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Figure 4.13 North West Rail Link showing alignment. (Source: AECOM)

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Figure 4.14 North West Rail Link alignment and Bella Vista Station Construction Boundary including Aboriginal heritage surveyed area. (Source: AECOM)

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Figure 4.15 North West Rail Link alignment showing Construction Boundary and Aboriginal heritage surveyed areas.
(Source: AECOM)

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Figure 4.16 North West Rail Link showing particularly areas surveyed for Aboriginal heritage within the Kellyville station Construction Boundary. (Source: AECOM)

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Figure 4.17 North West Rail Link alignment and areas surveyed for Aboriginal heritage. (Source: AECOM)

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Figure 4.18 North West Rail Link alignment showing Construction Boundaries around Rouse Hill Station and areas surveyed for Aboriginal heritage. (Source: AECOM)

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Figure 4.19 North West Rail Link showing particularly areas surveyed for Aboriginal heritage within Cudgegong Road Station Construction Boundary. (Source: AECOM)

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Figure 4.20 North West Rail Link showing particularly areas surveyed for Aboriginal heritage within the Tallawong Stabling Facility Construction Boundary. (Source: AECOM)

4.2 Endnotes

- ¹ See for example Irish, P 2004, 'When is a Scar a Scar? Evaluating Scarred and Marked Trees at Sydney Olympic Park'. *Australian Archaeology* 59, pp 59–61; and A Long 2005, *Aboriginal Scarred Trees in NSW: A Field Manual*, Sydney, Department of Environment and Conservation.

5.0 Aboriginal Heritage Field Survey Results

This section provides an overview of the results arising from the archaeological survey undertaken for the NWRL in 2011. The first half of the section provides an overview of each construction site—a description of its physical setting, level of impact, a summary of Aboriginal sites recorded and the level of archaeological potential. The remainder of this section details the Aboriginal archaeological sites (and areas with Aboriginal archaeological potential) recorded within the 17 construction sites. In order to facilitate the consequential values assessment, impact assessment and heritage management (Chapters 6 and 7) Aboriginal sites have been detailed in the following order:

- previously recorded Aboriginal sites, which were relocated during the current field survey;
- previously recorded Aboriginal sites, which could not be relocated during the current field survey;
- new Aboriginal sites, not previously recorded; and
- areas with Potential Archaeological Deposit (PAD), not previously recorded.

A summary of all Aboriginal sites (including areas with PAD) that require management prior to and during the construction phases of the NWRL project are provided at the end of this section.

5.1 Physical Description of the Construction Sites

The location of proposed construction sites 1–17 in relation to the NWRL project corridor are shown in Figures 5.1 to 5.18. In general it can be seen that a number of the proposed construction sites have been subject to a high level of prior impact associated with agriculture and development activities over the past 200 years.

However, several of the construction sites do not exhibit such impact and contain evidence for Aboriginal occupation of the Cumberland Plain, and/or have a level of archaeological potential to contain such evidence in a subsurface context.

The following descriptions present an overview of survey conditions (expressed as 'ground surface visibility' and 'exposure'—as defined by OEH under the *Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW*) and the observed/known impacts associated with each construction site. A summary of the subsurface archaeological potential for each construction site is also provided.

Construction Sites 1 to 4—Epping to Cherrybrook

A brief inspection was undertaken for the stations and rail alignment between Epping Decline and Cherrybrook, including the proposed Cherrybrook station, but these areas were not extensively surveyed. However, based on AHIMS data, the brief site inspection and the prior Aboriginal heritage assessments for these locations, the following can be stated.

Construction Sites 1 and 2 (Decline and Epping services facility) may be described as disturbed with a high level of ground surface impact arising from the processes of residential development and transport infrastructure. There is no potential for Aboriginal heritage in the NWRL impact zones at Epping due to the already developed nature of the area (Figures 5.1 and 5.2).

Cheltenham services facility (Construction Site 3) was not visited due to access restrictions. Construction Site 3 contains a large dense area of vegetation. Upon the basis of archaeological modelling, this area can be assessed to have a low to moderate potential for Aboriginal objects, due to lack of previous disturbance and its landscape context (Figure 5.3). NWRL PAD 1 has been assigned within Construction Site 3 to describe this level of archaeological potential.

Construction Site 4 (Cherrybrook Station) contained a mixture of disturbed (from residential development) and undisturbed (containing dense vegetation) land. A registered Aboriginal site (45-6-2861, Stone Artefact Concentration [SAC]) is located within the centre of this construction site; this lower slope landform, which overlooks a number of creeks to the north and northwest, is assessed to possess a low to moderate potential for subsurface Aboriginal objects (NWRL PAD 2 describes the zone with archaeological potential) (Figure 5.4).

Construction Site 5—Castle Hill Station

Construction Site 5 (Castle Hill Station) is to be located within the Arthur Whitting Reserve, between Old Northern Road and Old Castle Hill Road. Survey found that this land has been highly disturbed by landscaping, including gardens, lawns and exotic trees. The construction of the adjacent roads and bulk excavation around the buildings at the eastern end of the park have also caused significant disturbance. Ground surface visibility was approximately 20% with a number of small soil exposures near trees and pedestrian traffic routes. No Aboriginal objects and/or sites were observed within this construction site. There is a very low potential for intact Aboriginal sites to be present at this construction site (Figure 5.5).

Construction Site 6—Hills Centre Station

Prior development impacts associated with Construction Site 6 differ from the east to west (Figure 5.6). The eastern portion of this proposed construction site has been heavily impacted by building and construction, parkland development, terracing and landscaping, construction of gardens and the showground ring. Terracing has involved deep cutting and soil removal (approximately two metres of soil has been removed) to create the works depot and level the showground near the creek. Thus the eastern areas of Construction Site 6 have no archaeological potential.

The western areas of Construction Site 6 were assessed by JMcD CHM 2006. The 2006 study identified an Aboriginal site (located outside the Construction Site) and an area of archaeological potential adjacent to Cattai Creek. The current survey identified remnant soil horizons across the area previously designated with archaeological potential (named NWRL PAD 3), and concurs with the 2006 assessment of a moderate level of archaeological potential for further Aboriginal objects to be located within a subsurface context. Ground surface visibility was approximately 20% across this area, with no exposure. Development of Construction Site 6 will impact NWRL PAD 3.

Construction Site 7—Norwest Station

Construction Site 7 (the Norwest Station) had approximately 30% ground surface visibility due to grass cover, existing buildings and roads (no ground exposures were present).

The area was found to be highly disturbed by modern buildings, cut and imported fills, roads and landscaping. This construction site was assessed to have very low to no potential for intact Aboriginal sites (Figure 5.7).

Construction Site 8—Bella Vista Station

Construction Site 8 (Bella Vista Station) is proposed to be contained within the land of the Homemaker Collection Shopping Centre on the corner of Old Windsor Road and Celebration Drive. Survey in this area recorded 10% ground surface visibility with exposures along the northern end of Celebration Drive.

This construction site has already been highly impacted by development. The course of the creek bank along the northern end of Celebration Drive has been modified. As such this construction site has very low to no potential for Aboriginal heritage sites (Figure 5.8).

Construction Site 9—Balmoral Road (Bella Vista Station to Balmoral Road)

Archaeological survey was undertaken for all properties within the Balmoral Road construction site (Construction Site 9). All of the blocks in this construction site have been impacted by housing development and service installations. In general, ground surface visibility was low at 10% with few soil exposures. However, Properties 86 (16 Cumbelege Lane) and 83 (14 Cumbelege Lane) provided more soil exposures, a result of eroded tracks, topsoil scraping and cutting.

The landform within Construction Site 9 was a lower slope that abutted the creek flat of Elizabeth Macarthur Creek. Despite the residential development, Aboriginal objects have been previously recorded within this construction site and a new site—14 Cumbelege Lane, was recorded. Construction Site 9 has been assessed to have archaeological potential associated with properties 82 (12 Cumbelege Lane) and 74 (2 Cumbelege Lane), which has been described through the allocation of NWRL PADs 4, 5 and 6 (Figure 5.9).

Construction Site 10—Memorial Avenue (Balmoral Road to Memorial Avenue)

Archaeological survey was undertaken for all properties within the Memorial Avenue construction site (Construction Site 10). There was very little ground surface visibility due to dense grass cover—merely a few cattle tracks. In general, this construction site has been subject to a low level of disturbance (primarily historical vegetation stripping), except surrounding residential development and the Burns Road T-way station, where impacts have significantly modified soil horizons.

