

I.0 NWRL East Early Works: Methodology for Archaeological Excavation

I.I Project Information

The North West Rail Link has been identified by the NSW Government as a key priority railway transport infrastructure project. The NWRL will include new stations and a rail line between Chatswood and Tallawong Road, Rouse Hill extending the rail network to north west Sydney. This project is on a strict timeframe in order to provide rail services to north west Sydney. Baulderstone have been awarded the contract to undertake the early works for the NWRL. For ease of reference and project purposes Baulderstone have divided the NWRL early works into East and West. This methodology relates to the East section only, between Chatswood and the Hills Centre. RPS has been engaged by Baulderstone to undertake the Aboriginal cultural heritage works for the eastern portion of the NWRL project.

The NWRL rail network and proposed station locations were investigated by GML (2012). The GML report identified that the following station locations in the East section require further heritage investigation:

- Cheltenham,
- Cherrybrook and
- Hills Centre.

The GML report identifies that there is one previously recorded Aboriginal artefact scatter in the Cherrybrook study area (AHIMS# 45-6-2861); there are no registered Aboriginal objects in the Cheltenham and the Hills Centre study areas, although potential for archaeological deposit has been identified. This methodology outlines the cultural heritage work to be undertaken for the Eastern portion of the NWRL.

1.2 Ministers Conditions of Approval

The major civil construction works for the North West Rail Link was approved on the 25th September 2012 (SSI-5100) as a State Significant Infrastructure (SSI) project. This methodology is being submitted to the Department of Planning and Infrastructure in accordance with item E9 of the Minister's Conditions of Approval (MCoA):

"the Proponent shall undertake an archaeological salvage program using a methodology prepared in consultation with the registered Aboriginal stakeholders, and to the <u>satisfaction of the Director-General</u>."

This methodology has been approved by the registered Aboriginal stakeholders and their responses have been appended to this document.

1.3 Cultural Heritage Works Phases I and 2

In order to provide clarity on the heritage strategy for the eastern portion of the NWRL this methodology includes two phases:

- Phase 1 Test Excavation and collection of surface artefacts
- Phase 2 Salvage Excavation

Phase 1 will comprise an initial test of the study areas and has been prepared in accordance with guiding principles of the Code of Practice for Archaeological Investigation of Aboriginal objects in New South Wales



(DECCW 2010). It will also include the movement of Aboriginal objects. The Phase 2 salvage methodology will be based on the Phase 1 test excavation results and will target areas identified as having high interpretative potential.

The three study areas are located in the following Local Aboriginal Land Council Boundaries:

Study area	Local Aboriginal Land Council Boundaries
Cheltenham	Metro LALC
Cherrybrook	Metro LALC
Hills Centre	Deerubbin LALC

1.4 Phase I: Test Excavation Methodology and Artefact Collection

I.4.1 Aims

This methodology has been prepared in accordance with the guiding principles of the *Code of Practice for Archaeological Investigation of Aboriginal objects in New South Wales* (DECCW 2010:24-29,35-36). The aims of the test excavation are to retrieve a sample of subsurface sediment from each of the three study areas in order to: 1) examine the characteristics of the sub-surface soils/sediments, 2) determine the presence/absence of Aboriginal archaeological / cultural artefacts, 3) spatial patterning and 4) confirm whether further subsurface salvage is required. The subsurface sediment will be retrieved by hand excavation of archaeological pits, and in accordance with requirement 16a the pits will be at a justifiable and regular spacing (DECCW 2010:26). The impact area will also be opportunistically examined for any unrecorded surface artefacts.

The sub-surface soils and sediments will be examined to identify whether the deposits are intact or disturbed or a combination of both. The excavation will test for the presence and/or absence of subsurface artefacts. The context of artefacts, if present, will be examined (ie disturbed or intact deposit) and it will also be determined whether they form a low density artefact distribution, or whether the pits have High Interpretative Potential (HIP). HIP pits will be defined as those pits which have evidence for intact knapping areas (ie. conjoining artefacts in a reduction sequence) or possess high frequencies of complete artefacts with interpretative value (>25 and larger than 2cm in length). HIP pits also refer to pits with evidence for specific types of tool manufacturing sequences, or a high frequency of specific tool types relating to an activity area.

