	<p>Some queries about the comments:</p> <ul style="list-style-type: none"> <li>■ The Aboriginal legends and stories have been brought up at AFGs to see if they were considered to be confidential. No stakeholders have expressed and issue with them</li> <li>■ The statement that the stakeholders were not happy with the recommendations. Does this include the ones previously discussed at AFG's when everyone seemed to be in agreement?</li> <li>■ Are the main issues – financial, lack of possibilities for monitoring and lack of notice for the AFGs?</li> <li>■ Requests to identify other knowledge holders have been made previously at AFGs and whilst on fieldwork</li> <li>■ The legislation that was mentioned will be inserted</li> <li>■ The minutes from the AFGs have been attached in case they had not been previously sent.</li> </ul>	
8 August 2012	4:40 pm	Amanda Goldfarb	Email	Carla Di Giusto	NTSCORP Limited	Amanda spoke with Carla who said she has communicated with the principal solicitor and that Yaegl have provided their feedback through other channels.	
9 August 2012	10:56 am	Rebecca Andrews	Phone	EJ Williams	Yarrawarra Aboriginal Corporation	Did not pick up	
9 August 2012	11:02 am	Rebecca Andrews	Phone	Noeline Kapeen	Yeagl LALC	Did not pick up	
9 August 2012	11:25 am	Joseph Brooke	Email	EJ Williams	Yarrawarra Aboriginal Corporation	<p>I was wondering if Yarrawarra or the Garby Elders had any comments on the Woolgoolga to Wells Crossing and/or Wells Crossing to Iluka Road Aboriginal cultural heritage reports we provided you about 5 or 6 weeks ago?</p> <p>The official comment period has closed and we're now in the process of finalising the reports and was hoping to get any comments you, or Milton, or anyone else from Yarra or Garby this week, so that we can include them in the final reports, as we'd love to be able to consider any suggestions or comments you have in amending the report.</p> <p>If we don't get the comments this week, it'll be pretty difficult to include them in the report, as this report needs to be attached to the overall Environmental Impact Statement for the project, which will be finalised soon and submitted for assessment, after which changes become more difficult.</p> <p>If you'd rather give the comments over the phone, or another way, give me a buzz to talk about.</p>	



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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
9 August 2012	6:23 pm	Joseph Brooke	Email	EJ Williams	Yarrawarra Aboriginal Corporation	Comments on the CHAR will be sent asap. Need to confirm them with Milton	
10 August 2012	9:12 am	Joseph Brook	Email	EJ Williams	Yarrawarra Aboriginal Corporation	If the comments could be sent through today it would be great.	
10 August 2012	10:23 am	Rebecca Andrews	Phone	Norma Collins	Birrigan-Gargle LALC	Did not pick up – left a message	
10 August 2012	10:23 am	Rebecca Andrews	Phone	Noeline Kapeen	Yeagl LALC	Did not pick up	
10 August 2012	9:12 am	Joseph Brooke	Email	EJ Williams	Yarrawarra Aboriginal Corporation	Beauty, thanks EJ. If you can get them today that would great. Cheers, Jo	
13 August 2012	5:22 pm	Joseph Brooke	Email	EJ Williams	Yarrawarra Aboriginal Corporation	Giina Jo, I have received no comments from Uncle Milton for either report.	
14 August 2012	2: 40pm	Vanessa Edmonds	Phone	Norma Collins	Birrigan Gargle LALC	<p>I asked if she had any comments on CHAR. I said we had sent through a copy of the CHAR to Ken Laurie and received comments back from him and that he had been happy with the CHAR and only had one query re the road alignment going through a swamp but we had confirmed that the road didn't go through the swamp.</p> <p>She said she was very happy with the CHAR. She had presented it to the Board and they were satisfied with CHAR. Norma said that she told the Board she had been to most of the AFGs and the 'boys' had participated in the fieldwork and they were satisfied with the outcomes. From a Birrigan perspective Ken Laurie had been involved.</p>	
15 August 2012	9:52 am	Joseph Brooke	Email	EJ Williams	Yarrawarra Aboriginal Corporation	<p>Thanks for the update EJ, I know you're not a mind-reader (well it'd be news to me anyway!), but do you think he wants to make any comments, or is he happy with the report, or isn't interested in giving comments do you think?</p> <p>I could give you both a call sometime if you'd like?</p> <p>Cheers, Jo</p>	
20 August 2012	12:25 pm	Joseph Brooke	Phone	Milton Duroux EJ Williams	Yarrawarra Aboriginal Corporation (incorporating the Garby Elders Group)	Jo spoke to Milton regarding the Woolgoolga to Wells Crossing, and Wells Crossing to Iluka Roads CHARs and he said that he had looked over some parts of them, and that the reports were good, and he was happy with the recommendations.	
20 August 2012	3:08 pm	Vanessa Edmonds	Phone	Noeline Kapeen	Yeagl LALC	No answer left a message to call back please	

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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
20 August 2012	3:10 pm	Joseph Brooke	Phone	Shane McLeay	Yaegl LALC	Jo spoke to Shane McLeay, a trainee site officer from Yaegl LALC, to ask if he knew if there were any problems at the LALC (Jo mentioned that we have been trying to get onto them). He said that Noeline has been on leave for the last few weeks (she's back next week), but that there should be someone there today and the rest of this week. Shane also mentioned that he had identified some artefacts at a new cattle yard near the project corridor on Four Mile or Six Mile Lane.	
20 August 2012	1:33 pm	Amanda Goldfarb	Email	Carla DiGiusto	NTSCORP Limited	Dear Carla,  I have been collecting all the comments received for the CHAR, and was wondering what other channels Yaegl NT Claimants provided their feedback through?  Are you please able to confirm this information for me?  Thank you!  Kind regards, Amanda	Reply at 5:29 pm: Hello Amanda,  The Land Councils.  Kind Regards,  Carla
21 August 2012	10:58 am	Vanessa Edmonds	Phone	Bobby McLeay	Yaegl LALC	Just called Bobby McLeay who is going to talk to her mother (Irene?) and see if she can get a response to the CHAR written today or tomorrow.	
23 August 2012	2:18 pm	Vanessa Edmonds	Phone	Noeline Kapeen	Yaegl LALC	Tried to call Yaegl. It rang out.	
24 August 2012	1:05 pm	Vanessa Edmonds	Email	Wes Fernando	Grafton-Ngerrie LALC	Sent a reply to Wes Fernando's letter, received on the 1 August 2012.	Letter included in CHAR (E.4)
27 August 2012	9:08 am	Vanessa Edmonds	Email	Bobby/Noeline Kapeen	Yaegl LALC	Hi Vanessa, sincerest apologies for the delay, I was wondering if you could contact me on 02 66453676 in relation to the above subject. Cheers Bobby	
27 August 2012		Vanessa Edmonds	Email	Bobby/Noeline Kapeen	Yaegl LALC	Spoke to Bobby about the comments for the CHARs. Bobby was unsure what she needed to write, so Vanessa offered to write up a draft that could be altered and sent back.	
27 August 2012	10:01 am	Vanessa Edmonds	Email	Bobby/Noeline Kapeen	Yaegl LALC	Sent the draft for the comments on the CHAR to Bobby.	
27 August 2012	10:33 am	Vanessa Edmonds	Email	Bobby/Noeline Kapeen	Yaegl LALC	Sent through the official agreement to the management recommendations.	

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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
4 September 2012	4:33 pm	Joseph Brooke	Email	EJ Williams Wes Fernando Chris Spencer Mark Flanders Richard Widders	Yarrawarra Aboriginal Corporation Grafton Ngerrie LALC Coffs Harbour LALC Coffs Harbour LALC Garlambirla Guuyu-girrwa Corporation	Further to the invite you should have received for an AFG meeting on Wednesday 19 <sup>th</sup> September to discuss proposed geotechnical investigations at Corindi Creek and proposed archaeological methodologies in those locations, please find attached the proposed methodology for the archaeological investigations. Please take receipt of this email as beginning of a 28-day period within which to provide comment on this methodology. If you have any comments on the methodology, to ensure they're able to be incorporated, please send them through before 3 October 2012, but preferably earlier than this – if possible by or at the AFG on 19 September.	
11 September 2012		Joseph Brook	Phone	Brett Tibbet	Grafton Ngerrie LALC	Called Grafton-Ngerrie LALC to organise site officers for the ancillary investigations. Wes Fernando is no longer working there, Brett Tibbet will be acting in his position until a replacement is found. He has all the same contact details.	
11 September 2012	3:26 pm	Joseph Brooke	Email	Noeline Kapeen	Yaegl LALC	I was wondering if Yaegl LALC would have 2 site officers available to take part in field investigations next Tuesday (18 <sup>th</sup> ), Wednesday (19 <sup>th</sup> ) and Thursday (20 <sup>th</sup> )? – possibly also Friday, but subject to property access constraints The nominated site officers on this project are Ferlin Laurie, Shane McLeay, and Uncle Dale Mercy, so any 2 of those 3 would be great. Still confirming details, but meeting at Ferry Park at 8.30am on Tuesday 18 <sup>th</sup> would be likely.	
11 September 2012	3:28 pm	Joseph Brooke	Email		Birrigan-Gargle LALC	I was wondering if Birrigan-Gargle LALC would have 2 site officers available to take part in field investigations for proposed ancillary areas next Tuesday (18 <sup>th</sup> ), Wednesday (19 <sup>th</sup> ) and Thursday (20 <sup>th</sup> )? – possibly also Friday, but subject to property access constraints. The nominated site officers on this project are Kurtis Laurie, and Malcolm Brown, and occasionally Ken Laurie, so any 2 of those 3 would be great. Still confirming details, but meeting at Ferry Park at 8.30am on Tuesday 18 <sup>th</sup> would be likely.	
12 September 2012		Josephine Basilio	Phone	Brett Tibbet	Grafton Ngerrie LALC	Josie spoke to Brett – Their new CEO, Ken McIntosh will take on the role from Wednesday 19 September and Ken will attend the meeting at 10:00 am at Yarrawarra.	

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Date	Time	Alliance contact	Method	Contact person	Organisation	Subject	Comment
12 September 2012	1:59 pm	Joseph Brooke	Email	EJ Williams	Yarrawarra Aboriginal Corporation	We're planning those ancillary area investigations for Woolgoolga to Wells Crossing Pac Highway upgrade that were spoken about at the last AFG meeting. Exact dates are still coming together, as we progressively receive property access permissions. I was wondering if you would have a couple of site officers (Milton and Tony or Rick) available next Friday 21 Sept for the day, a few days the following week for Weds 26, Thurs 27, Fri 28 Sept, and the following week Tuesday 2 October – Friday 5 October? Also, are you or Milton coming to the AFG meeting next Weds morning at Yarrawarra?	
13 September 2012	4:18 pm	Joseph Brooke	Email	EJ Williams	Yarrawarra Aboriginal Corporation	Giinagay Jo, it will be Tony and myself doing the field work, the dates you have are fine with me at present though it is getting pretty tight at the end of Sep. Hope to get to the meeting but may send Tony.	
14 September 2012	9:12 am	Joseph Brooke	Email	EJ Williams	Yarrawarra Aboriginal Corporation	Great thanks EJ, I look forward to it.	

## E.2 Current documentation

Table 3 Consultation log for the invitation process of Aboriginal stakeholders to AFG1

Registered stakeholder group	Name	Position	Address	Phone	Email	Notes 10 August 2010	Notes 12-13 August 2010	Invite notes AFG #1	Attendance (AFG#1)
Clarence Valley Council	Grace Clague	Aboriginal Liaison Officer	Locked Bag 23 Grafton NSW 2460	6643 0400	<a href="mailto:grace.clague@clarence.nsw.gov.au">grace.clague@clarence.nsw.gov.au</a>		Send email	Send letter by email	
Burra:way Wa:jad Traditional Owners Group	Greg Cromelin	Traditional Elder		n/a					
Burra:way Wa:jad Traditional Owners Group	Lionel Gardiner	Traditional Elder	241 Bent Street Coffs Harbour NSW 2450	6643 4926		10/08 LJ called. Lionel advised of postal address.	Called 12 August – no answer	Post Letter	
Burra:way Wa:jad Traditional Owners Group	Oral Gardiner	Traditional Elder	241 Bent Street Coffs Harbour NSW 2450	6643 3189		10/08 LJ called. Lionel advised of postal address.	Called 12 August – no answer	Post Letter	
Garby Elders Group	Tim Cowan			66407100	<a href="mailto:timmycowan@live.com.au">timmycowan@live.com.au</a>	10/08 Chris from CHLALC said best contact was Tim Cowan Yarrawarra 6640 7100 10/08 LJ left msg.	Called 12 August – no answer	Send letter by email	19 August pm
Garby Elders Group	Uncle Milton Duroux			66407100					19 August pm

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Registered stakeholder group	Name	Position	Address	Phone	Email	Notes 10 August 2010	Notes 12-13 August 2010	Invite notes AFG #1	Attendance (AFG#1)
Grafton Ngerrie Local Aboriginal Land Council	Wesley Fernando		PO Box 314 South Grafton 2460	6642 6020	<a href="mailto:gnlalc@bigpond.com">gnlalc@bigpond.com</a>		Andrew Riley of NSW ALC advised that Wes is key contact for this group - send email	Send letter by email to Wesley Fernando	19 August morning
Grafton Ngerrie Local Aboriginal Land Council	Rod Duroux		PO Box 314 South Grafton 2460	6642 6020	<a href="mailto:gnlalc@bigpond.com">gnlalc@bigpond.com</a>				19 August morning
Grafton Ngerrie Local Aboriginal Land Council	Brett Tibett		PO Box 314 South Grafton 2460	6642 6020	<a href="mailto:gnlalc@bigpond.com">gnlalc@bigpond.com</a>				19 August morning
Grafton Ngerrie Local Aboriginal Land Council	Brett Duroux		PO Box 314 South Grafton 2460	6642 6020	<a href="mailto:gnlalc@bigpond.com">gnlalc@bigpond.com</a>				19 August morning
NSW Aboriginal Land Council	Andrew Riley		PO Box 1912 Coffs Harbour NSW 2450	6659 1200	<a href="mailto:andrew.riley@alc.org.au">andrew.riley@alc.org.au</a>	09/08 Sam advised of new contacts - Andrew Riley Zone Director and Trent Linwood (Operations Manager)	Spoke to Andrew who asked that we provide details of which land Councils have been invited.	Send letter by email	
NSW Aboriginal Land Council	Diane Randall		PO Box 1912 Coffs Harbour NSW 2450	6659 1200					19 August am/pm,
NSW Aboriginal Land Council	Patricia Laurie		PO Box 1912 Coffs Harbour NSW 2450	6659 1200					20 August am/pm
NSW Aboriginal Land Council	Leon Avuri-Williams		PO Box 1912 Coffs Harbour NSW 2450	6659 1200					19 August am/pm,
NSW Aboriginal Land Council	Craig Craigie		PO Box 1912 Coffs Harbour NSW 2450	6659 1200	<a href="mailto:craig.craigie@alc.org.au">craig.craigie@alc.org.au</a>	09/08 Sam advised of new contacts - Andrew Riley Zone Director and Trent Linwood (Operations Manager)	Spoke to Leon who provided updated contact details - suggested I send emails and note which land councils I have been in touch with	Send letter by email	
NSW Aboriginal Land Council	Tina Williams		PO Box 1912 Coffs Harbour NSW 2450	6659 1200	<a href="mailto:tina.williams@alc.org.au">tina.williams@alc.org.au</a>	09/08 Sam advised of new contacts - Andrew Riley Zone Director and Trent Linwood (Operations Manager)	Spoke to Leon who provided updated contact details - suggested I send emails and note which land councils I have been in touch with	Send letter by email	
Yaegl Local Aboriginal Land Council	Michael Randall	Coordinator	PO Box 216 Maclean NSW 2463	6645 3676	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>		Called 12 August - no answer	Send letter by email	
The Yaegl People	Deidre Randall	C/- NTSCORP	PO BOX 156 Coffs Harbour NSW 2450		-		Called 12 August - no answer	Post Letter	
Yaegl Local Aboriginal Land Council	Lionel Gardiner		PO Box 216 Maclean NSW 2463	6645 3676	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>	10/08 LJ left msg	Called 12 August - no answer	Send letter by email	
Yaegl Local Aboriginal Land Council	Neoline Kapeen		PO Box 216 Maclean NSW 2463	6645 3676	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>	10/08 LJ left msg	Called 12 August - no answer	Send letter by email	
Yaegl Local Aboriginal Land Council	Ferlin Laurie		PO Box 216 Maclean NSW 2463	6645 3676	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>	10/08 LJ left msg	Called 12 August - no answer	Send letter by email	19 August morning
Yaegl Local Aboriginal Land Council	Eileen McLeay		PO Box 216 Maclean NSW 2463	6645 3676	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>	10/08 LJ left msg	Called 12 August - no answer	Send letter by email	

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Registered stakeholder group	Name	Position	Address	Phone	Email	Notes 10 August 2010	Notes 12-13 August 2010	Invite notes AFG #1	Attendance (AFG#1)
Yaegl Local Aboriginal Land Council	Zane Purcell		PO Box 216 Maclean NSW 2463	6645 3676	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>	10/08 LJ left msg	Called 12 August - no answer	Send letter by email	
Yaegl Local Aboriginal Land Council	William Walker		PO Box 216 Maclean NSW 2463	6645 3676	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>	10/08 LJ left msg	Called 12 August - no answer	Send letter by email	
Yaegl Local Aboriginal Land Council	Daryll Mercy		PO Box 216 Maclean NSW 2463	6645 3676	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>				19 August morning
Yarrawarra Aboriginal Corporation	Christopher Kirkbright	Yarrawarra Aboriginal Cultural Centre	PO Box 102 Corindi Beach 2456 NSW	6640 7100 or 6640 7199	<a href="mailto:lyn@yarrawarra.org.au">lyn@yarrawarra.org.au</a>	10/08 Angela advised that Christopher Kirkbright was best contact	Contact Lyn - send 2 emails	Send letter to both emails	19 August pm

**Table 4 Consultation log for the invitation process of Aboriginal stakeholders to AFG2**

Registered Stake Holder Group	Name	Position	Address Line 1	Phone	Email	Notes 10 August 2010	Notes 12 – 13 August 2010	Meeting #1	Attendance (meeting#1)	Meeting #2
Clarence Valley Council	Grace Clague	Aboriginal Liaison Officer	Locked Bag 23 Grafton NSW 2460	6643 0400	<a href="mailto:grace.clague@clarence.nsw.gov.au">grace.clague@clarence.nsw.gov.au</a>		Send Email	Send letter by email		Email Sent
Burra:way Wa:jad Traditional Owners Group	Greg Cromelin	Traditional Elder		n/a	-					
Burra:way Wa:jad Traditional Owners Group	Lionel Gardiner	Traditional Elder	241 Bent Street Coffs Harbour NSW 2450	6643 4926	-	10/08 LJ called. Lionel advised of postal address.	Called 12 August - no answer	Post Letter		Number dialled – wrong number
Burra:way Wa:jad Traditional Owners Group	Oral Gardiner	Traditional Elder	241 Bent Street Coffs Harbour NSW 2450	6643 3189	-	10/08 LJ called. Lionel advised of postal address.	Called 12 August - no answer	Post Letter		
Garby Elders Group (Yarrawarra Aboriginal Corporation)	Tim Cowan			6640 7100	<a href="mailto:timmycowan@live.com.au">timmycowan@live.com.au</a>	10/08 Chris from CHLALC said best contact was Tim Cowan Yarrawarra 6640 7100 10/08 LJ left msg.	Called 12 August - no answer	Send letter by email	19 August pm	Email sent
Garby Elders Group (Yarrawarra Aboriginal Corporation)	Uncle Milton Duroux			6640 7100	-				19 August pm	Email sent thru Tim Cowan
Grafton Ngerrie Local Aboriginal Land Council	Wesley Fernando		PO Box 314 South Grafton NSW 2460	6642 6020	<a href="mailto:gnlalc@bigpond.com">gnlalc@bigpond.com</a>		Andrew Riley of NSW ALC advised that Wesley is key contact for this group - send email	Send letter by email to Wesley Fernando	19 August morning	Email sent
Grafton Ngerrie Local Aboriginal Land Council	Rod Duroux		PO Box 314 South Grafton NSW 2460	6642 6020	<a href="mailto:gnlalc@bigpond.com">gnlalc@bigpond.com</a>				19 August morning	Email sent



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Registered Stake Holder Group	Name	Position	Address Line 1	Phone	Email	Notes 10 August 2010	Notes 12 – 13 August 2010	Meeting #1	Attendance (meeting#1)	Meeting #2
Grafton Ngerrie Local Aboriginal Land Council	Brett Tibett		PO Box 314 South Grafton NSW 2460	6642 6020	<a href="mailto:gnlalc@bigpond.com">gnlalc@bigpond.com</a>				19 August morning	Email sent
Grafton Ngerrie Local Aboriginal Land Council	Brett Duroux		PO Box 314 South Grafton NSW 2460	6642 6020	<a href="mailto:gnlalc@bigpond.com">gnlalc@bigpond.com</a>				19 August morning	Email sent
NSW Aboriginal Land Council	Andrew Riley		PO Box 1912 Coffs Harbour NSW 2450	6659 1200	<a href="mailto:andrew.riley@alc.org.au">andrew.riley@alc.org.au</a>	09/08 Sam advised of new contacts - Andrew Riley Zone Director and Trent Linwood (Operations Manager)	Spoke to Andrew who asked that we provide details of which land Councils have been invited.	Send letter by email		Email sent
NSW Aboriginal Land Council	Diane Randall		PO Box 1912 Coffs Harbour NSW 2450	6659 1200	<a href="mailto:diane.randall@alc.org.au">diane.randall@alc.org.au</a>				19 August am/pm,	Email sent
NSW Aboriginal Land Council	Patricia Laurie		PO Box 1912 Coffs Harbour NSW 2450	6659 1200	<a href="mailto:patricia.laurie@alc.org.au">patricia.laurie@alc.org.au</a>				20 August am/pm	No longer connected with NSW ALC
NSW Aboriginal Land Council	Leon Avuri-Williams		PO Box 1912 Coffs Harbour NSW 2450	6659 1200	<a href="mailto:andrew.riley@alc.org.au">andrew.riley@alc.org.au</a>				19 August am/pm,	Email sent
NSW Aboriginal Land Council	Craig		PO Box 1912 Coffs Harbour NSW 2450	6659 1200	<a href="mailto:craig.craigie@alc.org.au">craig.craigie@alc.org.au</a>	09/08 Sam advised of new contacts - Andrew Riley Zone Director and Trent Linwood (Operations Manager)	Spoke to Leon who provided updated contact details - suggested I send emails and note which land councils I have been in touch with	Send letter by email		Email sent
NSW Aboriginal Land Council	Tina Williams		PO Box 1912 Coffs Harbour NSW 2450	6659 1200	<a href="mailto:tina.williams@alc.org.au">tina.williams@alc.org.au</a>	09/08 Sam advised of new contacts - Andrew Riley Zone Director and Trent Linwood (Operations Manager)	Spoke to Leon who provided updated contact details - suggested I send emails and note which land councils I have been in touch with	Send letter by email		Email sent
Yaegl Local Aboriginal Land Council	Michael Randall	Coordinator	PO Box 216 Maclean NSW 2463	6645 3676	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>		Called 12 August - no answer	Send letter by email		Email sent
The Yaegl People	Deidre Randall		C/- NTSCORP Suite 15, 245 Chalmers St Redfern NSW 2016	9310 3188	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>		Called 12 August - office closed	POST LETTER		Email sent
Yaegl Local Aboriginal Land Council	Lionel Gardiner		PO Box 216 Maclean NSW 2463	6645 3676	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>	10/08 LJ left msg	Called 12 August - no answer	Send letter by email		Email sent
Yaegl Local Aboriginal Land Council	Noeline Kapeen		PO Box 216 Maclean NSW 2463	6645 3676	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>	10/08 LJ left msg	Called 12 August - no answer	Send letter by email		Email sent

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Registered Stake Holder Group	Name	Position	Address Line 1	Phone	Email	Notes 10 August 2010	Notes 12 – 13 August 2010	Meeting #1	Attendance (meeting#1)	Meeting #2
Yaegl Local Aboriginal Land Council	Ferlin Laurie		PO Box 216 Macleans NSW 2463	6645 3676	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>	10/08 LJ left msg	Called 12 August - no answer	Send letter by email	19 August morning	Email sent
Yaegl Local Aboriginal Land Council	Eileen Mcleay		C/- NTSCORP Suite 15, 245 Chalmers St Redfern NSW 2016	9310 3188	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>	10/08 LJ left msg	Called 12 August - no answer	Send letter by email		Email sent
Yaegl Local Aboriginal Land Council	Zane Purcell		PO Box 216 Macleans NSW 2463	6645 3676	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>	10/08 LJ left msg	Called 12 August - no answer	Send letter by email		Email sent
Yaegl Local Aboriginal Land Council	William Walker		C/- NTSCORP Suite 15, 245 Chalmers St Redfern NSW 2016	9310 3188	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>	10/08 LJ left msg	Called 12 August - no answer	Send letter by email		Email sent
Yaegl Local Aboriginal Land Council	Daryll Mercy		PO Box 216 Macleans NSW 2463	6645 3676	<a href="mailto:yaegl@internode.on.net">yaegl@internode.on.net</a>				19 August morning	Email sent
Yarrawarra Aboriginal Corporation	Christopher Kirkbright	CEO	Yarrawarra Aboriginal Cultural Centre PO Box 102 Corindi Beach 2456 NSW	6640 7100 or 6640 7199	<a href="mailto:lyn@yarrawarra.org.au">lyn@yarrawarra.org.au</a>	10/08 Angela advised that Christopher Kirkbright was best contact	Contact Lyn - send 2 emails	Send letter to both emails	19 August pm	Email sent
Baryulgil Bunjalung	Simon Blackshield	Blackshield and Co	Level 57, MLC Centre 19-29 Martin Place Sydney NSW 2000	02 8230 2723 (NUMBER NOT CONNECTED)	-					Faxed



Woolgoolga to Ballina Pacific Highway Upgrade  
Aboriginal Heritage Assessment – Wells Crossing to Iluka Road  
Volume 2: Appendices

## **E.3 Current Aboriginal focus group minutes**

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Item	Actions
6.	<p><b>Draft methodology for Aboriginal heritage assessment</b></p> <p>6.1 as much as is possible the Shark Creek alternative alignment will be walked over 3 days next week.</p> <p>6.2 The process for managing any finds at early works sites will be discussed at the next AFG meeting.</p>
7.	<p><b>Aboriginal site officers appointed</b></p> <p>7.1 Yaegl and Birrigan-Gargle LALCs each appointed a senior sites officer and a trainee to undertake the survey with an archaeologist next week.</p>
8.	<p><b>Other matters</b></p> <p>8.1 It was raised that further consultation with Aboriginal stakeholders regarding the PACCHI document is required. It was raised that it contains no scope for negotiation of rates by individual Land Councils or groups.</p> <p>8.2 Grafton-Ngerie LALC expressed discontent with the way consultation was undertaken on the Glenugie project. LALC advised RTA that the survey was signed off as completed by heritage consultant although Grafton-Ngerie LALC requested more survey due to heavy vegetation present.</p> <p>8.3 It was suggested by xxxx that other stakeholders, such as Council and DECCW should be in attendance at these meetings. Mary Lou Buck suggested this would need to happen at a zone level rather than a regional level.</p> <p>8.3 Vanessa Edmonds requested permission from Yaegl for access to information through AHIMS.</p> <p>8.4 DA process has commenced for the Copmanhurst quarry site. Yaegl LALC owns a quarry pit, as does Birrigan-Gargle LALC.</p>
9.	<p><b>Next meeting</b></p> <p>9.1 Next AFG meeting to be held after field surveys have been completed.</p>

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Wells Crossing to Iluka Road - Fieldwork Summary  
31 August 2010

- Unavailability of Aboriginal Sites Officers (for example Grafton-Ngerrie found it difficult to provide resources at short notice).

- **Table 1: List of archaeologists comprising field team.**

Company	Name	Role
SKM	Vanessa Edmonds	Team Leader-Cultural heritage and archaeological assessment
SKM	Andrew Costello	Senior Archaeologist
SKM	Joseph Brooke	Project Archaeologist
SKM	Robyn Jenkins	Project Archaeologists
SKM	Rani Attwood	Graduate Archaeologist

- **Table 2: List of Aboriginal stakeholder representatives participating in the field survey.**

Organisation	Name	Role	Dates of Participation	Approximate Section
Birrigan Gargle LALC (also Yaegl People native title claim)	Fox Laurie	Senior Aboriginal Sites Officer	24-27 August	Land in the predominantly in the Shark Creek re-alignment.
Yaegl LALC (also Yaegl People Native Title claim)	Lee Laurie	Senior Aboriginal Sites Officer	24-27 August	Land in the predominantly in the Shark Creek re-alignment.
Birrigan Gargle LALC (also Yaegl People Native Title claim)	Ronald Williams	Trainee Aboriginal Sites Officer	25-27 August	Land in the predominantly in the Shark Creek re-alignment.
Yaegl LALC (also Yaegl People Native Title claim)	Mark Laurie	Trainee Aboriginal Sites Officer	25-27 August	Land in the predominantly in the Shark Creek re-alignment.

## Methodology

Survey areas were defined on the basis of landholder information. The field survey was undertaken on foot. Where there was no property access permission and it was possible, an assessment of the project corridor was made from the adjacent property. Where access was not possible, these were marked in from the project GIS based on field consultation, observations and topographic data.

Wells Crossing to Iluka Road - Fieldwork Summary  
31 August 2010

Where property access was possible, the locations of all Aboriginal sites and areas of potential archaeological deposit (PAD) were recorded using a differential GPS.

## Survey Coverage

Previous survey by Navin Officer (2009) covered just over 90.5% of the project corridor. This survey had not included the 11 km – 12 km project corridor alignment option between Tyndale and Maclean the 'Shark Creek re-alignment'.

The current round of survey aimed to survey several portions of the project corridor not previously surveyed. During this current survey, around 70% of the previously unsurveyed portions of the project corridor were surveyed or assessed from the road or at property boundaries. The main constraint to survey was permissions for property access. Other constraints included vegetation cover, such as sugar cane plantation and swampy properties; however, such properties were, for the most part, still able to be assessed either from the road or an adjacent property. The remainder of the project corridor has been assessed using a predictive model, based on field consultation, previous site locations and observations in the field.

## Results

A total of 10 previously unidentified areas of PAD (Table 3) and 3 previously unidentified Aboriginal archaeological sites (Table 4) were located as a result of the survey.

Draft recommendations for further investigation of PADs during future project stages are provided in Table 3.

Yours sincerely

## Vanessa Edmonds

*Principal Archaeologist*

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Copies:

- Yaegl Local Aboriginal Land Council (LALC)
- Grafton-Ngerrie LALC
- The Yaegl People Native Title Group
- Yarrawarra Aboriginal Corporation
- Burra:way Wa:jad Traditional Owners group
- Bandjalang People #2 Native Title Group/Baryulgil Bundjalung Native Title Group
- Garby Elders Group
- Yarrawarra Aboriginal Corporation
- NSW ALC.

Table 3: Summary of PADs identified during current survey within the project corridor.

AHIMS Site Number	PAD Name	Associated with Site?	Potential Archaeological Sensitivity	Aboriginal Significance	Investigation	Impacted by Proposal	Further Investigation Required during future project stage?
NA	PAD 14	-	Low-moderate	Moderate	SKM Survey	Direct impact	Machine scrape and inspection (if accessible, if not shovel test-pits)
NA	PAD 15	-	Low-moderate	Low-moderate	SKM Survey	Direct Impact	Shovel test-pits and hand sieving
NA	PAD 16	Hirst 2 [artefact]	Moderate	Low-moderate	SKM Survey	Direct Impact	Machine excavator and sieve and shovel test-pits and hand sieving
NA	PAD 17	Hirst 1 [artefact]	Moderate	Low-moderate	SKM Survey	Direct Impact	Shovel test-pits and hand sieving
NA	Tyndale 1 PAD	Tyndale 1 [artefact]	Moderate	Low-moderate	SKM Survey	Direct Impact	Machine excavator and sieve on crest (if accessible, otherwise shovel test-pits)
NA	Tyndale 2 PAD	-	Moderate	Low-moderate	SKM Survey	Direct Impact	Machine excavator and sieve
NA	Shark Creek PAD 1	-	Low-Moderate	Moderate	SKM Survey	Direct impact	Shovel test-pits and hand sieving
NA	Shark Creek PAD 2	-	Low-Moderate	Moderate	SKM Survey	Direct Impact	Shovel test-pits and hand sieving
NA	Shark Creek PAD 3	-	Moderate	Unknown	None	Direct Impact	Survey and if PAD then machine scrape and inspection (if accessible, if not shovel test-pits)
NA	Shark Creek PAD 4	-	Moderate	Unknown	None	Direct Impact	Survey and if PAD then machine scrape and inspection (if accessible, if not shovel test-pits)

# PUBLIC

Wells Crossing to Iluka Road - Fieldwork Summary  
31 August 2010

■ **Table 4: Summary of Aboriginal Archaeological Sites identified during current survey within the concept corridor (from North to South).**

Site name	Description
Hirst 1	A ground edge axe made of basalt recorded on the middle slopes of a ridge spur overlooking the swampy floodplain of the Coldstream River. The axe may have originated from further up the ridge, a more ideal location for occupation, having been moved down slope by ploughing. PAD 17 is associated with this site.
Hirst 2	A single unmodified river pebble interpreted as a manuport, located on the edge of a low ridge spur overlooking the swampy floodplain of the Coldstream River. PAD 16 is associated with this site.
Tyndale 1	A single quartzite core artefact located on the middle slopes of a sandstone ridge, overlooking the Coldstream River and its swampy floodplain. The artefact was located in an area of exposure created in a vehicle track. Lots of background noise (in the form of numerous river pebbles, gravel and other rock) may have hindered the identification of further materials. The soil horizon in this location was shallow, with only a few centimetres of sediment overlying the sandstone bedrock. Tyndale 1 PAD is associated with this site.