A number of Aboriginal sites have been previously recorded within and adjacent to this construction site (located within the construction site are three separate stone artefact sites). The current survey identified that the ridge top, hill slope and flat landforms (overlooking Elizabeth Macarthur Creek) have the potential for relatively undisturbed archaeological deposits. These landforms have been characterised through designation of NWRL PAD 7 (Figure 5.10).

Construction Site 11—Kellyville Station (Memorial Avenue to Samantha Riley Drive)

Survey within Construction Site 11 (Kellyville Station) was limited by zero ground surface visibility. Impacts within this construction site were associated with the T-way car park, some residential development and historical vegetation stripping. Prior survey had identified three Aboriginal sites located directly adjacent to this construction site and one (a stone artefact site with PAD) within its boundary. The current assessment has found that raised flat landforms, overlooking Elizabeth Macarthur Creek, have moderate archaeological potential for relatively undisturbed archaeological deposits—NWRL PAD 9 (Figure 5.11).

Construction Site 12—Samantha Riley Drive to Windsor Road

Construction Site 12 (Samantha Riley Drive Station) was surveyed and found to have 10% ground surface visibility. Some impacts were identified, including earthworks adjacent to the creek, stockpiling of gravels, fills and concrete dumping (possibly for road works or remaining from the establishment of the Riley T-way station). Native vegetation has been stripped, except adjacent to Elizabeth Macarthur Creek.

This landform was tested in 1993 (PAD19–RH/CD9 [45-5-0933], McDonald 1993). The area of PAD associated with this site covers the whole construction site, due to the proximity to Elizabeth Macarthur Creek, and landforms suitable for Holocene Aboriginal occupation (Figure 5.12). While there was a sewer line constructed here in 1993, the proposed drainage basin (for which a Section 90 consent was granted) was not constructed.

Construction Site 13—Old Windsor Road to White Hart Drive

The majority of Construction Site 13 (Old Windsor Road to White Hart Drive) was surveyed where access was available (Figure 4.8 shows the locations surveyed). There was no ground surface visibility within any of the areas surveyed.

The northern portions of this construction site contain several previously recorded Aboriginal sites; some of which have been subject to prior Section 90 consent. Other Aboriginal sites were not relocated due to limited ground surface visibility.

Creek flat landforms 100m either side of the two creek lines (towards the south of this construction site) have archaeological potential for relatively undisturbed archaeological deposits—such zones were designated as NWRL PAD 10 (Figure 5.13).

Construction Site 14—Rouse Hill Station

Construction Site 14 (Rouse Hill Station) is to be located within the grounds of the Rouse Hill Town Centre. The majority of this area has been cleared and subject to extensive urban development. Section 90 permits have been previously granted for all lands in the Rouse Hill Town Centre; and there is no archaeological potential for intact Aboriginal sites to remain within the previously developed lands. The Caddies Creek Precinct was subject to archaeological salvage excavation (i.e. JMcD CHM 2007), with the conservation outcome being the retention of all identified Aboriginal grinding groove sites.

The south-west of this construction site has not been developed. As such the lower slope landforms, closer to Caddies Creek, retain a potential for further relatively undisturbed archaeological deposits—these areas have been designated as NWRL PAD 11 (Figure 5.14).

Construction Site 15—Windsor Road Viaduct

Due to access issues, it was not possible to survey Construction Site 15 (the Windsor Road viaduct), although this has been surveyed recently by Kelleher Nightingale (2011). An assessment of landscape associated with this construction site suggests that it has been subject to a low level of previous impact (vegetation stripping and grazing). On the basis of predictive modelling, the ridge top and ridge spur landforms in this construction site have a potential to contain intact Aboriginal sites—designated as NWRL PAD 11. These locations would have provided good views to adjacent landforms and are located close to Caddies Creek and Second Ponds Creeks, both locations with known archaeological deposits (Figure 5.15).

Construction Sites 16 and 17—Windsor Road Viaduct to Cudgegong Road, Cudgegong Road Station and Tallawong Stabling Facility

Construction Sites 16 and 17 were surveyed for Aboriginal sites. Prior survey work had identified a number of Aboriginal sites and areas with PAD (Figures 5.16 and 5.17). The current survey found limited ground surface visibility (10%) and infrequent areas of soil exposure. Disturbance impacts were associated with residential development, farming, ploughing, cropping, grazing, dam construction, farm tracks and vegetation stripping. Some stands of remnant native vegetation were present in property 26 (37 Cudgegong Road).

Survey work identified four previously unrecorded Aboriginal sites, confirmed the presence of some previously recorded Aboriginal sites and confirmed zones with PAD.

5.2 Aboriginal Sites and Areas with Potential Archaeological Deposit

5.2.1 Previously Recorded Sites—Relocated in 2011

Three previously recorded Aboriginal sites (as registered under AHIMS) were relocated during the current survey. Table 5.1 provides information on their content, condition and extent, as could be defined in 2011.

Table 5.1 AHIMS sites relocated during the 2011 survey

Site name/ AHIMS no.	Construction site	Description	Figure no.
45-5-2805 RH/SP15	16 Windsor Rd Viaduct to Cudgegong Rd	A silcrete core, located on the east bank of Second Ponds Creek within the site boundary of RH/SP15. Due to the heavy grass over the remaining area, other artefacts could not be relocated. The extent of PAD with high potential, associated with this site, extends to the boundary and beyond of Construction Site 16. High potential for subsurface deposit exists within 100m of Second Ponds Creek from the corner of Cudgegong Road and Schofields Roads, north-east to Windsor Road at Connie Lowe Reserve. There are some areas of moderate disturbance within this area. Market gardens or former market garden properties have less potential due to extensive ploughing. The following sites and previously recorded PADs are included within this larger PAD. Excluding areas of disturbance from earth works, roads and buildings, this PAD generally has the best archaeological potential within the NWRL project area.	5.16
45-5-3933 RH/A20P 18	17 Tallawong Stabling Facility	Three silcrete artefacts were identified in an exposure within this site at the rear of property 52 on Schofields Road. NB seven objects were recorded in 2009.	5.17
45-5-3355	17 Tallawong Stabling Facility	Two silcrete flakes located at the corner of Schofields Road and Cudgegong Roads are likely part of this previously recorded site. The artefacts were in a disturbed roadside embankment.	5.17

5.2.2 Previously Recorded Sites—Not Relocated in 2011

Table 5.2 details the registered AHIMS sites that were not be relocated during the survey due to poor visibility, inaccessibility and/or time constraints. All of these previously recorded sites are located within the NWRL corridor.

The notes presented for these sites are based on the AHIMS cards and JMD CHM 2006. As registered AHIMS sites, these sites require heritage management during the approvals and development process.

Table 5.2 AHIMS sites not relocated during the 2011 survey

AHIMS site no.	Construction site	Notes on recorded heritage sites	Figure no.
45-5-2861	4 Cherrybrook Station	The site is located in the impact zone of Cherrybrook station. The status of the site since 2006 (JMcD CHM) is unknown as the site was not visited due to access restrictions at the time of survey. JMcD CHM classified the site in 2006 as being within the impact zone but of low archaeological potential. NWRL PAD 2 (which has a greater extent than the original site recorded in 2006) can be designated with low to moderate archaeological potential.	5.4
45-5-3354	10 Memorial Avenue	A large, low density artefact scatter north of Balmoral Road. It lies in land covered by long grass and was not relocated during survey because of visibility. Jo McDonald CHM 2006 considered this site was within the NWRL impact zone and of moderate to high significance.	5.10
45-5-3158	10 Memorial Avenue	Positioned between 45-5-3354 and the T-way—could not be relocated due to a dense garden being on the location.	5.10
45-5-2365	11 Kellyville Station	Situated to the north of Memorial Avenue in cleared and probably disturbed land (Brayshaw and McDonald 1993). Designated as NWRL PAD 8—low to moderate potential.	5.11
45-5-0933	12 Samantha Riley Drive to Windsor Rd	(RH/CD9). Along the hill top adjacent to Elizabeth Macarthur Creek which has experienced low disturbance at the southern end and high levels of disturbance at the northern end from installation of services. Portions of the site were subject to test excavation and Section 90 #545. Since test excavation in 1993, more extensive excavations downstream of Windsor Road have identified an extensive area of alluvium nearing the junction area of Caddies and Elizabeth MacArthur Creek at site RH/CD12 (JMcD CHM 2003). The undisturbed area of site 45-5-0933 has moderate potential to contain stratified deposits.	5.12
45-5-3188	13 Old Windsor Rd to White Hart Dr	Open artefact scatter and PAD on the eastern side of Windsor Road, before the intersection with Schofields Road. This site was recorded on the site card as already being covered by Consent to Destroy no. 2368 for the Rouse Hill Regional Centre western lands. The Mungerie Park bus station proposed to impact the PAD. The extent, condition and potential of this site has not been determined.	5.13