In the event that no Aboriginal objects are uncovered; the excavation report will provide an interpretation for such results and no further excavation work will be undertaken. If HIP pits are identified then these will be targeted for Phase 2 subsurface archaeological salvage.

1.4.2 Cheltenham Overview

The Cheltenham study area is 1.1 hectares in size and is located on a bench and gentle slope down to Devlin's Creek. It is situated approximately 100m south of the expected NWRL works impact area. The Cheltenham study area has been classified as a PAD (NWRL PAD1) with low to moderate potential for archaeological deposit (Transport for NSW 2012: Chapter 12:12-3). It is located on the Hawkesbury soil landscape which is characterised by sand or sandy clay loam, underlain by sandstone bedrock and/or clay (where shale lenses occur in the Hawkesbury sandstone). Physical visual inspection shows that sandstone outcrops in parts and some other parts have been subject to prior disturbances (eg. clearing for tracks, vegetation management and tennis courts); primary vegetation is regrowth eucalypts with some shrubby understorey.



1.4.3 Cheltenham Sampling Strategy for Test Excavation

The Phase 1 test excavation will target areas which are likely to have moderate-deep deposit (it will avoid outcropping sandstone, steep or uneven areas, disturbed areas, modified areas and eroded areas). Based on field observations moderate-deep deposit is present along the southern portion of the Cheltenham study area and pits will be spaced at approximately 20m intervals down the centre-line; however, intervals will be adjusted or offset where appropriate to avoid outcropping sandstone, disturbed areas, eroded areas and placement may also be adjusted to target portions which have more than 10-20cm of deposit (based on test pits and flag probe test).

1.4.4 Cherrybrook Overview

The Cherrybrook study area is 2.8 hectares in size and is located on gently inclined mid to lower slopes and identified as NWRL PAD 2, described as having low to moderate potential for sub-surface Aboriginal objects (ibid 12-3). One Aboriginal artefact scatter was recorded AHIMS# 45-6-2861 in the centre of the area. There are no permanent water supplies in this area, but semi-permanent water may have been available from third order streams associated with Excelsior Creek, one kilometre to the southwest or Berowra Creek 2.5 kilometres to the northeast. This area is currently vegetated by pasture grasses, lantana, shrubs and regrowth eucalypts. The Cherrybrook study area is part of the Glenorie soil landscape. Examination of the soil profiles shows extensive erosion of topsoils with remaining soils classed as A2 to B1 horizon.

1.4.5 Cherrybrook Sampling Strategy for Test Excavation

Field observations of the Cherrybrook study area suggests that substantial erosion has occurred in this landscape, soils were observed to be hard setting clayey loams and this limits the potential for intact subsurface deposit. The sampling strategy will focus on the area immediately around AHIMS# 45-6-2861, as well as examine if there is any topsoil remaining in the area. Pits will be spaced at approximately 40m intervals to examine soil profiles; however, this interval may be modified in the field to avoid highly disturbed and eroded areas with their placement adjusted to target portions which have over 10cm deposit (based on flag probe test and test pits).

1.4.6 Hills Centre Overview

The Hills centre covers an area of approximately 1.4 hectares and contains NWRL PAD3 which has been assessed to have moderate potential for subsurface Aboriginal objects. The study area is on part of the Castle Hill Showgrounds for which there are existing tracks, paved roads, buildings, landscape modification (terracing and levelling) and installation of infrastructure. The area is highly disturbed and there is little potential for in-situ Aboriginal objects despite it running parallel to an upper tributary of Cattai Creek.

1.4.7 Hills Centre Sampling Strategy for Test Excavation

There is a high level of disturbance in the study area; pits will not be placed on existing gravel tracks, existing infrastructure (including buildings) or any other visibly disturbed area. Pits will be placed in areas which are least disturbed as determined in the field. Pits will be spaced at 40m intervals, but, the interval will be able to be modified in the field to avoid highly disturbed areas, eroded areas and their placement may be adjusted to target portions which have more intact deposit or over 30cm of deposit depth (based on test pit results).