Iluka Road to Woodburn - Fieldwork Summary  
31 August 2010

■ **Table 3: Summary of PADs identified during current survey within the project corridor.**

Site Number	PAD Name	Associated with Site?	Potential Archaeological Sensitivity	Aboriginal Significance	Investigation	Impacted by Proposal	Further Investigation Required during future project stages?
NA	Bolger PAD	-	Low-moderate	Low-moderate	SKM Survey	Direct Impact	Shovel test-pits and hand sieving

## Notes of meeting

### Woolgoolga to Ballina Planning Alliance

A team consisting of RTA, SKM and Aurecon



**Purpose of Meeting** Woolgoolga to Ballina Planning Alliance – Aboriginal Focus Group Meeting

**Original project** Wells Crossing to Iluka Road **Project No** EN02829

**Place of Meeting** Grafton Community Centre, 59 Duke Street Grafton, Gold Room **Date/Time** 15 September 2010 10:00am – 12:00pm

**Present**

Vanessa Edmonds (W2B alliance)	Judy Eamons (Birrigan-Gargle LALC)
Graham Purcell (RTA)	Norma Collins (Birrigan-Gargle LALC)
Kate Wiggins (RTA)	Rod Duroux (Grafton-Ngerrie LALC)
Scott Smith (RTA)	Brett Duroux (Grafton-Ngerrie LALC)
Darryl Mercy (Yaegl LALC)	
Lee Laurie (Yaegl LALC)	
Craig Craigie (NSW ALC)	

**Apologies** None

**Distribution** All above  
 Jo Moss (W2B alliance)  
 Patricia Laurie (NSW ALC)

Item	Actions
1. <b>Welcome to Country</b> Welcome to Country given by Brett Duroux.	
2. <b>Introductions</b>	
3. <b>Background of Woolgoolga to Ballina Planning Alliance project and project update</b> 3.1 Summary of project background, project status, and what we are aiming to achieve given by Kate Wiggins.	
4. <b>Summary of findings from field survey</b> 4.1 Vanessa Edmonds informed the AFG of the findings of the field survey. A map showing the findings was displayed for discussion. 4.2 70% of the area targeted during this investigation was surveyed. 4.3 Three sites were identified during the survey, with two artefacts collected at the request of the site officers. 4.4 10 PADs were identified. Sub-surface testing will be required at all of these PADs at some future stage of the project.	
5. <b>Next steps</b> 5.1 The two artefacts collected during the survey are to be recorded and then returned to the Yaegl LALC. Vanessa Edmonds will organise a	

Item	Actions
	<p>care and control permit.</p> <p>5.2 LALCs need to confirm they agree with the PAD locations. There is a report format in the PACCHI document which can be used. Graham Purcell will forward this to the LALCs.</p> <p>5.3 If Yaegl LALC has concerns over the survey of the location of PADs, these need to be raised in the report.</p> <p>5.4 Timing for the confirmation of PADs along the Shark Creek alternative alignment is critical due to the need to undertake geotechnical investigations in this area.</p> <p>5.5 Vanessa Edmonds is to send another email request to Yaegl LALC for permission to obtain AHIMS data.</p>
<b>6.</b>	<p><b>Other matters</b></p> <p>6.1 A report was submitted by Grafton-Ngerrie LALC to Navin Officer during the route selection phase of the project regarding the cultural significance of the Pillar Valley. There is uncertainty as to whether this was submitted to the RTA. Vanessa Edmonds will follow this up.</p> <p>6.2 Rod and Brett Duroux raised concerns again over the process as they were not happy with the outcomes on the Glenugie project. Graham Purcell explained that the issue at Glenugie was partly due to the introduction of the PACCHI document during the course of the project. This project will be undertaken in accordance with PACCHI which has no provision for site monitoring during construction.</p> <p>6.3 Graham Purcell to request Greg Nash (Glenugie Project Manager) to contact Wes Fernando regarding the potential for further Aboriginal employment on the Glenugie project.</p> <p>6.4 Judy Eamons expressed concern that Birrigan Gargle and Yaegl work in tandem across both Land Councils areas. Vanessa Edmonds responded that that had been achieved at the request of the Sites Officers in the understanding that it was all 'Yaegl People' land. Both JE, DM and NC were happy with this outcome.</p>

## MEETING MINUTES



**Transport**  
Roads & Traffic  
Authority

<b>Name of meeting:</b>	Aboriginal Focus Group Wells Crossing to Iluka Road		
<b>Location of meeting:</b>	Grafton Community Centre		
<b>Meeting facilitator:</b>	Woolgoolga to Ballina Planning Alliance		
<b>Date:</b>	5 October 2011	<b>Time:</b>	9.30am
<b>Attendees:</b>	Wes Fernando, Grafton Ngerrie LALC (WF) Rod Duroux, Grafton Ngerrie LALC (RD) Milton Duroux, Garby Elders and Yarrawarra (MD) Noeline Kapeen, Yaegl LALC and Yaegl Native Title Claimant (NK) Eileen McLeay, Yaegl LALC and Yaegl Native Title Claimant (EM) Vanessa Edmonds, Alliance archaeologist (VE) Joseph Brooks, Alliance archaeologist (JB) Chris Gorman, Alliance project manager (CG) Graham Purcell, RTA Aboriginal Programs Coordinator (GP) Rowena Mitchell, RTA Environmental Advisor (RM)		
<b>Apologies:</b>	Norma Collins, Birrigan-Gargle LALC Garry McPherson, RTA Project Development Manager		

Item	Action
<p><b>Welcome</b></p> <p>VE welcomed everyone and introduced the team. She provided an overview of the agenda.</p>	
<p><b>Project update</b></p> <p>CG explained how four previous projects (Woolgoolga to Wells Crossing, Wells Crossing to Iluka Road, Iluka Road to Woodburn and Woodburn to Ballina) have been combined into one project known as Woolgoolga to Ballina. This is approximately 155kms long. He said that the Commonwealth and State governments have provided funding and that they are working towards getting project approval. Woolgoolga to Ballina will join the Sapphire to Woolgoolga upgrade and Ballina Bypass. They are hoping for planning approval by April 2013.</p> <p>RD asked if that would complete the highway? CG said yes.</p> <p>CG said that survey, geotechnical investigations and environmental</p>	

<p>studies were being conducted. The concept design has been developed and is being displayed from next week onwards until the end of October. People are able to provide comment on the concept design via the RTA website, which has a tool where you can place comments on a map. He said that the planning alliance formed by the RTA is working on the EIS until August 2012, then the Submissions period is from December 2012. This is another opportunity to provide comment. They are going for project approval in April 2013. Construction of sections would start sometime following that. JB asked if there were any significant changes between the part 3a legislation and the new part 5.1? CG said that at the start of November this year they expect the Director General's Requirements. He said it's pretty much the same with the new legislation, there are some exemptions and longer timeframes to comment etc.</p>	
<p><b>Sub-surface testing methodology</b></p> <p>JB asked the group if they had all received copies of the methodology? There was general agreement that they had received them.</p> <p>JB provided an overview of the sites identified in this section following survey. He said there are 12 potential archaeological sites and 3 sites that have identified material. JB described each PAD and showed the group the location of the PAD on a map on the table.</p> <p><u>PAD 8</u> near Eight Mile land and Wooli Rd. VE asked who should work on that PAD? The group agreed that Yaegl and Garby Elders should both work on the PAD.</p> <p><u>PAD 7</u> All agreed this was Yaegl territory. JB said that there was a small bit of survey to do near the State Forest just north of the Woolgoolga to Wells Crossing section. He said he is hoping to do it on Friday.</p> <p><u>PAD 6</u> All agreed it was Yaegl territory. MD said it is not Garby territory.</p> <p><u>PAD 5</u> JB said he would email Lindsay Smith's report. He mentioned that Lindsay had passed away. GP entered the meeting.</p> <p><u>PAD 4</u> VE explained that if PADs cover area that is greater than the road corridor they will only survey within the road corridor. RD asked about access roads? CG said that there would be an access road that extends beyond the corridor. RD said that even with existing roads you need to survey. GP said only existing roads. WF asked how you would get from Tucabia Rd to the highway? CG explained that it is an existing road that goes to a quarry. VE said the access road isn't highlighted on the map as being impacted. CG said the next part of the design will identify any further impacts. VE said there is a contingency in the report that any further work will need to be assessed.</p>	<p>JB to email group Lindsay Smith's report.</p>

WF said if you're going to go outside the corridor then it will need a heritage assessment.  
VE confirmed that this is made clear in the report.  
CG said he'd go back to the designers and ask them what happens to the access track near PAD 4.  
RD said they had almost lost a grave site from work on a local road.  
JB said some things will be out of RTA control.  
JB went on to describe the PADs identified from last year's survey.

Tyndale 1  
VE said it's at the start of the Shark Creek alignment. She said an artefact was found there too, a quartzite core and it is pretty sensitive.

Tyndale PAD 2  
JB said no cultural material has been found there yet.  
CG said a design change is being considered here. They may need to do further survey.

Shark Creek PAD 4  
JB said this PAD could be smaller.

PAD 14  
JB said a lot of this PAD is outside the alignment, but there is a small bit inside.  
He then pointed to Shark Creek PAD 1, 2 and 3.  
JB said PADs on the original alignment near Shark Creek won't be impacted anymore so no testing is needed there.

PAD 16  
A river pebble was found

PAD 17  
An axe was found

PAD 15  
A small PAD.  
JB said a small amount of survey is going on now. So far they haven't found anything new. He said they will only do sub-surface testing within the corridor. The methodology will mostly be 50 metre by 50 metre test pits. He said once they get the DGRs they may need to get machines in to dig deeper and more extensively. The test pits will be 10 to 20 metres apart.  
VE said that what they have found so far is spread out and sparse.  
JB said that they'll be digging 5-10cm spits and sieving. Under the Office of Environment and Heritage's Code of Practice, it says you can only excavate no more than 0.5% of the test area. So it limits the number of pits you can dig. He said they may be able to do more after they get the DGRs, if there's any concerns about not having tested enough.  
RD said the proposed method seemed pretty good. He said that if you're going to find something you should find it.  
JB said that according to the Code of Practice, artefacts need to be reburied somewhere safe and secure.  
WF said that Aboriginal people should be able to say what happens to them.  
VE asked if we could do care and control permits?  
JB said we could ask OEH about it?  
MD suggested they should be put somewhere and have a big rock placed on them.  
JB said that in the methodology they had proposed to take them



back to the hotel to photograph and analyse them, but they could try to do it in the field.

WF asked if there are Aboriginal people involved?

JB asked if the artefacts should be stored at the LALC?

RD said it depends on the history of the artefact. He said previously we have just moved them to a safer spot. You just need to consult with us.

MD said the RTA is doing work at Glenugie and Arrawarra where survey hasn't been done.

JB said the Aboriginal Focus Groups will continue to be divided up by the previous 4 sections of the upgrade.

RD said that archaeologists used to sign-off on things on the weekend, without consulting Aboriginal people.

JB confirmed that they will always include site officers in discussions.

WF pointed out that the LALCs also have guidelines (in addition to OEH's guidelines). He said Aboriginal people own the cultural heritage. He said we've disagreed with RTA policies – the Glenugie thing was a big issue.

JB said it could be 2 years before salvage happens. What should we do with the artefacts?

WF said different groups will give different answers. It will depend on the site and whether we can move it. He said we'll need to discuss case by case. Do it through the site officers.

JB said that AHIMS forms will be sent in. He said that we'll be reducing the impacts to the environment by keeping on existing tracks and not churning up mud. He said PPE (safety gear) would be required. He said no vegetation will be removed and they will backfill trenches and reinstate turf. They may use wet sieving in areas where they can get a water truck in.

JB then asked if there were any updates to the site officer forms, could they please send them in.

GP said there's a new version of the form and they need to check whether they need to fill out the new version for the site officers. GP then explained the process for appointing a site officer. He gave WF and MD application forms.

VE asked NK whether Darryl has a broken foot?

JB said it might be worth nominating reserve site officers in case someone is hurt. Or you could bring trainees in.

VE said that the RTA and SKM look at the application forms.

GP said the RTA lets the LALC know, but it is purely an RTA decision and it is based on experience.

VE said that they can get application from people not associated with LALCs. She said that they can't guarantee that all site officers nominated will be used, but LALCs can rotate them round.

GP said that you can't send a trainee out without a senior person.

RD said that people are trained up but they can't get them out on site.

NK said Yaegl has only 4 site officers.

GP said word of mouth gets out and outside parties apply. He doesn't want to have to accept applications from outside country, but he may be forced to with the policy.

MD said people learn a lot on site.

JB said he has sent out property access forms. He said hopefully next week he will know where they can test, ie start at the north near

JB to send group testing schedule



<p>Ballina or south. The plan is to run from end of October to early to mid-December in different sections. He said for this section they are looking at 2 to 3 weeks testing work. He said it looks like it will be mostly Yaegl and Garby work. He said there are no PADs in the Grafton Ngerrie in this section, but there would be some in the Woolgoolga to Wells Crossing section. It is probably 1.5 weeks work in that section.</p> <p>GP distributed contracts for engagement.</p> <p>JB showed WF where the PADs are in the Woolgoolga to Wells Crossing section as he couldn't make the meeting in the afternoon.</p> <p>JB explained that it was about half and half Grafton-Ngerrie and Coffs Harbour.</p> <p>VE reiterated that testing would start 25 October, but they are not sure yet which end they will be starting at.</p> <p>JB said that he would let the group know next Wednesday or Thursday when they will be working in each group's area. He said on Friday they are doing survey near the Old Tick Gate Rd in the State Forest. It will take half an hour to 1 hour.</p> <p>GP said there should be someone there to collect the letters of engagement for the site officers. He asked WF to complete the contract by Friday for the small survey.</p> <p>JB and VE asked if there are any other issues?</p> <p>WF asked about unexpected finds.</p> <p>GP said it is written in the contract that the contractor needs to stop work if anything is found and contact the relevant people. He said we do toolboxing with workers as well.</p> <p>VE said that it's difficult to monitor during construction with all the machinery around. So it's better to identify things pre-construction.</p> <p>JB said that in addition to PADs they will be doing control sites – test pits where nothing was identified.</p> <p>CG asked what happens if something is found in a control site?</p> <p>VE said they would have to revise the model at a local level, or there'd be factors there we hadn't taken into account.</p>	
<p><b>Next meeting</b></p> <p>JB thanked everyone for coming. He said the next meeting would be in December. Sub-surface testing would be finishing around then so it would be good to talk while it's still fresh in everyone's minds.</p> <p>WF said he's not happy with signing a contract because he can't negotiate it. He said they should get a say.</p> <p>GP said the RTA is doing what's required under the policy.</p> <p>RD said sometimes you need to come back to site because you couldn't do it properly the first time.</p> <p>GP said it's between OEH and the State Land Council.</p> <p>WF pointed out that all land is significant to Aboriginal people. He then said that people may be on holidays before Christmas. The LALC closed around 17 December.</p> <p>JB said he will try to have the AFG in early December. But he said it depends on property access. The group agreed that 5-9 December was good for most people for a meeting, otherwise it would be end of January.</p>	
<p>Meeting closed 11.20am</p>	

## MEETING MINUTES



Transport  
Roads & Traffic  
Authority

<b>Name of meeting:</b>	Aboriginal Focus Group Wells Crossing to Iluka Road		
<b>Location of meeting:</b>	Grafton Community Centre		
<b>Meeting facilitator:</b>	Woolgoolga to Ballina Planning Alliance		
<b>Date:</b>	13 December 2011	<b>Time:</b>	2.00pm
<b>Attendees:</b>	<p>Rod Duroux, Grafton Ngerrie LALC (RD)                  Noeline Kapeen, Yaegl LALC and Yaegl Native Title Claimant (NK)                  Deidre Randall, Yaegl LALC (DR)                  Clarris Randall, Yaegl Native Title Claimant (CR)                  Norma Collins, Birrigan-Gargle LALC (NC)                  David Groth, RMS Geotechnical Scientist (DG)                  Simon Wilson, RMS Project Officer (SW)                  Roy Marsh, RMS Project Manager (RM)                  Ben Churton, RMS Scientific Officer (BC)                  Vanessa Edmonds, Alliance archaeologist (VE)                  Joseph Brooke, Alliance archaeologist (JB)                  Garry McPherson, RMS Interface Manager (GM)                  Graham Purcell, RMS Aboriginal Programs Coordinator (GP)                  Rowena Mitchell, RMS Environmental Advisor (RMi)                  Ken Robinson, Alliance Project Manager (KR)</p>		
<b>Apologies:</b>			

Item	Action
<p><b>Welcome</b></p> <p>GM welcomed the group and introduced the Alliance team. GM said the primary purpose of the meeting is to give feedback on sub surface testing results from the last couple of months. He said we would also discuss the upcoming geotechnical investigations and update the group on where the design is up to. We've made some modifications to the design since concept design went on display.</p>	
<p><b>Sub surface testing</b></p> <p>JB provided a summary of the sub surface testing investigations. He said the methodology used was a 50 cm by 50 cm test hole, using a shovel, every 10 metres. He said wherever we found an artefact in one of those holes, we did another pit about 5 metres away. They did testing in PAD</p>	

areas. Generally PADs in this section were identified based on landform.

RD asked what time the meeting started today? How come he wasn't invited to that?

VE said that Grafton-Ngerrie LALC had been invited. The invitation was sent from Jason Versilio to the LALC.

JB apologised and reiterated that he thought Grafton-Ngerrie was invited. He said we'll cover those PADs at Dirty Creek for Grafton-Ngerrie.

RD asked if we've tested the PAD at Dirty Creek yet?

JB said no, as there are still property access issues. He said that Grafton-Ngerrie would be involved in testing that PAD though.

JB continued to summaries sub surface testing results. At WWC115 there were 4 test pits, no other material was found, the landform is not considered sensitive.

WWC135 is a big PAD. There were 132 test pits in that PAD. **What was found?**

In WWC139 nothing further was found.

JB asked the group if there were any issues about sites and how the testing went?

RD said they were happy with how the testing went.

JB said at the last AFG they said normally we do a 1km overlap at boundary area.

VE asked RD if he would be happy with salvage to be recommended for those sites? And rebury artefacts on site?

RD agreed that that should be done.

VE went on to summarise results from the Wells Crossing to Iluka Rd section. She said at WX21R no. 8 they did 18 test pits. No artefacts were found. There was a thin sliver of land they didn't do because they got rained out. VE will check to see if they want to do any more testing there on Thursday. But on site they agreed that it didn't look significant. She said that what's shown on web tool isn't a perfect presentation of the PAD.

JB said that WX21 no.s 7,6,5 & 4 are all within a few kilometres of each other. He said No.s 7 and 6, had 25 test holes each. A handful of artefacts (small pieces) was found in each one, but they are waiting to get full test results back.

DR asked small pieces of what?

JB said mainly chert and material brought in from somewhere else. JB said there were 20 test pits in number 5 and about 5 artefacts of chert were found. There were 32 test holes in PAD 4, 5 artefacts of chert and quartz were found there.

VE said it is interesting that it is the sandier landforms that have the artefacts. JB said they are needing to dig 40 – 60 cm until they get down to

the base layers.

VE said it probably shows some preference for Yaegl people to camp in sandy areas.

DR asked if this was the Kratz property? What lane?

JB said he thinks it was called Tallowwood Lane.

JB said the next sites were up near Tyndale, near where we rejoin with the current highway, north 1km of the roadhouse. Tyndale PAD 1 had sandy soils. Two artefacts were found up on top of the hill and 1 was found down on the track.

In Tyndale PAD 2, 16 test holes were done. They found 4 artefacts, including chert, quartz and basalt.

DR asked if these reports have been forwarded yet?

VE said not yet, because we're still out there testing. This is an update for you and we'll send you a statement of findings when we're finished which you can make comments on. VE said possibly this material might have been brought down from the Border Ranges.

JB said 24 test holes were done at Shark Creek PAD 4 and no artefacts were found. He said Shark Creek PAD 3 is getting tested by VE on Thursday.

JB said initially they didn't have access to PAD 14, but after going out with Shane and Dale and Lee (site officers) everyone agreed that they didn't think there was potential for artefacts there. So that is no longer a PAD.

At Shark Creek PAD1, 38 test holes were done and no artefacts were found.

Shark Creek PAD2, on the top side of MacIntyres Lane is quite disturbed, with a cane paddock, house etc. JB said we found a few artefacts there, including chert and silcrete.

At Hurst PAD 1, they originally found a river cobble and recognised that the landform is sensitive. A total of 38 test holes were done there and they found 1 new artefact.

At Hurst PAD 2, they did 43 test holes and found 1 artefact. And at a spot just south of there they did some **stone app testing**.

DR asked for clarification of the location?

JB said it was near Causleys Lane.

JB said the next site is just north of Ferry Park. They did 8 test holes and no artefacts were found there.

JB said that was all the results for this section.

DR asked if there were any more PADs up to Devils Pulpit?

JB said that we would cover that tomorrow at the next AFG.

<p>DR asked if a private company would be undertaking the upgrade? John Holland?</p> <p>GM said they are doing the Devils Pulpit upgrade.</p> <p>VE said she asked the site officers about the sites tested and their feelings on significance and recommendations. VE said they said they didn't feel there's any particularly significant sites and that they could be salvaged prior to construction and then reburied. So that is what we will recommend in our report and then you guys will be able to discuss it. VE said that the site officers mentioned it would be best if there was no disturbance to the wetlands in Yaegl country. The group talked about wetlands along the alignment.</p> <p>JB said that's the summary of the testing we have done so far. He said the site officers were great to work with and did a good job.</p>	
<p><b>Design changes</b></p> <p>VE said there's been a few design changes in the corridor, as well as ancillary facilities identified, including stockpiles, site compounds etc. We'd like to show you these sites and see what needs further assessment and what doesn't.</p> <p>GM said with the ancillary facilities there aren't any extra ancillary areas as we haven't gone through that process yet.</p> <p>GM brought up Tyndale interchange on the web tool to talk about the design change there. He said the boundary will widen to accommodate ramps. VE said they haven't seen that change yet.</p> <p>JB said they will want to do more testing as the widening will go into the hill a bit more, as well as a bit of survey in the south. VE asked the group if that was OK?</p> <p>DR and NK said yes they'd like to see further testing.</p> <p>VE said the change at Six Mile Lane is probably in an area of low sensitivity - there is no PAD nearby. GM said the alignment changes within the corridor, so they are not taking any extra land. VE said that if the change is in the existing corridor then we've already tested it.</p> <p>GM said there was a slight change to the boundary on RTA-owned land - an extra 10 metres of land.</p> <p>VE asked the group if they would want to survey that little bit of land?</p> <p>NK asked if it's already been surveyed?</p> <p>JB said we're not sure.</p> <p>DR said to be sure we should survey it. NK agreed.</p>	
<p><b>Ancillary sites</b></p> <p>VE said that the first ancillary site is in Glenugie State Forest. That's in the Grafton-Ngerrie area. JB said to RD that they've recommended it for</p>	

<p>survey. RD asked where it is? JB showed him on a map.</p> <p>VE said section 3, site 2 is within the corridor and there are no PADS nearby so they have suggested no further survey is required.</p> <p>Section 3, site 3 is outside the road corridor and in Pillar valley, near Wooli Road. We recommend consulting about possible cultural significance and doing more survey.</p> <p>RD commented that they may need Garby Elders involved in that one too as that mountain is theirs.</p> <p>VE said section 3, site 4 is all within the road corridor and there is no PAD nearby so they recommend no further action.</p> <p>VE said section 3, site 5, south of the Tyndale PAD 1 is outside the corridor so they suggest further survey be done.</p> <p>Section 4, site 1 is within the road corridor, there is no associated PAD, so they suggest no further action.</p> <p>Section 4, site 2 is outside the road corridor, south of Maclean in sugar cane paddocks - it doesn't look like it would be very sensitive.</p> <p>DR asked if he could go have a look?</p> <p>JB said they could do that.</p> <p>VE said section 4, site 3 is north of PAD 15, so they recommend further survey.</p> <p>DR and NK agreed.</p> <p>VE said section 5, site 1 is outside the road corridor, near Farlows Lane. They recommend survey.</p> <p>JB said the next site is between Yamba Road and the highway at the interchange, and though it is within the corridor.</p> <p>JB said the next one is at Watts Lane, on cane paddocks, on private property. JB said we could go have a look anyway.</p> <p>DR asked about the new bridge over the Clarence?</p> <p>GM said existing bridge gets retained for local access. There'll be dual carriageway on the new bridge.</p> <p>JB said the next site is at Iluka Rd interchange on the western side, which is outside the corridor so they recommend further survey.</p> <p>GM asked when the extra survey was likely to take place?</p> <p>VE said quite a few were on RMS land so there shouldn't be access issues. Possibly some time in January, but she would need to check with KR.</p> <p>GM said when we go through the process of checking all sections for appropriate ancillary facilities, there may be more sites to survey. The</p>	
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<p>Alliance should get back to VE with those sites in early January 2012.</p> <p>VE said that if we get any new ancillary areas outside the corridor we will suggest survey is required. If it's inside the corridor, but near a PAD we'll also suggest survey.</p> <p>DR and NK agreed.</p>	
<p><b>Geotech</b></p> <p>GM mentioned that by 2014 we will have spent all our funding for the Pacific Highway upgrade. He said we don't know what more funding we'll get yet. We'll do geotech and detailed design now so that if governments make funding available we can act straight away. We're involved in acquisition of land much earlier than we normally would be. We're also doing detailed design in the Woolgoolga to Glenugie section. That requires much more detailed geotechnical investigations. We're running an Environmental Impact Study (EIS) in parallel. Normally we wouldn't do those together, so there are some risks to manage.</p> <p>BC said no investigations will be done in a PAD area. They did the design based on 'no constraints', but then they have to look at what they have to move because of sensitive areas.</p> <p>BC showed a presentation which showed some examples of why you need to do geotechnical investigations before you build a road. He explained that we investigate road cuttings, fill embankments and bridges. For bridges we must look at bridge abutments and bridge piers. He said we also find out about groundwater and materials.</p> <p>He explained that mapping is done by a person on foot or in a car. Surveyors are also out there. They put pegs in the ground and lop branches. Test pitting is done by backhoe or excavator. They dig a hole up to 4 metres deep and clear an area to get the backhoe in. They will also get an ecologist on site when putting in an access track, possibly an archaeologist if required. Soil goes in the same order as it came out.</p> <p>RMi clarified that these test sites are within the corridor and will not occur in PADs. PADs would be flagged off when work is happening nearby. RMi clarified that where possible we would use existing access tracks.</p> <p>BC explained that an excavator is required for shallow cuts. A drill rig is used for bore holes.</p> <p>A track mounted drill rig is likely to be used, as opposed to a truck mounted drill rig which is not likely to be used. For the drilling they take out a core of solid rock.</p> <p>DG said they'll need to drill over water at the Clarence River, with a drill rig on a barge. It will also be required at Serpentine Channel and Mororo.</p> <p>BC said when drill holes are finished they are filled with cement. Or if using the groundwater they'll put a cap over the pipe.</p> <p>DR asked if koalas etc are considered?</p> <p>RMi said yes, all environmentally sensitive areas are considered in the REF and avoided where possible.</p>	



<p>DG said for cone penetrometer testing (CPT) the rig is used on soft soil areas. Most of these tests will be in cane fields. The spike gets driven into the ground. He said the CPT rig is less likely to require an access track.</p> <p>DG said most access tracks will be in the canefields areas. Seismic survey will be used in cuttings. This involves setting off small explosions spaced at 3-5 metres. They can't be done too close to the road or houses etc.</p> <p>BC said it's important that we can narrow down PADs so that we can do this work as soon as possible.</p> <p>RM said we have 3 different contracts out for this work. We are looking to get in the field by late Feb/early March. So we need to know where they can and can't go. There'll be some places we can't go until project approval.</p> <p>GM said any refinements to PAD sites that allow access for geotech will be important to identify.</p> <p>JB asked if where there is a test site for a bridge, could we get someone out there to look at it (a site officer)?</p> <p>DG said there's only 3 PADs that they can't avoid, Tyndale interchange, Kratz's access bridge and one of the cuts north of Shark Creek.</p> <p>JB asked the group what they thought about overwater testing in the Clarence River and elsewhere?</p> <p>DR said skulls have been trawled up by trawlers and burial sites have been found on the banks of the river. So where they are is OK, but if you want to go anywhere else let us know.</p> <p>DR said if testing near bridges it would be fine at Harwood Bridge. DR said she's not sure about Serpentine Channel.</p> <p>JB said he thinks it's a constructed channel, but they can look at it.</p>	
<p><b>Next meeting</b></p> <p>GM thanked everyone for coming. He said the next meeting would be held in Jan/Feb some time.</p> <p>Meeting closed 4.00pm</p>	

## MEETING MINUTES



Transport  
Roads & Traffic  
Authority

<b>Name of meeting:</b>	Wells Crossing to Iluka Road Aboriginal Focus Group		
<b>Location of meeting:</b>	Grafton Community Centre		
<b>Meeting facilitator:</b>	Woolgoolga to Ballina Planning Alliance		
<b>Date:</b>	26 June 2012	<b>Time:</b>	11.30am
<b>Attendees:</b>	Rod Duroux, Grafton–Ngerrie LALC (RD) Brett Duroux, Grafton–Ngerrie LALC (BD) Wes Fernando, Grafton–Ngerrie LALC (WF) Vanessa Edmonds, Alliance Archaeologist (VE) Joseph Brooke, Alliance Archaeologist (JB) David Collard, Alliance Archaeologist (DC) Graham Purcell, RMS (GP) Simon Wilson, RMS (SW) Chris Clarke, RMS (CC)		
<b>Apologies:</b>	EJ Williams, Yarrawarra Aboriginal Corporation Noeline Kapeen, Yaegl LALC Eileen McLeay, Yaegl LALC Norma Collins, Birrigan Gargle LALC Ken Laurie, Birrigan Gargle LALC Lee Laurie, Birrigan Gargle LALC		

Item	Action
<p>JB presented site recommendations from the Woolgoolga to Wells Crossing section to representatives of Grafton–Ngerrie LALC whilst awaiting other attendees.</p> <p>RD expressed a preference for monitoring along the entire project corridor once vegetation was removed rather than sub-surface testing (SST). He cited an example of a site at Glenugie where SST had not detected the site, but monitoring had not been allowed despite artefacts being revealed during construction.</p> <p>JB and VE explained the benefits of SST in identifying sites during the planning phase of a project, rather than in the construction phase.</p> <p>WF asked how the recommendations for each site were formulated.</p>	

<p>VE stated that they were formulated through consultation with site officers in the field.</p> <p>GP elaborated upon events at Glenugie, where Grafton–Ngerrie LALC had been told by the cultural heritage adviser (Lindsey Smith) that they could monitor during the construction phase, but RMS subsequently refused to approve this activity.</p> <p>WF expressed dissatisfaction with the RMS Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI), particularly with regard to not allowing monitoring. He also stated that two week’s notice for AFGs was insufficient and that one month’s notice would be preferable.</p> <p>VE explained that SST can be conducted at any site that a community considers to be sensitive.</p> <p>CC explained the process of developing the current project alignment. Avoiding burials and a bora ring had been an important design consideration. The final choice of alignment would always entail compromise as some amount of impact was unavoidable.</p> <p>GP explained that the RMS PACHCI had been developed in accordance with the Office of Environment and Heritage (OEH) guidelines.</p> <p>VE stated that 99% of the project corridor had been surveyed.</p> <p>WF requested a copy of the survey report</p> <p>VE explained the Cultural Heritage Assessment (CHA) process and explained that the OEH Code of Practice guidelines state that shovel probes must be used.</p> <p>RD stated that the communities concerns were not being acknowledged.</p> <p>WF reiterated dissatisfaction with the short time-frames given to communities.</p> <p>CC answered that these timeframes are dictated at a high level and are impossible to alter.</p> <p>WF also raised concerns that the issues raised during consultation were often not acted upon.</p> <p>VE raised the possibility of inspection of sites early in the construction phase after the removal of vegetation. This was discussed by all.</p> <p>RD stated that the sieving of deposits would not be required during</p>	<p>VE/JB to provide Grafton –Ngerrie LALC with a copy of the WC-IR survey report.</p>
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<p>such inspections.</p> <p>GP stated that this activity might be feasible, but only within the boundaries of the three sites identified in the CHAR within the boundaries of Grafton-Ngerrie LALC.</p> <p>WF and RD stated that this was a good start to meeting their concerns.</p> <p>JB explained that reviews of the CHAR needed to be done with 28 days of receiving it and that any concerns with the recommendation made within should be raised during this time.</p> <p>JB explained that there were no sites identified within the Grafton – Ngerrie LALC boundaries in the Wells Crossing to Iluka Road section. The intangible Aboriginal Cultural Place termed the Pillar Valley Corridors of Movement would, however, be impacted upon.</p> <p>JB thanked Grafton-Ngerrie LALC for their input and for their outcome-focused approach to consultation.</p>	
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## **E.4 Comments and responses**

# PUBLIC

Woolgoolga to Ballina Pacific Highway Upgrade  
Aboriginal Heritage Assessment – Wells Crossing to Iluka Road  
Volume 2: Appendices

GRAFTON NGERRIE LOCAL



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Vanessa Edmonds  
SKM

Tuesday, 31 July 2012

**RE: Upgrading the Pacific Highway – Woolgoolga to Ballina Upgrade- Culture and Heritage Assessment Report (CHAR) Version 7**

To Vanessa,

I am writing in regard to the Aboriginal Cultural Heritage Assessment Report (CHAR) version 7 06/06/2012.

I have major concerns with the validity of statements made throughout the report, the following are my findings;

The Executive summary states the CHAR is to describe and assess the potential Aboriginal Culture and Heritage (C&H) Impacts.

Consultation: Community commenting on draft policies – there is no scope for Aboriginal people to have their comments and questions actioned and to be a-part of the negotiation and basis of these reports.

Throughout the CHAR the information/comments from key stakeholders at the consultations have been stated, although they have not been regarded in the same significance as an archaeological opinion, Aboriginal Site officers are experts in their field, they are the only people who can perform these duties, no university degree can teach what has been passed down for thousands of years, I am disheartened by SKM and RMS using policy to avoid their moral and ethical obligation to Aboriginal people.

I might also bring to your attention to the fact that Australia is a signatory to the United Nations Charter of Indigenous Rights in particular;

**(Article 11)**

1. Indigenous peoples have the right to practice and revitalize their cultural traditions and customs. This includes the right to maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites, artifacts, designs, ceremonies, technologies and visual and performing arts and literature.

2. States shall provide redress through effective mechanisms, which may include restitution, developed in conjunction with indigenous peoples, with respect to their cultural, intellectual, religious and spiritual property taken without their free, prior and informed consent or in violation of their laws, traditions and customs.

The CHAR has not achieved outcomes for the Aboriginal Community, consultation should be meaningful with desired outcomes for all parties, and it has simply achieved its purpose to liaise with the Aboriginal community or consult, with no outcomes, the end result being biased toward the proponent. This is a flawed consultation process.

# PUBLIC

## Assessment findings:

Four cultural places were identified and are "likely" to be impacted upon, this word is highly ambiguous, this report must reflect the communities comments, these culturally significant places "will" be impacted upon. It also must be noted that you have stated that "no indirect impacts to sites outside the project corridor are "likely", this is concluding that no sites will be impacted upon outside the project corridor, I find this statement hard to process as you cannot make an assumption that other sites outside the corridor will not be affected as these sites have not been identified or assessed.

SKM – have not given appropriate information regarding the options for C&H management, SKM have promoted removing the artefacts, rather than any other strategy available to the Aboriginal community.

### 1.2.2- Scope of assessment;

"Develop management recommendations in consultation with Aboriginal parties"

We have consulted and have been dictated to the terms of the RMS - Procedure for Aboriginal cultural heritage consultation and investigation - (PACHCI), we have provided comment with no outcome and no inclusion in the management recommendations.

### 1.2.3 – Study requirements;

Appropriate legislation listed does not contain the NSW Aboriginal Land Rights Act 1983 (ALRA 1983) nor do I see any reference to the United Nations Charter of Indigenous Rights (From which Australia is a signatory) as stated before RMS and SKM have a moral and ethical obligation to Aboriginal people when conducting consultation.

Table 1.1- it must be noted no cultural assessments have been undertaken outside the corridor, if any works outside the corridor are impacted Ngerrrie LALC will take appropriate measures for action.

### 1.3.3 – Previous cultural heritage assessment;

This assessment was completed with Lindsay Smith - Navin Officer, I recognise the letter provided although it was a verbal agreement with Lindsay Smith that a second assessment is to be completed due to the high vegetation in the area of Glenugie, it must be noted that it states 90% was assessed, this is misleading and an incorrect statement as it was not properly assessed, C&H at Glenugie was destroyed due to a verbal agreement not being kept.

Page 95-96 – This related to cultural heritage assessment – It is noted a letter of clearance from one of our Site Officers is in the report, this letter was requested from Lindsay Smith with a verbal agreement that we could assess the area a second time as the first assessment was not deemed to be sufficient due to the vegetation. This work was also over a 1 day period on 27.11.07, I do agree the letter is very broad but it is not reflective of the verbal agreement with Lindsay Smith, it would also be considered reckless on the RTA's (RMS) side to assume this is an approval for the entire project. (This has been used to destroy C&H values in the Glenugie area).

## 2 - Legislative context;

No mention of the ALRA 1983 However the Native Title Act 1994 is quoted. This is also evident throughout the document, 3.1 NSWALC is a stakeholder although their legislation does not warrant them to be in the legislative context.

## 3.2 RMS Consultation procedures;

"Aboriginal community had an opportunity to contribute to the assessment and have been empowered by this", this may be a feel good statement for RMS and SKM, but it is far from the truth of the outcomes of the consultation.



# PUBLIC

If SKM and RMS conducted a meaningful consultation process then yes we may have been empowered, instead we are disgusted by the amount of respect given to valuing Aboriginal people's comments and suggestions, as none of these comments have formed the basis for these reports.

We are disappointed in the lack of outcomes for the Aboriginal community as it is a merely tokenistic gesture for us to be invited to the AFG meetings as there have been no outcomes from a meaningful consultation.

Table 3.2 AFG;

It was promoted by SKM to remove objects rather than other mitigation strategies that were available.

3.3 -3.4 – AFG meetings;

Continually we have informed RMS & SKM of the severe lack of adequate time to call and organise a meeting, this has shown great disrespect and devaluing of the vital input needed from key stakeholders. A-lot of Stakeholders were unable to attend to ensure the consultation process was adequate. The consultation has not been adequate.

3.4.3 – Again letters sent to the Registrar of the ALRA 1983 but no inclusion in the legislative context.

3.4.3.1 – The Major concern was the issue that the RTA (RMS) had not consulted re: the PACHCI policy, and the issues of Aboriginal Staff developing these policies for all Aboriginal people in NSW is a culturally inappropriate practise, the PACHCI also provides no scope for a second assessment even when the first assessment could not be completed due to the overgrown vegetation.

It is enough for me to determine the consultation was a tokenistic gesture and the outcomes of the consultation has provided the RMS with exactly what is required of their own policy and that is to tick the box to say they have consulted with Aboriginal communities, whether it was meaningful or not means nothing in the PACHCI, as it has no scope for outcomes.

4.2 – Generalised comments about Aboriginal people in the area;

Has the RMS & SKM, obtained advice from local Aboriginal people to what you have described in your statements of Aboriginal occupation, Boundaries, social organisation, settlement patterns, material culture, resources, spiritual locations and culture, and a perspective on European and Aboriginal interaction. If you are to write about a Local Aboriginal people it would be advisable to seek their views in regards to information portrayed about their people, we are not all one group of people we have different customs and lore, to portray anything less than this would be disrespectful and an inaccurate account of the Local Aboriginal peoples within this area.