AHIMS site no.	Construction site	Notes on recorded heritage sites	Figure no.
45-5-2649	13 Old Windsor Rd to White Hart Dr	This isolated red silcrete flaked piece was recorded on the eastern edge of Windsor Rd, 425m from intersection with Merriville Road. The site card recommended consent to destroy as part of the Windsor Road upgrade. It is likely that this site has been destroyed by the road upgrade. No further heritage management is required.	5.13
45-5-0961	12/13 Samantha Riley Drive to Windsor Rd / Old Windsor Rd to White Hart Dr	At intersection of Old Windsor Road and Windsor Road. Consent to Destroy no. 621 was granted February 4 1994. It is likely that this site has been destroyed by the road upgrade. No further heritage management is required.	5.12, 5.13
45-5-2904	14 Rouse Hill Station	Located at Rouse Hill Shopping Centre or Windsor Road adjacent to the Centre. Named PAD 2 and excavated by JMCHM in 2006. The location of the site is now below a carpark and it is assumed that the site has been destroyed (no records from AHIMS available to confirm). No further heritage management is required.	5.14
45-5-2905	14 Rouse Hill Station	Located at Rouse Hill Shopping Centre or Windsor Road adjacent to the Centre. Named PAD 3 and excavated by JMCHM in 2006. The location of the site is now below a carpark and it is assumed that the site has been destroyed (no records from AHIMS were available to confirm). No further heritage management is required.	5.14
45-5-3077	14 Rouse Hill Station	Located at Rouse Hill Shopping Centre or Windsor Road adjacent to the Centre. Formerly PAD 1, the site was excavated by Therin in 2005. The location of the site is now below a carpark and it is assumed that the site has been destroyed (no records from AHIMS were available to confirm). No further heritage management is required.	5.14
45-5-0959	14 Rouse Hill Station	(OWR 4) Located at Rouse Hill Shopping Centre or Windsor Road adjacent to the Centre. This site is located beneath Windsor Road and it is assumed that it was destroyed by road works during the early 1990s (no records from AHIMS were available to confirm). No further heritage management is required.	5.14
45-5-0960	14 Rouse Hill Station	(OWR 5) Located at Rouse Hill Shopping Centre or Windsor Road adjacent to the Centre. This site is located beneath Windsor Road and it is assumed that it was destroyed by road works during the early 1990s (no records from AHIMS were available to confirm). No further heritage management is required.	5.14
45-5-3930	16 Windsor Rd Viaduct to Cudgegong Rd	At the rear of 95 Schofields Road. No details regarding archaeological potential; however, the site was located on the edge of a dam wall and is thus assumed to be in a disturbed context.	5.16

AHIMS site no.	Construction site	Notes on recorded heritage sites	Figure no.
45-5-3931	16 Windsor Rd Viaduct to Cudgegong Rd	Isolated artefact on a driveway. No archaeological potential.	5.16
RH/A20P PAD 5	17 Tallawong Stabling Facility	The survey team walked exposures but could not relocate the site. There is an area of vegetation clearance within the site boundary and/or buffer which has caused some ground disturbance. This PAD was visited by JMcD CHM in 2006 and reported as being within the impact zone of the NWRL alignment and was assessed as having moderate archaeological potential.	5.17
45-5-3392	17 Tallawong Stabling Facility	SAC identified through test excavation at specific locations. High level of archaeological potential identified on AHIMS card.	5.17

5.2.3 New Aboriginal Sites—Recorded in 2011

Table 5.3 details the new Aboriginal sites that were recorded during the current study. A succinct description of each site is provided below.

Table 5.3 Newly recorded Aboriginal sites within the NWRL construction sites.

Site name/address	Site type	Construction site no.	AHIMS no.
14 Cumbelege Lane (1)	Stone artefact concentration connected to PAD 6	9 - Balmoral Rd	TBC
Corner of Taggart Way and Balmoral Road	Isolated find	10 - Memorial Ave	TBC
87 Schofields Road	Stone artefact concentration	16 - Windsor Rd Viaduct to Cudgegong Rd	TBC
69 Schofields Road	Stone artefact concentration with PAD	16 - Windsor Rd Viaduct to Cudgegong Rd	TBC
28 Tallawong Road	Isolated find	17 - Tallawong Stabling Facility	TBC
65 Schofields Road	Isolated find	16/17 - Windsor Rd Viaduct to Cudgegong Rd/ Tallawong Stabling Facility	TBC
59 Schofields Road	Stone artefact concentration	16/17 - Windsor Rd Viaduct to Cudgegong Rd/ Tallawong Stabling Facility	TBC

14 Cumbelege Lane (1)

This surface concentration of artefacts was located next the driveway of 14 Cumbelege Lane toward the front of the property. Objects were found on a clearing eroding from a small rise. A small earth cutting has caused the erosion. Eighteen stone artefacts were located on the surface—mostly silcrete, with some quartz and chert. The site has experienced moderate disturbance from

cutting of the bank and driveway. There is moderate potential for further artefacts to be present in the bank.

A tree with a scar of potential cultural origin was noted at 14 Cumbelege Lane. However, examination of the tree by Andrew Whitford of Eco Logical Australia has defined its age to be a maximum of 50 or 60 years. This age precludes the tree bearing a scar of Aboriginal cultural origin.

Corner of Taggart Way and Balmoral Road

This was an isolated silcrete core on a small exposure (1m x 1m) in a clearing approximately 50 metres from Taggart Way. Between the artefact and Taggart Way was a disturbed area with imported gravels, rubbish and fills. There was some potential for further artefacts on and the under the surface, particularly north and east of this artefact (these areas with potential are described as NWRL PADs 4 and 5).

87 Schofields Road

Five silcrete artefacts found in highly disturbed context next to driveway onto Schofields Road. This site is outside the boundary of Construction Site 16 and therefore will not be affected by the proposed NWRL. There is a low to moderate potential for additional artefacts and subsurface deposits at this site.

69 Schofields Road

Two silcrete artefacts and one possible flaked chert piece located in an exposure on a ridgeline. Following topographic contours an area of PAD can be defined surrounding this site. The area of PAD has a moderate to high potential for intact subsurface archaeological deposit.

This site was concurrently identified and registered by GML+JMCHM for a Roads and Maritime Services report in late 2011. The registered AHIMS number is 45-5-4112.

28 Tallawong Road

One red silcrete isolated artefact (flaked piece) located in the plough zone of a market garden. The site is moderately disturbed and has a low potential for further archaeological deposits to be present.

65 Schofields Road

One silcrete core and one silcrete flaked piece, located on a small vehicle track exposure at the rear of the property. There is low potential for further subsurface archaeological deposits.

59 Schofields Road

Six artefacts comprising silcrete, mudstone and chert located in ploughed fields or market gardens. The site was located on a rise overlooking Second Ponds Creek, located to the east. There was a moderate to high level of disturbance across this plough zone, although further artefacts are likely to be present. The condition and integrity of soil (and archaeological) deposits, however, has been assessed to be poor.

5.2.4 Areas with Potential Archaeological Deposit—Recorded in 2011

Based upon the field survey and prior heritage assessments, the following areas of PAD have been allocated. These areas of PAD have no connection to identified Aboriginal stone objects, but have

a level of potential for objects to be recovered from a subsurface deposit. PAD areas are defined on the basis of Aboriginal site modelling, landforms and features which have a good likelihood to contain Aboriginal sites, such as flat hills with views and/or within 100m of a water course, contrasted against the level of disturbance and erosion. The most likely site types to be within these PADs are stone objects, except along Caddies Creek where there is also the potential for grinding grooves.