1.4.8 Collection Methodology

The collection and movement of Aboriginal objects (surface artefacts) will include the previously recorded site AHIMS# 45-6-2861 and any other Aboriginal surface artefact sites identified during Phase 1. The methodology for the salvage of surface artefacts will be to inspect their recorded GPS location and flag any extant artefacts. The spatial distribution of the artefacts will be recorded along with the relevant landscape



features. Artefacts will then be collected in appropriately labelled bags and will be collected in grid locations with a GPS reference point. Interpretation and documentation of the artefacts will be included in the reporting and submitted to the registered Aboriginal parties.

1.5 Phase 2 Salvage Methodology

The aim of Phase 2 is to salvage in-situ subsurface artefacts around HIP pits (if identified during Phase 1) (as defined in Section1.4.1). The salvage will aim to further define the portion of the PAD with high interpretative potential. This will be done by excavating 4 pits adjacent or offset in cardinal directions/or along a grid (inside the impact area or the development footprint). The salvage will place pits to determine the concentration of artefacts associated with the interpretive potential identified and will be off-set and spaced as appropriate to investigate this. Salvage will cease when a sufficient sample of artefacts has been recovered for interpretative purposes (in high concentration areas) or where there is a greater than 50% reduction in interpretative potential.

1.6 Phase I and 2 Field Methods

I.6.1 Excavation Methods

The excavation methods below have adopted the guiding principles of the Code of Practice for Archaeological Investigation of Aboriginal objects in New South Wales (DECCW 2010:26-27).

- Excavation for Phase 1 and 2 will be undertaken with hand tools only.
- The first pit at each study area will be investigated in 5cm spits, after which 10cm spits or stratigraphic units will be used (whichever is smaller).
- All material will be sieved using a 5mm aperture sieve.
- Deposit will be sieved using dry or wet sieving methods as appropriate to the soil type, access to study area and environmental context.
- Excavation units will be excavated to at least to the base of identified Aboriginal object bearing units and/or will cease at clay or bedrock.
- Photographic and scale drawn records will be made for selected excavation areas.

1.6.2 Storage of Artefacts

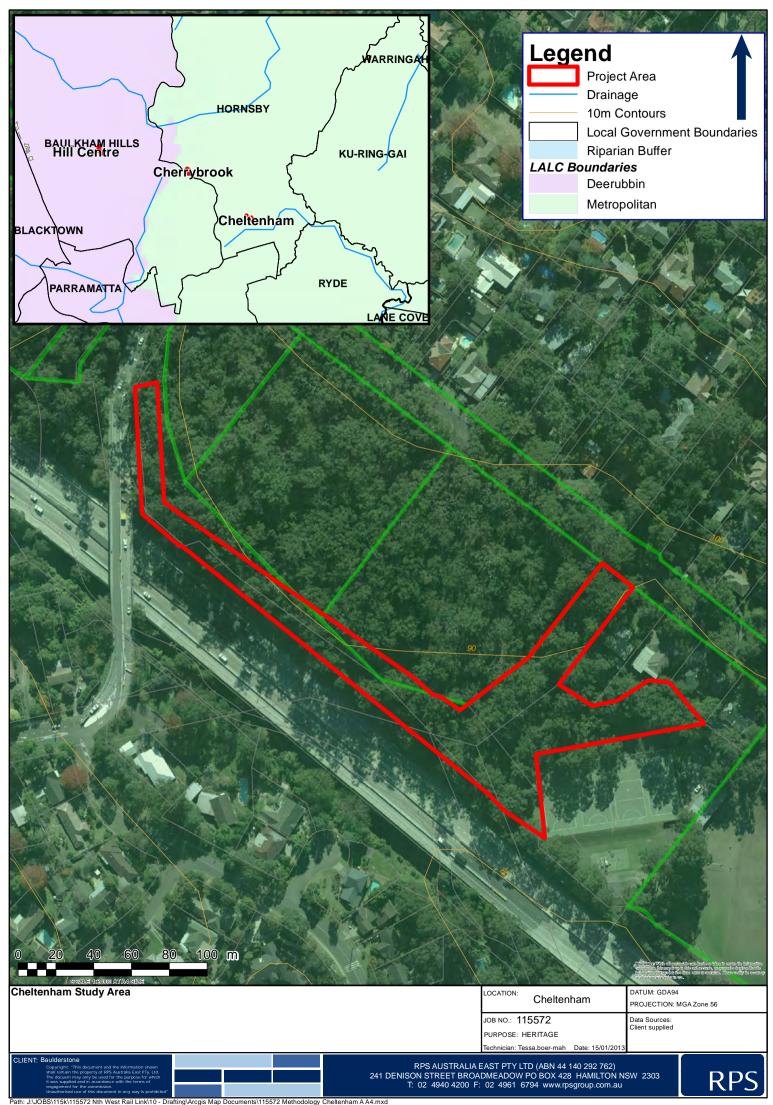
Artefacts will be stored at a suitable location to allow for their recording and documentation. Salvaged artefacts will be subject to a Care and Control Agreement or at the Australian Museum and will be decided in consultation with the Aboriginal stakeholders.