5.2 Methodology;

“Consider information from Elders and knowledge holders”

Consider is also an ambiguous statement, as to consider advice is not the same as actually acting upon advice. Comments and advice must be acted upon to ensure the process of this CHAR is a reflecting of a proper consultation process. (From which this CHAR clearly is not)

5.3 Aboriginal Cultural Knowledge;

To define this statement you must consider the Aboriginal perspective, that means consulting and obtaining advice and adding it in this section of the CHAR, it is something that could be contrast to your referencing of a book.



# PUBLIC

Yes a-lot of knowledge has been lost due to the colonisation of Australia, what you have failed to note is a-lot of knowledge has been retained for thousands of years and is still thriving in our communities today.

Table 5.2 Aboriginal stories;

I would hope these stories have been approved for release, if not you must not include them.

6.3

It is stated that 94% of the project was surveyed, although the other 6% is not considered to be of risk of cultural heritage sites and or places.

I am interested as to how that conclusion was made, if the 6% was existing roads it would need to be stated here, as it is unclear of what exactly the 6% relates to.

6.1 Site identification;

The updated sites were updated to not being a site, I am interested as to how this process happened as in the report it does not state how this decision was made to remove them as sites. (Who determined this?)

7.1.2 Aboriginal peoples views on significance;

These are also spiritual, the statement made " although most Aboriginal people also value scientific information a site may be able to provide" A statement like this cannot be made as you would need to speak with all Aboriginal people of NSW anything less is culturally inappropriate. This comment is a generalised comment about all Aboriginal people that might not be accurate.

8.3.2- Assessment;

Aboriginal spiritual sites do not dissipate, whether a building or prior developments including roads and logging, have occurred, this does not mean spiritual sites are not still present.

The statement "approximately 15% of the project corridor has been extensively impacted by previous earthmoving works and construction" cannot be made due to spiritual sites not yet assessed or identified, as I have stated these sites do not dissipate therefore these areas are subject to cultural assessment by Aboriginal site officers.

I do not recall any of the GNLALC Site officers that were "comfortable" with the mitigation strategies, as stated before it was promoted to our site officers to simply remove the object but no other options were explored thoroughly as it was in the best interest of SKM and RMS to have the sites removed. It must be noted this is a generalised statement and not a true indication of the consultation or lack of.

The report describes that Aboriginal people with the guidance of RMS – have sacrificed what is deemed to be less culturally significant to save what is deemed by RMS to be more significant. It is disheartening that from the first AFG all staff of various departments such as SKM, RMS have been told from the outset that all of Australia is significant to Aboriginal people whether it has been developed or not, it is noted in minutes but again obviously not acted upon, this is why the RMS, SKM and this CHAR has failed to deliver a true and accurate indication of Aboriginal peoples views and concerns relating to C&H within the Woolgoolga to Ballina upgrade.

9.1 Culture and Heritage induction;

This must be completed by Aboriginal people that are not working in RMS, SKM, OEH or any other Government organisation, this is simply good governance in any organisation.

9.4

An Aboriginal Site Officer must be contacted immediately, then present to detail any findings of unexpected artefacts or skeletal remains.

# PUBLIC

The issue will be how does the proponent ensure Employees know what they are looking at, it also raises the question as to their conflict of interest in obviously not wanting the project to stop, this raises huge issues as sites have been destroyed and overlooked in the name of State significant infrastructure.

As described 9.4, "Inductions must be completed by Aboriginal people that are not working in RMS, SKM, OEH or any other Government organisation, this is simply good governance in any organisation".

The PACHCI is devaluing Aboriginal people by not involving them in the processes, we have a lifetime obligation to protect our C&H and we are disappointed by RMS and SKM's sheer disregard for their moral and ethical obligations to the Aboriginal communities throughout this project.

I will also again quote the UN Charter of indigenous rights from which Australia is a signatory, I would expect you to have a read of this and become aware of what it entails especially if you are going to write a report that is in direct contravention of it.

This document needs a full overhaul "rewritten" before I can be confident in agreeing that it is a true reflection of the consultation process or lack of consultation as it were.

This letter must be attached to this report to ensure anyone reading it understands the flaws in the Cultural Heritage Assessment report (CHAR) undertaken by SKM and RMS.

If you require any more information I would be more than happy to discuss further.

Yours sincerely,



*Wesley Fernando*  
Chief Executive Officer

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# PUBLIC

**From:** Edmonds, Vanessa (SKM)  
**Sent:** Friday, 24 August 2012 1:05 PM  
**To:** Wesley Fernando  
**Cc:** Brooke, Joseph (SKM); Goldfarb, Amanda (SKM)  
**Subject:** Response to cemmments on CHAR W2B

Hi Wes,

The Planning Alliance would like to thank Grafton-Ngerrie LALC for their comments and feedback regarding the Cultural Heritage Assessment Report (CHAR) that was prepared for the Woolgoolga to Wells Crossing and Wells Crossing to Iluka Road sections of the Pacific Highway Upgrade.

The Alliance would like to address some of the comments received from Grafton-Ngerrie LALC on 1 August 2012 with changes we have made to the CHARs and in a few cases a request for clarification or further information. Your comments are in italics and the Alliance's response is below that.

- 1. 'Throughout the CHAR the information/comments from key stakeholders at the consultations have been stated, although they have not been regarded in the same significance as an archaeological opinion, Aboriginal Site officers are experts in their field, they are the only people who can perform these duties, no university degree can teach what has been passed down for thousands of years'*

The Alliance acknowledges and respects that Grafton-Ngerrie LALC site officers are experts in their field and agree that no degree could teach this. Archaeological significance and Aboriginal cultural significance have been given equal weighting in the significance assessment within the CHAR, is there any specific comments or part of the CHAR that you are referring to where you feel site officer's knowledge has been disregarded?
- 2. 'SKM and RMS have used policy to avoid their moral and ethical obligation to Aboriginal people'*

The Alliance (including SKM and RMS) is working within a regulatory framework that limits what we can do, or recommend in our assessment, and feel we have acted in a moral manner, and in accordance with the ethical codes of our practice.
- 3. 'Four cultural places were identified and are "likely" to be impacted upon, this word is highly ambiguous, this report must reflect the communities comments, these culturally significant places "will" be impacted upon'*

This has been amended in the CHAR from 'likely' to 'will'.
- 4. 'It also must be noted that you have stated that " no indirect impacts to sites outside the project corridor are "likely", this is concluding that no sites will be impacted upon outside the project corridor, I find this statement hard to process as you cannot make an assumption that other sites outside the corridor will not be affected as these sites have not been identified or assessed'*

This has been amended in the CHAR to "no indirect impacts will occur to known sites/places".
- 5. 'SKM have not given appropriate information regarding the options for C&H management, SKM have promoted removing the artefacts, rather than any other strategy available to the Aboriginal community. "Develop management recommendations in consultation with Aboriginal parties" We have consulted and have been dictated to the terms of the RMS - Procedure for Aboriginal cultural heritage consultation and investigation - (PACHCI), we have provided comment with no outcome and no inclusion in the management recommendations'*

The recommendations in the CHAR have been amended to include inspections of identified sites following clearing (as per discussions at the last AFG). An additional mitigation that is posed in the CHAR is 'In acknowledgement of local Aboriginal people's connection to and millennia of continued use of the land and its natural resources, registered Aboriginal stakeholders should be provided with the reasonable opportunity to have access to some of

the natural resources within the boundary of the project to maintain and develop their cultural traditions. This could include a selection of trees, or other plants. These trees or other resources should be identified in pre-construction prior to vegetation clearance.' If there are any additional mitigation strategies that you would like considered, please let us know ASAP, as the CHARs are in the process of being finalised in the next few days.

6. *'1.3.3 – Previous cultural heritage assessment; This assessment was completed with Lindsay Smith - Navin Officer, I recognise the letter provided although it was a verbal agreement with Lindsay Smith that a second assessment is to be completed due to the high vegetation in the area of Glenugie, it must be noted that it states 90% was assessed, this is misleading and an incorrect statement as it was not properly assessed, C&H at Glenugie was destroyed due to a verbal agreement not being kept. Page 95-96 – This related to cultural heritage assessment – It is noted a letter of clearance from one of our Site Officers is in the report, this letter was requested from Lindsay Smith with a verbal agreement that we could assess the area a second time as the first assessment was not deemed to be sufficient due to the vegetation. This work was also over a 1 day period on 27.11.07, I do agree the letter is very broad but it is not reflective of the verbal agreement with Lindsay Smith, it would also be considered reckless on the RTA's (RMS) side to assume this is an approval for the entire project. (This has been used to destroy C&H values in the Glenugie area).'*

The current project team are not responsible for the Glenugie project, nor any power in the mitigation implemented there. RMS have previously noted your complaints in regards to the Glenugie project.

7. *'Appropriate legislation listed does not contain the NSW Aboriginal Land Rights Act 1983 (ALRA 1983) nor do I see any reference to the United Nations Charter of Indigenous Rights (From which Australia is a signatory).'*

These have been added to the legislative context (Section 2).

8. *'Table 1.1- it must be noted no cultural assessments have been undertaken outside the corridor, if any works outside the corridor are impacted Ngerrie LALC will take appropriate measures for action.'*

The CHAR has been amended to include 'Any impact proposed beyond the boundary of the project as assessed in this report must be subject to assessment and consultation consistent with the process in this report.' to Section 9.2.

9. *'"Aboriginal community had an opportunity to contribute to the assessment and have been empowered by this", this may be a feel good statement for RMS and SKM, but it is far from the truth of the outcomes of the consultation. None of Aboriginal comments and suggestions have been included or form the basis of this report'*

See response to comment 5, additionally, this statement has been amended in the CHAR to remove 'and have been empowered by this'

10. *'Continually we have informed RMS & SKM of the severe lack of adequate time to call and organise a meeting, this has shown great disrespect and devaluing of the vital input needed from key stakeholders. A lot of Stakeholders were unable to attend to ensure the consultation process was adequate. The consultation has not been adequate'*

As discussed at the last AFG meeting, the Alliance apologises for the lack of notice, as much notice as possible has been given, but project timelines have meant that the requested 4 weeks notice has not been possible. Are there any specific stakeholders who you believe should have been involved that weren't?

11. *'4.2 – Generalised comments about Aboriginal people in the area'*

The CHAR has been amended in several parts to reduce generalisations, as well as the following statement, 'It should be noted that Indigenous communities across Australia are extremely diverse, and generally defy generalisation. The above descriptions are common



conceptions of Aboriginal cultural landscapes and values, however, a large range of beliefs and practices are evident across Australia and uniformity should not be assumed.'

12. *'Has the RMS & SKM, obtained advice from local Aboriginal people to what you have described in your statements of Aboriginal occupation, Boundaries, social organisation, settlement patterns, material culture, resources, spiritual locations and culture, and a perspective on European and Aboriginal interaction. If you are to write about a Local Aboriginal people it would be advisable to seek their views in regards to information portrayed about their people, we are not all one group of people we have different customs and lore, to portray anything less than this would be disrespectful and an inaccurate account of the Local Aboriginal peoples within this area.'*

The Alliance has developed on the previous consultation undertaken by South East Archaeology and Navin Officer in regards to local Aboriginal culture in the region, the statements have been developed partially from reference books and previous discussions with local Aboriginal people, but also include information from local Aboriginal people through the consultation for the project. The Alliance recognises that this is not always evident in the CHAR and further references to those who offered the information have been included.
13. *'5.2 Methodology; "Consider information from Elders and knowledge holders" Consider is also an ambiguous statement, as to consider advice is not the same as actually acting upon advice. Comments and advice must be acted upon to ensure the process of this CHAR is a reflecting of a proper consultation process. (From which this CHAR clearly is not)'*

See response to comment 5. Additionally, comments and advice from Elders and knowledge holders have been acted upon where possible, however, unfortunately comments cannot always be acted upon, due to other conflicting restrictions (be they regulatory, or other constraints such as environmental, economic or social issues). Are there any specific comments or advice you feel have been overlooked in the CHAR?
14. *'5.3 Aboriginal Cultural Knowledge; To define this statement you must consider the Aboriginal perspective, that means consulting and obtaining advice and adding it in this section of the CHAR, it is something that could be contrast to your referencing of a book. Yes a-lot of knowledge has been lost due to the colonisation of Australia, what you have failed to note is a-lot of knowledge has been retained for thousands of years and is still thriving in our communities today.'*

See response to comment 11.
15. *'Table 5.2 Aboriginal stories; I would hope these stories have been approved for release, if not you must not include them.'*

Only approved stories have been included in the CHAR, and only stories approved for public circulation have been included in the public version – the version you received was the confidential version which will only be circulated within RMS, reviewed by OEH and assessed by the Department of Planning and Infrastructure.
16. *'6.3 It is stated that 94% of the project was surveyed, although the other 6% is not considered to be of risk of cultural heritage sites and or places. I am interested as to how that conclusion was made, if the 6% was existing roads it would need to be stated here, as it is unclear of what exactly the 6% relates to.'*

The CHAR has been amended to include that this 6% is, as you say, predominantly existing roads and primarily the current Pacific Highway. Additionally, the following statement has been added: 'It should be noted however, that Aboriginal stakeholders consulted felt that despite previous impacts, these areas still retained cultural and potentially unidentified spiritual significance' to section 6.3.
17. *'6.1 Site identification; The updated sites were updated to not being a site, I am interested as to how this process happened as in the report it does not state how this decision was made to remove them as sites. (Who determined this?)'*

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This was determined due to no presence of Aboriginal heritage material identified during sub-surface testing. This was agreed by the relevant site officers in the field.

18. *'7.1.2 Aboriginal peoples views on significance; These are also spiritual, the statement made " although most Aboriginal people also value scientific information a site may be able to provide" A statement like this cannot be made as you would need to speak with all Aboriginal people of NSW anything less is culturally inappropriate. This comment is a generalised comment about all Aboriginal people that might not be accurate.'*

The CHAR has been amended to say 'some Aboriginal people' not 'most' in section 7.1.2.

19. *'The statement "approximately 15% of the project corridor has been extensively impacted by previous earthmoving works and construction" cannot be made due to spiritual sites not yet assessed or identified, as these sites do not dissipate therefore these areas are subject to cultural assessment by Aboriginal site officers.'*

The CHAR has been amended to say 'It should be noted however, that Aboriginal stakeholders consulted felt that despite previous impacts, these areas still retained cultural and potentially unidentified spiritual significance' in section 8.3.2

20. *'I do not recall any of the GNLALC Site officers that were "comfortable" with the mitigation strategies'*

Any mention of GNLALC agreeing or being comfortable with recommendations have been removed.

21. *'9.1 Culture and Heritage induction; This must be completed by Aboriginal people that are not working in RMS, SKM, OEH or any other Government organisation, this is simply good governance in any organisation.'*

Regrettably, the Alliance is constrained in this instance by the RMS PACHCI, and cannot require that this be undertaken externally nor require that local Aboriginal people undertake this. However, the CHAR has been amended to put in the recommendation in regard to cultural heritage awareness training saying: "Where possible, this should be undertaken externally, and the possibility of the registered a local Aboriginal stakeholders organisation providing this service should be explored."

22. *'9.4 An Aboriginal Site Officer must be contacted immediately, then present to detail any findings of unexpected artefacts or skeletal remains.'*

The CHAR has been amended to include recommendation: 'any non-complying impact to Aboriginal heritage sites should be reported to the registered Aboriginal stakeholders, and resolved jointly between RMS and the registered Aboriginal stakeholders'.

I hope my comments above have gone at least some way to addressing your comments on these CHARs. If you would like further information or would like to discuss these CHARs further, please feel free to contact me. If you would like any further inclusions to the CHARs, please let us know ASAP, as the CHARs are in the process of being finalised in the next few days.

Kind regards,

Vanessa Edmonds  
Lead Archaeologist-W2B Alliance

Practice Leader  
Cultural Heritage Assessments  
Full Member Australian Association of Consulting Archaeologists Inc  
BA (Australian Prehistory), M. Litt (Archaeology and Palaeoanthropology)

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Woolgoolga to Ballina Pacific Highway Upgrade  
Aboriginal Heritage Assessment – Wells Crossing to Iluka Road  
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YAEGL LOCAL ABORIGINAL LAND COUNCIL  
P.O. Box 216  
MACLEAN NSW 2463  
PH: 02 6645 3676  
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Vanessa Edmonds  
Lead Archaeologist  
SKM

27 August 2012

Dear Vanessa,

In response to the draft CHARs for Woolgoolga to Ballina – specifically the Wells Crossing to Iluka Road to Woodburn sections.

We acknowledge that site officers have participated in the fieldwork for the assessments of Wells Crossing to Iluka and Iluka Road to Woodburn and recommendations provided in Section 9 of both CHARs.

Yours Truly,



Robert McLeay  
Acting Chief Executive Officer  
27 AUGUST 2012



## **E.5 Statement of findings**

## Woolgoolga to Ballina Planning Alliance

*A team consisting of RTA, SKM and Aurecon*

### Memo

To	<b>Chris Gorman</b>	Project No	<b>EN02829.721</b>
From	<b>Joseph Brooke</b>	Date	<b>14 October 2011</b>
Copy	<b>Vanessa Edmonds</b> <b>Graham Purcell</b> <b>Rowena Mitchell</b>		
Subject	<b>October 2011 Aboriginal heritage survey results</b>		

#### 1. Introduction

This memo summarises the results of the field survey undertaken on 4 – 7 October 2011.

#### 2. Aims

The survey was undertaken to fill gaps in previous survey coverage within the project corridor where there was potential for Aboriginal objects to occur. These gaps were due to previous access issues or project corridor modifications, and occurred on the boundary of the Iluka Road to Woodburn and Woodburn to Ballina sections, the Wells Crossing to Iluka Road section and the Woolgoolga to Wells Crossing section.

#### 3. Personnel

Survey was undertaken by Andrew Costello (Alliance Senior Archaeologist), Erica Weston (Alliance Graduate Archaeologist), Joseph Brooke (Alliance Archaeologist), and Site Officers representing the relevant Aboriginal stakeholder groups. Site Officers who took part in survey are included in Table 1.

■ **Table 1: Survey dates and Aboriginal site officers present.**

Date	Aboriginal Site Officers
4/10/2011	Marcus Fergusson (Jali LALC) Dean Bolt (Jali LALC) Daryl Knight (Bogal LALC) Shane McLeay (Yaegl LALC) Dale Mercy (Yaegl LALC) Lee Laurie (Yaegl LALC) Malcolm Brown (Birrigan-Gargle LALC) Kurtis Laurie (Birrigan-Gargle LALC) Fox Laurie (Birrigan-Gargle LALC)

30 July 2010

Date	Aboriginal Site Officers
5/10/2011	Shane McLeay (Yaegl LALC) Dale Mercy (Yaegl LALC) Lee Laurie (Yaegl LALC) Malcolm Brown (Birrigan-Gargle LALC) Kurtis Laurie (Birrigan-Gargle LALC)
6/10/2011	Shane McLeay (Yaegl LALC) Dale Mercy (Yaegl LALC) Lee Laurie (Yaegl LALC) Malcolm Brown (Birrigan-Gargle LALC) Kurtis Laurie (Birrigan-Gargle LALC)
7/10/2011	Milton Duroux (Yarrawarra Aboriginal Corporation) Anthony Dootson (Yarrawarra Aboriginal Corporation) Wes Fernando (Grafton-Ngerrie LALC) Rodney Duroux (Grafton-Ngerrie LALC) Mark Fergusson (Garlambirla Guuyu-girrwaa Corporation) Mark Flanders (Coffs Harbour LALC)

## 4. Methodology

The methodology for the survey followed a standard approach:

- Survey areas were defined on the basis of landholder information; a survey area was constituted by a block of land with unique property information in a previously unsurveyed area within the project corridor.
- Survey teams walked over survey areas spaced approximately 5 m – 10 m apart.
- Particular attention was given to areas where ground surface visibility was possible or where the sub-surface was exposed.
- PADs were identified through a combination of desktop landform analysis and onsite landform and geomorphological analysis, in conjunction with Aboriginal sites officers.
- Where a block of land was not physically traversable, specifically un-harvested cane paddocks, an assessment of the survey area was made for Aboriginal heritage potential. All such areas were determined to have no Aboriginal heritage potential.
- Ground surface visibility and any sub-surface exposures were noted for each survey area, along with other observations of the area, such as vegetation type, previous modification/disturbance, landform and land-use.
- The locations of all Aboriginal sites and areas of PAD were recorded using a differential Global Positioning System (GPS) unit.

## 5. Results

One Aboriginal heritage site was identified, Sherwood North, which comprises an isolated artefact found mid-lower slope on a track, and a PAD component further up-slope on the upper slopes and crest of a spur (Figures 1 and 2). The artefact is thought to have been washed or graded from further up-slope. Recommendations for this PAD were to manually test off the track, and mechanically scrape back overburden on sides of the track to see if additional material exists there. The location of the site is shown in Figure 3.

30 July 2010



■ **Figure 1: Location of Sherwood North (artefact); PAD is in rear of shot. Scale interval is 20cm.**



■ **Figure 2: Artefact at Sherwood North; scale bar is 20 cm.**

Additionally, PAD 14 and Tuckombil Canal PAD, which were previously identified from property boundaries, were decided by Aboriginal Site Officers and Archaeologists that they were no longer PADs.

Also, Parkers Road Scarred Tree was inspected with representatives of the relevant registered Aboriginal stakeholders. It was the opinion of these representatives, who are traditional

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## Woolgoolga to Ballina Planning Alliance

A team consisting of RMS, Aurecon and SKM



Transport  
Roads & Maritime  
Services



## Memo

To	<b>Yaegl Local Aboriginal Land Council</b> <b>Birrigan-Gargle Local Aboriginal Land Council</b> <b>Grafton-Ngerrie Local Aboriginal Land Council</b> <b>Yarrowarra Aboriginal Corporation (including Garby Elders)</b>	Project	<b>EN02829</b>
		No	
From	<b>Vanessa Edmonds</b>	Date	<b>29/02/2012</b>
Copy	<b>W2B Project Team</b>		
Subject	<b>Woolgoolga to Ballina Planning Alliance – Cultural heritage sub-surface testing, statement of findings – Wells Crossing to Iluka Road</b>		

### 1. Introduction

This memo reports on the findings of the cultural heritage sub-surface test excavations of the between Wells Crossing and Iluka Road, undertaken as part of the Woolgoolga to Ballina Pacific Highway Upgrade. The work has been undertaken by the Woolgoolga to Ballina Alliance on behalf of Roads and Maritime Services NSW.

### 2. Sub-surface Testing

#### 2.1. Aim

The aim of the investigation was to undertake archaeological sub-surface testing in areas of potential archaeological deposits (PAD) within the project corridor between Wells Crossing and Iluka Road.

The sub-surface testing aimed:

- To undertake sub-surface testing in/around sites with PAD, to determine the depth, extent and significance of the site.
- To undertake sub-surface testing in areas of PAD to determine the presence of Aboriginal objects, and if present the depth, extent and significance of any those objects.
- To undertake sub-surface testing in a small sample of areas predicted not to contain archaeological deposits (also called control areas) to ensure that we are targeting the right areas.
- To consult with Aboriginal stakeholders in regards to this work and the sites being tested.

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- Preliminary management recommendations and Aboriginal significance were discussed informally in the field; however, recommendations will be discussed more formally at post excavation Aboriginal Focus Group (AFG) meeting.

## 2.2. Timing and personnel

Sub-surface testing within the Wells Crossing to Iluka Road section was undertaken between 25 October and 18 December 2011 (Week 1 to Week 8, excluding weeks 5,6, 7 and 9).

- **Table 1 Timing and Personnel involved in sub-surface testing.**

Week Number	SKM Supervisors	SKM Personnel	Archaeology Sub-consultants	Aboriginal Stakeholders
Week 1 (25 October – 30 October 2011)	Joseph Brooke	Robyn Jenkins Simon Crocker Erica Weston	Tristan Minter	Yaegl LALC Ferlin (Lee) Laurie Shane McLeay Dale Mercy Birrigan Gargle LALC Malcolm Brown Kurtis Laurie
Week 2 (31 October – 6 November 2011)	Joseph Brooke	Erica Weston Robyn Jenkins	Simon Cox Laura Bates Morgan Wilcox Tristan Minter	Yaegl LALC Ferlin (Lee) Laurie Shane McLeay Dale Mercy Birrigan Gargle LALC Malcolm Brown Kurtis Laurie
Week 3 (7 November – 13 November 2011)	Matthew Schlitz	Erica Weston	Morgan Wilcox Tristan Minter	Yaegl LALC Ferlin (Lee) Laurie Shane McLeay Dale Mercy Petunia Kapeen Birrigan Gargle LALC Malcolm Brown Kurtis Laurie
Week 4 (14 November – 20 November 2011)	Robyn Jenkins	Erica Weston	Clair Harris Christian Thurmer Tom Hoyle Tristan Minter	Yaegl LALC Ferlin (Lee) Laurie Shane McLeay Dale Mercy Birrigan Gargle LALC Malcolm Brown Kurtis Laurie



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Week Number	SKM Supervisors	SKM Personnel	Archaeology Sub-consultants	Aboriginal Stakeholders
Week 8 (12 December – 18 December 2011)	Vanessa Edmonds	Erica Weston	Tom Hoyle Morgan Wilcox Laura Bates Simon Cox	Yaegl LALC Ferlin (Lee) Laurie Shane McLeay Dale Mercy Birrigan Gargle LALC Malcolm Brown Kurtis Laurie

### 2.3. Methodology

Sub-surface test excavation was undertaken at all the PADs identified in Table 2, as well as a small sample of areas predicted not to contain archaeological deposits (also called control areas).

- Table 2: PADs and sites located within Wells Crossing to Iluka Road section of project corridor following completion of survey.

Name (AHIMS ID)	Site Type(s)	Description
WX2I PAD 8	PAD	PAD - Located to the northeast of the intersection of Avenue Road and Wants Lane, on a relatively flat area of elevated ground northeast of dilapidated cattle yards. The potential for subsurface archaeological material was considered high.
WX2I PAD 7	PAD	PAD - Located at the east end of Tallwood Road and northeast of Tallwood Lane, on a spur and to the south of a tributary of Coldstream River. The PAD measures approximately 50 m x 25 m and is on a small spur located between two tributaries of the Coldstream River. The potential for subsurface archaeological material was considered high.
WX2I PAD 6	PAD	PAD - Located at the east end of Tallwood Lane and measures approximately 75 m x 30 m on a slightly sloping area on the lower slopes of a small spur. The spur faces towards a tributary of the Coldstream River. The PAD was considered to have a high potential for subsurface archaeological material.
WX2I PAD 5	PAD	PAD - Located northeast of Tallwood Lane and measures approximately 75 m x 30 m on the lower slopes of a small spur which faces a swampy area and the Coldstream River. The potential for subsurface archaeological material was considered high.
WX2I PAD 4	PAD	PAD - Located east of Tucabia Road and measures approximately 50 m x 25 m. Located on the mid slopes of a small spur which faces a swampy area and the Coldstream River to the west. The potential for subsurface archaeological material was considered high.

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Name (AHIMS ID)	Site Type(s)	Description
Tyndale 1	Site - Isolated artefact and PAD	Quartzite core artefact and PAD located on slopes and crest of rise overlooking floodplain of Clarence River.
Tyndale 2 PAD	PAD	Well defined silty sand palaeo-terrace overlooking swampy floodplain of Clarence River.
Shark Creek PAD 4	PAD	Upper slopes and crest of sandstone ridge spur, overlooking Shark Creek.
PAD 14	PAD	Top of ridgeline, overlooking floodplain of the Clarence River.
Shark Creek PAD 3	PAD	Upper slopes and crest of sandstone ridge and spur above floodplain of Clarence River.
Shark Creek PAD 1	PAD	Flat crest of gradually sloping ridge spur overlooking floodplain of Clarence River.
Hirst 1 -PAD17	Site - Isolated artefact and PAD	A ground edge axe made of basalt, with some use wear/polish. Recorded on the surface of the middle slopes of a ridge spur overlooking the swampy floodplain of the Clarence River.
Hirst 2 - PAD16	PAD	Foot slopes at the edge of expansive swamp on Clarence River floodplain.
PAD 15	PAD	Foot slopes at the edge of expansive swamp on Clarence River floodplain.

Sub-surface test excavations took place at all sites and PADs identified across the projected corridor between Wells Crossing and Ihuka Road (excluding Shark Creek PAD 3). Excavation occurred subject to the conditions outlined in the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010*. This included:

- Excavating only within the project corridor
- Excavating a series of 0.5 m x 0.5 m test-pits by hand tools (eg trowel and shovel)
- Spacing test-pits 10 m - 20 m apart in transects or parallel transects to create a grid
- Excavating in a controlled manner, with the first test-pit for each test-area being dug in 50 mm spits (depth units). Subsequent test-pits in that test-area were then excavated in 50 mm - 100 mm spits (depending on soil layers identified)
- Sieving excavated sediment using ~5 mm aperture wire-mesh sieves
- Excavating below archaeological deposits and into sterile soils
- Excavating no more than 0.5 per cent of the test area (site with PAD, PAD, or control area), unless the site is less than 50 m<sup>2</sup>
- Drawing stratigraphic profiles on site, and taking scaled photos of every test-pit
- Finishing test-excavation in a test-area when enough information has been recovered to adequately characterise the objects present with regard to their nature and significance
- Backfilling all completed test-pits

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All Aboriginal objects, features and other non-cultural inclusions were recorded according to their excavation unit. Records were kept of the objects provenance and cultural material of excavated soil in relation to the estimated volume of soil removed. Changes in the deposit, stratigraphy and any unusual features were recorded by the use of context sheets related to photographic records. Stratigraphic profiles of representative test pits were drawn for all PADs/sites. Descriptions of sediment colours were achieved through reference to a Munsell Soil Colour Chart and pH values were determined through a colorimetric test. All test pits were back-filled following completion of excavation and recording. Sub-surface testing only ceased when enough information had been recovered to adequately characterise the objects present with regard to their nature and significance.

The analysis of all Aboriginal objects was undertaken in the field. All artefacts retrieved during sub-surface testing were bagged and labelled with appropriate contextual information and reburied on site.

The methodology was initially restricted to following the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales 2010* until the Director-General Requirements were issued on 23 November 2011. This included:

- Excavating only within the project corridor
- Excavating a series of 0.5 m x 0.5 m test-pits by hand tools and in a controlled manner
- Excavating below archaeological deposits and into sterile soils
- Excavating no more than 0.5 per cent of the test-area (site with PAD, PAD, or control area), unless the site is less than 50 m<sup>2</sup>
- All analysis of Aboriginal objects that were uncovered during test excavation were analysed in the field.

#### 2.4. Constraints

The primary constraint was related to the restriction of the excavation methodology prior to the DGRs being issued.

General constraints included wet weather, which caused the cancellation of some fieldwork days and property access permissions which postponed the access to some properties.

#### 2.5. Results

The sub-surface testing undertaken during the field investigation resulted in the definition of 12 cultural heritage sites, including artefact scatters (three sites), isolated artefacts (four) and areas of PAD (five sites). These are described in Table 3 below.

### 3. Mitigation of impacts

Impacts to the sites in Table 3 are not likely to be avoided by the Pacific Highway Upgrade. One of the purposes of this statement of findings is to seek input from registered Aboriginal

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stakeholders in regards to impact mitigation measures. This will help RMS to develop recommendations on the management of these Aboriginal cultural heritage sites within the project corridor.

To facilitate your input, basic draft recommendations are included in Table 3 for your comment. These recommendations have been developed based on the following general approach:

- For sites where there are 5 or less stone artefacts recorded, collection of the recorded artefacts is recommended to be undertaken prior to construction of the upgrade.

Deviations from this approach may be the inclusion of excavation salvage where specific concentrations of artefacts have been recorded within the site, particularly if they occur in less disturbed contexts.

Yours sincerely,

**Vanessa Edmonds**

*Principal Archaeologist (Alliance)*

Vanessa: 03 9248 3544, 0429 114 188; or Joseph: 03 9248 3348, 0439 772 275

Fax: 03 9248 3400

E-mail: [VEdmonds@globalokm.com](mailto:VEdmonds@globalokm.com)

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■ **Table 3 Summarised results of cultural heritage sites (Wells Crossing to Iluka Road) following sub-surface testing**

Name / AHIMS ID	Landscape Description	Site type(s)	Results of sub-surface testing	Total number of artefacts	Recommendations
WX21 PAD 8 (09-4-0108)	Located to the northeast of the intersection of Avenue Road and Wants Lane, on a relatively flat area of elevated ground northeast of dilapidated cattle yards. The potential for subsurface archaeological material was considered high.	PAD	26 test pit excavations (.5 m x .5 m) No cultural material found	0	No further action recommended. No cultural heritage site within project corridor. Avoid PAD outside corridor.
WX21 PAD 7 (09-4-0107)	Located at the east end of Tallwood Road and northeast of Tallwood Lane, on a spur and to the south of a tributary of Coldstream River. The PAD measures approximately 50 m x 25 m and is on a small spur located between two tributaries of the Coldstream River. The potential for subsurface archaeological material was considered high.	Site – Artefact scatter	24 test pit excavations (.5 m x .5 m) 2 stone artefacts (chert)	2	Update AHIMS record. Recommended to collect prior to construction. Further consultation with LALC to develop management recommendations for this site.
WX21 PAD 6 (09-4-0106)	Located at the east end of Tallwood Lane and measures approximately 75 m x 30 m on a slightly sloping area on the lower slopes of a small spur. The spur faces towards a tributary of the Coldstream River. The PAD was considered to have a high potential for subsurface archaeological material.	Site – Isolated artefact	27 test pit excavations (.5 m x .5 m) 1 stone artefact (crystal quartz)	1	Update AHIMS record. Recommended to collect prior to construction. Further consultation with LALC to develop management recommendations for this site.

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Name / AHIMS ID	Landscape Description	Site type(s)	Results of sub-surface testing	Total number of artefacts	Recommendations
Tyndale 1 (09-4-0099)	Quartzite core artefact and PAD located on slopes and crest of rise overlooking floodplain of Clarence River.	Site – Isolated artefact	30 test pit excavations (.5 m x .5 m) 1 stone artefact (river cobble)	2	Update AHIMS record. Recommended to collect prior to construction. Further consultation with LALC to develop management recommendations for this site.
Tyndale 2 PAD (13-4-0177)	Well defined silty sand palaeo-terrace overlooking swampy floodplain of Clarence River. Excavations undertaken on cleared land within modern sugar cane crop.	Site – Artefact scatter	17 test pit excavations (.5 m x .5 m) 4 stone artefacts (chalcedony and silcrete)	4	Update AHIMS record. Recommended to <b>salvage</b> prior to construction. Further consultation with LALC to develop management recommendations for this site.
Shark Creek PAD 4 (13-4-0172)	Upper slopes and crest of sandstone ridge spur, overlooking Shark Creek.	PAD	26 test pit excavations (.5 m x .5 m) No cultural material found	0	No further investigation required. No cultural heritage site within project corridor. Avoid PAD outside project corridor.
PAD 14	Upper slopes and crest of sandstone ridge and spur above floodplain of Clarence River.	PAD	19 test pit excavations (.5 m x .5 m) No cultural material found	0	No further investigation required. No cultural heritage site within project corridor.
Shark Creek PAD 1 (13-4-0173)	Flat crest of gradually sloping ridge spur overlooking floodplain of Clarence River.	PAD	38 test pit excavations (.5 m x .5 m) No cultural material found	0	No further investigation required. No cultural heritage site within project corridor.

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Name / AHIMS ID	Landscape Description	Site type(s)	Results of sub-surface testing	Total number of artefacts	Recommendations
Shark Creek PAD 2 (13-4-0170)	Flat lower slopes of spur above swampy floodplain of Clarence River.	Site – Artefact scatter	27 test pit excavations (.5 m x .5 m) 3 stone artefacts (chalcedony and silcrete)	3	Update AHIMS record. Recommended to salvage prior to construction. Further consultation with LALC to develop management recommendations for this site.
Hirst 2 / PAD 16 (13-1-0185)	Unmodified river pebble interpreted as a manuport, located on the edge of a low ridge spur overlooking the swampy floodplain of the Clarence River.	Site- Isolated artefact	44 test pit excavations (.5 m x .5 m) 1 isolated stone artefact (chert) defined by radials.	2	Update AHIMS record. Recommended to collect prior to construction. Further consultation with LALC to develop management recommendations for this site.
Hirst 1 / PAD 17 (09-1-0206)	A ground edge axe made of basalt, with some use wear/polish. Recorded on the surface of the middle slopes of a ridge spur overlooking the swampy floodplain of the Clarence River.	Site- Isolated artefact	38 test pit excavations (.5 m x .5 m) 1 stone artefact (river cobble).	2	Update AHIMS record. Recommended to collect prior to construction. Further consultation with LALC to develop management recommendations for this site.
Shark Creek PAD 3 (13-4-0171)	Upper slopes and crest of sandstone ridge and spur above floodplain of Clarence River.	PAD	23 test pit excavations (.5 m x .5 m) No cultural material found	0	No further investigation required. No cultural heritage site within project corridor. .
PAD 15 (04-4-0130)	Foot slopes at the edge of expansive swamp on Clarence River floodplain.	PAD	8 test pit excavations (.5 m x .5 m) No cultural material found	0	No further investigation required. No cultural heritage site within project corridor. .