Table 5.4 Allocated areas of PAD within the NWRL alignment recorded in 2011. Note NWRL PADs 6 and 8 have been previously recorded.

Site name/ AHIMS no.	Construction site	Level of potential	Extent	Figure no.
NWRL PAD 1	3 – Cheltenham Services Facility	Low to moderate	Parkland area covered by dense vegetation with little disturbance.	5.3
NWRL PAD 3	6 – Hills Centre Station	Moderate	The lower hill slopes and flats within 100m of Cattai Creek.	5.6
NWRL PAD 4	9 – Balmoral Rd	Moderate	Copse of trees to the east of 45-5-3158, on a naturally level area on a hill.	5.9
NWRL PAD 5	9 – Balmoral Rd	Moderate	Copse of trees to the south of 45-5-3158, on a naturally level area on a hill.	5.9
NWRL PAD 7	10 – Memorial Ave	Low to moderate	Primarily property 66, within the band of large trees, on flat undisturbed land, overlooking Elizabeth Macarthur Creek.	5.10
NWRL PAD 9	11 – Kellyville Station	Low to moderate	On the hill top overlooking the creek and sites 45-5-2027, 45-5-3064 and 45-5-3955 to the east. It is within remnant or regrowth vegetation on cleared land off Old Windsor Road	5.11
NWRL PAD 10	13, 14 – Old Windsor Rd to White Hart Dr, Rouse Hill Station	Low to moderate	Lower hill slopes within 100m of Caddies Creek. There is a series of sites within 200m of this creek. There is the potential for stone artefact and grinding groove sites.	5.13
NWRL PAD 11	14, 15 – Rouse Hill Station, Windsor Road Viaduct	Low	On the western side of Windsor Road at Schofields Road, this lower slopes landform overlooking Caddies Creek has some potential, particularly on the northern side of Schofields Road. A test excavation (GML + JMcD 2011) of a previously recorded PAD on the southern side of Schofields Road yielded one broken artefact. Portions of the PAD have a demonstrated low potential—however, this level of potential should be confirmed for the portion located within construction areas 14 and 15.	5.14

5.3 Summary of Aboriginal Sites and Potential Archaeological Deposits

Table 5.5 provides a summary of all 27 recorded Aboriginal sites and/or areas with PAD located within the NWRL's 17 construction sites (both recorded in this survey and previously). These Aboriginal sites and PADs require heritage assessment and management before and during the construction of the NWRL. Two of these sites (45-5-3188 and 45-5-0961) have been subject to

prior Section 90 consent and thus do not require future heritage management as they have been previously impacted by other developments and are deemed to be 'destroyed'.

Table 5.5 Aboriginal sites and PAD requiring heritage assessment and management

Site/PAD	Site type	Construction site	Level of archaeological potential	Figure no.
NWRL PAD 1	PAD	3 – Cheltenham Services Facility	Low to moderate	5.3
45-5-2861 and NWRL PAD 2	Stone Artefact Concentration (SAC) with PAD	4 – Cherrybrook Station	Low to moderate potential	5.4
NWRL PAD 3	PAD	6 – Hills Centre Station	Moderate	5.6
14 Cumbelege Lane and NWRL PAD 6	SAC with PAD	9 – Balmoral Rd	Moderate to high potential:	5.9
NWRL PAD 4	PAD	9 – Balmoral Rd	Moderate	5.9
NWRL PAD 5	PAD	9 – Balmoral Rd	Moderate	5.9
Corner of Taggart Way and Balmoral Road	Isolated Find (IF)	10 – Memorial Ave	None	5.9
NWRL PAD 7	PAD	10 – Memorial Ave	Low to moderate	5.10
45-5-3354 NWRL PAD 8	SAC with PAD	10 – Memorial Ave	Moderate to high potential	5.10
45-5-3158	IF	10 – Memorial Ave	None	5.10
45-5-2365	SAC with PAD	11 – Kellyville Station	Low to moderate potential	5.11
NWRL PAD 9	PAD	11 – Kellyville Station	Low to moderate	5.11
45-5-0933 (RH/CD9)	SAC with PAD	12 – Samantha Riley Dr to Windsor Rd	Moderate potential	5.12
NWRL PAD 10	PAD	13, 14 – Old Windsor Rd to White Hart Dr, Rouse Hill Station	Low to moderate	5.13
45-5-3188	SAC with PAD	13 – Old Windsor Rd to White Hart Dr	Unknown. It is possible that this site has been previously destroyed.	5.13
NWRL PAD 11	PAD	14, 15 – Rouse Hill Station, Windsor Rd Viaduct	Low potential	5.14
45-5-2805 (RH/SP15)	SAC with PAD	16 – Windsor Rd Viaduct to Cudgegong Rd	High potential	5.16
45-5-3930	IF	16 – Windsor Rd Viaduct to Cudgegong Rd	Low	5.16
45-5-3931	IF	16 – Windsor Rd Viaduct to Cudgegong Rd	Low	5.16
45-5-3392	SAC with PAD	17 – Tallawong Stabling Facility	Moderate to high potential	5.17
45-5-3933 RH/A20P 18	SAC	17 – Tallawong Stabling Facility	None to low	5.17

Site/PAD	Site type	Construction site	Level of archaeological potential	Figure no.
45-5-3355	SAC	17 – Tallawong Stabling Facility	None	5.17
RH/A20P PAD 5	PAD	17 – Tallawong Stabling Facility	Moderate potential	5.17
69 Schofields Road	SAC with PAD	16 – Windsor Rd Viaduct to Cudgegong Rd/ Tallawong Stabling Facility	Moderate to high potential	5.17
28 Tallawong Road	IF	17 – Tallawong Stabling Facility	Low potential	5.17
59 Schofields Road	SAC with PAD	16/17 – Windsor Rd Viaduct to Cudgegong Rd/ Tallawong Stabling Facility	Moderate potential	5.17
65 Schofields Road 45-5-4112	IF	16/17 – Windsor Rd Viaduct to Cudgegong Rd/ Tallawong Stabling Facility	Low potential	5.18



Figure 5.1 North West Rail Link Construction Site 1—Epping Service Facility, showing impact zone (construction boundary).



Figure 5.2 North West Rail Link Construction Site 2—Epping, showing impact zone.

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Figure 5.3 North West Rail Link Construction Site 3—Cheltenham Service Facility, showing impact zone and area of archaeological potential.

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Figure 5.4 North West Rail Link Construction Site 4—Cherrybrook Station, showing impact zone and area of archaeological potential.