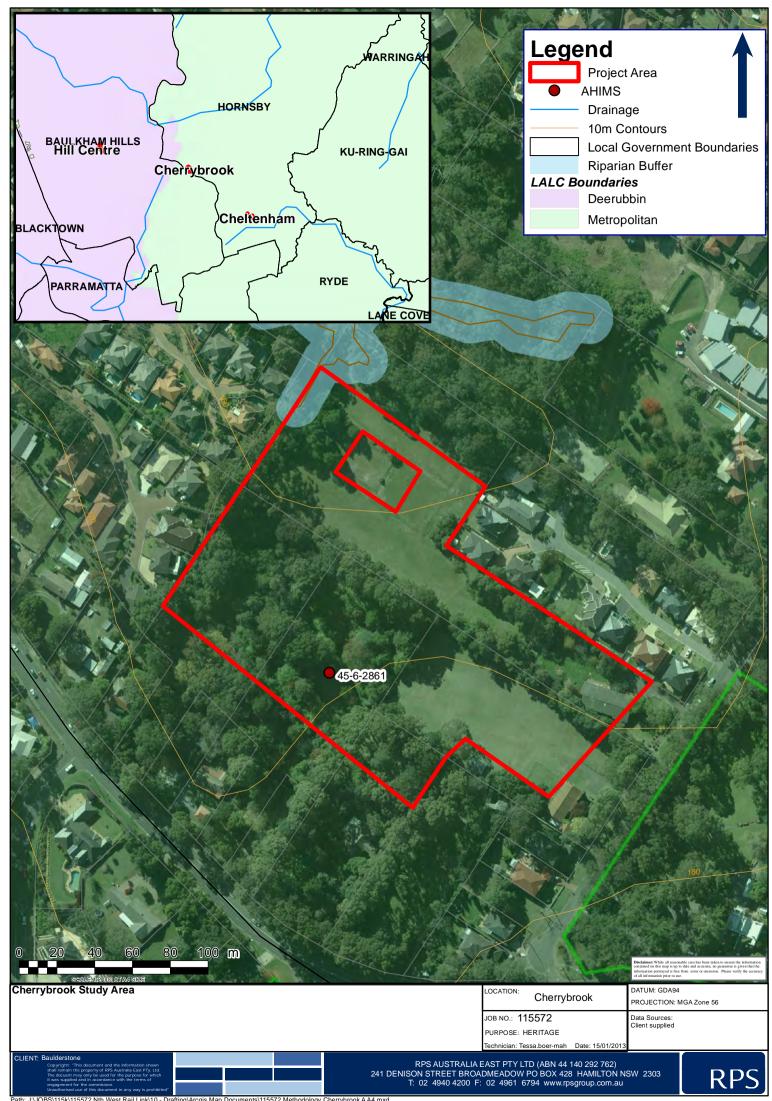
1.6.3 Artefact Recording

Artefacts will be recorded in an appropriate manner: where possible the length, width, thickness, and weight of artefacts will be recorded as well as artefact type, raw material and cortex, where applicable. Additional recording and analysis will be undertaken as required.