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## **Appendix F Ancillary works assessment matrix**

Table 5 Summary of ancillary works areas

Project section	Chainage and location	Ancillary site number	Proposed use (ha)	Approx. Site Area (ha)	Approx area outside road corridor (ha)	Approx area inside road corridor (ha)	Site within ancillary area?	Cultural place within ancillary area?	Site within 25 m?	Cultural place within 25 m?	Land system	Landform (from predictive model)	PAS (L, M, H)	Investigation recommended? (Survey, sub-surface testing, management recommendations)
2	16700 - 17550 LHS	1a	Main site compound (1ha), batch plant (0.5ha), workshop (0.5ha)	6.25	3.25	3.00	-	-	-	-	Coastal Range	Broad alluvial valley flats.	M	Survey
2	17200 - 17500 RHS	1b	Site compound (1ha), batch plant (0.5ha), workshop (0.5ha)	4.42	4.42	0.00	-	-	-	-	Coastal Range	Broad alluvial valley flats.	M	Survey
2	17550 - 18150 LHS	1c	Stockpile site	2.84	0.00	2.84	-	-	-	-	Coastal Range	Broad alluvial valley flats.	M	No further investigation
2	19100 - 19850 RHS	2	Satellite site compound and stockpile site	1.91	0.60	1.31	-	-	-	-	Coastal Range	Broad alluvial valley flats.	M	Survey
2	20400 - 20610 LHS	3		0.86	0.80	0.06	-	-	-	-	Coastal Range	Broad alluvial valley flats.	M	Survey
2	21750 to 22250	4	Satellite compound and stockpile site	2.67	1.34	1.33	-	Corindi Beach Corridors of Movement	-	-	Coastal Range	Broad alluvial valley flats.	M	Survey
2	23600 - 23800 LHS	5a		3.04	3.04	0.00	AHIMS Site WWC139	-	WWC139/A	-	Coastal Range	Broad alluvial valley flats.	M	Survey and sub-surface testing
2	23600 - 24050 LHS	5b (3 areas)	Stockpile site	1.60	0.00	1.60	-	WWC139/A	Pacific Highway Scarred Tree	-	Coastal Range	Broad alluvial valley flats.	M	No further investigation
2	25750 to 25950	6	Stockpile site	0.46	0.00	0.46	-	-	-	-	Coastal Range	Broad alluvial valley flats.	M	No further investigation
3	34350 to 34550	1	Site compound (1ha), batch plant (0.5ha), workshop (0.5ha)	2.23	0.00	2.23	-	-	-	-	Glenugie Creek Catchment	Low spur lines separated by tributary streamlines	L-M	No further investigation

# PUBLIC

Project section	Chainage and location	Ancillary site number	Proposed use (ha)	Approx. Site Area (ha)	Approx area outside road corridor (ha)	Approx area inside road corridor (ha)	Site within ancillary area?	Cultural place within ancillary area?	Site within 25 m?	Cultural place within 25 m?	Land system	Landform (from predictive model)	PAS (L, M, H)	Investigation recommended? (Survey, sub-surface testing, management recommendations)
3	39620 to 40350	2	Site compound (1ha), batch plant (0.5ha), workshop (0.5ha)	9.25	9.25	0.00	-	-	-	-	Glenugie Creek Catchment	Low spur lines separated by tributary streamlines	L-M	Survey
3	41150 to 41500 RHS	3a	Site compound (1ha), batch plant (0.5ha), workshop (0.5ha)	3.37	0.00	3.37	-	-	-	-	Clarence River Valley	Coastal hills (consisting of low hills, steep peaks, escarpments and well-defined ridgelines and gullies)	H	No further investigation
3	41150 to 41500 LHS	3b	Main site compound, stockpile site (1ha), batch plant (0.5ha), workshop (0.5ha)	10.18	9.16	1.02	-	-	-	-	Clarence River Valley	Coastal hills (low hills)	H	Survey
3	45600 to 46000	4	Materials processing and stockpile site (1ha), batch plant (0.5ha), workshop (0.5ha)	10.07	9.07	1.00	-	Pillar Valley Corridors of Movement	-	-	Clarence River Valley	Coastal hills (low hills)	H	Survey
3	49500 to 49600	5	Site compound and stock pile site	1.74	1.31	0.44	-	-	-	-	Clarence River Valley	Coastal hills (low hills)	H	Survey
3	51400 - 51500 RHS	6a	Stockpile site	1.21	1.00	0.21	-	-	-	-	Clarence River Valley	Coastal hills (low hills)	H	Survey
3	52000 RHS	6b	Materials processing and stockpile site	0.81	0.71	0.10	-	-	-	-	Clarence River Valley	Coastal hills (low hills)	H	Survey
3	55600 - 56050 RHS	7a	Site compound (1ha), batch plant (0.5ha), workshop	2.64	0.00	2.64	-	-	-	-	Clarence River Valley	Coastal hills (low hills)	H	No further investigation

# PUBLIC

Project section	Chainage and location	Ancillary site number	Proposed use (ha)	Approx. Site Area (ha)	Approx area outside road corridor (ha)	Approx area inside road corridor (ha)	Site within ancillary area?	Cultural place within ancillary area?	Site within 25 m?	Cultural place within 25 m?	Land system	Landform (from predictive model)	PAS (L, M, H)	Investigation recommended? (Survey, sub-surface testing, management recommendations)
			(0.5ha)											
3	56150 to 56400 RHS	7b	Stockpile site	2.46	2.46	0.00	-	-	-	-	Clarence River Valley	Coastal hills (spur)	H	Survey
3	61150 - 61500 RHS	8	Stockpile site	3.61	3.61	0.00	-	-	-	-	Clarence River Valley	Coastal hills (low hill / flat)	H	Survey
3	62100 to 62370	9	Site compound (1ha), batch plant (0.5ha), workshop (0.5ha)	6.39	6.39	0.00	-	Pillar Valley Corridors of Movement	-	-	Clarence River Valley	Floodplain / rise	L-M	Survey
3	67300 to 67450	10	Site compound (1ha), batch plant (0.5ha), workshop (0.5ha) and 'structures lay down' area (0.5ha)	3.44	2.58	0.86	-	-	-	-	Clarence River Valley	Floodplain / rise	L-M	Survey
4	69400 - 69970 LHS	1	Main site compound (1ha), batch plant (0.5ha), workshop (0.5ha)	9.13	9.13	0.00	-	Tyndale and Woodford Island Corridors of Movement	-	-	Clarence River Valley	Floodplain / rise	L-M	Survey
4	73520 - 74100 RHS	2	Site compound (1ha), batch plant (0.5ha), workshop (0.5ha) and 'structures lay down' area (0.5ha)	3.99	2.00	2.00	-	-	-	-	Clarence River Valley	Floodplain	L-M	Survey
4	75600 - 75850 LHS	3	Site compound (1ha), batch plant(0.5ha), workshop	3.73	0.73	3.00	-	-	-	-	Clarence River Valley	Floodplain / Coastal hills (spur)	L-M	Survey

# PUBLIC

Project section	Chainage and location	Ancillary site number	Proposed use (ha)	Approx. Site Area (ha)	Approx area outside road corridor (ha)	Approx area inside road corridor (ha)	Site within ancillary area?	Cultural place within ancillary area?	Site within 25 m?	Cultural place within 25 m?	Land system	Landform (from predictive model)	PAS (L, M, H)	Investigation recommended? (Survey, sub-surface testing, management recommendations)
			(0.5ha)											
4	76800 - 177100 RHS	4a	Site compound (1ha), batch plant (0.5ha), workshop (0.5ha)	6.01	5.71	0.30	-	-	-	-	Clarence River Valley	Coastal hills	M	Survey
4	77100 RHS	4b	Stockpile site	0.99	0.90	0.09	Shark Creek PAD 2 (within corridor)	-	-	-	Clarence River Valley	Floodplain	L-M	Survey and sub-surface testing
4	77150 to 77250 LHS	4c	Stockpile site	2.17	1.97	0.20	Shark Creek PAD 2 (within corridor)	-	-	-	Clarence River Valley	Floodplain	L-M	Survey and sub-surface testing
4	78220 to 78450	5	Site compound (1ha), batch plant(0.5ha), workshop (0.5ha)	2.66	2.00	0.66	-	-	-	-	Clarence River Valley	Floodplain	L-M	Survey
4	79550 to 80000 LHS	6	Site compound (1ha), batch plant (0.5ha), workshop and stockpiles	8.13	7.33	0.80	-	-	-	-	Clarence River Valley	Floodplain / river bank	L-M	Survey
4	80650 - 81200 RHS	7a	Batch plant (0.5ha), workshop (0.5ha) and 'structures lay down' area (0.5ha)	3.65	3.00	0.65	-	-	-	-	Clarence River Valley	Floodplain	L-M	Survey
4	80650 - 80850 RHS	7b	Stockpile site	0.89	0.00	0.89	-	-	-	-	Clarence River Valley	Floodplain	L-M	No further investigation
5	83400 - 83600 LHS	1	Site compound (1ha), batch plant (0.5ha), workshop	1.18	0.35	0.83	-	-	-	-	Clarence River Valley	Floodplain	L-M	Survey

# PUBLIC

Project section	Chainage and location	Ancillary site number	Proposed use (ha)	Approx. Site Area (ha)	Approx area outside road corridor (ha)	Approx area inside road corridor (ha)	Site within ancillary area?	Cultural place within ancillary area?	Site within 25 m?	Cultural place within 25 m?	Land system	Landform (from predictive model)	PAS (L, M, H)	Investigation recommended? (Survey, sub-surface testing, management recommendations)
			(0.5ha)											
5	85950 to 86100 LHS	2a	Stockpile area	1.07	0.00	1.07	-	-	-	-	Clarence River Valley	Floodplain	L-M	No further investigation
5	85900 to 86200 LHS	2b	Site compound (1ha) and stockpile area	2.54	0.00	2.54	-	-	-	-	Clarence River Valley	Floodplain	L-M	No further investigation
5	86000 RHS	2c	Stockpile area	0.11	0.00	0.11	-	-	-	-	Clarence River Valley	Floodplain	L-M	No further investigation
5	86050 - 86350	2d	Bridge site compound and 'structures lay down' area	1.42	0.00	1.42	-	-	-	-	Clarence River Valley	Floodplain	L-M	No further investigation
5	86900 - 87320	3a	Bridge site compound and 'structures lay down' area	2.63	0.00	2.63	-	-	-	-	Clarence River Valley	Floodplain	L-M	No further investigation
5	87300 - 87850 RHS	3b	Main site compound (1ha), batch plant(0.5ha), workshop (0.5ha) and 'structures lay down' area	9.99	7.49	2.50	-	-	-	-	Clarence River Valley	Floodplain	L-M	Survey
5	90980 - 91000 LHS	4a	Stockpile sites	2.10	0.00	2.10	-	-	-	-	Clarence River Valley	Floodplain	L-M	No further investigation
5	90750 and 90950	4b (5 areas)	Stockpile sites	1.63	0.00	1.63	-	-	-	-	Clarence River Valley	Floodplain	L-M	No further investigation
5	93400 - 93550 RHS	5a	Site compound (1ha), batch plant (0.5ha)	2.43	0.00	2.43	-	-	-	-	Clarence River Valley	Floodplain	L-M	No further investigation

# PUBLIC

Project section	Chainage and location	Ancillary site number	Proposed use (ha)	Approx. Site Area (ha)	Approx area outside road corridor (ha)	Approx area inside road corridor (ha)	Site within ancillary area?	Cultural place within ancillary area?	Site within 25 m?	Cultural place within 25 m?	Land system	Landform (from predictive model)	PAS (L, M, H)	Investigation recommended? (Survey, sub-surface testing, management recommendations)
5	93300 LHS	5b	Site compound (1ha), batch plant (0.5ha)	1.09	0.00	1.09	-	-	-	-	Clarence River Valley	Floodplain	L-M	No further investigation
5	93400 - 93600 LHS	5c (2 areas)	Site compound (1ha), batch plant (0.5ha)	1.30	0.00	1.30	-	-	-	-	Clarence River Valley	Floodplain	L-M	No further investigation
5	95650 to 96100 LHS	6	Site compound (1ha), batch plant (0.5ha), workshop (0.5ha)	4.84	3.84	1.00	-	-	-	-	Clarence River Valley	Floodplain	L-M	Survey