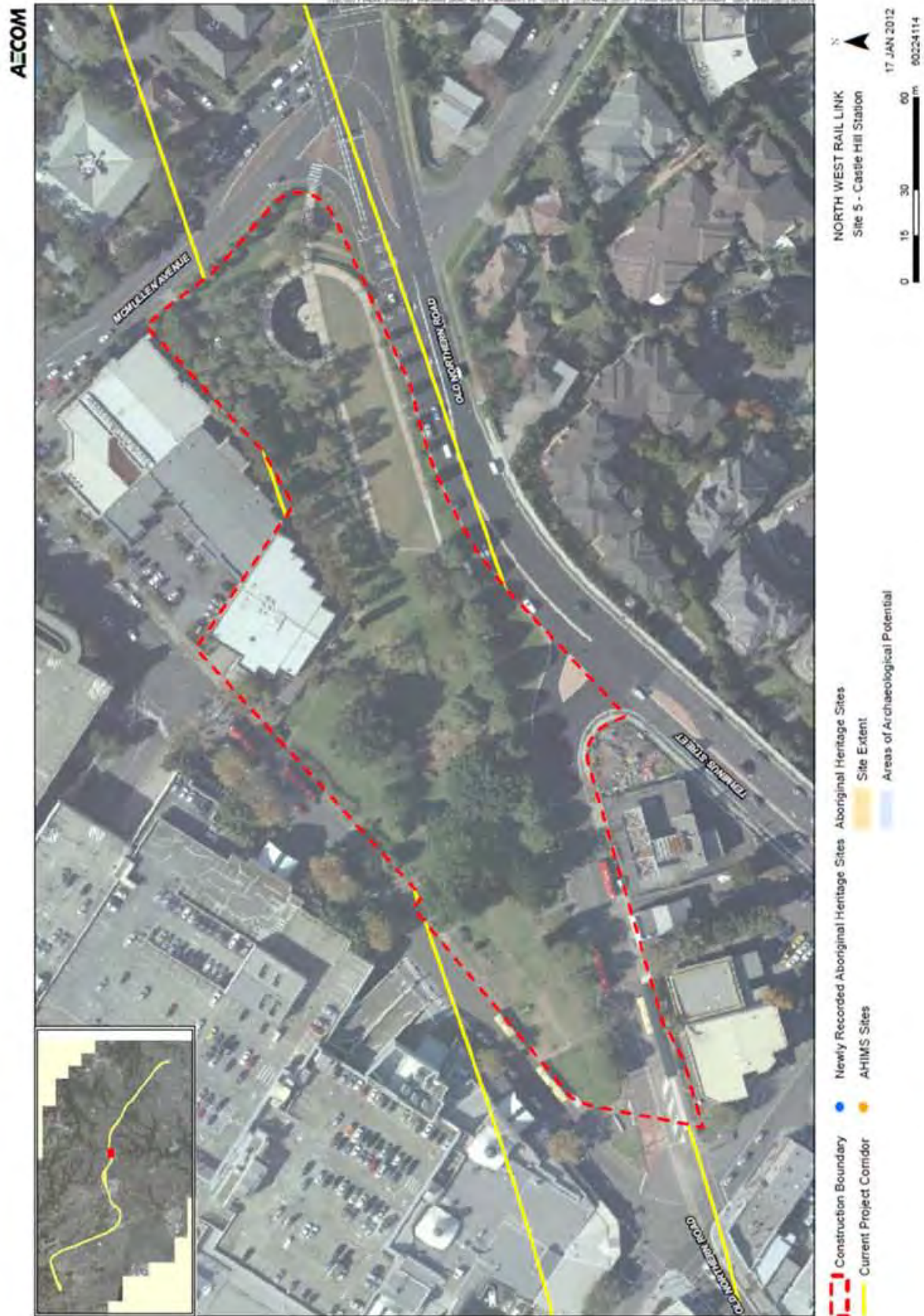


Figure 5.5 North West Rail Link Construction Site 5—Castle Hill Station, showing impact zone.

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Figure 5.6 North West Rail Link Construction Site 6—Hills Centre Station showing impact zone and areas of archaeological potential.



Figure 5.7 North West Rail Link Construction Site 7—Norwest Station showing impact zone.



Figure 5.8 North West Rail Link Construction Site 8—Bella Vista Station showing impact zone.

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Figure 5.9 North West Rail Link Construction Site 9—Balmoral Road, showing impact zone, Areas of archaeological potential, AHIMS sites and newly recorded Aboriginal heritage sites.

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Figure 5.10 North West Rail Link Construction Site 10—Memorial Avenue, showing impact zone, areas of archaeological potential, AHIMS sites and newly recorded Aboriginal heritage sites.

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Figure 5.11 North West Rail Link Construction Site 11—Kellyville Station, showing impact zone, areas of archaeological potential and AHIMS sites.

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Figure 5.12 North West Rail Link Construction Site 12—Samantha Riley Drive to Windsor Road, showing impact zone, areas of archaeological potential and AHIMS sites.

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Figure 5.13 North West Rail Link Construction Site 13—Old Windsor Road to White Hart Drive, showing impact zone, areas of archaeological potential and AHIMS sites.

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Figure 5.14 North West Rail Link Construction Site 14—Rouse Hill Station, showing impact zone, areas of archaeological potential and AHIMS sites.

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Figure 5.15 North West Rail Link Construction Site 15—Windsor Road Viaduct, showing impact zone, areas of archaeological potential and AHIMS sites.

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Figure 5.16 North West Rail Link Construction Site 16—Windsor Road Viaduct to Cudgegong Road, showing impact zone, areas of archaeological potential, AHIMS sites and newly recorded sites.

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Figure 5.17 North West Rail Link Construction Site 17—Cudgegong Road Station and Tallawong Stabling Yard, showing impact zone, areas of archaeological potential, AHIMS sites and newly recorded sites.

6.0 Significance Assessment

6.1 Introduction

The primary guide to management of heritage places is the Australia ICOMOS Burra Charter 1999. The Burra Charter defines cultural significance as:

Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Places may have a range of values for different individuals or groups.

In line with the Burra Charter's four principal values (social, historical, scientific and aesthetic) and NSW Heritage's Office's publication *Assessing Heritage Significance*,¹ four assessment criteria can be used to assess the Aboriginal heritage values of the study area.²

The four criteria are:

- Social value:³ 'an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons';
- Historic value:⁴ 'an item is important in the course, or patterning, of NSW's cultural or natural history (or cultural or natural history of the local area)';
- Scientific value:⁵ 'an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area);
- Aesthetic value:⁶ 'an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)'.

Consultation with the RAPs, investigation of the archaeological context of the study area and local region, and the field inspection has allowed for an understanding of the key values associated with social, historic and scientific value.

6.1.1 Gradings of Significance

Following OEH 2011, significance values will be graded in accordance with a basic ranking of high, moderate or low. The ranking is based upon the research potential, representativeness, rarity and educational potential of each value. Assessment rankings are stated at the end of each value assessment.

6.2 Aboriginal Cultural Values Assessment

6.2.1 Social Value

An assessment of Aboriginal cultural significance can only be made by the relevant Aboriginal community. NSW EPA⁷ acknowledges that:

- Aboriginal people are the primary source of information about cultural heritage values.
- Management of impact to cultural heritage values must involve the relevant Aboriginal people.

- Consulting with Aboriginal people at an early stage of the assessment process ensures they have opportunities to fulfil their heritage obligations.

Aboriginal people must have control over how their cultural knowledge is used and shared during the development process. Restriction of cultural knowledge may be an important part of the value of the cultural knowledge. Therefore the following statement includes only what the RAPs have stated in relation to cultural significance.

Based on consultation with RAPs during the field survey, there are areas within the NWRL corridor that have the potential to possess cultural and social significance to the wider Aboriginal community.

The Aboriginal stakeholders present during the survey noted varying levels of disturbance across the landscape of the study area. However, particularly in the western part of the rail link from Cherrybrook onwards, many landforms were identified as conducive to past Aboriginal occupation and may still hold Aboriginal cultural remains that could further knowledge of Aboriginal settlement patterns on the Cumberland Plain.

The Aboriginal stakeholders stated that, on the basis of their collective and extensive experience associated with Cumberland Plain archaeological survey and excavation, the observed creek lines, low slopes and ridges, which appeared intact, would be areas that contained archaeological deposits which would be of social value to the Aboriginal community. Such deposits were noted as being representative of the past occupation of the land by Aboriginal people (their ancestors).

The Aboriginal representatives advised that test excavation or salvage of these areas would provide a better indication of the archaeological landscape, occupation and land-use patterns relating to Aboriginal people and thus define and describe their own cultural significance of the places visited by their ancestors.

The Aboriginal community members stated that particular types of Aboriginal sites were considered rare in the context of the Cumberland Plain. This was particularly emphasised for types of sites which have suffered from accumulative impacts resulting from 200 years of post-contact land use. Such sites include scarred trees and grinding grooves. Grinding groove sites tend only to be found in the shale-sandstone transition zone and not across the shale Plain generally. All rare sites would be classified as possessing a high level of social significance to the Aboriginal community.

Grinding groove sites have been previously recorded in the vicinity of Construction Site 11 (Kellyville Station), Construction Site 14 (Rouse Hill Station) and locations associated with the water channel of Caddies Creek as it runs through Construction Sites 13 and 14. All previously identified grinding groove sites are conserved within the Caddies Creek Precinct of the Rouse Hill Town Centre.

6.2.2 Historical Value

None of the identified Aboriginal sites have been assessed as having historical value. At this point in time none of the construction sites have Aboriginal heritage items that meet this criterion and no historic associations with 'place' were identified during the course of the background research and field survey.

6.2.3 Scientific Value

The scientific value of the NWRL project area needs to be evaluated in terms of the wider context, considering the range of sites identified within its boundary and prior archaeological investigations into comparable Aboriginal sites which have been previously excavated.