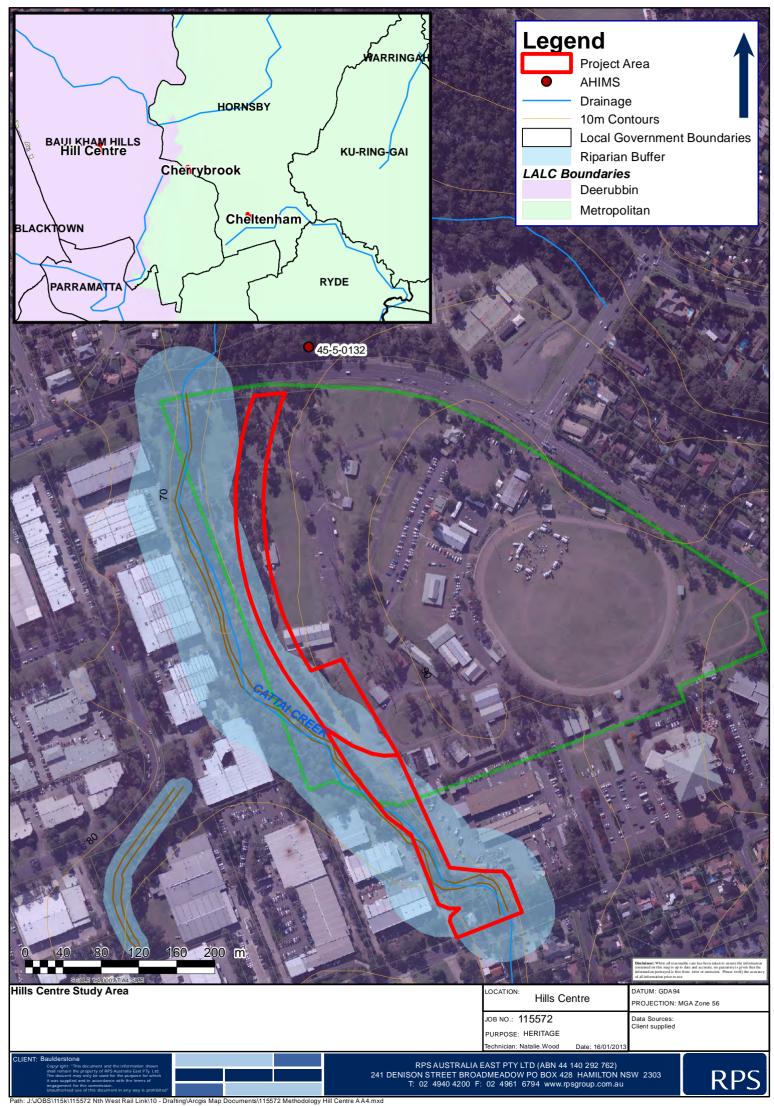
1.6.4 Photography

Artefact photography will be undertaken in accordance with requirement 20 (DECCW 2010:29), where applicable. Diagnostic artefacts from the excavation will be photographed with appropriate graded metric scales and photographic recording of the excavation process and soil profiles will also be undertaken.





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2.0 References and Acronyms

DECCW. 2010. "Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales." in *Part 6 National Parks and Wildlife Act 1974*, edited by Department of Environment Climate Change & Water.

Godden Mackay Logan & Jo McDonald CHM. 2012. "North West Rail Link EIS 1: Major Civil Construction Works Indigenous Heritage." NWRL Planning Approvals Team.

Transport for NSW. 2012. "Environmental Impact Statement Stage 2 – Stations, Rail Infrastructure and Systems Stage 2."

Acronyms

AHIP	Aboriginal Heritage Impact Permit
HIP Pit	High Interpretative Potential Pit
NWRL	North West Rail Link
OEH	Office of Environment and Heritage
PAD	Potential Archaeological Deposit