## **Appendix G Predictive model maps**

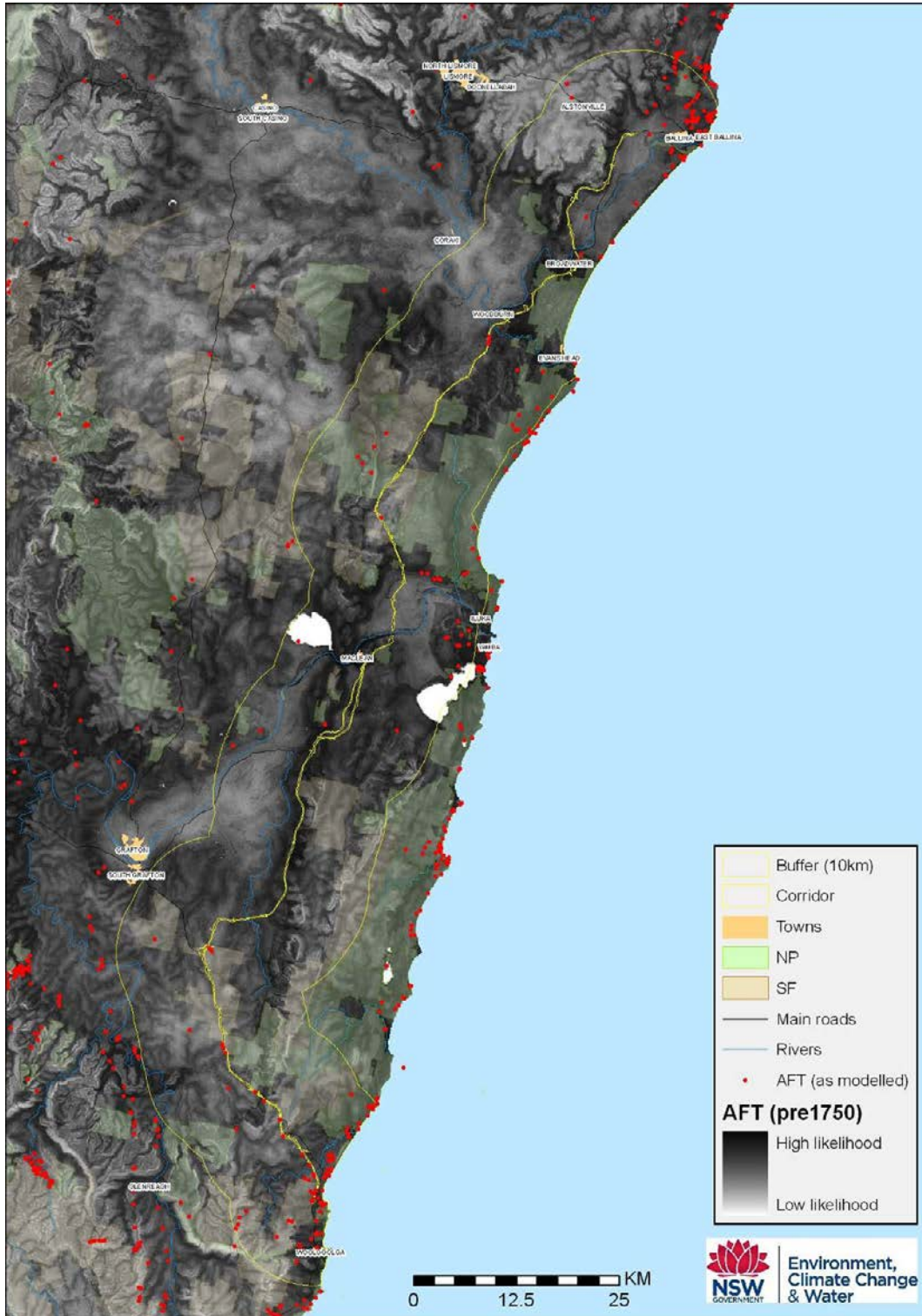


Figure 1 Pre-1750 predicted likelihood of artefact scatters

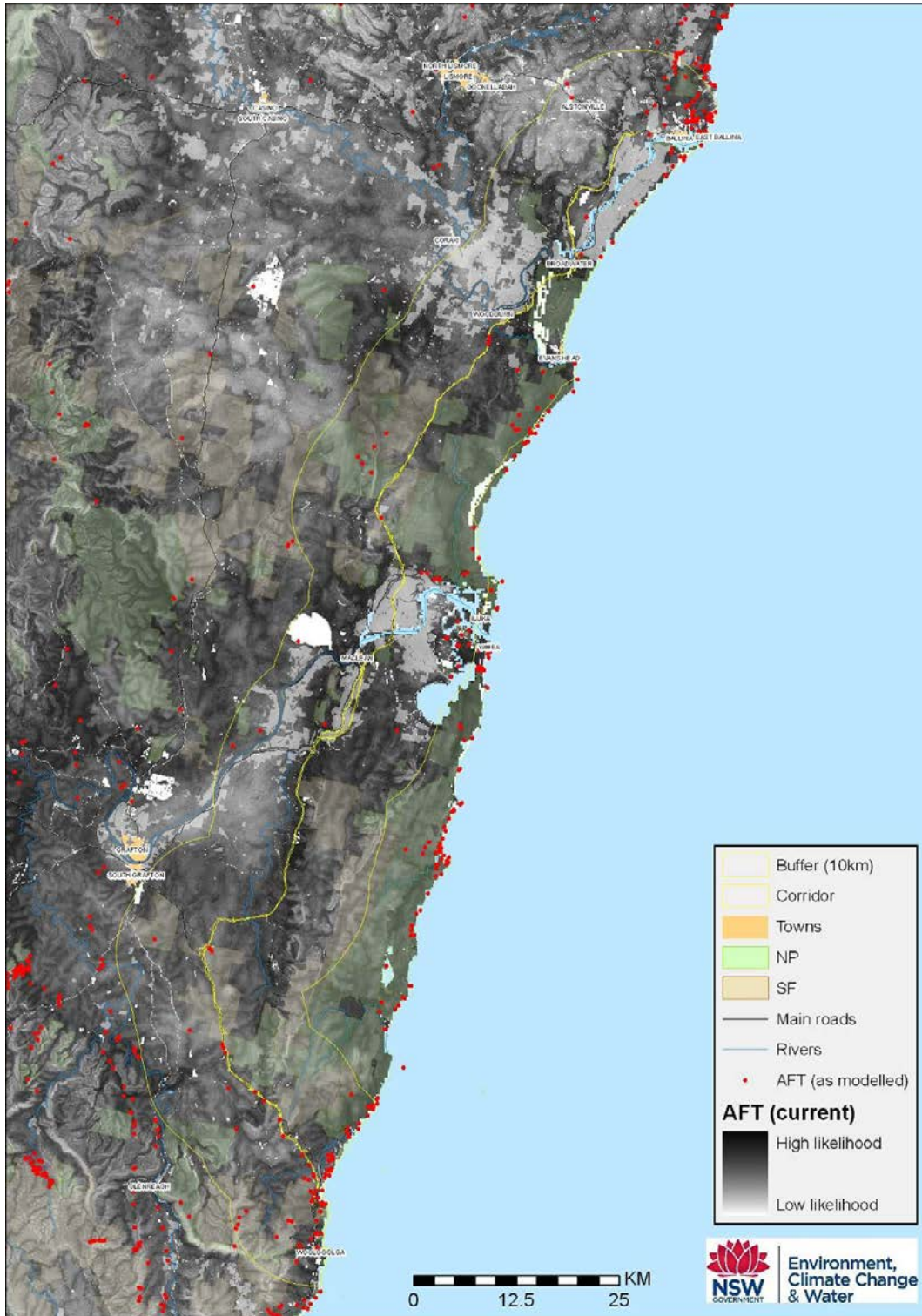


Figure 2 Current predicted likelihood of artefact scatters



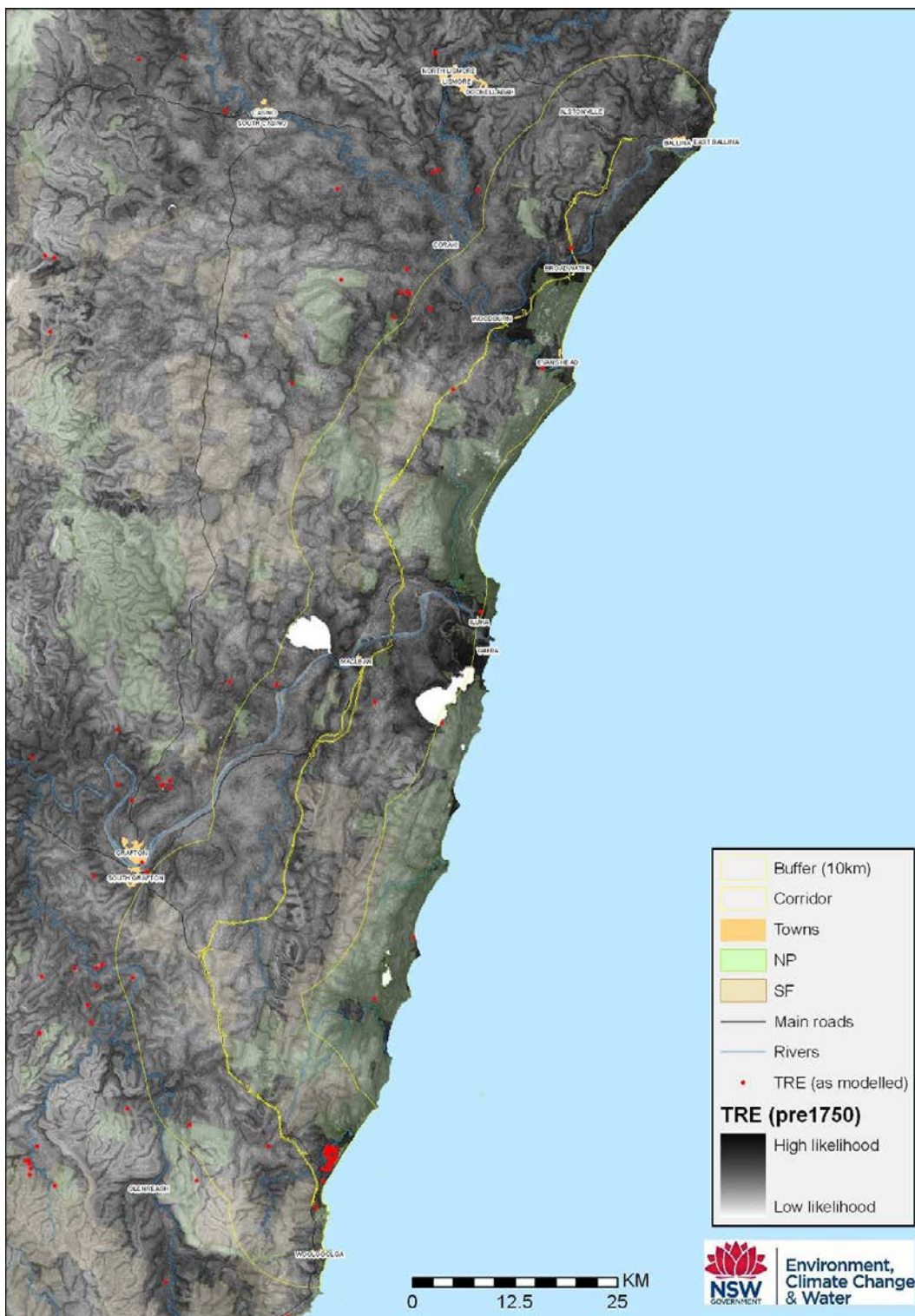


Figure 3 Pre-1750 predicted likelihood of scarred trees

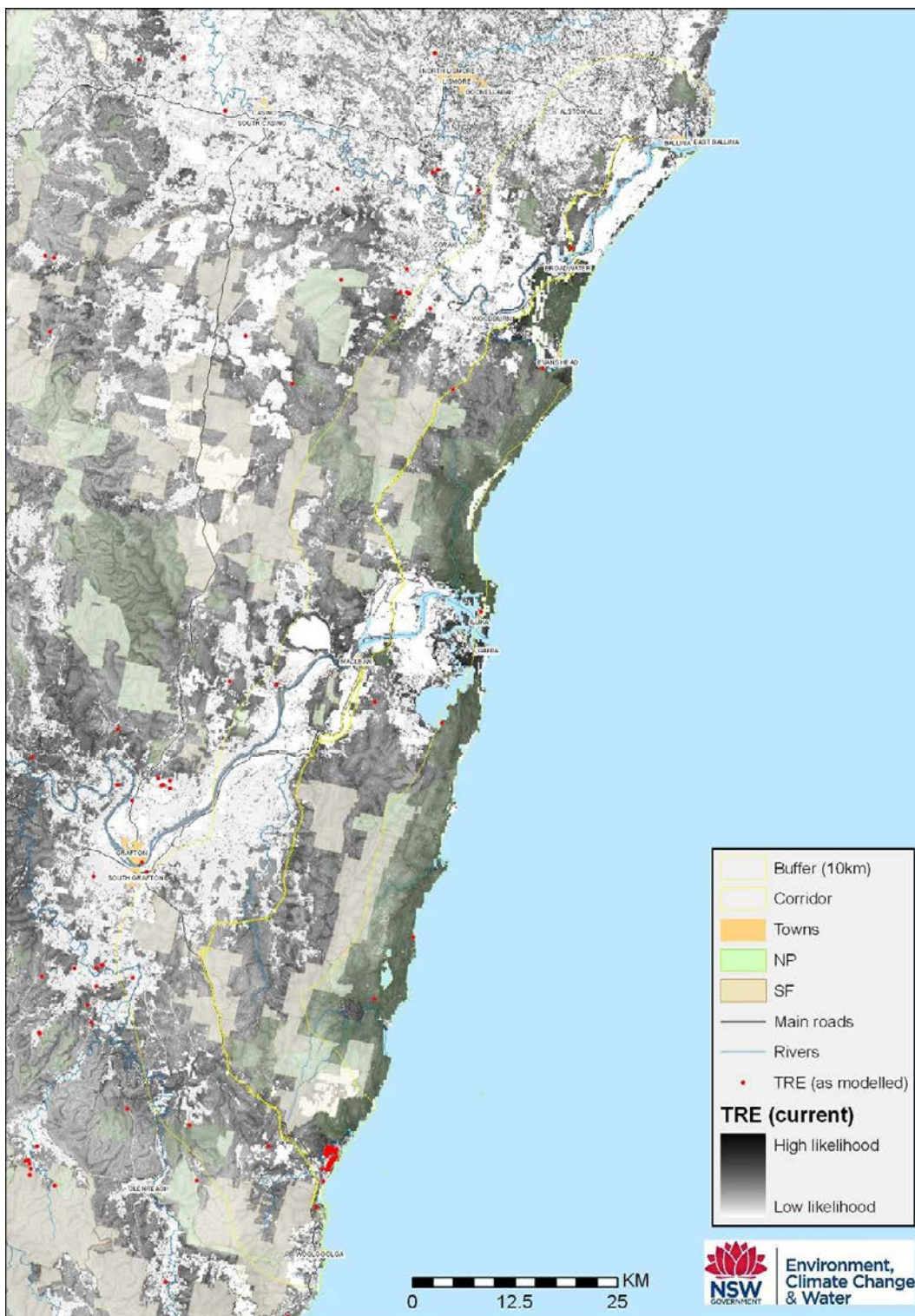


Figure 4 Current predicted likelihood of scarred trees



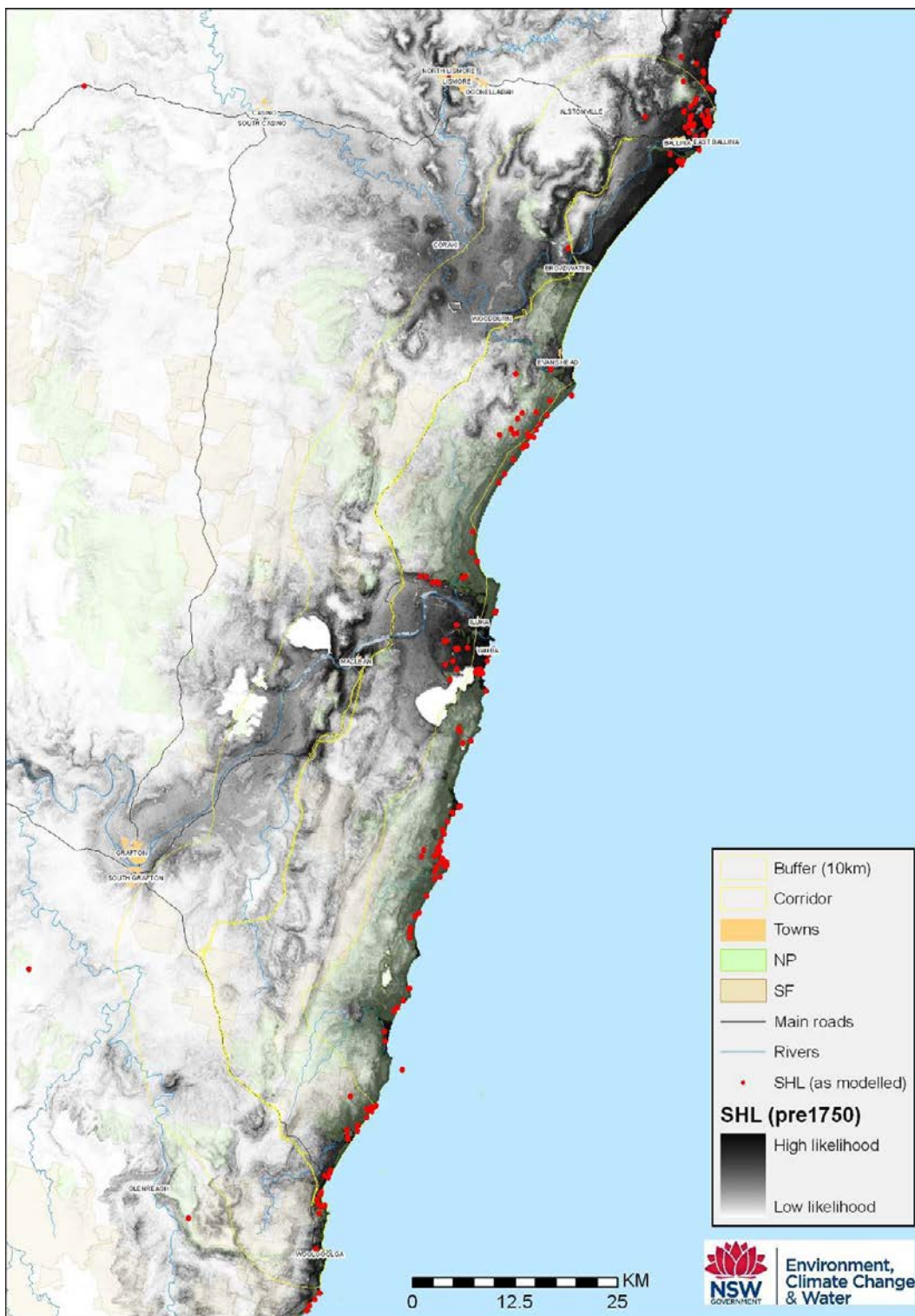


Figure 5 Pre-1750 predicted likelihood of shell middens

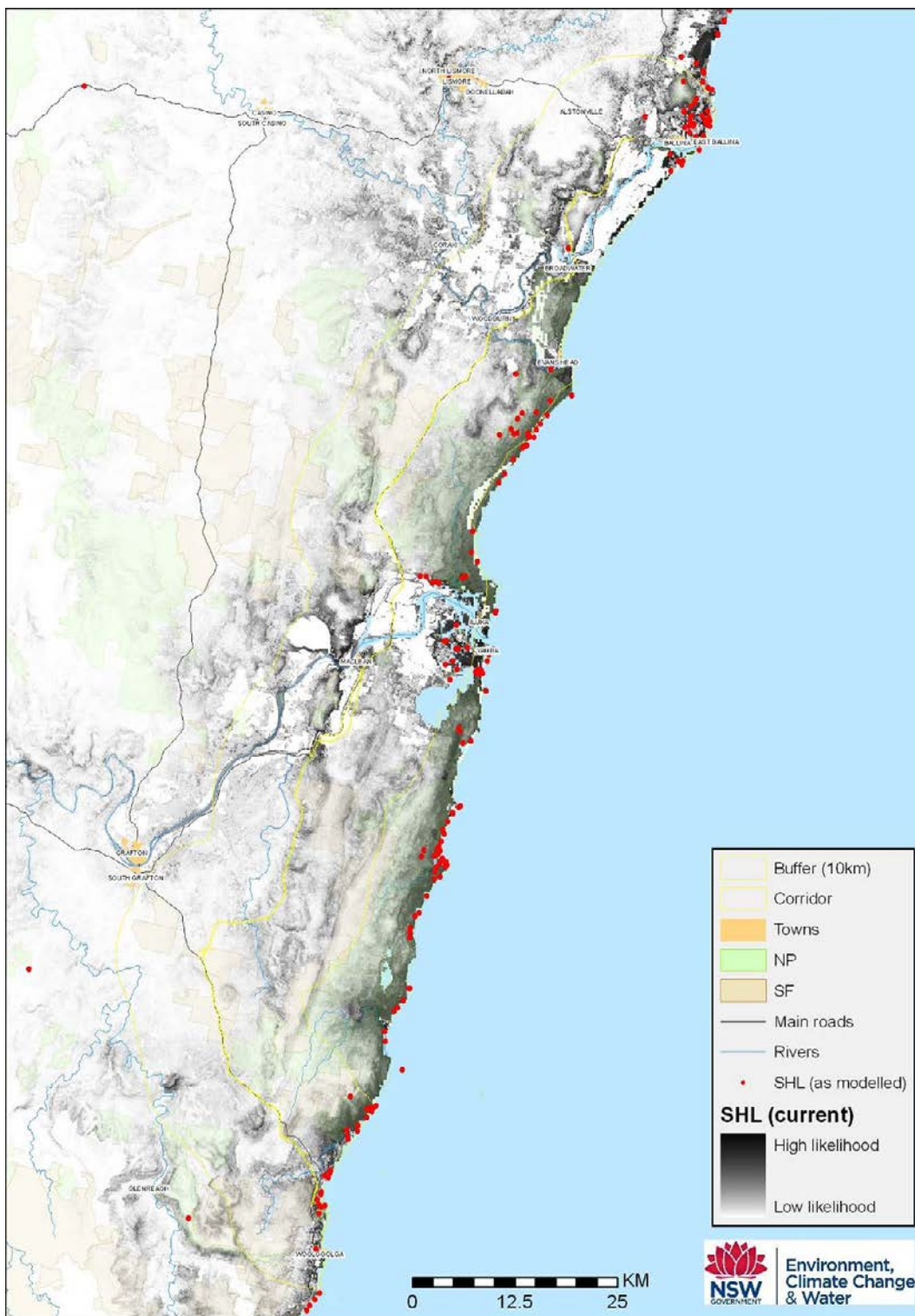


Figure 6 Current predicted likelihood of shell middens



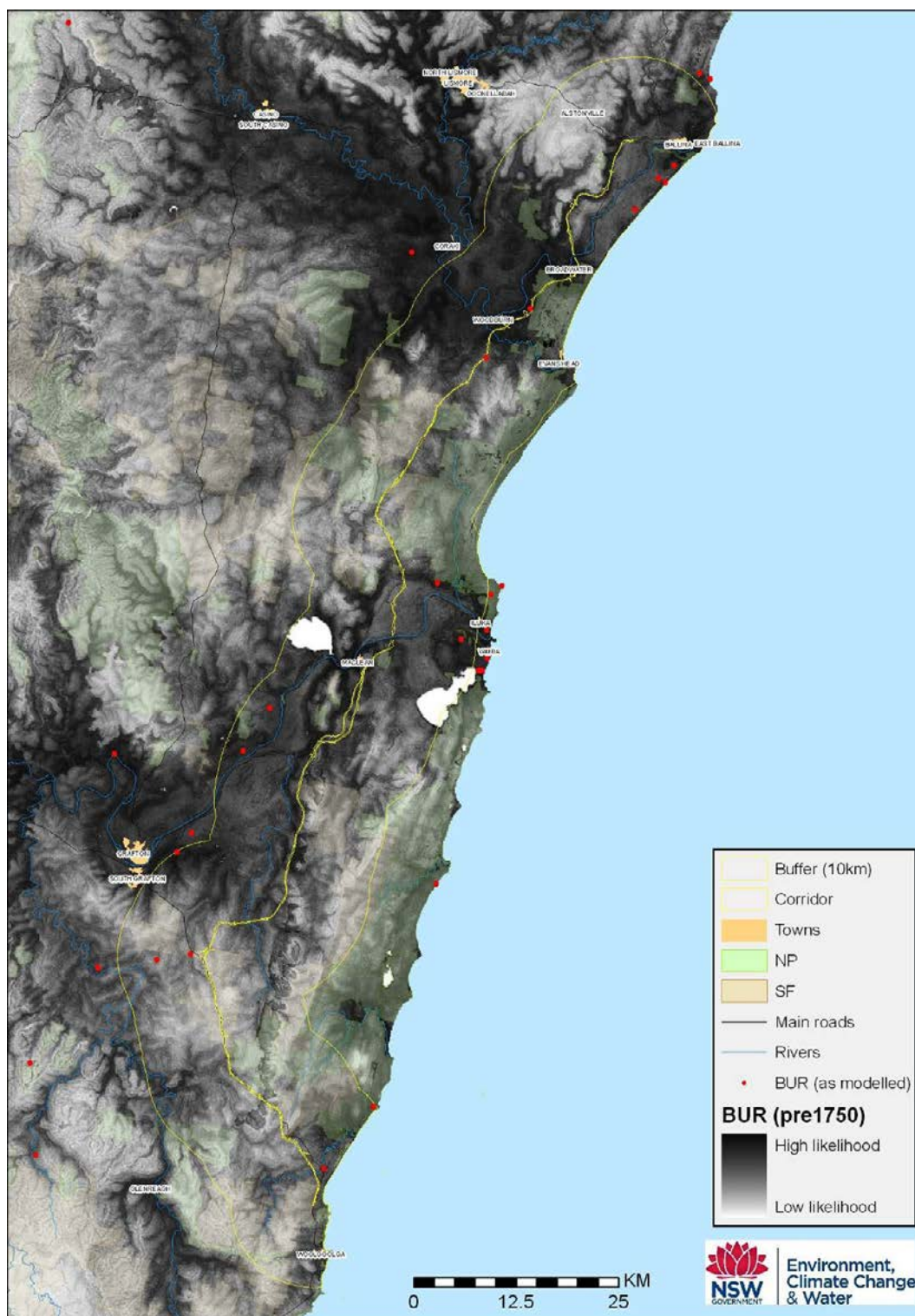


Figure 7 Pre-1750 predicted likelihood of burials

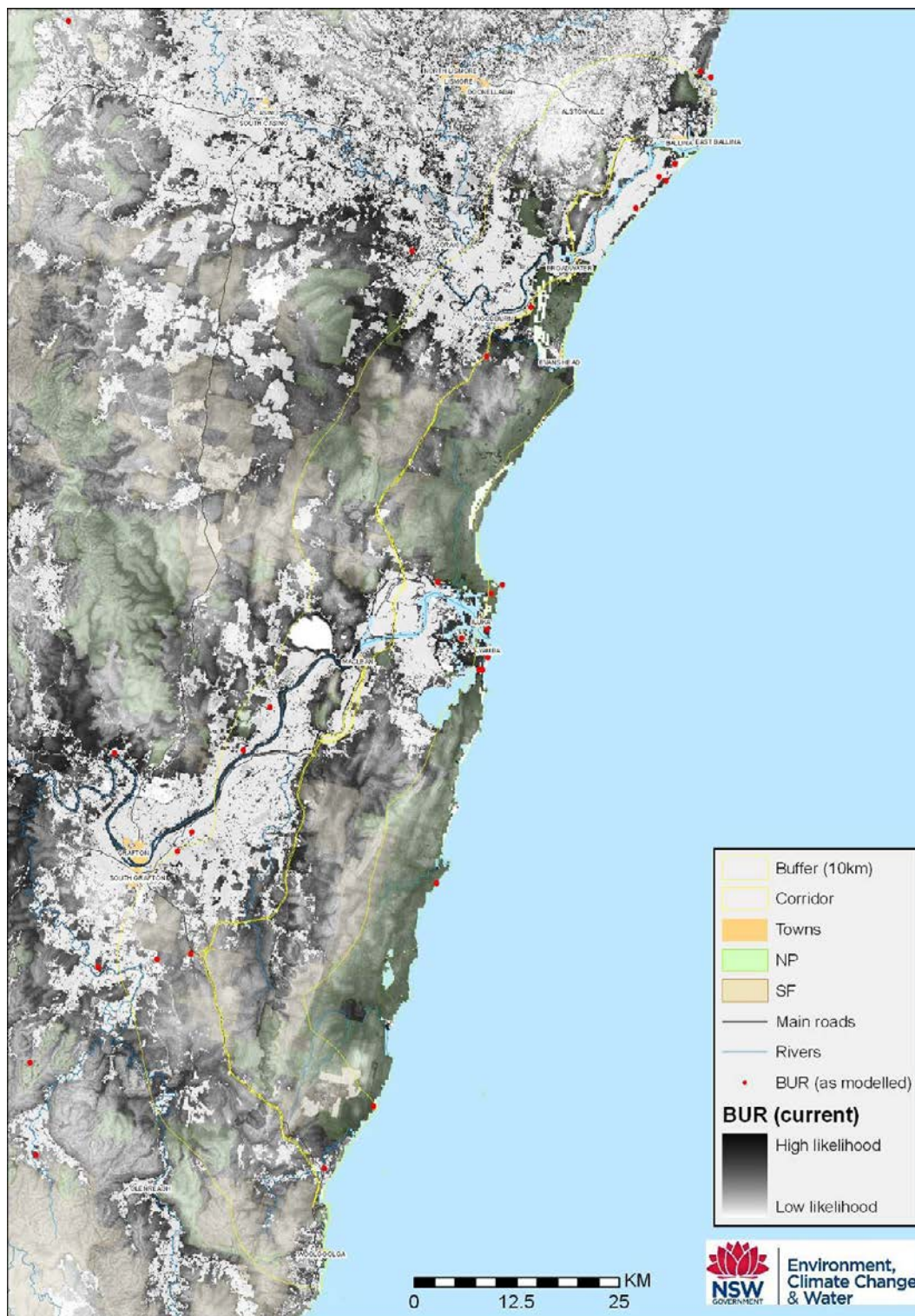


Figure 8 Current predicted likelihood of burials

## **Appendix H    Survey coverage and priority**



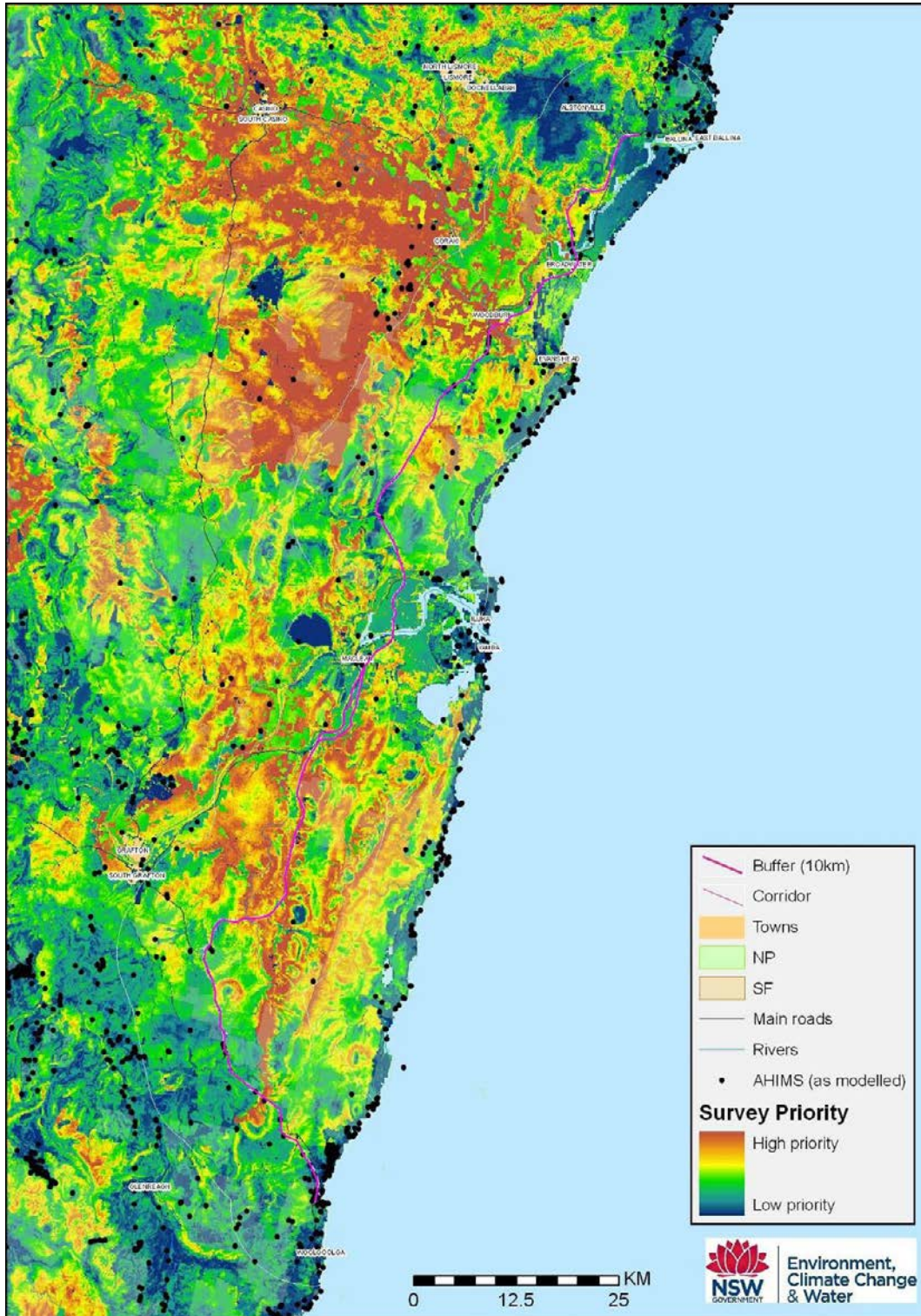




Figure 9 Survey coverage and priority


## **Appendix I      Survey coverage**

Working paper 4 – Aboriginal heritage assessment (concept plan)

**Table 6** Survey Summary


Property	Project section	PAD name/ AHIMS ID	Landform	Ground surface visibility	Subsurface exposure	Disturbance	Image
Lot 7 DP793765	3		Rises on either side of small creek	0-20	0-10	Cleared and used for grazing	 <p>View of the disturbance caused by cattle along creek bank (Photo by Jared Brindley, 28 February 2012).</p>
Lot 116 DP751376	3	WX2I PAD 8  (AHIMS Site ID: 09-4-0104)	Crest of small rise	0	0	Cleared and used for grazing	 <p>View east along transect (Photo by Vanessa Edmonds, 12 December 2011).</p>

# PUBLIC



Property	Project section	PAD name/ AHIMS ID	Landform	Ground surface visibility	Subsurface exposure	Disturbance	Image
Lot 22 DP1119114	4		Steep hills	0-20	0-20		Photo unavailable
Lot 1 DP931412	4		Undulating plain	20-40	0-20		Photo unavailable
Lot 14 DP805843	4	Tyndale 1  (AHIMS Site ID: 09-4-0099)	Undulating plain	10	5	Cleared with residential properties nearby	 <p>View south across site (Photo by Rani Attwood, 25 August 2010).</p>




# PUBLIC

Property	Project section	PAD name/ AHIMS ID	Landform	Ground surface visibility	Subsurface exposure	Disturbance	Image
Lot 3 DP751389	4	Tyndale 2 PAD  (AHIMS Site ID: 13-1- 0115)	Undulating plain	2	0	Intensive farming	 <p>View east across site (Photo by Rani Attwood, 25 August 2010).</p>
Lot 3 DP603497	4		Undulating Plain	0-20	0-20		Photo unavailable


# PUBLIC

Property	Project section	PAD name/ AHIMS ID	Landform	Ground surface visibility	Subsurface exposure	Disturbance	Image
Lot 113 DP751389	4		Plain	10	5	Cleared land, adjacent to a roadway	 <p>View east across site (Photo by Rani Attwood, 26 August 2010).</p>
Lot 18 DP1007618	4		Plain	10	5	Farming, cleared land, transport corridor	 <p>View north-east across site (Photo by Rani Attwood, 26 August 2010).</p>



# PUBLIC

Property	Project section	PAD name/ AHIMS ID	Landform	Ground surface visibility	Subsurface exposure	Disturbance	Image
Lot 54 DP751372	4	PAD 14 / Shark Creek PAD 4  (AHIMS Site ID: 13-4- 01725)	Rise, crest of a hill			Cleared. Shark PAD 4 is currently grazed	Photo unavailable
Lot 42 DP708568	4	PAD 14  (AHIMS Site ID: 09-4- 0098)	Steep hills	10	5	Cleared	 <p>East towards creek line, along the alignment (Robyn Jenkins, 26 August 2010).</p>



# PUBLIC

Property	Project section	PAD name/ AHIMS ID	Landform	Ground surface visibility	Subsurface exposure	Disturbance	Image
Lot 1 DP327815	4	Shark Creek PAD 1  (AHIMS Site ID: 13-4- 0173)	Rolling hills	40-60	0-20	Cleared with dam installation	Photo unavailable
Lot 52 DP1014027	4	Shark Creek PAD 1  (AHIMS Site ID: 13-4- 0173)	Rolling hills	10	2	Cleared. Residential and farming use	 <p>View east along property (Photo by Rani Attwood, 27 August 2010).</p>

# PUBLIC



Property	Project section	PAD name/ AHIMS ID	Landform	Ground surface visibility	Subsurface exposure	Disturbance	Image
Lot 6 DP835402	4	Shark Creek PAD 2  (AHIMS Site ID: 13-4- 0170)	Plain / rolling hills	15	1	Cleared and used for farming	 <p>View across property (Photo by Rani Attwood, 27 August 2010).</p>
Lot 101 DP837736	4	Hirst 1 / Hirst 2  (AHIMS Site ID: 13-4- 0172)	Rolling Hills	30	25	Pastoral / grazing	 <p>South from PAD 17 towards PAD 16 (Photo by Robyn Jenkins, 24 August 2010).</p>

# PUBLIC

Property	Project section	PAD name/ AHIMS ID	Landform	Ground surface visibility	Subsurface exposure	Disturbance	Image
Lot 10 DP849374	4	Hirst 2  (AHIMS Site ID: 04-4-0107)	Rolling Hills	10	2	Cleared and used for grazing	 <p>View south across PAD 16 (Photo by Robyn Jenkins, 26 August 2010).</p>
Lot 22 DP794013	4	Hirst 1  (AHIMS Site ID: 04-4-0131)	Dune / undulating plain	30	25	Cleared and used for farming	 <p>View south of property (Photo by Robyn Jenkins, 26 August 2010).</p>





# PUBLIC

Property	Project section	PAD name/ AHIMS ID	Landform	Ground surface visibility	Subsurface exposure	Disturbance	Image
Lot 42 DP751372	4		Dune / undulating plain	30	25	Cleared and used for farming	 <p>View west across property (Photo by Robyn Jenkins 26 August 2010).</p>
Lot 2 DP610919	4		Plain	2	1	Farming / Crop cultivation	 <p>West towards cane field (Photo by Robyn Jenkins, 26 August 2010).</p>




# PUBLIC

Property	Project section	PAD name/ AHIMS ID	Landform	Ground surface visibility	Subsurface exposure	Disturbance	Image
Lot 123 DP751372	4		Plain	10	5	Cleared and farming	 <p>South along channel, access track and cane field (Photo by Robyn Jenkins, 26 August 2010).</p>
Lot 112 DP842062	4		Plain	15	10	Cleared, farming	 <p>North along recently ploughed cane field (Photo by Robyn Jenkins, 26 August 2010).</p>

# PUBLIC

Property	Project section	PAD name/ AHIMS ID	Landform	Ground surface visibility	Subsurface exposure	Disturbance	Image
Lot 2 DP798830	4		Plain	10	5	Clearance	 <p>View across site (Photo by Robyn Jenkins, 26 August 2010).</p>
Lot 4 DP815051	4	PAD 15  (AHIMS Site ID: 04-4-0130)	Plain	10	5	Cleared	 <p>View across site (Photo by Rani Attwood, 27 August 2010).</p>


# PUBLIC

Property	Project section	PAD name/ AHIMS ID	Landform	Ground surface visibility	Subsurface exposure	Disturbance	Image
Lot 17 DP230182	5		Plain	10	5	Pastoral / grazing, water logging	 <p>Off highway to site, to wet to survey (Photo by Rani Attwood, 27 August 2010).</p>
Iluka Rd Reserve	5		Plain	0-20	0-20		Photo unavailable


## **Appendix J Summary of subsurface testing results**

Working paper 4 – Aboriginal heritage assessment (concept plan)

**Table 7 Summary of sub-surface testing results**


Site name (AHIMS site ID)	Easting/northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
WX21 PAD 8  (AHIMS Site ID: 09-4-0108)	506148 E / 6708654 N	26 (0.5 m x 0.5 m)	No		The site is located in an open paddock, on the crest of a small rise.	 <p>View east along the transect (Photo by Laura Bates, 12 December 2011).</p>

# PUBLIC


Site name (AHIMS site ID)	Easting/northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
WX2I PAD 7  (AHIMS Site ID: 09-4-0107)	513714 E / 6721074 N	24 (0.5 m x 0.5 m)	Yes	2 artefacts (chert)	<p>The site is located on the middle and lower slopes of a sandy rise. The area is closed woodland.</p> <p>The artefacts were found in STP 8, from 150-550 mm. They were proximal and distal flakes and were refitted back together.</p>	 <p>View north from STP 6 (Photo by Erica Weston, 1 November 2011).</p>




# PUBLIC

Site name (AHIMS site ID)	Easting/northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
WX21 PAD 6  (AHIMS Site ID: 09-4-0106)	513816 E / 6721563 N	27 (0.5 m x 0.5 m)	Yes	1 artefact (crystal quartz)	<p>The site is located on the middle slope of a sandy rise. The area is open woodland.</p> <p>The crystal quartz artefact was found in STP 21, at 0-150 mm. It was a complete flake.</p>	 <p>View north showing the landscape of the area (Photo by Clair Davey, 2 November 2011).</p>


# PUBLIC

Site name (AHIMS site ID)	Easting/northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
WX21 PAD 5  (AHIMS Site ID: 09-4-0105)	513617 E / 6722907 N	9 (0.5 m x 0.5 m)	Yes	1 artefact (quartz)	<p>The site is located mid-slope on the top of a rise. It is near a service road. It is a fairly closed forest, and there is evidence of water erosion present.</p> <p>The artefact was found in STP 5, at 600 mm. It was a complete flake.</p>	 <p>View north of the site (Photo by Morgan Wilcox, 11 November 2011).</p>


# PUBLIC

Site name (AHIMS site ID)	Easting/northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
WX2I PAD 4  (AHIMS Site ID: 09-4-0104)	513144 E / 6723649 N	44 (0.5 m x 0.5 m)	Yes	5 artefacts (chalcedony, silcrete, quartzite)	<p>The site is located on the crest of a rise. It is a flat, open forest with some cleared land. A gravel road runs straight through the alignment, and there is evidence of logging disturbance, fill, and residences are nearby.</p> <p>Artefacts were found in five STPs, and were flakes (broken and complete) and one possible proximal 'blade' (chalcedony).</p>	 <p>View north of site, showing track (Photo by Simon Coxe, 4 November 2011).</p>

# PUBLIC


Site name (AHIMS site ID)	Easting/ northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
<p>Tyndale 1</p> <p>(AHIMS Site ID: 09-4-0099)</p>	<p>515425 E / 6730924 N</p>	<p>58 (0.5 m x 0.5 m)</p>	<p>Yes</p>	<p>2 artefacts (river cobble, chert)</p>	<p>Site is located on a mid-upper slope of a hill, in semi-closed forest with rocky exposures. There are sandy soils, with sandstone bedrock. The upper slopes of the sandy rise overlook the Clarence River floodplain. Machinery sheds and driveway are in the vicinity.</p> <p>Artefacts were found in two STPs, at 200-300 mm in depth. The chert piece was a whole flake, and the river cobble was flaked.</p>	 <p>View north of the general site (Photo by Clair Davey, 3 November 2011).</p>

# PUBLIC

Site name (AHIMS site ID)	Easting/northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
Tyndale 2 PAD  (AHIMS Site ID: 13-4-0177)	515711 E / 6731230 N	17 (0.5 m x 0.5 m)	Yes	9 artefacts (basalt, chalcedony, chert, quartz, silcrete)	<p>The site is located on a terrace landform above floodplain/swamp. It is also on the slope of a sandy rise. It is cleared land, with a modern sugar cane crop.</p> <p>Artefacts were found on the surface in the ploughed field (five, consisting of basalt, silcrete, chert and quartz) and in STPs 11, 13 and 17 from 50-450 mm. There were three cores and six flakes.</p>	 <p>View of general site (Photo by Erica Weston, 2 November 2011).</p>




# PUBLIC

Site name (AHIMS site ID)	Easting/northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
Shark Creek PAD 4  (AHIMS Site ID: 13-4-0172)	519311 E / 6734744 N	21 (0.5 m x 0.5 m)	No		The site is located on a rise, on the crest of a hill. The land is cleared for grazing.	


View north of the general site (Photo by Erica Weston, 4 November 2011).



# PUBLIC

Site name (AHIMS site ID)	Easting/northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
PAD 14  (AHIMS Site ID: 09-4-0098)	519444 E / 6735386 N	19 (0.5 m x 0.5 m)	No		Top of ridgeline, overlooking floodplain of the Clarence River.	 <p>View east along the transect (Photo by Vanessa Edmonds, 15 December 2011).</p>

# PUBLIC


Site name (AHIMS site ID)	Easting/northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
Shark Creek PAD 3  (AHIMS Site ID: 16-4-0171)	519557 E / 6735577 N	23 (0.5 m x 0.5 m)	No		The site is located along the crest of a sloping ridge running north-west. The land has been cleared with only isolated trees remaining.	

View south-east along the ridge (Photo by Jared Brindley, 28 February 2012).


# PUBLIC

Site name (AHIMS site ID)	Easting/northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
Shark Creek PAD 1  (AHIMS Site ID: 13-4-0173)	519601 E / 6736126 N	38 (0.5 m x 0.5 m)	No		The site is located on an upper slope/crest of a rise, with an adjacent cane field. The land has been cleared there is a dam present. There are rocky exposures in places.	 <p>View north across the site (Photo by Clair Davey, 18 November 2011).</p>

# PUBLIC

Site name (AHIMS site ID)	Easting/northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
Shark Creek PAD 2  (AHIMS Site ID: 13-4-0170)	519526 E / 6736345 N	27 (0.5 m x 0.5 m)	Yes	3 artefacts (silcrete, chert)	<p>The site is located on the lower slopes of a spur, above a floodplain. Area has previously been cleared and is currently producing a sugar cane crop.</p> <p>Artefacts were found in STPs 18 and 25, from 10-250 mm. The artefacts are flakes (complete and broken).</p>	 <p>View west along transect (Photo by Robyn Jenkins, 31 October 2011).</p>

# PUBLIC

Site name (AHIMS site ID)	Easting/northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
Hirst 2 (PAD 16)  (AHIMS Site ID: 13-1-0185)	519706 E / 6736951 N	43 (0.5 m x 0.5 m)	Yes	1 artefact (chert)	<p>The site is located on the mid to lower slope on the south side of a spur, overlooking a floodplain.</p> <p>The artefact was found in STP 33. It was a complete flake with evidence of retouch.</p>	 <p>View north from STP 10 (Photo by Erica Weston, 28 October 2011).</p>

# PUBLIC

Site name (AHIMS site ID)	Easting/northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
Hirst 1 (PAD 17)  (AHIMS Site ID: 09-1-0206)	519688 E / 6737472 N	38 (0.5 m x 0.5 m)	Yes	1 artefact (river cobble)	<p>Located mid-slope on the south side of a hill. The vegetation had been previously cleared.</p> <p>The artefact was found in STP 25, in the first 120 mm. It was a complete flake.</p>	 <p>View north from STP 1 (Photo by Erica Weston, 26 October 2011).</p>



# PUBLIC

Site name (AHIMS site ID)	Easting/northing (MGA Zone 56)	Number of excavations (size)	Cultural material identified (Y/N)	Site type	Site description	Images
PAD 15  (AHIMS Site ID: 04-4-0130)	520235 E / 6740251 N	8 (0.5 m x 0.5 m)	No		The site is located on the rise of a swamp. It is cleared and grassed with a residence nearby.	 <p>View north of the general area (Photo by Clair Davey, 17 November 2011).</p>

## **Appendix K Summary of all excavations**

**Table 8 Summary of all excavations**

Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
12/12/2011	506148.6	6708655.2	WX2I PAD 8	STP 1	Shovel Probe	0.5 x 0.5	200	Open paddock/crest of gentle rise	0	-	-	-
12/12/2011	506148.6	6708647.1	WX2I PAD 8	STP 2	Shovel Probe	0.5 x 0.5	250	Open paddock/crest of gentle rise	0	-	-	-
12/12/2011	506147.9	6708636.5	WX2I PAD 8	STP 3	Shovel Probe	0.5 x 0.5	150	Open paddock/crest of gentle rise	0	-	-	-
12/12/2011	506145.2	6708627.3	WX2I PAD 8	STP 4	Shovel Probe	0.5 x 0.5	300	Open paddock/crest of gentle rise	0	-	-	-
12/12/2011	506142.1	6708617.6	WX2I PAD 8	STP 5	Shovel Probe	0.5 x 0.5	150	Open paddock/crest of gentle rise	0	-	-	-
12/12/2011	506141.5	6708607.6	WX2I PAD 8	STP 6	Shovel Probe	0.5 x 0.5	230	Open paddock/crest of gentle rise	0	-	-	-
12/12/2011	506140.4	6708598.1	WX2I PAD 8	STP 7	Shovel Probe	0.5 x 0.5	150	Open paddock/crest of gentle rise	0	-	-	-
12/12/2011	506137.4	6708589.1	WX2I PAD 8	STP 8	Shovel Probe	0.5 x 0.5	200	Open paddock/crest of gentle rise	0	-	-	-
12/12/2011	506134.3	6708578.4	WX2I PAD 8	STP 9	Shovel Probe	0.5 x 0.5	150	Open paddock	0	-	-	-
12/12/2011	506131.9	6708568.2	WX2I PAD 8	STP 10	Shovel Probe	0.5 x 0.5	200	Open paddock	0	-	-	-
12/12/2011	506132.4	6708559.3	WX2I PAD 8	STP 11	Shovel Probe	0.5 x 0.5	130	Open paddock	0	-	-	-
12/12/2011	506128.6	6708546.3	WX2I PAD 8	STP 12	Shovel Probe	0.5 x 0.5	220	Open paddock	0	-	-	-

# PUBLIC

Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
12/12/2011	506130.5	6708539.5	WX2I PAD 8	STP 13	Shovel Probe	0.5 x 0.5	220	Open paddock	0	-	-	-
12/12/2011	506130.4	6708530.8	WX2I PAD 8	STP 14	Shovel Probe	0.5 x 0.5	150	Open paddock	0	-	-	-
12/12/2011	506314.6	6708382.8	WX2I PAD 8	STP 15	Shovel Probe	0.5 x 0.5	300	New growth copse	0	-	-	-
12/12/2011	506369.1	6708389.7	WX2I PAD 8	STP 16	Shovel Probe	0.5 x 0.5	200	Edge of gentle rise (paddock)	0	-	-	-
15/12/2011	506336.4	6708385.8	WX2I PAD 8	STP 16	Shovel Probe	0.5 x 0.5	200	Crest of gentle rise	0	-	-	-
15/12/2011	506386.2	6708391.9	WX2I PAD 8	STP 17	Shovel Probe	0.5 x 0.5	160	Crest of gentle rise	0	-	-	-
15/12/2011	506425.7	6708391.1	WX2I PAD8	STP 18	Shovel Probe	0.5 x 0.5	240	Gentle rise (paddock )	0	-	-	-
15/12/2011	506450.9	6708395.5	WX2I PAD 8	STP 19	Shovel Probe	0.5 x 0.5	200	Crest of gentle rise	0	-	-	-
15/12/2011	506389.7	6708401.9	WX2I PAD 8	STP 20	Shovel Probe	0.5 x 0.5	150	Crest of gentle rise	0	-	-	-
15/12/2011	506425.1	6708401.5	WX2I PAD 8	STP 21	Shovel Probe	0.5 x 0.5	180	Crest of gentle rise	0	-	-	-
15/12/2011	506453.3	6708403.1	WX2I PAD 8	STP 22	Shovel Probe	0.5 x 0.5	200	Crest of gentle rise	0	-	-	-
15/12/2011	506426.0	6708412.2	WX2I PAD 8	STP 23	Shovel Probe	0.5 x 0.5	130	Crest of gentle rise	0	-	-	-
15/12/2011	506453.2	6708414.4	WX2I PAD 8	STP 24	Shovel Probe	0.5 x 0.5	190	Crest of gentle rise	0	-	-	-
15/12/2011	506456.8	6708423.9	WX2I PAD 8	STP 25	Shovel Probe	0.5 x 0.5	150	Crest of gentle rise	0	-	-	-
15/12/2011	506482.9	6708392.7	WX2I PAD 8	STP 26	Shovel Probe	0.5 x 0.5	200	Gentle rise (paddock )	0	-	-	-
1/11/2011	513715.6	6721075.2	WX2I PAD 7	STP 1	Shovel Probe	0.5 x 0.5	0	Mid-slope	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
1/11/2011	513705.2	6721078.8	WX2I PAD 7	STP 2	Shovel Probe	0.5 x 0.5	550	Mid-slope	0	-	-	-
1/11/2011	513695.5	6721080.8	WX2I PAD 7	STP 3	Shovel Probe	0.5 x 0.5	500	Mid-slope	0	-	-	-
1/11/2011	513684.4	6721085.7	WX2I PAD 7	STP 4	Shovel Probe	0.5 x 0.5	600	Lower slope	0	-	-	-
1/11/2011	513675.1	6721087.5	WX2I PAD 7	STP 5	Shovel Probe	0.5 x 0.5	450	Lower slope	0	-	-	-
1/11/2011	513666.2	6721086.9	WX2I PAD 7	STP 6	Shovel Probe	0.5 x 0.5	600	Lower slope	0	-	-	-
1/11/2011	513655.8	6721090.5	WX2I PAD 7	STP 7	Shovel Probe	0.5 x 0.5	550	Lower slope	0	-	-	-
1/11/2011	513714.8	6721085.0	WX2I PAD 7	STP 8	Shovel Probe	0.5 x 0.5	0	Mid-slope	2	Chert	Good	550 mm
1/11/2011	513717.8	6721095.8	WX2I PAD 7	STP 9	Shovel Probe	0.5 x 0.5	150	Mid-slope	0	-	-	-
1/11/2011	513719.4	6721106.2	WX2I PAD 7	STP 10	Shovel Probe	0.5 x 0.5	250	Mid-slope	0	-	-	-
1/11/2011	513710.8	6721107.8	WX2I PAD 7	STP 11	Shovel Probe	0.5 x 0.5	400	Mid-slope	0	-	-	-
1/11/2011	513709.8	6721096.9	WX2I PAD 7	STP 12	Shovel Probe	0.5 x 0.5	350	Mid-slope	0	-	-	-
1/11/2011	513714.5	6721090.5	WX2I PAD 7	STP 13	Shovel Probe	0.5 x 0.5	300	Mid-slope	0	-	-	-
1/11/2011	513719.3	6721087.2	WX2I PAD 7	STP 14	Shovel Probe	0.5 x 0.5	350	Mid-slope	0	-	-	-
1/11/2011	513712.0	6721078.4	WX2I PAD 7	STP 15	Shovel Probe	0.5 x 0.5	350	Mid-slope	0	-	-	-
1/11/2011	513711.9	6721084.9	WX2I PAD 7	STP 16	Shovel Probe	0.5 x 0.5	650	Mid-slope	0	-	-	-
1/11/2011	513707.0	6721089.6	WX2I PAD 7	STP 17	Shovel Probe	0.5 x 0.5	500	Mid-slope	0	-	-	-
1/11/2011	513699.3	6721086.9	WX2I PAD 7	STP 18	Shovel Probe	0.5 x 0.5	700	Mid-slope	0	-	-	-
1/11/2011	513725.8	6721109.5	WX2I PAD 7	STP 19	Shovel Probe	0.5 x 0.5	350	Mid-slope	0	-	-	-
1/11/2011	513730.4	6721123.3	WX2I PAD 7	STP 20	Shovel Probe	0.5 x 0.5	350	Mid-slope	0	-	-	-
1/11/2011	513719.3	6721118.2	WX2I PAD 7	STP 21	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
1/11/2011	513722.9	6721130.7	WX2I PAD 7	STP 22	Shovel Probe	0.5 x 0.5	600	Mid-slope	0	-	-	-
1/11/2011	513702.4	6721113.7	WX2I PAD 7	STP 23	Shovel Probe	0.5 x 0.5	450	Mid-slope	0	-	-	-
1/11/2011	513698.3	6721096.1	WX2I PAD 7	STP 24	Shovel Probe	0.5 x 0.5	550	Mid-slope	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
2/11/2011	513818.4	6721563.1	WX2I PAD 6	STP 1	Shovel Probe	0.5 x 0.5	700	Mid-slope	0	-	-	-
2/11/2011	513807.3	6721550.5	WX2I PAD 6	STP 2	Shovel Probe	0.5 x 0.5	450	Mid-slope	0	-	-	-
2/11/2011	513803.3	6721544.1	WX2I PAD 6	STP 3	Shovel Probe	0.5 x 0.5	850	Mid-slope	0	-	-	-
2/11/2011	513793.6	6721536.5	WX2I PAD 6	STP 4	Shovel Probe	0.5 x 0.5	600	Mid-slope	0	-	-	-
2/11/2011	513780.1	6721518.7	WX2I PAD 6	STP 5	Shovel Probe	0.5 x 0.5	550	Mid-slope	0	-	-	-
2/11/2011	513774.8	6721511.7	WX2I PAD 6	STP 6	Shovel Probe	0.5 x 0.5	0	Mid-slope	0	-	-	-
2/11/2011	513771.0	6721528.0	WX2I PAD 6	STP 7	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
2/11/2011	513774.8	6721530.2	WX2I PAD 6	STP 8	Shovel Probe	0.5 x 0.5	300	Mid-slope	0	-	-	-
2/11/2011	513770.0	6721538.0	WX2I PAD 6	STP 9	Shovel Probe	0.5 x 0.5	150	Mid-slope	0	-	-	-
2/11/2011	513784.7	6721542.2	WX2I PAD 6	STP 10	Shovel Probe	0.5 x 0.5	550	Mid-slope	0	-	-	-
2/11/2011	513777.4	6721548.0	WX2I PAD 6	STP 11	Shovel Probe	0.5 x 0.5	400	Mid-slope	0	-	-	-
2/11/2011	513766.8	6721552.6	WX2I PAD 6	STP 12	Shovel Probe	0.5 x 0.5	300	Mid-slope	0	-	-	-
2/11/2011	513795.2	6721554.3	WX2I PAD 6	STP 13	Shovel Probe	0.5 x 0.5	500	Mid-slope	0	-	-	-
2/11/2011	513785.8	6721555.8	WX2I PAD 6	STP 14	Shovel Probe	0.5 x 0.5	700	Mid-slope	0	-	-	-
2/11/2011	513777.5	6721561.6	WX2I PAD 6	STP 15	Shovel Probe	0.5 x 0.5	650	Mid-slope	0	-	-	-
2/11/2011	513788.1	6721528.6	WX2I PAD 6	STP 16	Shovel Probe	0.5 x 0.5	500	Mid-slope	0	-	-	-
2/11/2011	513801.4	6721528.7	WX2I PAD 6	STP 17	Shovel Probe	0.5 x 0.5	750	Mid-slope	0	-	-	-
2/11/2011	513809.2	6721525.8	WX2I PAD 6	STP 18	Shovel Probe	0.5 x 0.5	150	Mid-slope	0	-	-	-
2/11/2011	513794.1	6721524.4	WX2I PAD 6	STP 19	Shovel Probe	0.5 x 0.5	600	Mid-slope	0	-	-	-
2/11/2011	513805.2	6721517.9	WX2I PAD 6	STP 20	Shovel Probe	0.5 x 0.5	750	Mid-slope	0	-	-	-
2/11/2011	513789.3	6721511.9	WX2I PAD 6	STP 21	Shovel Probe	0.5 x 0.5	500	Mid-slope	0	-	-	-
2/11/2011	513787.1	6721515.8	WX2I PAD 6	STP 22	Shovel Probe	0.5 x 0.5	600	Mid-slope	0	-	-	-
2/11/2011	513794.4	6721513.6	WX2I PAD 6	STP 23	Shovel Probe	0.5 x 0.5	600	Mid-slope	0	-	-	-