In terms of scientific research potential, the majority of sites identified are unlikely to provide any further contribution to the understanding of Aboriginal archaeology on the Cumberland Plain. This is due to their diminished site condition and integrity (resulting from a long history of land use impacts), and the consequent unlikelihood of most sites to yield spatially meaningful and intact archaeological deposits. However, five of the sites and PADs identified do have the potential to yield such deposits, chiefly 14 Cumbelege Lane SAC, 45-5-3354 SAC with PAD, RH/SP15 PAD, 45-5-0933 SAC with PAD and 69 Schofields Road. If excavated, these sites may yield archaeological deposits which could be compared to those already excavated in the region (through content and typology) by the analysis of Aboriginal objects suitable for comparative analysis. Sites associated with alluvial soil landscapes could contain stratified deposits. If present, such deposits would be considered locally and regionally rare and possibly of exceptional scientific value (e.g. 45-5-0933). Some of the PAD locations (e.g. 45-5-3188) could also contain significant deposits; however, this will require confirmation through archaeological test excavation.

All of the Aboriginal sites recorded within the NWRL project area can be considered representative of wider archaeological patterning across the Cumberland Plain. The stone artefact sites, whilst starting to become a rarer resource, are evidence for a number of representative responses by Aboriginal people to landscape options available for Aboriginal occupation. Some site types—notably grinding grooves—if present, would be rare regionally and capable of demonstrating a distinctive Aboriginal custom which is no longer practised and is in danger of being lost (in the context of the Cumberland Plain).

None of the sites recorded are considered to have significant content to be of educational benefit or teaching potential to the wider community. This situation could change, depending upon the results from archaeological test excavation of some sites and PADs.

The current study has focused on a narrow impact corridor and at the current time has not been able to assess whether the NWRL study area contains any archaeological landscapes. Such assessment should be made during future works associated with future heritage impact mitigation actions.

The scientific significance assessments assigned to individual sites is summarised in Table 6.2.

6.2.4 Aesthetic Value

Overall, the Aboriginal heritage of the study area has low aesthetic value, because of the nature of the sites present and because the landscape has been generally subject to urban development. Excavated sites and previously identified surface finds can all be attributed low or no aesthetic value. Surface finds recorded on the current survey are of low aesthetic value.

6.3 Summary of Aboriginal Heritage Values

Table 6.1 provides an overview of the four primary criteria used to assess the NWRL study area. Table 6.2 presents the scientific values assessment for each of the physical Aboriginal sites located within the 17 NWRL construction sites. NB: PAD sites cannot be assessed for scientific value until

they have been excavated to determine their content—a preliminary assessment has been assigned based upon their archaeological potential.

Table 6.1 Summary of Aboriginal cultural heritage values

Value	Demonstrated characteristics	Grade of significance
Social	The landscape through which the NWRL route transverses The physical Aboriginal sites and objects present within that landscape Rare and/or extensively destroyed site types—grinding grooves, scarred trees and stone objects	Moderate Moderate High
Historic	Aboriginal heritage sites identified within the NWRL study area do not meet this criterion	None
Scientific	The range of physical sites (and potentially areas with PAD) Grinding groove sites (should they be present) and stratified occupation sites which demonstrate time depth of occupation	Moderate High
Aesthetic	Aboriginal heritage sites identified within the NWRL study area do not meet this criterion	None

Table 6.2 Summary of scientific value for each known Aboriginal site located within one of the NWRL's construction sites

Site/PAD	Site type	Construction site	Level of archaeological potential	Grade of scientific value
NWRL PAD 1	PAD	3 – Cheltenham Services Facility	Low to moderate	Unknown, until excavated
45-5-2861 and NWRL PAD 2	SAC with PAD	4 – Cherrybrook Station	Low to moderate potential	Low, until tested
NWRL PAD 3	PAD	6 – Hills Centre Station	Moderate	Unknown, until excavated
14 Cumbelege Lane (1) and NWRL PAD 6	SAC and PAD 6	9 – Balmoral Rd	Moderate to high potential	Moderate, but potentially high if the site possesses good condition and integrity with a dense archaeological deposit
NWRL PAD 4	PAD	9 – Balmoral Rd	Moderate	Unknown, until excavated
NWRL PAD 5	PAD	9 – Balmoral Rd	Moderate	Unknown, until excavated
Corner of Taggart Way and Balmoral Road	IF	10 – Memorial Ave	None	Low
NWRL PAD 7	PAD	10 – Memorial Ave	Low to moderate	Unknown, until excavated
45-5-3354	SAC with PAD	10 – Memorial Ave	Moderate to high potential	Moderate, but potentially high if the site possesses good condition and integrity with a dense archaeological deposit

Site/PAD	Site type	Construction site	Level of archaeological potential	Grade of scientific value
45-5-3158	IF	10 – Memorial Ave	None	Low
45-5-2365 and NWRL PAD 8	SAC with PAD	11 – Kellyville Station	Low to moderate potential	Low
NWRL PAD 9	PAD	11 – Kellyville Station	Low to moderate	Unknown, until excavated
45-5-0933	SAC with PAD	12 – Samantha Riley Dr to Windsor Rd	Moderate potential	Moderate, but potentially high, should the site contain stratified archaeological deposits
NWRL PAD 10	PAD	13, 14 – Old Windsor Rd to White Hart Dr, Rouse Hill Station	Low to moderate	Unknown, until excavated. High, should the site contain grinding grooves
45-5-3188	SAC with PAD	13 – Old Windsor Rd to White Hart Dr	Unknown; it is possible that this site has been previously destroyed	Unknown, until further investigated
NWRL PAD 11	PAD	14, 15 – Rouse Hill Station, Windsor Rd Viaduct	Low potential	Unknown, until excavated
45-5-2805 RH/SP15	SAC with PAD	16 – Windsor Rd Viaduct to Cudgegong Rd	High potential	Moderate, but potentially high if the site possesses good condition and integrity with a dense archaeological deposit
45-5-3930	IF	16 – Windsor Rd Viaduct to Cudgegong Rd	Low	Low
45-5-3931	IF	16 – Windsor Rd Viaduct to Cudgegong Rd	Low	Low
45-5-3392	SAC with PAD	17 – Tallawong Stabling Facility	Moderate to high potential	Unknown, until further investigated (potentially excavated)
45-5-3933 RH/A20P 18	SAC	17 – Tallawong Stabling Facility	None to low	Low
45-5-3355	SAC	17 – Tallawong Stabling Facility	None	Low
RH/A20P PAD 5	PAD	17 – Tallawong Stabling Facility	Moderate potential	Unknown, until excavated
69 Schofields Road 45-5-4112	SAC with PAD	16 – Windsor Rd Viaduct to Cudgegong Rd	Moderate to high potential	Moderate, but potentially high if the site possesses good condition and integrity with a dense archaeological deposit

Site/PAD	Site type	Construction site	Level of archaeological potential	Grade of scientific value
28 Tallawong Road	IF	17 – Tallawong Stabling Facility	Low potential	Low
59 Schofields Road	SAC with PAD	16/17 – Windsor Rd Viaduct to Cudgegong Rd/ Tallawong Stabling Facility	Moderate potential	Moderate
65 Schofields Road	IF	16/17 – Windsor Rd Viaduct to Cudgegong Rd/ Tallawong Stabling Facility	Low potential	Low

6.4 Endnotes

- ¹ NSW Heritage Office. 2001. *Assessing Heritage Significance*.
- ² OEH 2011 provides a background to undertaking an Aboriginal cultural heritage values assessment in accordance with the Burra Charter and NSW Heritage Office's *Assessing Heritage Significance* 2001. The approach recommended by OEH has been adhered to for this report.
- ³ NSW Heritage Office. 2001. Criteria D.
- ⁴ NSW Heritage Office. 2001. Criteria A.
- ⁵ NSW Heritage Office. 2001. Criteria E.
- ⁶ NSW Heritage Office. 2001. Criteria C.
- ⁷ DECCW (2010: 2).

7.0 Aboriginal Heritage Impact Assessment and Management Strategy

This chapter provides an assessment of the impact to the identified Aboriginal heritage sites and values arising from construction of the NWRL. Aboriginal heritage management and mitigation recommendations are provided for the project.

The objective of this chapter is thus to present an impact assessment and provide a means for managing those impacts within the context of the proposed NWRL development in a way which is consistent with current Aboriginal heritage best practice.