3.0 Aboriginal Stakeholder Consultation Log and Responses

3.1 Summary of Aboriginal Consultation

Agreement with Excavation Methodology	Organisation	Date	Comments (if relevant)
Yes	Deerubbin LALC	25/1/2013	
Yes	Metropolitan LALC	13/2/2013	
N/A	Bidjigal Reserve Trust	5/02/2013	This portion of the NWRL is outside the Bidjigal Reserve Trust area and therefore they are not interested in commenting on the methodology.
Yes	Darug Aboriginal Cultural Heritage Assessments (DACHA)	7/02/2013	
Yes	Darug Aboriginal Land Care Inc (DALCO)	25/01/2013	
Yes	Darug Custodian Aboriginal Corporation (DCAC)	25/01/2013	
Yes	Darug Land Observations (DLO)	3/02/2013	
Yes	Darug Tribal Aboriginal Corporation (DTAC)	13/02/2013	
Yes	Gunjeewong Cultural Heritage Aboriginal Corporation	13/02/2013	
N/A	Parramatta Council Aboriginal and Torres Strait Islander Advisory Committee	7/2/2013	Parramatta (CATSIAC) is an advisory organisation and is not authorised to respond on behalf of Aboriginal organisations, but will forward on relevant information to Aboriginal groups in their LGA.
N/A	Mr Tony Williams	19/12/2013	Advised that Tony Williams is being represented by Yarrawalk / Tocomwall
Yes	Yarrawalk / Tocomwall	13/2/2013	



3.2 Aboriginal Consultation Log

Date	Method of Contact	Organisatio n Contacted	Consultation Description	Summary
19/12/2012	Phone/Email	Metropolitan Local Aboriginal Land Council (MLALC)	Tessa Boer-Mah (TBM) of RPS rang Registered Aboriginal Party (RAP) MLALC (02 8394 9666). No answer left a message and sent an email.	No answer left a message + sent an email
19/12/2012	Phone	Deerubbin Local Aboriginal Land Council (DLALC)	TBM spoke to Steve Randall, advised him that the test excavation methodology letter would be sent early Jan with the standard 28 day review period and that commencement of fieldwork is expected in February. Steve indicated DLALC would be able to review in that timeframe as they re-open on the 7th Jan.	Available to review of methodology in January
19/12/2012	Phone	Parramatta Council Aboriginal and Torres Strait Islander Advisory Committee	TBM spoke to Maggie Kyle advised her that the test excavation methodology letter would be sent early Jan with the standard 28 day review period and that commencement of fieldwork is expected in February. Maggie requested the information be sent by email.	Email sent
19/12/2012	Phone	Tony Williams + Yarrawalk / Tocomwall	TBM spoke to Scott Franks, advised him that the test excavation methodology letter would be sent early Jan with the standard 28 day review period and that commencement of fieldwork is expected in February. Scott indicated he was able to review the methodology in that timeframe and that Tony Williams should not be listed as a separate stakeholder (as per the GML 2012 report); but should be listed under Yarrawalk / Tocomwall.	Available to review of methodology in January
19/12/2012	Phone	Darug Custodian Aboriginal Corporation (DCAC)	TBM rang DCAC on 0415 770 163, advised her that the test excavation methodology letter would be sent early Jan with the standard 28 day review period and that commencement of fieldwork is expected in February. Leanne indicated she would be able to review the methodology in January. Leanne indicated she would be available in January to review the methodology.	Available to review of methodology in January
19/12/2012	Phone	Darug Aboriginal Cultural Heritage Assessments (DACHA)	TBM spoke to Gordon and advised him that the test excavation methodology letter would be sent early Jan with the standard 28 day review period and that commencement of fieldwork is expected in February.	Available to review of methodology in January
19/12/2012	Phone	Darug Aboriginal Land Care Inc (DALCO)	TBM rang DALCO, 8814 9547 no answer, 0408360814 left message.	Left message