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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
2/11/2011	513791.9	6721507.7	WX2I PAD 6	STP 24	Shovel Probe	0.5 x 0.5	550	Mid-slope	0	-	-	-
2/11/2011	513785.0	6721508.3	WX2I PAD 6	STP 25	Shovel Probe	0.5 x 0.5	600	Mid-slope	0	-	-	-
2/11/2011	513782.9	6721494.2	WX2I PAD 6	STP 26	Shovel Probe	0.5 x 0.5	550	Mid-slope	0	-	-	-
2/11/2011	513759.9	6721527.9	WX2I PAD 6	STP 27	Shovel Probe	0.5 x 0.5	400	Mid-slope	0	-	-	-
10/11/2011	513616.8	6722907.1	WX2I PAD 5	STP 1	Shovel Probe	0.5 x 0.5	0	Mid-slope	0	-	Wooded	Forested area less disturbed
10/11/2011	513637.0	6722892.8	WX2I PAD 5	STP 2	Shovel Probe	0.5 x 0.5	0	Wooded mid-slope	0	-	Wooded	Area forested
10/11/2011	513638.7	6722901.0	WX2I PAD 5	STP 3	Shovel Probe	0.5 x 0.5	0	Mid-slope	0	-	Wooded	Area forested; tested outside of PAD at request of Yaegl
10/11/2011	513639.5	6722905.8	WX2I PAD 5	STP 4	Shovel Probe	0.5 x 0.5	0	Mid-slope	0	-	Wooded	Area forested; tested outside of PAD at request of Yaegl
11/11/2011	513604.7	6723061.5	WX2I PAD 5	STP 5	Shovel Probe	0.5 x 0.5	0	Top of rise	0	-	Disturbed	Forestry; fire access track
11/11/2011	513609.6	6723060.4	WX2I PAD 5	STP 6	Shovel Probe	0.5 x 0.5	500	Top of rise	0	-	Disturbed	Forestry; fire access track
11/11/2011	513608.7	6723066.0	WX2I PAD 5	STP 7	Shovel Probe	0.5 x 0.5	600	Top of rise	0	-	Cleared	Forestry; fire access track
11/11/2011	513606.8	6723072.2	WX2I PAD 5	STP 8	Shovel Probe	0.5 x 0.5	0	Top of slope	0	-	Cleared	Forestry; fire access track
11/11/2011	513605.0	6723056.2	WX2I PAD 5	STP 9	Shovel Probe	0.5 x 0.5	400	Top of crest	0	-	Cleared	Disturbed
4/11/2011	513144.5	6723649.8	WX2I PAD 4	STP 1	Shovel Probe	0.5 x 0.5	500	Flat	1	Chalcedony	Good	-
4/11/2011	513147.8	6723659.2	WX2I PAD 4	STP 2	Shovel Probe	0.5 x 0.5	550	Flat	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
4/11/2011	513161.4	6723657.7	WX2I PAD 4	STP 3	Shovel Probe	0.5 x 0.5	500	Flat	0	-	-	-
4/11/2011	513171.1	6723657.3	WX2I PAD 4	STP 4	Shovel Probe	0.5 x 0.5	700	Flat	0	-	-	-
4/11/2011	513172.4	6723648.4	WX2I PAD 4	STP 5	Shovel Probe	0.5 x 0.5	650	Flat	0	-	-	-
4/11/2011	513162.3	6723651.2	WX2I PAD 4	STP 6	Shovel Probe	0.5 x 0.5	500	Flat	0	-	-	-
4/11/2011	513135.6	6723641.6	WX2I PAD 4	STP 7	Shovel Probe	0.5 x 0.5	400	Flat	0	-	-	-
4/11/2011	513141.7	6723635.7	WX2I PAD 4	STP 8	Shovel Probe	0.5 x 0.5	400	Flat	0	-	-	-
4/11/2011	513154.1	6723627.4	WX2I PAD 4	STP 9	Shovel Probe	0.5 x 0.5	500	Flat	0	-	-	-
4/11/2011	513155.9	6723635.0	WX2I PAD 4	STP 10	Shovel Probe	0.5 x 0.5	400	Flat	0	-	-	-
4/11/2011	513126.4	6723648.2	WX2I PAD 4	STP 11	Shovel Probe	0.5 x 0.5	500	Flat	0	-	-	-
9/11/2011	513144.2	6723646.7	WX2I PAD 4	STP 12	Shovel Probe	0.5 x 0.5	350	Crest	0	-	Cleared	Radial
9/11/2011	513140.9	6723652.1	WX2I PAD 4	STP 13	Shovel Probe	0.5 x 0.5	400	Top of rise	0	-	Cleared	-
9/11/2011	513135.0	6723649.6	WX2I PAD 4	STP 14	Shovel Probe	0.5 x 0.5	500	Top of crest	1	Silcrete	Cleared	Radial
9/11/2011	513133.9	6723631.5	WX2I PAD 4	STP 15	Shovel Probe	0.5 x 0.5	350	Top of rise	0	-	Cleared	-
9/11/2011	513129.8	6723637.0	WX2I PAD 4	STP 16	Shovel Probe	0.5 x 0.5	350	Top of rise	0	-	Cleared	-
9/11/2011	513115.0	6723657.6	WX2I PAD 4	STP 17	Shovel Probe	0.5 x 0.5	550	Top of slope	0	-	Cleared	-
9/11/2011	513133.3	6723645.3	WX2I PAD 4	STP 18	Shovel Probe	0.5 x 0.5	400	Top of rise	1	Quartzite	Cleared	Radial
9/11/2011	513184.2	6723655.5	WX2I PAD 4	STP 19	Shovel Probe	0.5 x 0.5	400	Top of rise	0	-	Cleared	-
9/11/2011	513120.8	6723691.1	WX2I PAD 4	STP 20	Shovel Probe	0.5 x 0.5	450	Top of rise	0	-	Wooded	Scrub
9/11/2011	513118.0	6723683.6	WX2I PAD 4	STP 21	Shovel Probe	0.5 x 0.5	400	Top of rise	0	-	Wooded	Scrub
9/11/2011	513126.9	6723701.0	WX2I PAD 4	STP 22	Shovel Probe	0.5 x 0.5	500	Top of rise	0	-	Wooded	-
9/11/2011	513134.2	6723697.8	WX2I PAD 4	STP 23	Shovel Probe	0.5 x 0.5	250	Top of rise	0	-	Cleared track	Disturbed
9/11/2011	513143.3	6723693.9	WX2I PAD 4	STP 24	Shovel Probe	0.5 x 0.5	600	Top of rise	0	-	Wooded	Forestry activity

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
9/11/2011	513135.0	6723684.8	WX2I PAD 4	STP 25	Shovel Probe	0.5 x 0.5	250	Top of rise	0	-	Wooded	-
9/11/2011	513132.6	6723678.3	WX2I PAD 4	STP 26	Shovel Probe	0.5 x 0.5	250	Top of rise	0	-	-	Wooded
9/11/2011	513137.0	6723670.5	WX2I PAD 4	STP 27	Shovel Probe	0.5 x 0.5	250	Top of rise	0	-	Wooded	-
9/11/2011	513145.7	6723681.5	WX2I PAD 4	STP 28	Shovel Probe	0.5 x 0.5	400	Top of rise	0	-	Wooded	-
9/11/2011	513171.9	6723686.3	WX2I PAD 4	STP 29	Shovel Probe	0.5 x 0.5	450	Top of rise	0	-	Wooded	-
9/11/2011	513163.1	6723679.2	WX2I PAD 4	STP 30	Shovel Probe	0.5 x 0.5	150	Top of rise	0	-	Wooded	-
9/11/2011	513172.9	6723674.8	WX2I PAD 4	STP 31	Shovel Probe	0.5 x 0.5	350	Top of rise	0	-	Wooded	-
9/11/2011	513154.2	6723670.9	WX2I PAD 4	STP 32	Shovel Probe	0.5 x 0.5	400	Wooded	0	-	Wooded	-
9/11/2011	513144.2	6723671.2	WX2I PAD 4	STP 33	Shovel Probe	0.5 x 0.5	100	Wooded	0	-	Wooded	-
9/11/2011	513126.4	6723656.8	WX2I PAD 4	STP 34	Shovel Probe	0.5 x 0.5	500	Top of rise	1	Silcrete	Cleared	-
9/11/2011	513126.5	6723639.8	WX2I PAD 4	STP 35	Shovel Probe	0.5 x 0.5	500	Top of rise	1	Quartz	Cleared	-
9/11/2011	513129.3	6723650.5	WX2I PAD 4	STP 36	Shovel Probe	0.5 x 0.5	300	Top of rise	0	-	Cleared	Radial
9/11/2011	513122.8	6723656.7	WX2I PAD 4	STP 37	Shovel Probe	0.5 x 0.5	500	Top of rise	0	-	-	-
9/11/2011	513135.7	6723660.4	WX2I PAD 4	STP 38	Shovel Probe	0.5 x 0.5	400	Top of rise	0	-	Cleared	2 m south of forestry track
10/11/2011	513163.1	6723686.6	WX2I PAD 4	STP 39	Shovel Probe	0.5 x 0.5	450	Crest of ridge	0	-	-	-
10/11/2011	513183.1	6723686.7	WX2I PAD 4	STP 40	Shovel Probe	0.5 x 0.5	400	Crest of ridge	0	-	-	-
10/11/2011	513174.3	6723706.1	WX2I PAD 4	STP 41	Shovel Probe	0.5 x 0.5	500	Crest of ridge	0	-	-	-
10/11/2011	513185.4	6723691.5	WX2I PAD 4	STP 42	Shovel Probe	0.5 x 0.5	500	Crest of ridge	0	-	-	-
10/11/2011	513178.7	6723691.1	WX2I PAD 4	STP 43	Shovel Probe	0.5 x 0.5	450	Crest of ridge	0	-	-	-
10/11/2011	513129.1	6723700.9	WX2I PAD 4	STP 44	Shovel Probe	0.5 x 0.5	300	Crest of ridge	0	-	-	-
25/10/2011	515388.1	6731006.4	Tyndale 1	STP 1	Shovel Probe	0.5 x 0.5	550	Mid-slope	0	-	-	-
25/10/2011	515400.6	6731013.4	Tyndale 1	STP 2	Shovel Probe	0.5 x 0.5	650	Mid-slope	0	-	-	-
25/10/2011	515408.2	6730989.9	Tyndale 1	STP 3	Shovel Probe	0.5 x 0.5	550	Mid-slope	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
25/10/2011	515413.7	6730982.2	Tyndale 1	STP 4	Shovel Probe	0.5 x 0.5	600	Mid-slope	0	-	-	-
25/10/2011	515421.5	6730977.8	Tyndale 1	STP 5	Shovel Probe	0.5 x 0.5	400	Mid-slope	0	-	-	-
25/10/2011	515424.1	6730969.0	Tyndale 1	STP 6	Shovel Probe	0.5 x 0.5	450	Mid-slope	0	-	-	-
25/10/2011	515433.6	6730958.8	Tyndale 1	STP 7	Shovel Probe	0.5 x 0.5	100	Mid-slope	0	-	-	-
25/10/2011	515441.7	6730953.2	Tyndale 1	STP 8	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
25/10/2011	515443.2	6730945.2	Tyndale 1	STP 9	Shovel Probe	0.5 x 0.5	450	Upper slope	0	-	-	-
25/10/2011	515444.7	6730936.2	Tyndale 1	STP 10	Shovel Probe	0.5 x 0.5	250	Upper slope /crest	1	Chert	-	-
25/10/2011	515444.7	6730938.7	Tyndale 1	STP 11	Shovel Probe	0.5 x 0.5	350	Upper slope /crest	0	-	-	-
25/10/2011	515450.1	6730941.3	Tyndale 1	STP 12	Shovel Probe	0.5 x 0.5	400	Mid-slope	0	-	-	-
25/10/2011	515456.1	6730952.0	Tyndale 1	STP 13	Shovel Probe	0.5 x 0.5	500	Mid-slope	0	-	-	-
25/10/2011	515459.1	6730959.5	Tyndale 1	STP 14	Shovel Probe	0.5 x 0.5	450	Mid-slope	0	-	-	-
25/10/2011	515462.8	6730968.6	Tyndale 1	STP 15	Shovel Probe	0.5 x 0.5	450	Mid-slope	0	-	-	-
25/10/2011	515463.9	6730979.4	Tyndale 1	STP 16	Shovel Probe	0.5 x 0.5	550	Mid-slope	0	-	-	-
25/10/2011	515465.2	6730989.3	Tyndale 1	STP 17	Shovel Probe	0.5 x 0.5	500	Mid-slope	0	-	-	-
25/10/2011	515469.8	6730996.3	Tyndale 1	STP 18	Shovel Probe	0.5 x 0.5	300	Mid-slope	0	-	-	-
25/10/2011	515453.7	6730974.9	Tyndale 1	STP 19	Shovel Probe	0.5 x 0.5	600	Mid-slope	0	-	-	-
25/10/2011	515451.7	6730984.0	Tyndale 1	STP 20	Shovel Probe	0.5 x 0.5	450	Mid-slope	0	-	-	-
25/10/2011	515457.3	6730993.0	Tyndale 1	STP 21	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
25/10/2011	515445.4	6730989.7	Tyndale 1	STP 23	Shovel Probe	0.5 x 0.5	300	Mid-slope	0	-	-	-
25/10/2011	515444.3	6730978.1	Tyndale 1	STP 24	Shovel Probe	0.5 x 0.5	500	Mid-slope	0	-	-	-
25/10/2011	515436.5	6730983.6	Tyndale 1	STP 25	Shovel Probe	0.5 x 0.5	500	Mid-slope	0	-	-	-
25/10/2011	515435.1	6730997.2	Tyndale 1	STP 26	Shovel Probe	0.5 x 0.5	300	Mid-slope	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
25/10/2011	515441.0	6731004.9	Tyndale 1	STP 27	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
25/10/2011	515429.7	6730985.8	Tyndale 1	STP 28	Shovel Probe	0.5 x 0.5	500	Mid-slope	0	-	-	-
25/10/2011	515449.6	6730999.3	Tyndale 1	STP 29	Shovel Probe	0.5 x 0.5	350	Mid-slope	0	-	-	-
3/11/2011	515424.7	6730926.8	Tyndale 1	STP 1A	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
3/11/2011	515418.9	6730925.6	Tyndale 1	STP 2A	Shovel Probe	0.5 x 0.5	300	Upper slope	0	-	-	-
3/11/2011	515412.0	6730914.0	Tyndale 1	STP 3A	Shovel Probe	0.5 x 0.5	200	Upper slope	0	-	-	-
3/11/2011	515414.7	6730912.0	Tyndale 1	STP 4A	Shovel Probe	0.5 x 0.5	400	Upper slope	0	-	-	-
3/11/2011	515409.6	6730908.0	Tyndale 1	STP 5A	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
3/11/2011	515402.6	6730905.2	Tyndale 1	STP 6A	Shovel Probe	0.5 x 0.5	300	Upper slope	0	-	-	-
3/11/2011	515403.5	6730918.3	Tyndale 1	STP 7A	Shovel Probe	0.5 x 0.5	350	Upper slope	0	-	-	-
3/11/2011	515442.8	6730935.7	Tyndale 1	STP 8A	Shovel Probe	0.5 x 0.5	350	Upper slope	0	-	-	-
3/11/2011	515436.8	6730930.0	Tyndale 1	STP 9A	Shovel Probe	0.5 x 0.5	300	Upper slope	1	River cobble	Prior logging	-
3/11/2011	515456.1	6730945.7	Tyndale 1	STP 10A	Shovel Probe	0.5 x 0.5	500	Upper slope	0	-	-	-
3/11/2011	515431.4	6730933.9	Tyndale 1	STP 11A	Shovel Probe	0.5 x 0.5	300	Upper slope	0	-	-	-
3/11/2011	515435.6	6730940.0	Tyndale 1	STP 12A	Shovel Probe	0.5 x 0.5	350	Upper slope	0	-	-	-
3/11/2011	515384.7	6730898.4	Tyndale 1	STP 13A	Shovel Probe	0.5 x 0.5	200	Upper slope	0	-	-	-
3/11/2011	515389.1	6730904.5	Tyndale 1	STP 14A	Shovel Probe	0.5 x 0.5	300	Upper slope	0	-	-	-
3/11/2011	515392.5	6730908.3	Tyndale 1	STP 15A	Shovel Probe	0.5 x 0.5	550	Upper slope	0	-	-	-
3/11/2011	515393.7	6730898.3	Tyndale 1	STP 16A	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
3/11/2011	515408.0	6730917.6	Tyndale 1	STP 17A	Shovel Probe	0.5 x 0.5	300	Upper slope	0	-	-	-
3/11/2011	515393.2	6730918.2	Tyndale 1	STP 18A	Shovel Probe	0.5 x 0.5	300	Upper slope	0	-	-	-
3/11/2011	515400.9	6730922.2	Tyndale 1	STP 19A	Shovel Probe	0.5 x 0.5	250	Upper slope	0	-	-	-
3/11/2011	515391.0	6730943.2	Tyndale 1	STP 20A	Shovel Probe	0.5 x 0.5	300	Upper slope	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
3/11/2011	515396.1	6730950.8	Tyndale 1	STP 21A	Shovel Probe	0.5 x 0.5	550	Upper slope	0	-	-	-
3/11/2011	515409.7	6730957.2	Tyndale 1	STP 22A	Shovel Probe	0.5 x 0.5	400	Upper slope	0	-	-	-
3/11/2011	515403.0	6730967.3	Tyndale 1	STP 23A	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
3/11/2011	515411.6	6730971.6	Tyndale 1	STP 24A	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
3/11/2011	515413.5	6730966.8	Tyndale 1	STP 25A	Shovel Probe	0.5 x 0.5	350	Upper slope	0	-	-	-
3/11/2011	515420.7	6730963.5	Tyndale 1	STP 26A	Shovel Probe	0.5 x 0.5	200	Upper slope	0	-	-	-
3/11/2011	515424.6	6730955.4	Tyndale 1	STP 27A	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
3/11/2011	515423.3	6730945.0	Tyndale 1	STP 28A	Shovel Probe	0.5 x 0.5	400	Upper slope	0	-	-	-
3/11/2011	515416.2	6730952.6	Tyndale 1	STP 29A	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-
3/11/2011	515407.5	6730932.7	Tyndale 1	STP 30A	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
2/11/2011	515712.0	6731230.6	Tyndale PAD 2	STP 1	Shovel Probe	0.5 x 0.5	0	Mid-slope	0	-	-	-
2/11/2011	515720.0	6731219.9	Tyndale PAD 2	STP 2	Shovel Probe	0.5 x 0.5	850	Mid-slope	0	-	-	-
2/11/2011	515725.1	6731212.3	Tyndale PAD 2	STP 3	Shovel Probe	0.5 x 0.5	700	Mid-slope	0	-	-	-
2/11/2011	515729.3	6731203.5	Tyndale PAD 2	STP 4	Shovel Probe	0.5 x 0.5	600	Mid-slope	0	-	-	-
2/11/2011	515735.9	6731195.5	Tyndale PAD 2	STP 5	Shovel Probe	0.5 x 0.5	0	Mid-slope	0	-	-	-
2/11/2011	515742.7	6731185.1	Tyndale PAD 2	STP 6	Shovel Probe	0.5 x 0.5	0	Mid-slope	0	-	-	-
2/11/2011	515749.2	6731176.1	Tyndale PAD 2	STP 7	Shovel Probe	0.5 x 0.5	400	Mid-slope	0	-	-	-
2/11/2011	515757.5	6731167.7	Tyndale PAD 2	STP 8	Shovel Probe	0.5 x 0.5	500	Mid-slope	0	-	-	-



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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
3/11/2011	515755.6	6731167.1	Tyndale PAD 2	STP 9	Shovel Probe	0.5 x 0.5	0	Mid-slope	0	-	-	-
3/11/2011	515763.2	6731161.5	Tyndale PAD 2	STP 10	Shovel Probe	0.5 x 0.5	500	Mid-slope	0	-	-	-
3/11/2011	515770.2	6731153.1	Tyndale PAD 2	STP 11	Shovel Probe	0.5 x 0.5	600	Mid-slope	2	Chalcedony	Poor to fair	-
3/11/2011	515778.1	6731143.9	Tyndale PAD 2	STP 12	Shovel Probe	0.5 x 0.5	400	Mid-slope	0	-	-	-
3/11/2011	515767.2	6731156.5	Tyndale PAD 2	STP 13	Shovel Probe	0.5 x 0.5	500	Mid-slope	1	Chalcedony	-	-
3/11/2011	515773.7	6731149.5	Tyndale PAD 2	STP 14	Shovel Probe	0.5 x 0.5	550	Mid-slope	0	-	-	-
3/11/2011	515783.0	6731138.4	Tyndale PAD 2	STP 15	Shovel Probe	0.5 x 0.5	350	Mid-slope	0	-	-	-
3/11/2011	515787.0	6731134.1	Tyndale PAD 2	STP 16	Shovel Probe	0.5 x 0.5	450	Mid-slope	0	-	-	-
3/11/2011	515789.8	6731131.3	Tyndale PAD 2	STP 17	Shovel Probe	0.5 x 0.5	600	Mid-slope	1	Silcrete	-	-
4/11/2011	519312.0	6734744.7	Shark Creek PAD 4	STP 1	Shovel Probe	0.5 x 0.5	300	Crest of hill	0	-	-	-
4/11/2011	519309.1	6734733.6	Shark Creek PAD 4	STP 2	Shovel Probe	0.5 x 0.5	300	Crest	0	-	-	-
4/11/2011	519305.9	6734722.5	Shark Creek PAD 4	STP 3	Shovel Probe	0.5 x 0.5	250	Crest	0	-	-	-
4/11/2011	519313.7	6734756.4	Shark Creek PAD 4	STP 5	Shovel Probe	0.5 x 0.5	200	Crest	0	-	-	-
4/11/2011	519316.8	6734768.3	Shark Creek PAD 4	STP 6	Shovel Probe	0.5 x 0.5	250	Hill Crest	0	-	-	-
4/11/2011	519319.4	6734780.6	Shark Creek	STP 7	Shovel Probe	0.5 x 0.5	50	Hill Crest	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
			PAD 4									
4/11/2011	519306.5	6734758.4	Shark Creek PAD 4	STP 8	Shovel Probe	0.5 x 0.5	250	Hill Crest	0	-	-	-
4/11/2011	519304.5	6734748.3	Shark Creek PAD 4	STP 9	Shovel Probe	0.5 x 0.5	300	Hill Crest	0	-	-	-
4/11/2011	519298.8	6734736.1	Shark Creek PAD 4	STP 10	Shovel Probe	0.5 x 0.5	300	Hill Crest	0	-	-	-
4/11/2011	519296.2	6734724.7	Shark Creek PAD 4	STP 11	Shovel Probe	0.5 x 0.5	200	Hill Crest	0	-	-	-
4/11/2011	519286.2	6734728.2	Shark Creek PAD 4	STP 12	Shovel Probe	0.5 x 0.5	200	Hill Crest	0	-	-	-
4/11/2011	519291.3	6734740.5	Shark Creek PAD 4	STP 13	Shovel Probe	0.5 x 0.5	200	Hill Crest	0	-	-	-
4/11/2011	519297.2	6734751.9	Shark Creek PAD 4	STP 14	Shovel Probe	0.5 x 0.5	200	Hill Crest	0	-	-	-
4/11/2011	519292.5	6734712.5	Shark Creek PAD 4	STP 15	Shovel Probe	0.5 x 0.5	200	Hill Crest	0	-	-	-
4/11/2011	519289.5	6734702.9	Shark Creek PAD 4	STP 16	Shovel Probe	0.5 x 0.5	200	Hill Crest	0	-	-	-
4/11/2011	519302.6	6734711.2	Shark Creek PAD 4	STP 17	Shovel Probe	0.5 x 0.5	300	Crest	0	-	-	-
4/11/2011	519287.2	6734692.2	Shark Creek PAD 4	STP 18	Shovel Probe	0.5 x 0.5	200	Hill Crest	0	-	-	-
4/11/2011	519278.2	6734705.8	Shark Creek PAD 4	STP 19	Shovel Probe	0.5 x 0.5	250	Hill Crest	0	-	-	-
4/11/2011	519282.8	6734716.7	Shark Creek PAD 4	STP 20	Shovel Probe	0.5 x 0.5	200	Hill Crest	0	-	-	-
4/11/2011	519295.6	6734690.4	Shark Creek PAD 4	STP 21	Shovel Probe	0.5 x 0.5	200	Hill Crest	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
4/11/2011	519299.7	6734702.0	Shark Creek PAD 4	STP 22	Shovel Probe	0.5 x 0.5	100	Hill Crest	0	-	-	-
15/12/2011	519443.6	6735385.9	PAD 14	STP 1	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
15/12/2011	519434.8	6735379.7	PAD 14	STP 2	Shovel Probe	0.5 x 0.5	200	Spur	0	-	-	-
15/12/2011	519425.2	6735375.2	PAD 14	STP 3	Shovel Probe	0.5 x 0.5	220	Spur	0	-	-	-
15/12/2011	519416.3	6735370.9	PAD 14	STP 4	Shovel Probe	0.5 x 0.5	290	Spur	0	-	-	-
15/12/2011	519438.2	6735395.9	PAD 14	STP 5	Shovel Probe	0.5 x 0.5	160	Spur	0	-	-	-
15/12/2011	519430.7	6735392.2	PAD 14	STP 6	Shovel Probe	0.5 x 0.5	120	Spur	0	-	-	-
15/12/2011	519421.3	6735388.3	PAD 14	STP 7	Shovel Probe	0.5 x 0.5	130	Spur	0	-	-	-
15/12/2011	519459.2	6735372.3	PAD 14	STP 8	Shovel Probe	0.5 x 0.5	120	Spur	0	-	-	-
15/12/2011	519470.8	6735371.3	PAD 14	STP 9	Shovel Probe	0.5 x 0.5	100	Spur	0	-	-	-
15/12/2011	519480.5	6735370.1	PAD 14	STP 10	Shovel Probe	0.5 x 0.5	140	Spur	0	-	-	-
15/12/2011	519490.3	6735367.3	PAD 14	STP 11	Shovel Probe	0.5 x 0.5	120	Spur	0	-	-	-
15/12/2011	519501.1	6735366.5	PAD 14	STP 12	Shovel Probe	0.5 x 0.5	80	Spur	0	-	-	-
15/12/2011	519511.5	6735364.4	PAD 14	STP 13	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
15/12/2011	519460.4	6735380.5	PAD 14	STP 14	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
15/12/2011	519470.8	6735380.6	PAD 14	STP 15	Shovel Probe	0.5 x 0.5	100	Spur	0	-	-	-
15/12/2011	519482.9	6735379.5	PAD 14	STP 16	Shovel Probe	0.5 x 0.5	200	Spur	0	-	-	-
15/12/2011	519492.2	6735377.6	PAD 14	STP 17	Shovel Probe	0.5 x 0.5	140	Spur	0	-	-	-
15/12/2011	519510.8	6735373.1	PAD 14	STP 18	Shovel Probe	0.5 x 0.5	30	Spur	0	-	-	-
15/12/2011	519501.6	6735374.9	PAD 14	STP 19	Shovel Probe	0.5 x 0.5	50	Spur	0	-	-	-
18/11/2011	519602.1	6736126.6	Shark Creek PAD 1	STP 1	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
18/11/2011	519612.2	6736122.6	Shark Creek	STP 2	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
			PAD 1									
18/11/2011	519620.7	6736120.4	Shark Creek PAD 1	STP 3	Shovel Probe	0.5 x 0.5	200	Upper slope	0	-	-	-
18/11/2011	519630.8	6736117.8	Shark Creek PAD 1	STP 4	Shovel Probe	0.5 x 0.5	250	Upper slope	0	-	-	-
18/11/2011	519649.1	6736112.5	Shark Creek PAD 1	STP 5	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-
18/11/2011	519659.2	6736108.0	Shark Creek PAD 1	STP 6	Shovel Probe	0.5 x 0.5	200	Upper slope	0	-	-	-
18/11/2011	519656.6	6736095.0	Shark Creek PAD 1	STP 7	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
18/11/2011	519644.1	6736098.9	Shark Creek PAD 1	STP 8	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-
18/11/2011	519636.5	6736098.9	Shark Creek PAD 1	STP 9	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
18/11/2011	519625.8	6736099.9	Shark Creek PAD 1	STP 10	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-
18/11/2011	519616.5	6736102.5	Shark Creek PAD 1	STP 11	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-
18/11/2011	519607.5	6736103.7	Shark Creek PAD 1	STP 12	Shovel Probe	0.5 x 0.5	50	Upper slope	0	-	-	-
18/11/2011	519597.3	6736106.0	Shark Creek PAD 1	STP 13	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-
18/11/2011	519605.0	6736065.7	Shark Creek PAD 1	STP 14	Shovel Probe	0.5 x 0.5	200	Upper slope	0	-	-	-
18/11/2011	519615.7	6736065.5	Shark Creek PAD 1	STP 15	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-
18/11/2011	519623.8	6736064.1	Shark Creek PAD 1	STP 16	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
18/11/2011	519634.7	6736064.5	Shark Creek PAD 1	STP 17	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-
18/11/2011	519654.7	6736061.5	Shark Creek PAD 1	STP 18	Shovel Probe	0.5 x 0.5	300	Upper slope	0	-	-	-
18/11/2011	519667.0	6736059.2	Shark Creek PAD 1	STP 19	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
18/11/2011	519674.1	6736058.7	Shark Creek PAD 1	STP 20	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
18/11/2011	519614.8	6736035.3	Shark Creek PAD 1	STP 21	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-
18/11/2011	519625.4	6736033.2	Shark Creek PAD 1	STP 22	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
18/11/2011	519634.8	6736029.6	Shark Creek PAD 1	STP 23	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-
18/11/2011	519644.4	6736026.4	Shark Creek PAD 1	STP 24	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-
18/11/2011	519653.9	6736023.4	Shark Creek PAD 1	STP 25	Shovel Probe	0.5 x 0.5	200	Upper slope	0	-	-	-
18/11/2011	519664.0	6736018.2	Shark Creek PAD 1	STP 26	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-
18/11/2011	519672.7	6736016.8	Shark Creek PAD 1	STP 27	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-
18/11/2011	519684.8	6736012.2	Shark Creek PAD 1	STP 28	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
18/11/2011	519694.5	6735994.1	Shark Creek PAD 1	STP 29	Shovel Probe	0.5 x 0.5	200	Upper slope	0	-	-	-
18/11/2011	519682.3	6735995.9	Shark Creek PAD 1	STP 30	Shovel Probe	0.5 x 0.5	50	Upper slope	0	-	-	-
18/11/2011	519674.3	6735996.5	Shark Creek	STP 31	Shovel Probe	0.5 x 0.5	200	Upper slope	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
			PAD 1									
18/11/2011	519653.6	6736001.2	Shark Creek PAD 1	STP 32	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
18/11/2011	519665.8	6735975.3	Shark Creek PAD 1	STP 33	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
18/11/2011	519678.5	6735976.1	Shark Creek PAD 1	STP 34	Shovel Probe	0.5 x 0.5	250	Upper slope	0	-	-	-
18/11/2011	519696.4	6735978.8	Shark Creek PAD 1	STP 35	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
18/11/2011	519697.0	6735962.7	Shark Creek PAD 1	STP 36	Shovel Probe	0.5 x 0.5	150	Upper slope	0	-	-	-
18/11/2011	519700.0	6735945.8	Shark Creek PAD 1	STP 37	Shovel Probe	0.5 x 0.5	100	Upper slope	0	-	-	-
18/11/2011	519685.8	6735941.2	Shark Creek PAD 1	STP 38	Shovel Probe	0.5 x 0.5	350	Upper slope	0	-	-	-
31/10/2011	519528.7	6736345.7	Shark Creek PAD 2	STP 1	Shovel Probe	0.5 x 0.5	50	Lower slope	0	-	-	-
31/10/2011	519538.4	6736343.7	Shark Creek PAD 2	STP 2	Shovel Probe	0.5 x 0.5	150	Lower slope	0	-	-	-
31/10/2011	519548.3	6736343.0	Shark Creek PAD 2	STP 3	Shovel Probe	0.5 x 0.5	200	Lower slope	0	-	-	-
31/10/2011	519560.5	6736340.0	Shark Creek PAD 2	STP 4	Shovel Probe	0.5 x 0.5	200	Lower slope	0	-	-	-
31/10/2011	519570.5	6736339.5	Shark Creek PAD 2	STP 5	Shovel Probe	0.5 x 0.5	150	Lower slope	0	-	-	-
31/10/2011	519582.8	6736335.8	Shark Creek PAD 2	STP 6	Shovel Probe	0.5 x 0.5	150	Lower slope	0	-	-	-
31/10/2011	519594.9	6736334.1	Shark Creek PAD 2	STP 7	Shovel Probe	0.5 x 0.5	250	Lower slope	0	-	-	-