7.1 Impact Assessment

7.1.1 The Proposed Activity

Construction of the NWRL will require 17 separate (surface) construction sites. The proposed activity within each of these construction sites will result in complete removal of all top soil horizons, and in most cases, deep excavation through the underlying bedrock.

As such there is no potential for the retention of original intact soil horizons within any of the proposed construction sites.

7.1.2 Proposed Conservation (Avoidance of Impacts) of Heritage Sites

At the current time there is no opportunity within the 17 construction sites for conservation of, or avoidance of impacts to, known Aboriginal sites and/or areas with archaeological potential.

However, the footprint of a number of Aboriginal heritage sites extends outside the boundaries of the construction site. The area of an Aboriginal site that extends outside the boundary of a construction site has the potential to be avoided by all impacts (such as vehicle movements, stockpiling of soils, etc.) with the result that conservation of portions of some identified Aboriginal sites may be possible.

7.1.3 Impacts to Heritage Sites

The proposed activity will remove all soil that bears, or has the potential to bear, Aboriginal objects within each of the NWRL's 17 construction sites. Sandstone bedrock associated with creek corridors which, in association with Caddies Creek, has the potential to contain grinding grooves will be modified by the proposed activity.

Therefore, construction of the proposed NWRL will result in an impact to 25 identified Aboriginal sites and areas with PAD. The degree of impact depends upon the size of each Aboriginal site and how far it extends outside each of the construction sites.

7.1.4 Potential Effects arising from Proposed Impacts

The effect of impact arising from the proposed activity will be the complete and/or partial destruction of all known Aboriginal sites and places with a potential to contain Aboriginal sites associated with the NWRL's 17 construction sites. Overall, this impact will result in the potential loss of a further 27 Aboriginal sites from the Cumberland Plain (assuming all PADs contain archaeological deposit).

Whilst the overall number of Aboriginal sites on the Cumberland Plain is in the thousands, the gradual, continued loss of Aboriginal sites—a consequence of urban and infrastructure development—is resulting in a cumulative impact to overall Aboriginal heritage values in the Sydney region. Loss of such sites, without appropriate management and mitigation, culminates in a loss of Aboriginal heritage value.

In order to reduce the loss of Aboriginal heritage value, and the negative effect on the local Aboriginal community as a result of this loss, the conservation of moderate and high heritage value sites is normally recommended. However, the nature of the NWRL development does not allow for such measures and thus alternative management and mitigation actions will be required if the complete loss of Aboriginal heritage values associated with the NWRL footprint is to be avoided.

7.2 Summary of Sites, Impacts and Effects

Impacts and their consequence for all of known Aboriginal sites, places, landscape, values and areas of archaeological potential (as assessed in Chapters 5 and 6) are detailed in Table 7.1.¹ The description of harm, degree of harm and consequence of harm follows descriptions in the *OEH Code of Practice*.

Table 7.1 Summary of Aboriginal sites, impact of the NWRL and consequence of the impact

Site/PAD name	Site type	Construction site	Type of harm	Degree of harm	Consequence of harm
NWRL PAD 1	PAD	3 – Cheltenham Services Facility	Direct	Partial	Partial loss of value
45-5-2861 and NWRL PAD 2	SAC with PAD	4 – Cherrybrook Station	Direct	Partial	Partial loss of value
NWRL PAD 3	PAD	6 – Hills Centre Station	Direct	Partial	Partial loss of value
14 Cumbelege Lane (1) and NWRL PAD 6	SAC and PAD	9 – Balmoral Rd	Direct	Total	Total loss of value
NWRL PAD4	PAD	9 – Balmoral Rd	Direct	Total	Total loss of value
NWRL PAD5	PAD	9 – Balmoral Rd	Direct	Total	Total loss of value
Corner of Taggart Way and Balmoral Road	IF	10 – Memorial Ave	Direct	Total	Total loss of value
NWRL PAD7	PAD	10 – Memorial Ave	Direct	Near total	Near total loss of value
45-5-3354	SAC with PAD	10 – Memorial Ave	Direct	Total	Total loss of value
45-5-3158	IF	10 – Memorial Ave	Direct	Total	Total loss of value
45-5-2365 and NWRL PAD 8	SAC with PAD	11 – Kellyville Station	Direct	Partial	Partial loss of value
NWRL PAD9	PAD	11 – Kellyville Station	Direct	Total	Total loss of value
45-5-0933	SAC with PAD	12 – Samantha Riley Dr to Windsor Rd	Direct	Near total	Near total loss of value

Site/PAD name	Site type	Construction site	Type of harm	Degree of harm	Consequence of harm
NWRL PAD10	PAD	13, 14 – Old Windsor Rd to White Hart Dr, Rouse Hill Station	Direct	Partial	Partial loss of value
45-5-3188	SAC with PAD	13 – Old Windsor Rd to White Hart Dr	Direct	Total	Total loss of value
NWRL PAD11	PAD	14, 15 – Rouse Hill Station, Windsor Rd Viaduct	Direct	Partial	Partial loss of value
45-5-2805 RH/SP15	SAC with PAD	16 – Windsor Rd Viaduct to Cudgegong Rd	Direct	Partial	Partial loss of value
45-5-3930	IF	16 – Windsor Rd Viaduct to Cudgegong Rd	Direct	Total	Total loss of value
45-5-3931	IF	16 – Windsor Rd Viaduct to Cudgegong Rd	Direct	Total	Total loss of value
45-5-3392	SAC with PAD	17 – Tallawong Stabling Facility	Direct	Total	Total loss of value
RH/A20P 18	SAC	17 – Tallawong Stabling Facility	Direct	Total	Total loss of value
45-5-3355	SAC	17 – Tallawong Stabling Facility	Direct	Total	Total loss of value
RH/A20P PAD 5	PAD	17 – Tallawong Stabling Facility	Direct	Total	Total loss of value
69 Schofields Road	SAC with PAD	16 – Windsor Rd Viaduct to Cudgegong Rd/ Tallawong Stabling Facility	Direct	Total	Total loss of value
28 Tallawong Road	IF	17 – Tallawong Stabling Facility	Direct	Total	Total loss of value
59 Schofields Road	SAC with PAD	16/17 – Windsor Rd Viaduct to Cudgegong Rd/ Tallawong Stabling Facility	Direct	Total	Total loss of value
65 Schofields Road	IF	16/17 – Windsor Rd Viaduct to Cudgegong Rd/ Tallawong Stabling Facility	Direct	Total	Total loss of value

7.3 Management, Mitigation and Recommendations

The following management and mitigation statements are made in light of the findings of the study area inspection, background research, predictive modelling, heritage significance assessment, impact assessment, relevant NSW legislation protecting Aboriginal heritage, the OEH Aboriginal Cultural Heritage Assessment Guidelines and consultation with local Aboriginal stakeholders.

A total of 27 heritage sites (including PADs) will be impacted by the proposed project. Impacts to seven of these 27 could be reduced if an appropriate mitigation strategy were to be employed.

7.3.1 Avoiding and Minimising Harm

Ground surface impacts within the 17 construction sites are generally unavoidable; however, impacts outside the boundaries of these construction sites should be able to avoid Aboriginal heritage sites and thus minimise harm. Implementation of a strategy of Aboriginal site avoidance could reduce impacts to eight of the recorded Aboriginal sites. While all impacts could not be prevented, portions of these seven sites could be avoided and thus conserved intact for future generations.

In order to avoid and minimise harm, the boundary of the works area at each Aboriginal site must be delineated with a physical barrier and a sign erected to prevent accidental access and thus impact to sites beyond the boundary. No areas within the construction boundaries will be avoided. All areas with Aboriginal sites which are to be conserved must have zero vehicle access across their extent, and no earth works or stockpiling of materials should occur within their boundaries. The implementation of a site induction protocol will be required to ensure that all work personnel are aware of their responsibilities in this regard.

Table 7.2 identifies the Aboriginal sites which could be partially avoided during the development process and any specific requirements needed to facilitate their conservation.