Date	Method of Contact	Organisatio n Contacted	Consultation Description	Summary
19/12/2012	Phone	Darug Land Observations (DLO)	TBM spoke to Gordon Workman, advised him that the test excavation methodology letter would be sent early Jan with the standard 28 day review period and that commencement of fieldwork is expected in February. Gordon advised he would be available in Jan to review the methodology.	Available to review of methodology in January
19/12/2012	Phone/Email	Darug Tribal Aboriginal Corporation (DTAC)	TBM rang DTAC no answer	No answer and sent email
19/12/2012	Phone	Gunjeewong Cultural Heritage Aboriginal Corporation (GCHAC)	TBM rang GCHAC no answer, left a message	Left message
19/12/2012	Phone/Email	Bidjigal Reserve Trust	TBM rang GCHAC no answer, left a message and sent an email.	Left message and sent email
16/01/2013	Mail	Metropolitan LALC	Hard copy of Methodology Letter sent to nominated address by TBM	Awaiting receipt/response
16/01/2013	Mail	Deerubbin LALC	Hard copy of Methodology Letter sent to nominated address by TBM	Awaiting receipt/response
16/01/2013	Mail	Parramatta Council Aboriginal and Torres Strait Islander Advisory Committee	Hard copy of Methodology Letter sent to nominated address by TBM	Awaiting receipt/response
16/01/2013	Mail	Darug Custodian Aboriginal Corporation (DCAC)	Hard copy of Methodology Letter sent to nominated address by TBM	Awaiting receipt/response
16/01/2013	Mail	Darug Aboriginal Cultural Heritage Assessments (DACHA)	Hard copy of Methodology Letter sent to nominated address by TBM	Awaiting receipt/response
16/01/2013	Mail	Darug Aboriginal Land Care Inc (DALCO)	Hard copy of Methodology Letter sent to nominated address by TBM	Awaiting receipt/response
16/01/2013	Mail	Darug Land Observations (DLO)	Hard copy of Methodology Letter sent to nominated address by TBM	Awaiting receipt/response
16/01/2013	Mail	Yarrawalk / Tocomwall	Hard copy of Methodology Letter sent to nominated address by TBM	Awaiting receipt/response
16/01/2013	Mail	Darug Tribal Aboriginal Corporation (DTAC)	Hard copy of Methodology Letter sent to nominated address by TBM	Awaiting receipt/response



Date	Method of Contact	Organisatio n Contacted	Consultation Description	Summary
16/01/2013	Mail	Gunjeewong Cultural Heritage Aboriginal Corporation	Hard copy of Methodology Letter sent to nominated address by TBM	Awaiting receipt/response
16/01/2013	Mail	Bidjigal Reserve Trust	Hard copy of Methodology Letter sent to nominated address by TBM	Awaiting receipt/response
17/01/2013	Email	Metropolitan LALC	Electronic copy of Methodology Letter sent to nominated email address by Karyn Virgin	Awaiting receipt/response
17/01/2013	Email	Deerubbin LALC	Electronic copy of Methodology Letter sent to nominated email address by KV	Awaiting receipt/response
17/01/2013	Email	Parramatta Council Aboriginal and Torres Strait Islander Advisory Committee	Electronic copy of Methodology Letter sent to nominated email address by KV	Awaiting receipt/response
17/01/2013	Email	Mr Tony Williams	Electronic copy of Methodology Letter sent to nominated email address by KV	Awaiting receipt/response
17/01/2013	Email	Darug Custodian Aboriginal Corporation (DCAC)	Electronic copy of Methodology Letter sent to nominated email address by KV	Awaiting receipt/response
17/01/2013	Email	Yarrawalk / Tocomwall	Electronic copy of Methodology Letter sent to nominated email address by KV	Awaiting receipt/response
17/01/2013	Email	Darug Tribal Aboriginal Corporation (DTAC)	Electronic copy of Methodology Letter sent to nominated email address by KV	Awaiting receipt/response
17/01/2013	Email	Bidjigal Reserve Trust	Electronic copy of Methodology Letter sent to nominated email address by KV	Awaiting receipt/response
17/01/2013	Phone	Darug Aboriginal Cultural Heritage Assessments (DACHA)	Confirmed that the hard copy Methodology letter had been sent on the 16 January 2013	Confirmed that the letter had been sent
17/01/2013	Phone	Darug Aboriginal Land Care Inc (DALCO)	Confirmed that the hard copy Methodology letter had been sent on the 16 January 2013	Confirmed that the letter had been sent
17/01/2013	Phone	Darug Land Observations (DLO)	Confirmed that the hard copy Methodology letter had been sent on the 16 January 2013	Confirmed that the letter had been sent
17/01/2013	Phone	Gunjeewong Cultural Heritage Aboriginal Corporation	Confirmed that the hard copy Methodology letter had been sent on the 16 January 2013	No answer, left a message
23/01/2013	Phone	Metropolitan LALC	Called to confirm that the Methodology Letter had been received	Received, will respond.