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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
31/10/2011	519607.2	6736332.2	Shark Creek PAD 2	STP 8	Shovel Probe	0.5 x 0.5	200	Lower slope	0	-	-	-
31/10/2011	519617.1	6736330.5	Shark Creek PAD 2	STP 9	Shovel Probe	0.5 x 0.5	200	Lower slope	0	-	-	-
31/10/2011	519627.1	6736329.0	Shark Creek PAD 2	STP 10	Shovel Probe	0.5 x 0.5	150	Lower slope	0	-	-	-
31/10/2011	519638.4	6736326.4	Shark Creek PAD 2	STP 11	Shovel Probe	0.5 x 0.5	100	Lower slope	0	-	-	-
31/10/2011	519652.3	6736325.0	Shark Creek PAD 2	STP 12	Shovel Probe	0.5 x 0.5	50	Lower slope	0	-	-	-
31/10/2011	519665.6	6736321.3	Shark Creek PAD 2	STP 13	Shovel Probe	0.5 x 0.5	200	Lower slope	0	-	-	-
31/10/2011	519676.4	6736320.0	Shark Creek PAD 2	STP 14	Shovel Probe	0.5 x 0.5	100	Lower slope	0	-	-	-
31/10/2011	519534.1	6736364.1	Shark Creek PAD 2	STP 15	Shovel Probe	0.5 x 0.5	100	Lower slope	0	-	-	-
31/10/2011	519537.5	6736385.1	Shark Creek PAD 2	STP 16	Shovel Probe	0.5 x 0.5	50	Lower slope	0	-	-	-
31/10/2011	519540.2	6736404.7	Shark Creek PAD 2	STP 17	Shovel Probe	0.5 x 0.5	0	Lower slope	0	-	-	-
31/10/2011	519549.7	6736400.8	Shark Creek PAD 2	STP 18	Shovel Probe	0.5 x 0.5	150	Lower slope	2	Silcrete and chert	-	-
31/10/2011	519545.0	6736400.9	Shark Creek PAD 2	STP 19	Shovel Probe	0.5 x 0.5	200	Lower slope	0	-	-	-
31/10/2011	519550.6	6736404.3	Shark Creek PAD 2	STP 20	Shovel Probe	0.5 x 0.5	200	Lower slope	0	-	-	-
31/10/2011	519553.2	6736399.4	Shark Creek PAD 2	STP 21	Shovel Probe	0.5 x 0.5	300	Lower slope	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
31/10/2011	519560.3	6736398.7	Shark Creek PAD 2	STP 22	Shovel Probe	0.5 x 0.5	150	Lower slope	0	-	-	-
31/10/2011	519569.6	6736396.7	Shark Creek PAD 2	STP 23	Shovel Probe	0.5 x 0.5	400	Lower slope	0	-	-	-
31/10/2011	519646.4	6736382.2	Shark Creek PAD 2	STP 24	Shovel Probe	0.5 x 0.5	100	Lower slope	0	-	-	-
31/10/2011	519657.5	6736379.9	Shark Creek PAD 2	STP 25	Shovel Probe	0.5 x 0.5	300	Lower slope	1	Chert	-	200-300 mm
31/10/2011	519652.9	6736380.7	Shark Creek PAD 2	STP 26	Shovel Probe	0.5 x 0.5	400	Lower slope	0	-	-	-
31/10/2011	519663.8	6736378.4	Shark Creek PAD 2	STP 27	Shovel Probe	0.5 x 0.5	0	Lower slope	0	-	-	-
26/11/2011	519705.1	6736950.6	Hirst 2	STP 1	Shovel Probe	0.5 x 0.5	0	Spur	0	-	-	-
26/11/2011	519696.6	6736953.3	Hirst 2	STP 2	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
26/11/2011	519687.2	6736955.0	Hirst 2	STP 3	Shovel Probe	0.5 x 0.5	250	Spur	0	-	-	-
26/11/2011	519693.5	6736942.9	Hirst 2	STP 4	Shovel Probe	0.5 x 0.5	200	Spur	0	-	-	-
26/11/2011	519685.6	6736946.2	Hirst 2	STP 5	Shovel Probe	0.5 x 0.5	220	Spur	0	-	-	-
28/11/2011	519690.5	6736934.2	Hirst 2	STP 6	Shovel Probe	0.5 x 0.5	250	Spur	0	-	-	-
28/11/2011	519702.7	6736940.5	Hirst 2	STP 7	Shovel Probe	0.5 x 0.5	250	Spur	0	-	-	-
28/11/2011	519681.7	6736938.1	Hirst 2	STP 8	Shovel Probe	0.5 x 0.5	250	Spur	0	-	-	-
28/11/2011	519669.8	6736941.3	Hirst 2	STP 9	Shovel Probe	0.5 x 0.5	200	Spur	0	-	-	-
28/11/2011	519660.6	6736942.8	Hirst 2	STP 10	Shovel Probe	0.5 x 0.5	200	Spur	0	-	-	-
28/11/2011	519650.5	6736945.8	Hirst 2	STP 11	Shovel Probe	0.5 x 0.5	200	Spur	0	-	-	-
28/11/2011	519640.3	6736949.3	Hirst 2	STP 12	Shovel Probe	0.5 x 0.5	250	Spur	0	-	-	-
28/11/2011	519631.7	6736950.7	Hirst 2	STP 13	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
28/11/2011	519673.6	6736950.5	Hirst 2	STP 14	Shovel Probe	0.5 x 0.5	200	Spur	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
28/11/2011	519664.2	6736953.0	Hirst 2	STP 15	Shovel Probe	0.5 x 0.5	250	Spur	0	-	-	-
28/11/2011	519652.4	6736958.0	Hirst 2	STP 16	Shovel Probe	0.5 x 0.5	300	Spur	0	-	-	-
28/11/2011	519643.3	6736960.9	Hirst 2	STP 17	Shovel Probe	0.5 x 0.5	200	Spur	0	-	-	-
28/11/2011	519633.9	6736963.1	Hirst 2	STP 18	Shovel Probe	0.5 x 0.5	250	Spur	0	-	-	-
28/11/2011	519627.8	6736940.3	Hirst 2	STP 19	Shovel Probe	0.5 x 0.5	100	Spur	0	-	-	-
28/11/2011	519636.8	6736937.8	Hirst 2	STP 20	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
28/11/2011	519647.5	6736935.1	Hirst 2	STP 21	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
28/11/2011	519656.3	6736932.4	Hirst 2	STP 22	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
28/11/2011	519667.7	6736930.2	Hirst 2	STP 23	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
28/11/2011	519678.4	6736927.3	Hirst 2	STP 24	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
28/11/2011	519689.1	6736924.7	Hirst 2	STP 25	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
28/11/2011	519699.6	6736921.8	Hirst 2	STP 26	Shovel Probe	0.5 x 0.5	200	Spur	0	-	-	-
31/11/11	519679.0	6736894.3	Hirst 2	STP 27	Shovel Probe	0.5 x 0.5	200	Spur	0	-	-	-
31/11/11	519670.1	6736897.8	Hirst 2	STP 28	Shovel Probe	0.5 x 0.5	250	Spur	0	-	-	-
31/11/11	519660.1	6736900.2	Hirst 2	STP 29	Shovel Probe	0.5 x 0.5	250	Spur	0	-	-	-
31/11/11	519651.0	6736903.1	Hirst 2	STP 30	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
31/11/11	519641.6	6736905.8	Hirst 2	STP 31	Shovel Probe	0.5 x 0.5	200	Spur	0	-	-	-
31/11/11	519633.7	6736909.3	Hirst 2	STP 32	Shovel Probe	0.5 x 0.5	100	Spur	0	-	-	-
31/11/11	519635.5	6736886.9	Hirst 2	STP 33	Shovel Probe	0.5 x 0.5	200	Spur	1	Chert	Moderate	-
31/11/11	519644.4	6736883.9	Hirst 2	STP 34	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
31/11/11	519653.3	6736880.0	Hirst 2	STP 35	Shovel Probe	0.5 x 0.5	250	Spur	0	-	-	-
31/11/11	519663.7	6736875.9	Hirst 2	STP 36	Shovel Probe	0.5 x 0.5	100	Spur	0	-	-	-
31/11/11	519674.4	6736872.9	Hirst 2	STP 37	Shovel Probe	0.5 x 0.5	100	Spur	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
31/11/11	519684.3	6736870.6	Hirst 2	STP 38	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
31/11/11	519637.7	6736891.3	Hirst 2	STP 39	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
31/11/11	519630.0	6736889.6	Hirst 2	STP 40	Shovel Probe	0.5 x 0.5	100	Spur	0	-	-	-
31/11/11	519631.9	6736885.2	Hirst 2	STP 41	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
31/11/11	519640.1	6736884.8	Hirst 2	STP 42	Shovel Probe	0.5 x 0.5	200	Spur	0	-	-	-
31/11/11	519636.7	6736881.2	Hirst 2	STP 43	Shovel Probe	0.5 x 0.5	150	Spur	0	-	-	-
26/11/2011	519686.9	6737473.4	Hirst 1	STP 1	Shovel Probe	0.5 x 0.5	250	Mid-slope	0	-	-	-
26/11/2011	519697.4	6737470.5	Hirst 1	STP 2	Shovel Probe	0.5 x 0.5	0	Mid-slope	0	-	-	-
26/11/2011	519707.1	6737468.2	Hirst 1	STP 3	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519715.8	6737465.8	Hirst 1	STP 4	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519725.2	6737461.6	Hirst 1	STP 5	Shovel Probe	0.5 x 0.5	250	Mid-slope	0	-	-	-
26/11/2011	519734.1	6737456.4	Hirst 1	STP 6	Shovel Probe	0.5 x 0.5	0	Mid-slope	0	-	-	-
26/11/2011	519743.3	6737451.7	Hirst 1	STP 7	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519684.1	6737464.0	Hirst 1	STP 8	Shovel Probe	0.5 x 0.5	300	Mid-slope	0	-	-	-
26/11/2011	519694.1	6737461.0	Hirst 1	STP 9	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519702.4	6737457.1	Hirst 1	STP 10	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519712.1	6737457.0	Hirst 1	STP 11	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519721.4	6737453.4	Hirst 1	STP 12	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519731.3	6737449.4	Hirst 1	STP 13	Shovel Probe	0.5 x 0.5	150	Mid-slope	0	-	-	-
26/11/2011	519740.3	6737443.6	Hirst 1	STP 14	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519749.6	6737438.6	Hirst 1	STP 15	Shovel Probe	0.5 x 0.5	150	Mid-slope	0	-	-	-
26/11/2011	519760.0	6737425.4	Hirst 1	STP 16	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519747.9	6737426.7	Hirst 1	STP 17	Shovel Probe	0.5 x 0.5	150	Mid-slope	0	-	-	-

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Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
26/11/2011	519737.0	6737427.4	Hirst 1	STP 18	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519726.9	6737431.0	Hirst 1	STP 19	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519715.6	6737433.4	Hirst 1	STP 20	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519707.0	6737435.8	Hirst 1	STP 21	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519698.3	6737437.6	Hirst 1	STP 22	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519684.8	6737440.3	Hirst 1	STP 23	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519715.1	6737402.7	Hirst 1	STP 24	Shovel Probe	0.5 x 0.5	0	Mid-slope	0	-	-	-
26/11/2011	519724.3	6737402.6	Hirst 1	STP 25	Shovel Probe	0.5 x 0.5	150	Mid-slope	1	River stone	Fair	-
26/11/2011	519738.7	6737400.5	Hirst 1	STP 26	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519720.9	6737401.5	Hirst 1	STP 27	Shovel Probe	0.5 x 0.5	100	Mid-slope	0	-	-	-
26/11/2011	519726.7	6737404.6	Hirst 1	STP 28	Shovel Probe	0.5 x 0.5	150	Mid-slope	0	-	-	-
26/11/2011	519729.6	6737401.6	Hirst 1	STP 29	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519735.5	6737400.6	Hirst 1	STP 30	Shovel Probe	0.5 x 0.5	100	Mid-slope	0	-	-	-
26/11/2011	519739.3	6737401.0	Hirst 1	STP 31	Shovel Probe	0.5 x 0.5	100	Mid-slope	0	-	-	-
26/11/2011	519716.6	6737392.6	Hirst 1	STP 32	Shovel Probe	0.5 x 0.5	150	Mid-slope	0	-	-	-
26/11/2011	519721.7	6737394.4	Hirst 1	STP 33	Shovel Probe	0.5 x 0.5	250	Mid-slope	0	-	-	-
26/11/2011	519723.8	6737398.1	Hirst 1	STP 34	Shovel Probe	0.5 x 0.5	100	Mid-slope	0	-	-	-
26/11/2011	519729.3	6737396.3	Hirst 1	STP 35	Shovel Probe	0.5 x 0.5	200	Mid-slope	0	-	-	-
26/11/2011	519734.4	6737390.7	Hirst 1	STP 36	Shovel Probe	0.5 x 0.5	150	Mid-slope	0	-	-	-
26/11/2011	519746.6	6737393.4	Hirst 1	STP 37	Shovel Probe	0.5 x 0.5	0	Lower to mid-slope	0	-	-	-
26/11/2011	519758.1	6737392.4	Hirst 1	STP 38	Shovel Probe	0.5 x 0.5	0	Lower to mid-slope	0	-	-	-

# PUBLIC

Date	MGA Zone 56		Site / PAD name	Excavation number	Excavation type	Dimension of excavation (m)	End depth (mm)	Landscape unit (landform)	Number of artefacts	Artefact materials	Site condition	Comments
	Easting	Northing										
17/11/2011	520234.9	6740254.1	PAD 15	STP 1	Shovel Probe	0.5 x 0.5	0	Lower slope	0	-	-	-
17/11/2011	520228.3	6740255.0	PAD 15	STP 2	Shovel Probe	0.5 x 0.5	350	Mid-slope	0	-	-	-
17/11/2011	520220.7	6740257.9	PAD 15	STP 3	Shovel Probe	0.5 x 0.5	300	Upper slope	0	-	-	-
17/11/2011	520233.7	6740268.7	PAD 15	STP 4	Shovel Probe	0.5 x 0.5	400	Mid-slope	0	-	-	-
17/11/2011	520228.4	6740272.0	PAD 15	STP 5	Shovel Probe	0.5 x 0.5	450	Mid-slope	0	-	-	-
17/11/2011	520235.0	6740242.1	PAD 15	STP 6	Shovel Probe	0.5 x 0.5	350	Lower slope	0	-	-	-
17/11/2011	520221.3	6740242.6	PAD 15	STP 7	Shovel Probe	0.5 x 0.5	450	Mid-slope	0	-	-	-



## **Appendix L    Stratigraphic drawings**

Working paper 4 – Aboriginal heritage assessment (concept plan)

## Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing

AHIMS Site ID: 09-4-0108

Site Name: WX2I PAD 8

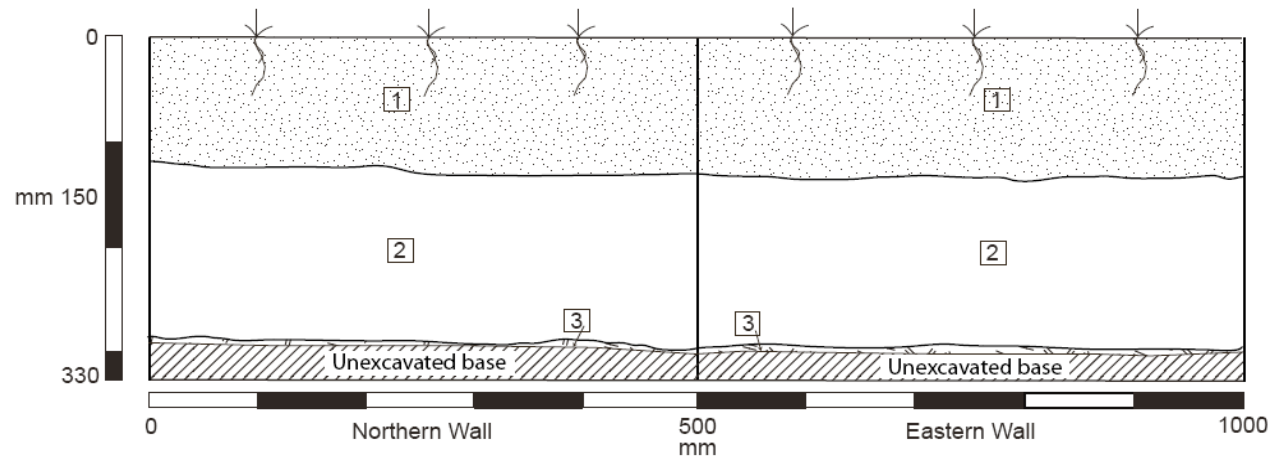
Shovel Test Pit 15 (0.5 metre x 0.5 metre)

506315E / 6708379N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Northern and Eastern Walls

Drawn by: Laura Bates

Excavation Date: 12 December 2011



### Stratigraphic Components

1	7.5YR 4/3 (colour from Munsell). Light yellowish-brown silty loam, loosely compacted. Rootlets present.
2	7.5YR 4/4 (colour from Munsell). Light orangey-brown silty clay with medium compaction. Frequent inclusions of iron panning.
3	Medium orangey-brown clay, medium level of compaction.

Figure 10 Stratigraphic drawing: WX2I PAD 8, shovel test pit 15

**Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing**

AHIMS Site ID: 09-4-0107

Site Name: WX2I PAD 7

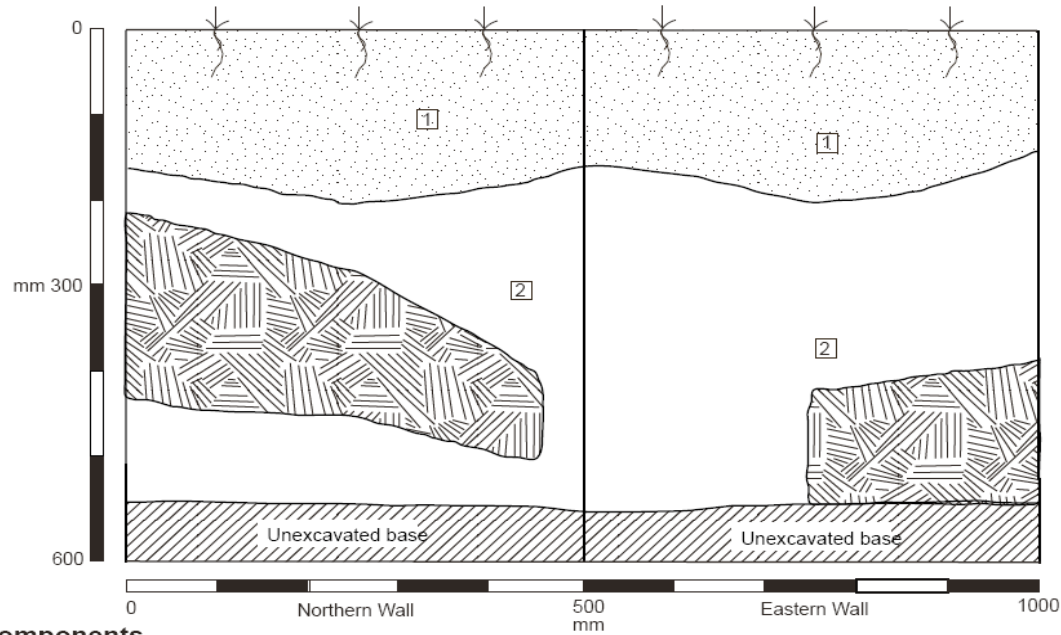
Shovel Test Pit 1 (0.5 metre x 0.5 metre)

513714E / 6721074N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Northern and Eastern Walls

Drawn by: Erica Weston

Excavation Date: 1 November 2011



**Stratigraphic Components**

1	10YR 5/1 (colour from Munsell), pH 6.5. Dry and loosely compacted, greyish-white humic fine grained sand. Inclusions of rootlets and wood.
2	10YR 4/4 (colour from Munsell), pH 5.5. Moist and loosely compacted, orange-brown sand. Inclusions of sandstone (20-150 mm) and rootlets.

**Key**

 Sandstone

**Figure 11 Stratigraphic drawing: WX2I PAD 7, shovel test pit 1**

**Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing**

AHIMS Site ID: 09-4-0107

Site Name: WX2I PAD 7

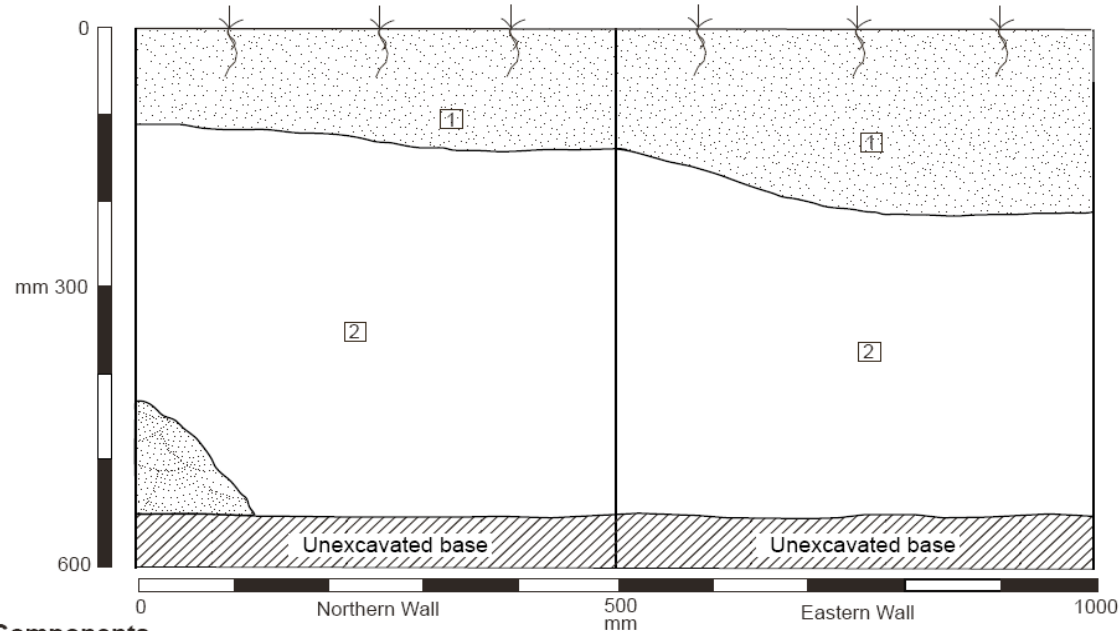
Shovel Test Pit 8 (0.5 metre x 0.5 metre)

513713E / 6721088N (GDA 94 MGA Zone 56)

Stratigraphic Profile: Northern and Eastern Walls

Drawn by: Clair Davey

Excavation Date: 1 November 2011



**Stratigraphic Components**

1	10YR 4/2 (colour from Munsell), pH 6. Dry, loosely compacted ashy-grey humic, fine-grained sand. Inclusions of rootlets and wood.
2	10YR 5/8 (colour from Munsell), pH 7. Moist, loosely compacted orange-tan, very fine-grained sand. Inclusions of gravel and charcoal. Artefacts found in this horizon.

**Key**



**Figure 12 Stratigraphic drawing: WX2I PAD 7, shovel test pit 8**

**Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing**

AHIMS Site ID: 09-4-0106

Site Name: WX2I PAD 6

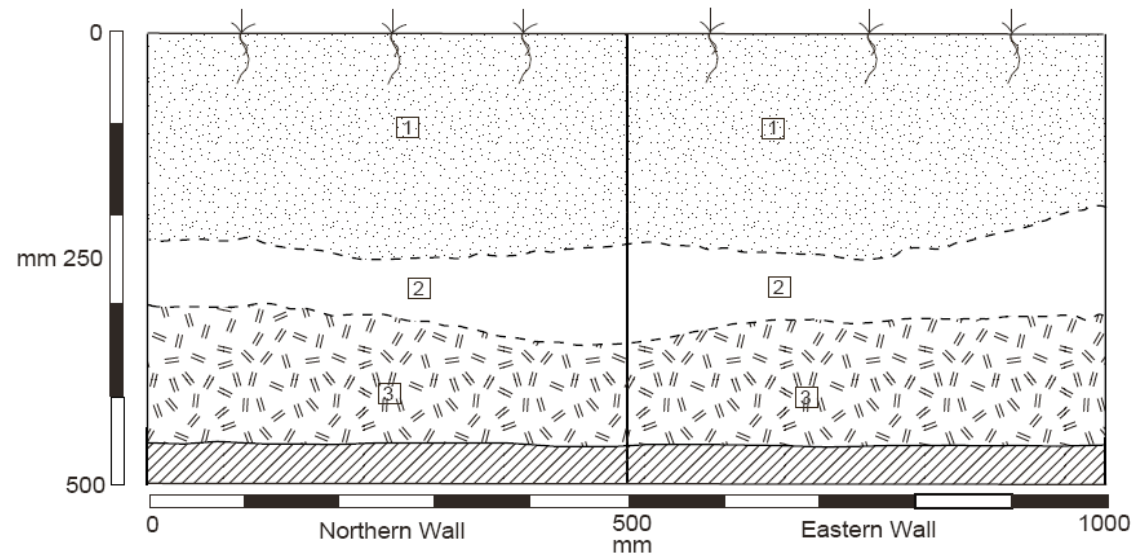
Shovel Test Pit 2 (0.5 metre x 0.5 metre)

513805E / 6721550N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Northern and Eastern Walls

Drawn by: Clair Davey

Excavation Date: 2 November 2011



**Stratigraphic Components**

1	10YR 4/1 (colour from Munsell), pH 6. Light ashy-grey, humic, loosely compacted sand. Inclusions of rootlets, leaves and wood.
2	10YR 6/2 (colour from Munsell), pH 6.5. Lighter sandy-grey, loosely compacted, moist sand. Compaction increases with depth.
3	Yellow-grey, loosely compacted, moist sand. No inclusions.

**Figure 13 Stratigraphic drawing: WX2I PAD 6, shovel test pit 2**

Figure 14 Stratigraphic drawing: WX2I PAD 5, shovel test pit 1



## Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing

AHIMS Site ID: 09-4-0105

Site Name: WX2I PAD 5

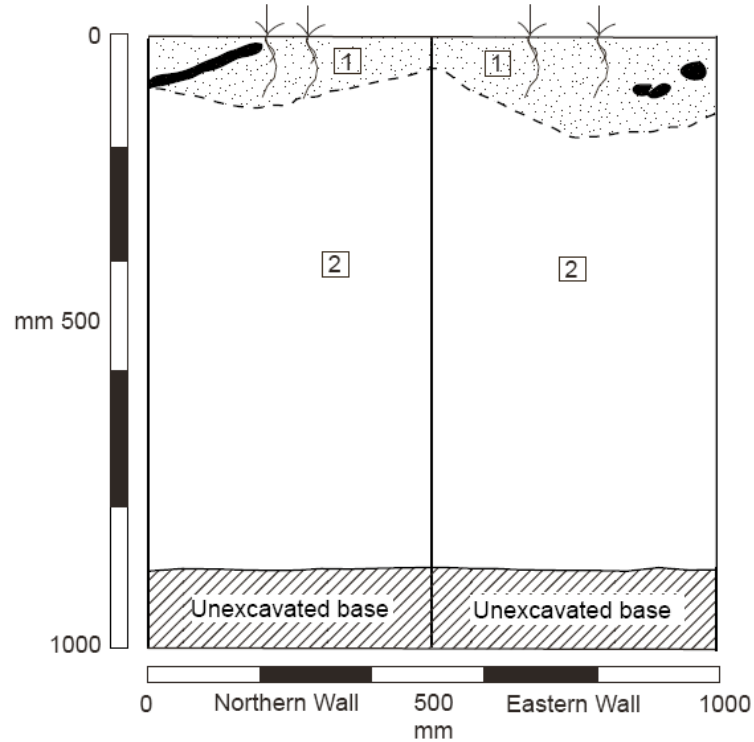
Shovel Test Pit 5 (0.5 metre x 0.5 metre)

513606E / 6723060N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Northern and Eastern Walls

Drawn by: Erica Weston and Morgan Wilcox

Excavation Date: 11 November 2011



### Stratigraphic Components

1	10YR 7/2 (colour from Munsell), pH 4.5. Light grey, loosely compacted silty sand. Disturbance from logging and roadways, roots and rootlets. Inclusions of quartz and sandstone present.
2	7.5YR 5/8 (colour from Munsell), pH 6. Orangey/-mid-brown, silty, coarse sand. Artefact recovered from this horizon.

### Key

■ Large roots

e 15 Stratigraphic drawing: WX2I PAD 5, shovel test pit 5

Figur

**Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing**

AHIMS Site ID: 09-4-0104

Site Name: WX2I PAD 4

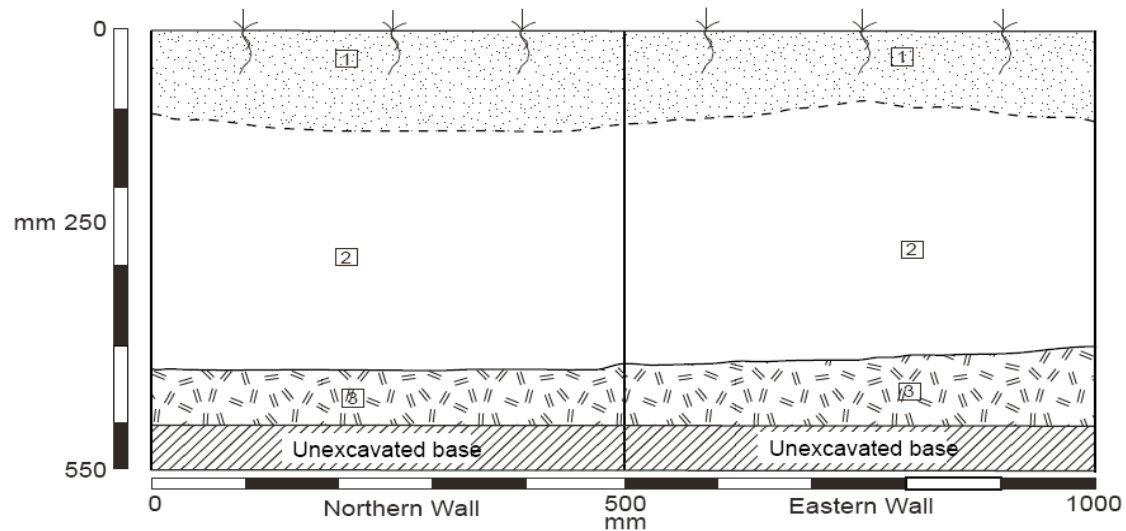
Shovel Test Pit 1 (0.5 metre x 0.5 metre)

513146E, 6723659N (GDS 94, MGA Zone 56)

Stratigraphic Profile: Northern and Eastern Walls

Drawn By: Erica Weston

Excavation Date: 4 November 2011



**Stratigraphic Components**

1	10YR 3/2 (colour from Munsell), pH 7. Humic, dark ashy-brown moderately compacted sandy loam. Inclusions of rootlets and charcoal flecks.
2	10YR 3/3 (colour from Munsell), pH 6. Orange-brown, loosely compacted, silty sand. Inclusions of charcoal flecks. Artefact found in this horizon.
3	10YR 5/8 (colour from Munsell), pH 5.5. Orange clay base.

**Figure 16 Stratigraphic drawing: WX2I PAD 4, shovel test pit 1**

## Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing

AHIMS Site ID: 09-4-0104

Site Name: WX2I PAD 4

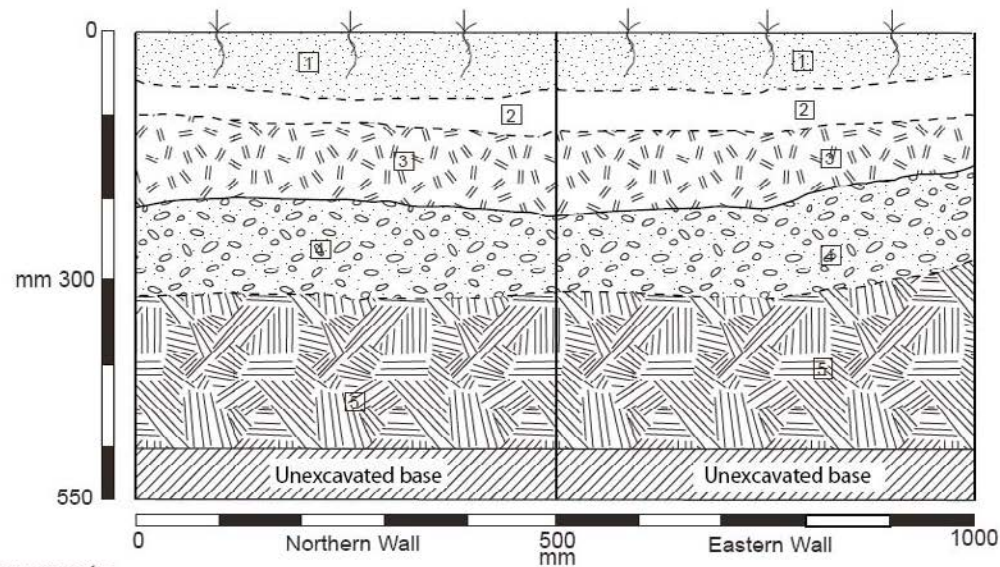
Shovel Test Pit 3 (0.5 metre x 0.5 metre)

513161E, 6723657N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Northern and Eastern Walls

Drawn By: Erica Weston

Excavation Date: 4 November 2011



### Stratigraphic Components

1	10YR 3/2 (colour of Munsell), pH 7. Humic, dark ashy-brown moderately compacted sandy loam. Inclusions of rootlets and charcoal flecks.	4	10YR 3/2 (colour of Munsell), pH 6. Brown loosely compacted silt. Inclusions of charcoal and burnt wood.
2	10YR 2/2 (colour of Munsell), pH 6.5. Dark brown-grey, loosely compacted, silty sand. Inclusions of charcoal flecks.	5	10YR2/2 (colour of Munsell), pH 6. Sandstone base.
3	10YR 2/1 (colour of Munsell), pH 6. Ash-brown, loosely compacted sandy silt. Inclusions of charcoal and burnt wood.		

Figure 17 Stratigraphic drawing: WX2I PAD 4, shovel test pit 3

## Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing

AHIMS Site ID: 09-4-0099

Site Name: Tyndale 1

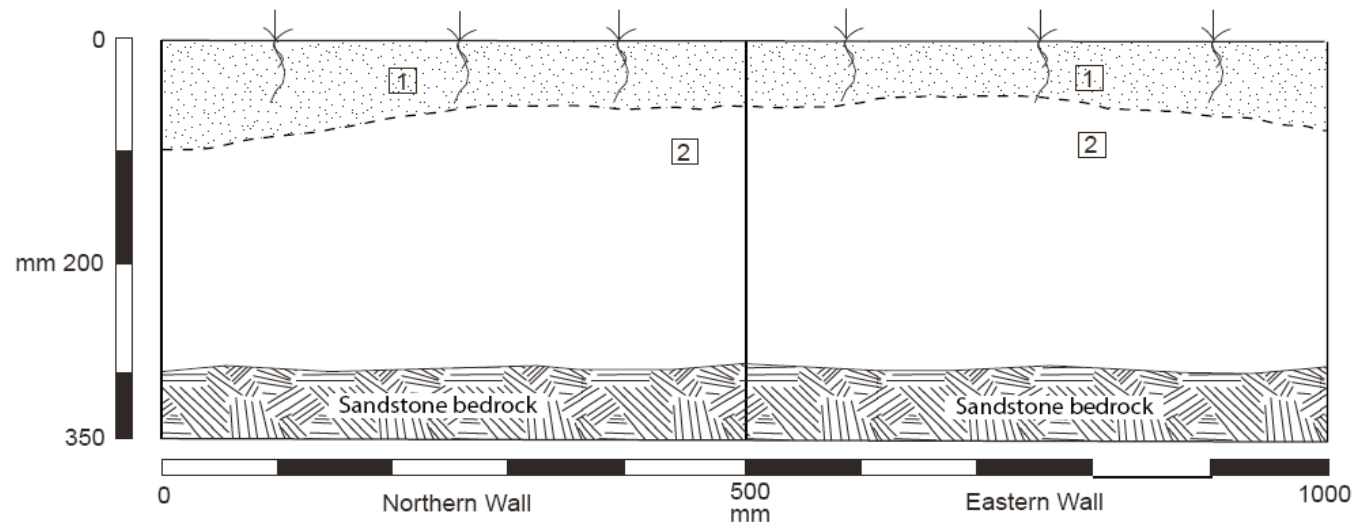
Shovel Test Pit 2 (0.5 metre x 0.5 metre)

515401E / 6731012N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Northern and Eastern Walls

Drawn By: Morgan Wilcox

Excavation Date: 3 November 2011



### Stratigraphic Components

1	10YR 3/2 (colour from Munsell), pH 5. Medium-brown sandy silty soil. Loosely compacted and humic, with rootlet inclusions.
2	10YR 3/1 (colour from Munsell), pH 5.5. Dark-brown, humic sandy soil. Moderately compacted with charcoal flecks/chunks and ironstone inclusions.

Figure 18 Stratigraphic drawing: Tyndale 1, shovel test pit 2

**Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing**

AHIMS Site ID: 09-4-0099

Site Name: Tyndale 1

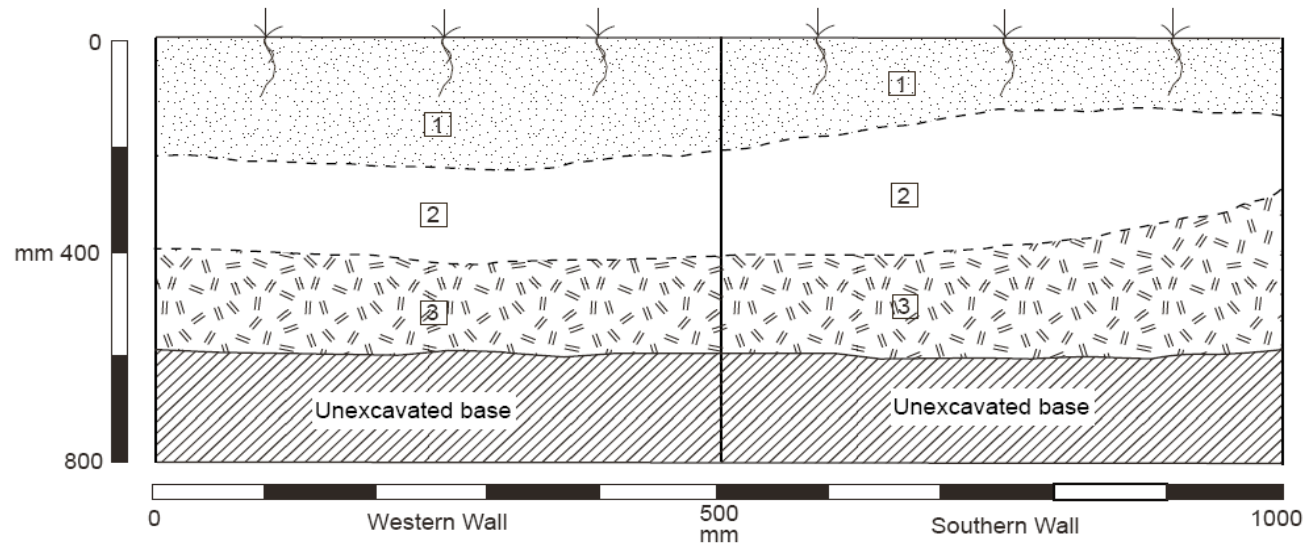
Shovel Test Pit 3 (0.5 metre x 0.5 metre)

515412E / 6730989N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Western and Southern Walls

Drawn By: Erica Weston

Excavation Date: 25 October 2011



**Stratigraphic Components**

1	10YR 5/1 (colour from Munsell), pH 6.5. Humic, grey sand. Inclusions of rootlets and organic matter.
2	2.5Y 5/3 (colour from Munsell), pH 6. Light-yellow sand with mineral leeching.
3	10YR 2/1 (colour from Munsell), pH 6. Medium yellow-orange sand, with a higher mineral (iron) content than Layer 2.