Date	Method of Contact	Organisatio n Contacted	Consultation Description	Summary
23/01/2013	Phone	Deerubbin LALC	Called to confirm that the Methodology Letter had been received	Received, will respond.
23/01/2013	Phone	Parramatta Council Aboriginal and Torres Strait Islander Advisory Committee	Called to confirm that the Methodology Letter had been received	No answer.
23/01/2013	Phone	Darug Custodian Aboriginal Corporation (DCAC)	Called to confirm that the Methodology Letter had been received	No answer.
23/01/2013	Phone	Darug Aboriginal Cultural Heritage Assessments (DACHA)	Called to confirm that the Methodology Letter had been received	Received (tentatively), will respond.
23/01/2013	Phone	Darug Aboriginal Land Care Inc (DALCO)	Called to confirm that the Methodology Letter had been received	Received (tentatively), will respond.
23/01/2013	Phone	Darug Land Observations (DLO)	Called to confirm that the Methodology Letter had been received	No answer.
23/01/2013	Phone	Yarrawalk / Tocomwall	Called to confirm that the Methodology Letter had been received	Received email, will respond.
23/01/2013	Phone	Darug Tribal Aboriginal Corporation (DTAC)	Called to confirm that the Methodology Letter had been received	No answer.
23/01/2013	Phone	Gunjeewong Cultural Heritage Aboriginal Corporation	Called to confirm that the Methodology Letter had been received	No answer.
23/01/2013	Phone	Bidjigal Reserve Trust	Called to confirm that the Methodology Letter had been received	No answer.
25/01/2013	Email	Darug Aboriginal Land Care Inc (DALCO)	Confirmed that Methodology Letter was received. Methodology Letter accepted with no comments.	Excavation Methodology approved
25/01/2013	Email	Darug Custodian Aboriginal Corporation (DCAC)	Confirmed that Methodology Letter was received. Methodology Letter accepted with no comments.	Excavation Methodology approved
25/01/2013	Phone	Deerubbin LALC	Confirmed that Methodology Letter was received. Methodology Letter accepted with no comments.	Excavation Methodology approved
3/02/2013	Email	Darug Land Observations (DLO)	Responded to Methodology Letter - no comments	Excavation Methodology approved



Date	Method of Contact	Organisatio n Contacted	Consultation Description	Summary
5/02/2013	Phone	Bidjigal Reserve Trust	No comments not interested in the methodology as it is outside the Bidjigal area	Methodology response N/A
7/02/2013	Fax	DACHA	Fax received and confirmed that DACHA is in agreement with the methodology.	Excavation Methodology approved
13/02/2013	Email and Phone	Metro LALC	TBM spoke to David Evans he did not raise any objections to the methodology - confirmation sent by email.	Excavation Methodology approved, email confirmation sent
13/02/2013	Phone	Parramatta Council Aboriginal and Torres Strait Islander Advisory Committee	TBM spoke to Maggie Kyle she has confirmed that she sent on the information to their interest groups and they will contact RPS direct. PCATSIAC are an advisory committee and thus will not directly comment on the methodology.	Methodology response N/A
13/02/2013	Phone	Darug Tribal Aboriginal Corporation (DTAC)	TBM spoke to Sandra Lee from DTAC, they are satisfied with the methodology and would like to participate in the excavation. Confirmation of conversation sent to SL by email.	Excavation Methodology approved, email confirmation sent
13/02/2013	Phone	Deerubbin LALC	TBM confirmed by email that DLALC is in agreement with the methodology	Email confirmation
13/02/2013	Phone	Gunjeewong Cultural Heritage Aboriginal Corporation	TBM spoke to Cherie who verbally agreed to the methodology. Confirmation email sent.	Excavation Methodology approved
13/02/2013	Phone and Email	Yarrawalk / Tocomwall	TBM spoke to Scott Franks he provided verbal agreement to the methodology and sent confirmation by email.	Excavation Methodology approved, email confirmation sent