**Figure 19 Stratigraphic drawing: Tyndale 1, shovel test pit 3**

## Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing

AHIMS Site ID: 09-4-0099

Site Name: Tyndale 1

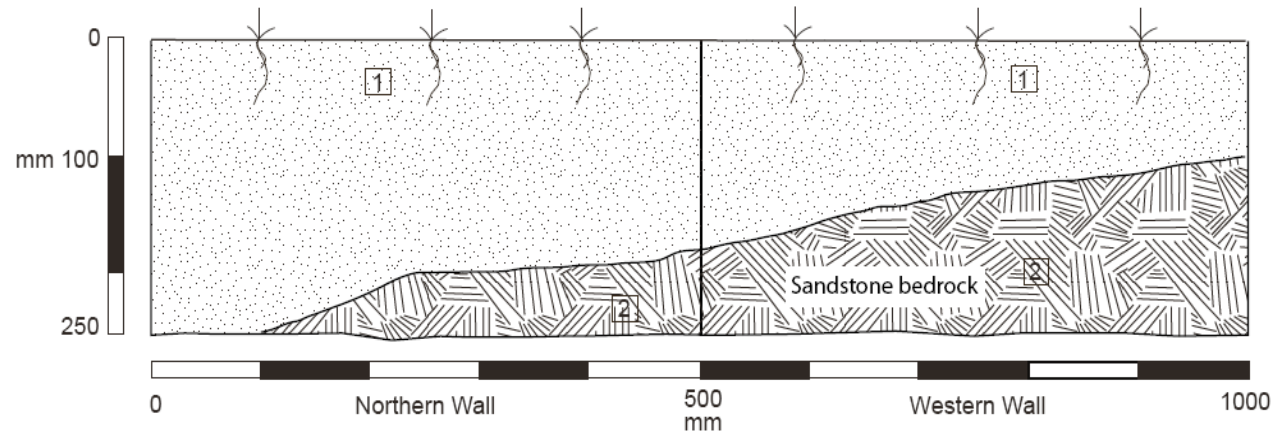
Shovel Test Pit 10 (0.5 metre x 0.5 metre)

515444E / 6730931N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Northern and Western Walls

Drawn By: Erica Weston

Excavation Date: 4 November 2011



### Stratigraphic Components

1	10YR 3/2 (colour from Munsell), pH 5. Humic, dry, grey sand. Artefact recovered from this horizon.
2	10YR 6/4 (colour from Munsell). Sandstone bedrock.

Figure 20 Stratigraphic drawing: Tyndale 1, shovel test pit 10



## Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing

AHIMS Site ID: 13-4-0177

Site name: Tyndale 2 PAD

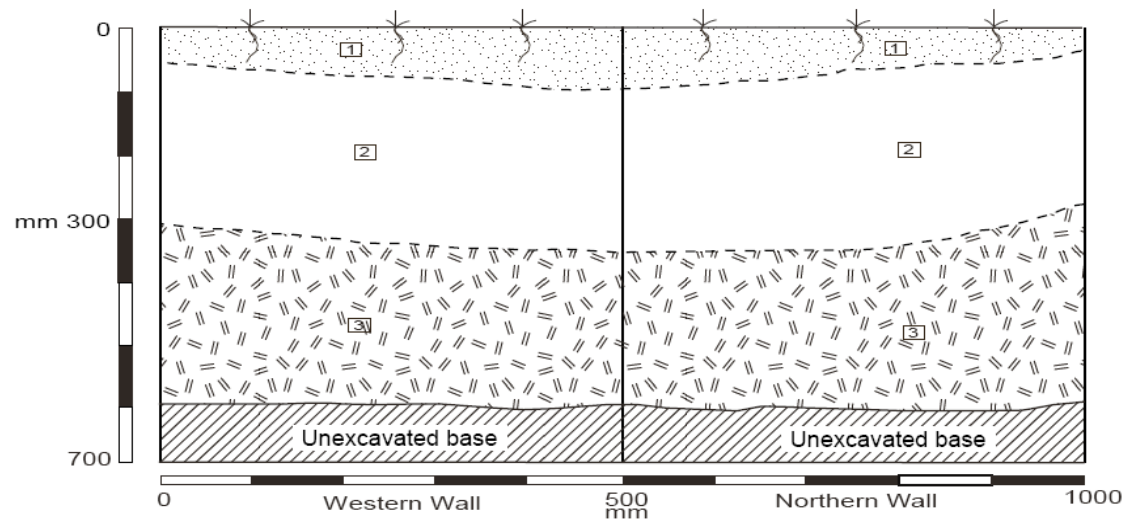
Shovel Test Pit 11 (0.5 metre x 0.5 metre)

515770E / 6731153N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Western and Northern Walls

Drawn By: Erica Weston

Excavation Date: 3 November 2011



### Stratigraphic Components

1	10YR 4/2 (colour from Munsell), pH 6. Humic, greyish-brown, dry sandy silt. Loosely compacted with rootlet inclusions.
2	10YR 2/2 (colour from Munsell), pH 6.5. Humic, dark-brown, moist, sandy soil. Loosely compacted with charcoal fleck inclusions.
3	10YR 2/1 (colour from Munsell), pH 6. Moist, orange-brown, loosely compacted sand. Charcoal fleck inclusions. Artefacts found in the horizon.

Figure 21 Stratigraphic drawing: Tyndale 2 PAD, shovel test pit 11



## Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing

AHIMS Site ID: 13-4-0172

Site Name: Shark Creek PAD 4

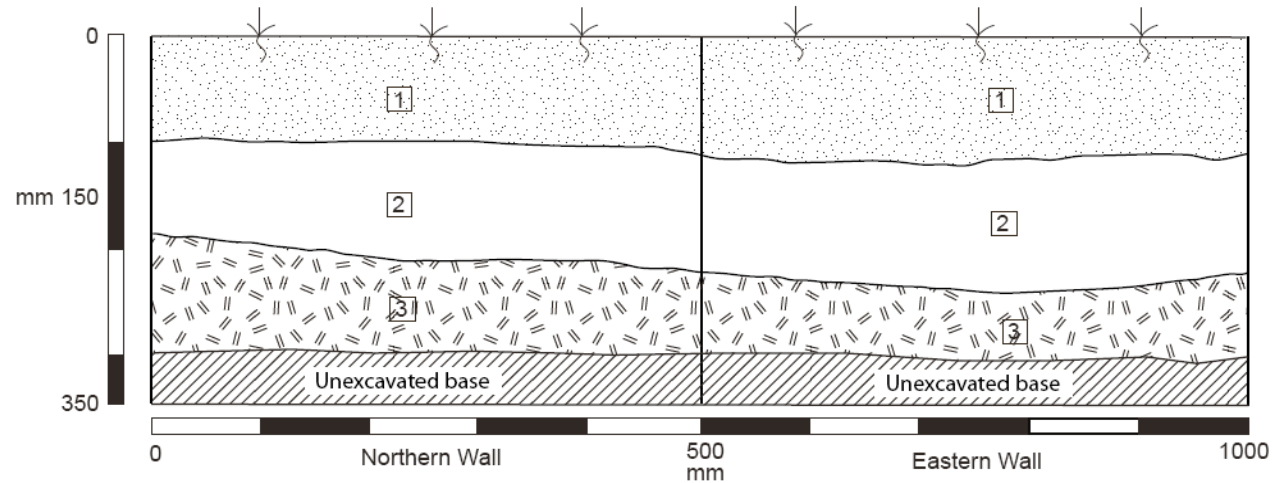
Shovel Test Pit 1 (0.5 metre x 0.5 metre)

519311E / 6734744N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Northern and Eastern Walls

Drawn by: Simon Coxe

Excavation Date: 4 November 2011



### Stratigraphic Components

1	10YR 3/2 (colour from Munsell), pH 7. Moderately compacted, light-greyish brown clayey-silt. Occasional inclusions of charcoal and sub-angular ironstone pieces.
2	10YR 3/3 (colour from Munsell), pH 6. Moderately compact, light yellowish-brown clayey silt. Inclusions of charcoal and sub-angular ironstone pieces increasing.
3	1.5Y 4/2 (colour from Munsell), pH 6. Firmly compacted, light brownish-yellow silty clay. Bioturbation from worms. Present until clay base.

Figure 22 Stratigraphic drawing: Shark Creek PAD 4, shovel test pit 1

## Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing

AHIMS Site ID: 13-4-0171

Site Name: Shark Creek PAD 3

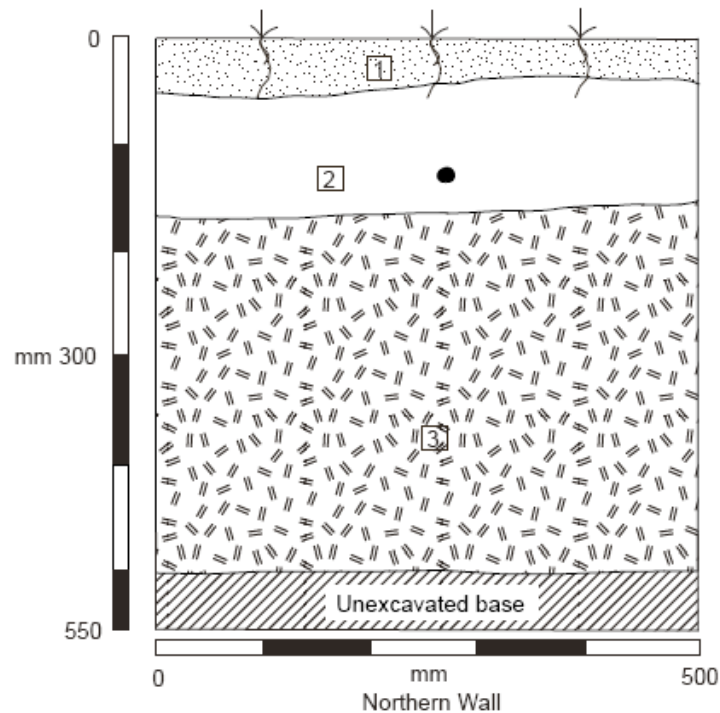
Shovel Test Pit 1 (0.5 metre x 0.5 metre)

519444E / 6735386N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Northern Wall

Drawn By: Laura Bates

Excavation Date: 15 December 2011



### Stratigraphic Components

1	Humic, loosely compact topsoil. Disturbances of rootlets.
2	10YR 3/3 (colour from Munsell), pH 8. Medium yellowish-brown, slightly mottled, firmly compacted, clayey loam. Disturbances of roots and bioturbation present.
3	10YR 4/4 (colour from Munsell), pH 8. Dark yellowish-brown, mottled, firmly compacted clay. Bioturbation from ants present.

### Key

■ Root

Figure 23 Stratigraphic drawing: Shark Creek PAD 3, shovel test pit 1

## Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing

AHIMS Site ID: 13-4-0173

Site Name: Shark Creek PAD 1

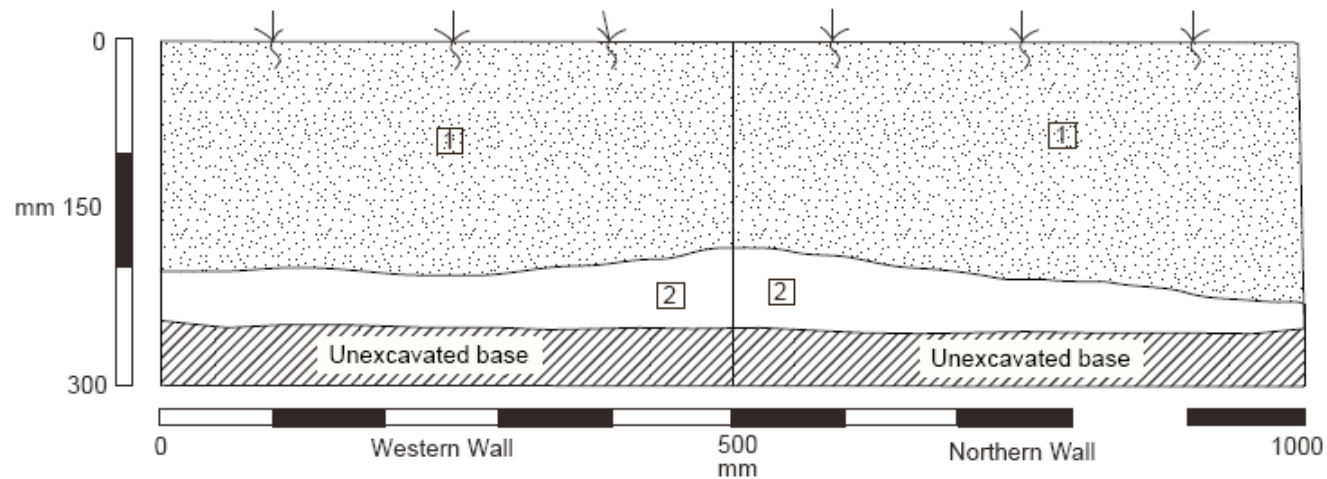
Shovel Test Pit 4 (0.5 metre x 0.5 metre)

519630E / 6730116N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Western and Northern Walls

Drawn by: Erica Weston

Excavation Date: 18 November 2011



### Stratigraphic Components

1	10YR 3/1 (colour from Munsell), pH 5.5. Dark-brown, moist, humic, moderately compacted silty-clay. Inclusions of charcoal and ironstone. Disturbance from rootlets.
2	5YR 4/6 (colour from Munsell), pH 5. Mottled orange-brown, moist clay base. Inclusions of buckshot and charcoal. Rootlets present in layer.

Figure 24 Stratigraphic drawing: Shark Creek PAD 1, shovel test pit 4

## Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing

AHIMS Site ID: 13-4-0170

Site Name: Shark Creek PAD 2

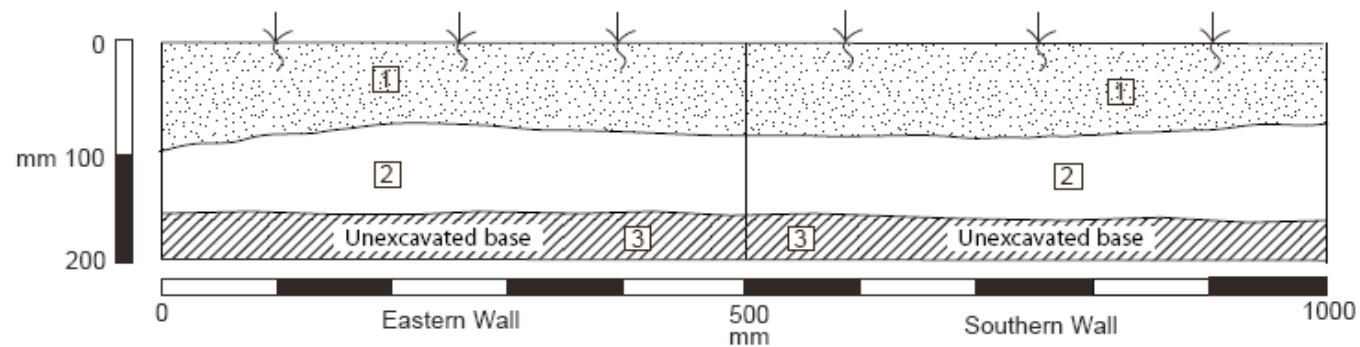
Shovel Test Pit 2 (0.5 metre x 0.5 metre)

519537E / 6736342N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Eastern and Southern Walls

Drawn by: Morgan Wilcox

Excavation Date: 31 October 2011



### Stratigraphic Components

1	10YR 3/2 (colour from Munsell), pH 6. Dark-brown, humic, highly compacted, silty sand. Disturbance from rootlets.
2	10YR 3/2 (colour from Munsell), pH 6. Dark-brown, humic and highly compacted loamy-clay. Inclusions of gravel and iron oxide. Present until clay base was reached.
3	Unexcavated clay base.

Figure 25 Stratigraphic drawing: Shark Creek PAD 2, shovel test pit 2

## Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing

AHIMS Site ID: 13-1-0185

Site Name: Hirst 2

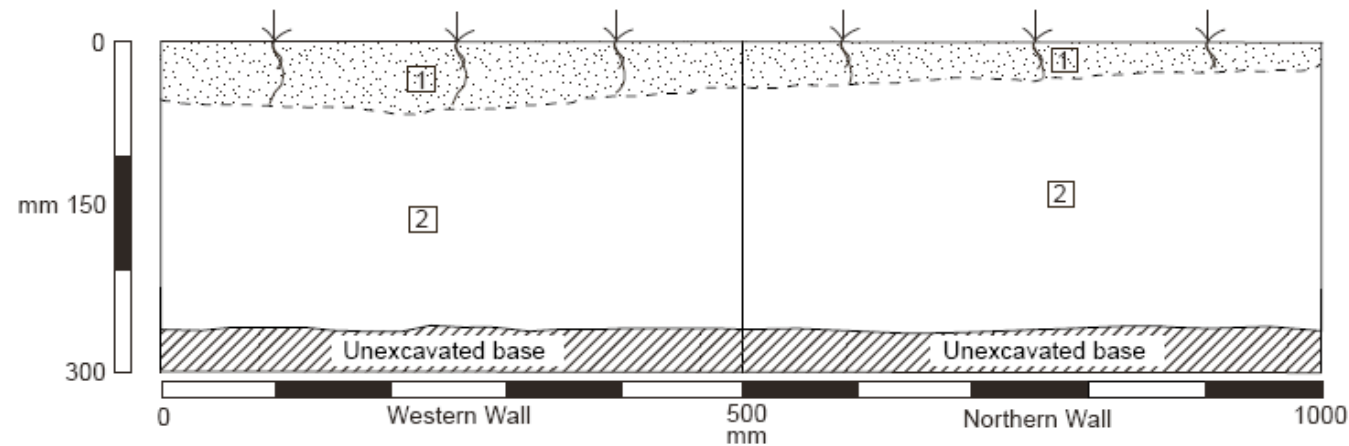
Shovel Test Pit 6 (0.5 metre x 0.5 metre)

590610E / 6736734N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Western and Northern Walls

Drawn by: Erica Weston

Excavation Date: 28 October 2011



### Stratigraphic Components

1	10YR 3/1 (colour from Munsell), pH 6. Humic and moist dark-brown loamy clay, highly compacted. Contains rootlets.
2	10YR 3/2 (colour from Munsell), pH 5.5. Dark-brown moist clayey loam. Highly compacted down to a mottled, yellow-orange clay base. Contains charcoal flecks and iron buckshot.

Figure 26 Stratigraphic drawing: Hirst 2, shovel test pit 6

## Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing

AHIMS Site ID: 13-1-0185

Site name: Hirst 2

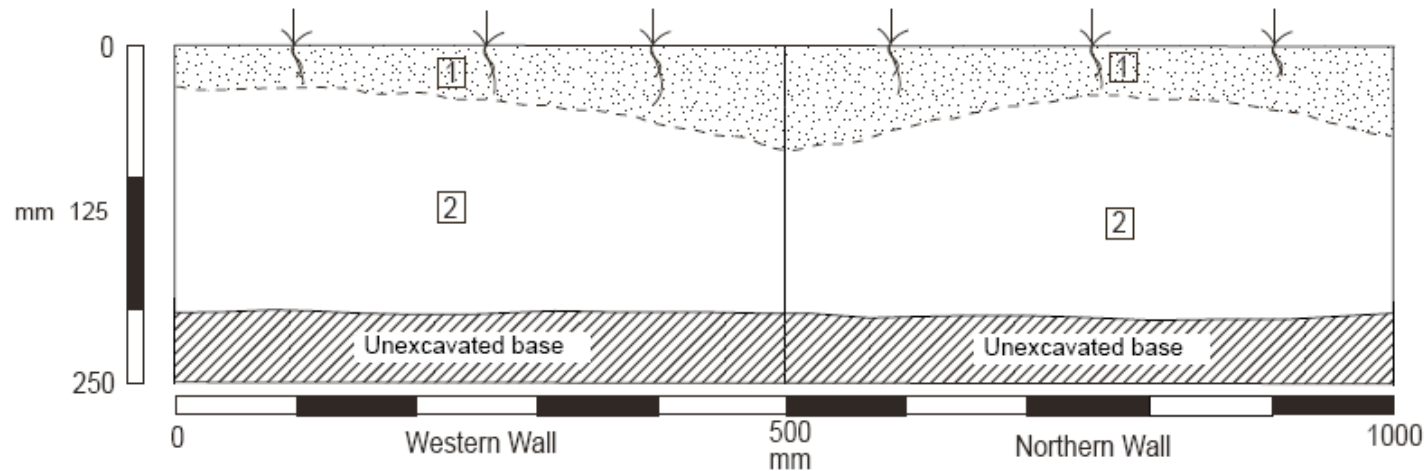
Shovel Test Pit 33 (0.5 metre x 0.5 metre)

519634E / 6736885N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Western and Northern Walls

Drawn by: Morgan Wilcox

Excavation Date: 31 October 2011



### Stratigraphic Components

1	10YR 3/3 (colour from Munsell), pH 5.5. Dark-brown humic clayey loam topsoil, highly compacted. Contained rootlets and an ant nest. An artefact was recovered from this horizon.
2	10YR 3/1 (colour from Munsell), pH 5.5. Dark brown/greyish clayey loam, highly compacted. Contained iron oxide mottling and some gravel.

Figure 27 Stratigraphic drawing: Hirst 2, shovel test pit 33

## Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing

AHIMS Site ID: 09-1-0206

Site Name: Hirst 1

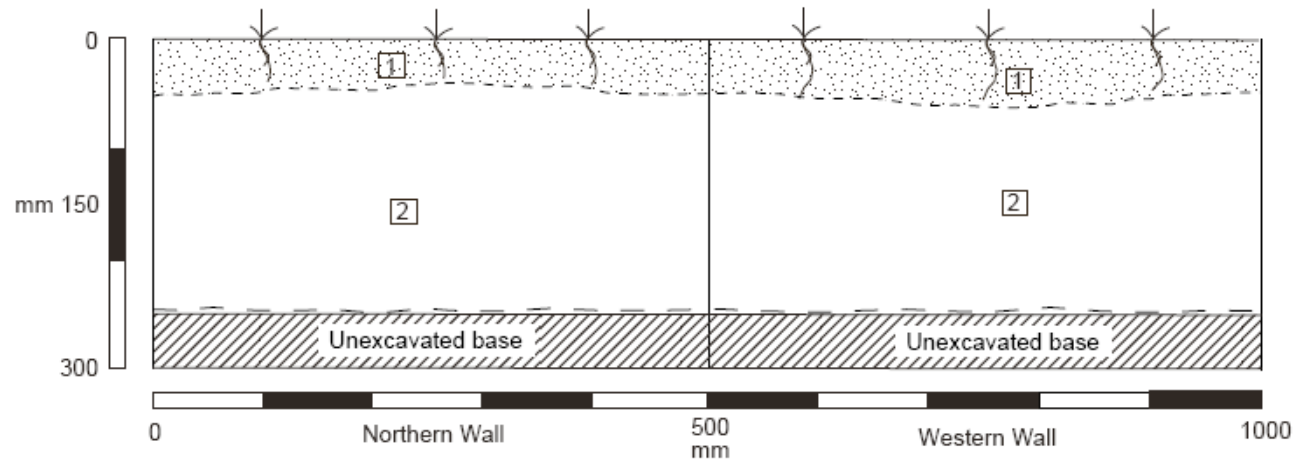
Shovel Test Pit 1 (0.5 metre x 0.5 metre)

519688E / 6737472N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Northern and Western Walls

Drawn by: Erica Weston

Excavation Date: 26 October 2011



### Stratigraphic Components

1	10YR 3/2 (colour from Munsell), pH 7. Dark-brown highly compacted clay-loam. Contains rootlets, iron buckshot and small stone inclusions.
2	10YR 3/3 (colour from Munsell), pH 6.5. Dark-brown highly compacted soil with increasing clay content compared to Layer 1. Contains small charcoal, iron buckshot and stone inclusions.

Figure 28 Stratigraphic drawing: PAD 17 / Hirst 1, shovel test pit 1



## Pacific Highway Upgrade - Woolgoolga to Ballina: Cultural Heritage Sub-Surface Testing

AHIMS Site ID: 04-4-0130

Site Name: PAD 15

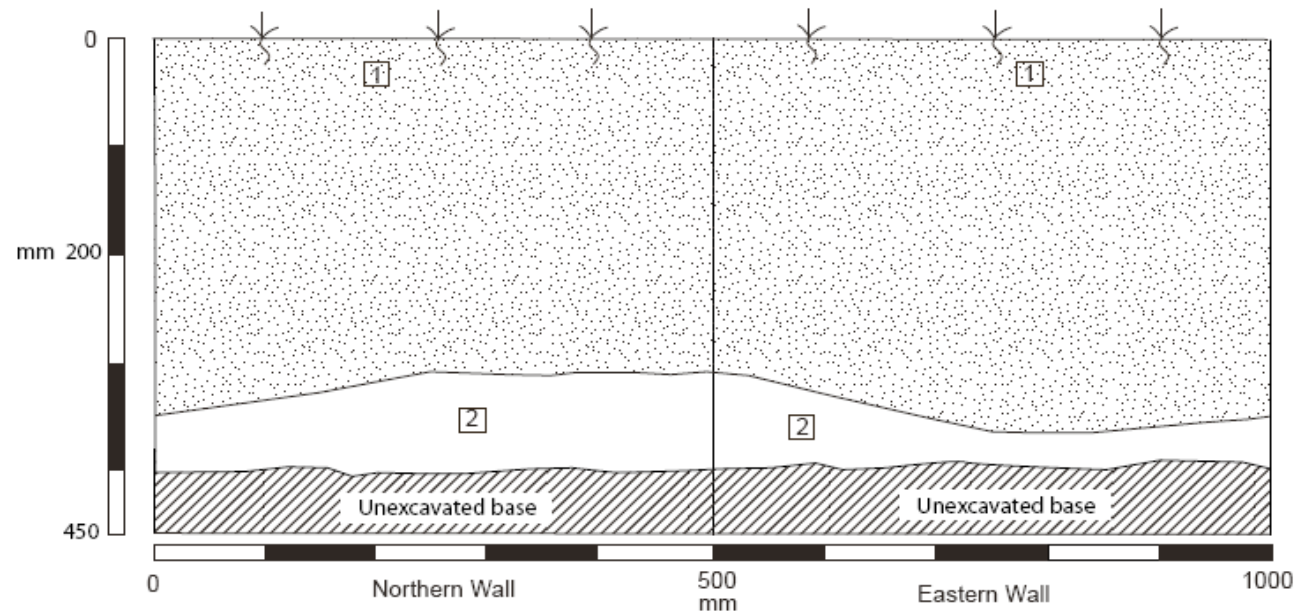
Shovel Test Pit 1 (0.5 metre x 0.5 metre)

520235E / 6740251N (GDA 94, MGA Zone 56)

Stratigraphic Profile: Northern and Eastern Walls

Drawn by: Erica Weston

Excavation Date: 17 November 2011





### Stratigraphic Components






1	10YR 2/2 (colour from Munsell), pH 6.5. Dark-brown, loosely compacted clayey silt; moist and humic. Inclusions of rootlets and grass were present.
2	10YR 3/2 (colour from Munsell), pH 6.5. Dark greyish-brown loam. Moderately compacted and sticky at base. Degrading sandstone and ironstone pebbles present.






Figure 29 Stratigraphic drawing: PAD 15, shovel test pit 1

## **Appendix M Site photos**



**Table 9 Artefact photos Wells Crossing to Iluka Road (from south to north)**

Site name (AHIMS site ID)	Number of artefacts	Photos
WX2I PAD 7  (AHIMS Site ID: 09-4-0107)	2 Artefacts (chert)	 <p>Chert distal flake with plunging termination. Refits with chert proximal flake with a flaked platform (both artefacts featured in photo). Found in STP 8 at 150-550 mm (Photo by Clair Davey, 1 November 2011) .</p>
WX2I PAD 6  (AHIMS Site ID: 09-4-0106)	1 Artefact (crystal quartz)	 <p>Complete quartz crystal flake with a flaked platform, feather termination and dorsal scars from proximal end. Artefact found in STP 21 at 0-150 mm (Photo by Clair Davey, 2 November 2011).</p>

Site name (AHIMS site ID)	Number of artefacts	Photos		
WX2I PAD 5  (AHIMS Site ID: 09-4-0105)	1 Artefact (quartz)	 <p>Complete quartz flake with a feather termination, two dorsal ridge scars and retouch on the right margin. Artefact found in STP 5 at 600 mm (Photo by Morgan Wilcox, 10 November 2011).</p>		
WX2I PAD 4  (AHIMS Site ID: 09-4-0104)	5 Artefacts (chalcedony, silcrete, quartzite)	   <p>Complete silcrete flake with a flaked platform, hinge termination and some retouch on the left ventral margin. Artefact found in STP 14 (Photo by Matthew Schlitz, 9 November 2011).</p> <p>Quartzite complete flake, with a flaked platform. Originally from a river cobble. Artefact found in STP 35, at 300-250 mm (Photo by Matt Schlitz, 9 November 2011).</p> <p>Proximal chalcedony flake, possibly a blade, with a flaked platform. Artefact found in STP 1 at 100-450 mm (Photo by Simon Coxe, 4 November 2011).</p>		
Tyndale 1 PAD  (AHIMS Site ID: 0-4-099)	2 Artefacts (river cobble, chert)	 <p>Complete chert flake with a faceted platform, feather termination and 5 dorsal scars. Artefact found in STP 10 at 200 mm (Photo by Erica Weston, 25 October 2011).</p>		

Site name (AHIMS site ID)	Number of artefacts	Photos
Tyndale 2 PAD  (AHIMS Site ID: 13-4-0177)	9 Artefacts (basalt, chalcedony, chert, quartz, silcrete)	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Complete basalt flake with a flaked platform, hinge termination and retouch along 7.78 mm of one margin. Artefact found in STP 13 at 50-450 mm (Photo by Laura Bates, 3 November 2011).</p> </div> <div style="text-align: center;">  <p>Chalcedony flake located within STP 11 at an unknown depth (Photo by Laura Bates, 3 November 2011).</p> </div> <div style="text-align: center;">  <p>Chalcedony core located within STP13 located at between 450 to 500 mm depth (Photo by Laura Bates, 3 November 2011).</p> </div> </div>
Shark Creek PAD 2  (AHIMS Site ID: 13-4-0170)	3 Artefacts (silcrete, chert)	<div style="text-align: center;">  <p>Complete silcrete flake with a crushed platform and step termination. Artefact found in STP 18 at 0-100 mm (Photo by Erica Weston, 31 October 2011).</p> </div>
PAD 16 / Hirst 1  (AHIMS Site ID: 09-1-0206)	1 Artefact (river cobble)	<div style="text-align: center;">  <p>Complete flake from a river pebble with a flaked platform. Artefact found in STP 25 at 0-120 mm (Photo by Erica Weston, 26 October 2011).</p> </div>



Site name (AHIMS site ID)	Number of artefacts	Photos
PAD 17 / Hirst 2  (AHIMS Site ID: 13-1-0185)	1 Artefact (chert)	 <p>Complete chert flake with a feather termination and retouch on ventral and dorsal surfaces (left and right margins). Overhang removal is also present. Artefact found in STP 33 at 50-200 mm (Photo by Erica Weston, 31 October 2011).</p>
PAD 16 / Hirst 1  (AHIMS Site ID: 09-1-0206)	1 Artefact (river cobble)	 <p>Complete flake from a river pebble with a flaked platform. Artefact found in STP 25 at 0-120 mm (Photo by Erica Weston, 26 October 2011).</p>

## Appendix N Artefact analysis

Table 10 Artefact analysis table for the Wells Crossing to Iluka Road section (south to north)

Date	Site name	STP number	Depth (mm)	Artefact type	Raw material	Length (mm)	Width (mm)	Thickness (mm)	Maximum dimension	Platform type	Platform width	Platform thickness	Termination type	Cortex (%)	Comments
1/11/2011	WX2I Pad 7	8	150-550	Distal Flake	Chert	33.74	16.33	9.24	34.14	-	-	-	Plunge	0	Refit
1/11/2011	WX2I Pad 7	8	150-550	Proximal Flake	Chert	13.50	7.72	5.05	14.04	Flaked	13.63	5.07	-	0	Refit
2/11/2011	WX2I PAD 6	21	0-150	Complete Flake	Crystal Quartz	14.80	7.90	3.80	16.10	Flaked	8.70	2.60	Feather	0	4 dorsal scars from proximal end
11/11/2011	WX2I PAD 5	5	600	Complete Flake	Quartz	9.00	12.00	2.50	12.00		4.00	4.00	Feather	0	2 dorsal ridge scars, retouch right margin
4/11/2011	WX2I PAD 4	1	100-450	Proximal Flake	Chalcedony	-	-	-	19.11	Flaked	6.93	3.23	-	0	Blade
9/11/2011	WX2I PAD 4	14	??	Complete Flake	Silcrete	29.45	22.22	15.82	32.56	Flaked	21.19	17.77	Hinge	0	Some retouch on the left ventral margin
9/11/2011	WX2I PAD 4	18	50-300	Complete Flake	Quartzite	26.94	21.18	12.54	41.33	Flaked	14.08	10.16	Plunge	0	
9/11/2011	WX2I PAD 4	34R	350-400	Proximal Flake	Silcrete	18.41	10.25	5.22	20.31	Flaked	8.28	2.94	-	0	Possibly fine-grained sandstone
9/11/2011	WX2I PAD 4	35	300-350	Complete Flake	Quartzite	65.02	51.18	28.79	72.82	Flaked	33.09	32.64	-	0	Flaked river cobble
25/10/2011	Tyndale 1	10	200	Complete Flake	Chert	24.70	37.40	10.70	40.30	Faceted	28.90	7.50	Feather	0	5 dorsal scars
3/11/2011	Tyndale 1	9	300	Manuport		59.71	51.54	16.40						0	Cobble. Slight pitting
2/11/2011	Tyndale PAD 2	11	??	Complete Flake	Chalcedony	15.93	10.89	4.68	16.10	Flaked	6.89	2.65	Hinge	0	Some edge damage
2/11/2011	Tyndale PAD 2	11	??	Complete Flake	Chalcedony	21.92	17.67	6.10	26.02	Flaked	25.12	6.03	Feather	0	
3/11/2011	Tyndale PAD 2	13	450 - 500	Multi-directional Core	Chalcedony	-	-	-	41.80	-	-	-	-	20	Longest Flake scar: 2,121 mm, 5+ flake scars
3/11/2011	Tyndale PAD 2	17	50-100	Complete Flake	Silcrete	23.01	31.99	7.69	37.71	Flaked	33.16	6.64	Feather	0	Edge damage from use, possible leaching of minerals
3/11/2011	Tyndale PAD 2	Surface	-	Complete Flake	Basalt	28.64	25.34	9.69	34.83	Flaked	14.40	11.03	Hinge	0	Retouch along 778 mm of one margin
3/11/2011	Tyndale PAD 2	Surface	-	Multi-platform Core	Silcrete	-	-	-	80.66	-	-	-	-	50	Length from last scar: 5,496 mm, width: 7,843 mm. No. of rotations: 2, No. of scars: 16, No. of non-feathered scars: 5
3/11/2011	Tyndale PAD 2	Surface	-	Complete Flake	Chert	17.59	13.94	3.20	18.30	Flaked	6.86	4.02	Feather	0	
3/11/2011	Tyndale PAD 2	Surface	-	Single Platform Core	Silcrete	-	-	-	59.50	-	-	-	-	30	Length from last scar: 3076 mm, width: 1,112 mm. No. of rotations: 2, No. of scars: 17, 6 non-feather terms
3/11/2011	Tyndale PAD 2	Surface	-	Complete Flake	Quartz	16.00	13.70	3.84	17.71	Flaked	7.49	7.85	Feather	0	
31/10/2011	Shark Creek Pad 2	18	10-100	Complete Flake	Silcrete	16.71	5.66	0.75	17.76	Crushed	-	-	Step	0	
31/10/2011	Shark Creek Pad 2	18	10-100	Proximal Flake	Chert	-	-	-	12.94	Flaked	-	-	-	0	
31/10/2011	Shark Creek Pad 2	25	300	Longitudinally Split Flake	Chert	21.63	-	4.97	26.89	Flaked	-	-	Feather	0	
31/10/2011	Hirst 2	33	50-200	Complete Flake	Chert	45.00	23.00	12.00	50.00	???	25.00	11.00	Feather	0	Retouch on ventral & dorsal surfaces (left and right margins), overhang removal



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Date	Site name	STP number	Depth (mm)	Artefact type	Raw material	Length (mm)	Width (mm)	Thickness (mm)	Maximum dimension	Platform type	Platform width	Platform thickness	Termination type	Cortex (%)	Comments
26/10/2011	Hirst 1	25	0-120	Complete Flake	River pebble	21.00	25.00	6.00	37.00	Flaked	29.00	7.00	Step	0	