Table 7.2 Aboriginal sites where harm could be limited

Site/PAD	Construction site	Proportion of site/PAD that could be avoided (approximate)	Specific actions required
NWRL PAD 1	3 – Cheltenham Services Facility	75%	Fence the construction area on its northern margin and avoid all impacts to this zone. Access can be gained from the east, south and/or west.
45-5-2861 and NWRL PAD 2	4 – Cherrybrook Station	25%	Fence the construction area on its northern margin to avoid all impacts to the PAD outside of the construction zone. Access the construction site from Castle Hill Road.
NWRL PAD 3	6 – Hills Centre Station	50%	Fence the northern and western portions of the construction site. Access can be gained from the east, south or southwest.
45-5-2365 and NWRL PAD 8	11 – Kellyville Station	90%	Fence the eastern margin of the construction site. Access can be gained from Old Windsor Road.

Site/PAD	Construction site	Proportion of site/PAD that could be avoided (approximate)	Specific actions required
NWRL PAD 10	13, 14 – Old Windsor Rd to White Hart Dr, Rouse Hill Station	95%	Fence the east and west margins of the construction site where it passes through PAD 10. Access to this portion of the construction site can be gained from either the north or south.
NWRL PAD 11	14, 15 – Rouse Hill Station, Windsor Rd Viaduct	50%	Fence the southern and western margins of this construction site. Access can be gained from Old Windsor Road.
45-5-2805 RH/SP15	16 – Windsor Rd Viaduct to Cudgegong Rd	40%	Fence the north and south margins of the construction site where it passes through 45-5-2805. Access to this portion of the construction site can be gained from either the east or west.

7.3.2 Aboriginal Heritage Management Plan

In order to manage Aboriginal heritage values and sites throughout the development process, an Aboriginal Heritage Management Plan (AHMP) should be developed in collaboration with the RAPs and NSW EPA/OEH. The AHMP should:

- establish a framework for future consultation;
- detail heritage works required prior to, during and post development impacts;
- make provision for unexpected Aboriginal heritage finds; and
- determine a management strategy for Aboriginal objects recovered from excavation of the Aboriginal sites to be impacted by the project.

7.3.3 Aboriginal Heritage Education for Site Workers

During the Occupational Health and Safety site induction for each construction site, all site workers should be briefed in terms of Aboriginal cultural heritage. Aboriginal heritage conservation areas and/or no-go zones for each construction site should be explained to all site workers with a clear plan defining such areas and displayed in a common area in each works compound. The legislatively defined penalties for impacting Aboriginal heritage objects should be identified to all construction managers and personnel.

7.3.4 Archaeological Survey, Test and Salvage Excavation

A few locations, with a level of archaeological sensitivity, could not be surveyed in 2011 due to access restrictions. These locations should be surveyed as soon as possible and any Aboriginal sites identified should be subject to management concurrent with those detailed elsewhere in this chapter, in accordance with their archaeological scientific significance and Aboriginal community values.

In general, the following strategy for management of archaeological sites and archaeological test and salvage excavation should be employed:

- Sites with high archaeological potential or Aboriginal significance should be conserved and development impacts on these should be avoided where possible. If impacts are unavoidable then these features should be the subject of site specific archaeological investigation and recording to ensure that information about them is retrieved prior to their destruction;
- Sites with moderate archaeological potential or Aboriginal significance require initial subsurface investigation, following project approval and before construction commences, to determine their condition, integrity and archaeological content and to place them within a local and regional context; and
- Sites with low or no archaeological potential or Aboriginal significance do not require planning consideration or further archaeological investigation in relation to the proposed development. RAPs should be offered an opportunity to collect any object(s) following project approval and prior to construction commencing, subject to appropriate care and control for objects having been established.

All Aboriginal heritage sites and PADs which are assessed as having archaeological potential should be subject to archaeological test excavation, potentially with a salvage should dense, spatially intact deposits be present. Although the NWRL project is not subject to AHIP applications under the NPW Act 1974, the standards and procedure of the EPA/OEH should be followed during all consequential archaeological investigations. Archaeological excavation should adhere to the *NSW Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (2011)*. All archaeological excavation work must commence, and be completed, prior to the commencement of construction works associated with the NWRL.

A two-phase investigation should be undertaken for each of the 25 Aboriginal heritage sites/PADs. Phase 1 should undertake determination of the extent, content, condition and integrity of each site/PAD (in line with Requirements 15 and 16 of *The Code*). For sites/PADs assessed to have a low to moderate level of potential (Table 5.5), a basic grid of test units should be sampled to determine whether the site contains a deposit worthy of more detailed investigation. Sites/PADs with a moderate or high level of archaeological potential should be subject to a more detailed initial stage of investigation. Subject to an assessment of the results from Phase 1 (by the archaeologist and Aboriginal representatives), excavation may move into Phase 2—an open area excavation of any significant deposits present. The need for and/or extent of Phase 2 cannot be determined for any site/PAD until Phase 1 has been completed.

Following Phases 1 and 2, an excavation report should be prepared for the sites (combining the results of all excavation together in one report) in accordance with the requirements of *The Code*. This report should be provided to the RAPs and OEH for public record. Post-impact AHIMS cards must be completed for all sites subject to archaeological excavation; these must be submitted to the OEH AHIMS registrar.

7.3.5 Public Interpretation

If an extensive and high value archaeological deposit were to be uncovered during the excavation of a site, TfNSW should consider suitable permanent public interpretation within at least one of the new railway stations following development.

Such interpretation could present photographs and details of a nearby excavation. Any public interpretation should be developed in consultation with the RAPs.

7.4 Summary of Aboriginal Heritage Management, Mitigations and Recommendations

In terms of the NWRL's future management of Aboriginal heritage, the following actions are recommended:

- provide a copy of this report to each RAP and integrate feedback from each stakeholder into the final version of the report;
- develop an Aboriginal Heritage Management Plan for the project which aims to where possible consider conservation for sites with high archaeological potential and/or Aboriginal significance;
- consult with OEH and provide AHIMS with records of all Aboriginal sites, archaeological test/salvage excavation and post-impact AHIMS cards;
- undertake archaeological test excavation following project approval but prior to construction works commencing at sites/PADs, within the construction footprint, that cannot be avoided by impacts from construction;
- determine the appropriate mechanism for the conservation of Aboriginal sites outside each construction site (as detailed in Table 7.2);
- develop Aboriginal heritage training for site workers and include this training in all H&S inductions; and
- ensure the avoidance of Aboriginal sites, provide copies of all no-go mapping to all works contractors and make the protection of the identified Aboriginal sites a priority during the construction works phase of the project.

Table 7.3 provides a summary of the known Aboriginal heritage sites/PADs by construction site and details the potential for reducing harm at each location, along with any requirements for further archaeological assessment through test, and possibly salvage, excavation.

Table 7.3 Summary of Aboriginal sites, impact of the NWRL and consequence of the impact

Construction site	Site/PAD name	Degree of harm	Aboriginal heritage management, mitigation and recommendations
1 – Epping Decline	None	None	No specific Aboriginal heritage management is required in this construction site.
2 – Epping Services Facility	None	None	No specific Aboriginal heritage management is required in this construction site.

Construction site	Site/PAD name	Degree of harm	Aboriginal heritage management, mitigation and recommendations
3 – Cheltenham Services Facility	NWRL PAD 1	Partial	Limit harm as detailed in Table 7.2. Basic Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
4 – Cherrybrook Station	45-5-2861 and NWRL PAD 2	Partial	Limit harm as detailed in Table 7.2. Basic Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
5 – Castle Hill Station	None	None	No specific Aboriginal heritage management is required in this construction site.
6 – Hills Centre Station	NWRL PAD 3	Partial	Limit harm as detailed in Table 7.2. Detailed Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
7 – Norwest Station	None	None	No specific Aboriginal heritage management is required in this construction site.
8 – Bella Vista Station	None	None	No specific Aboriginal heritage management is required in this construction site.
9 – Balmoral Rd	14 Cumbelege Lane (1) and NWRL PAD 6	Total	Detailed Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
9 – Balmoral Rd	NWRL PAD4	Total	Detailed Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
9 – Balmoral Rd	NWRL PAD5	Total	Detailed Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
10 – Memorial Ave	Corner of Taggart Way and Balmoral Road	Total	Community collection of object. No further archaeological work required.
10 – Memorial Ave	NWRL PAD7	Near total	Basic Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
10 – Memorial Ave	45-5-3354	Total	Detailed Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
10 – Memorial Ave	45-5-3158	Total	Community collection of object. No further archaeological work required.
11 – Kellyville Station	45-5-2365 and NWRL PAD 8	Partial	Limit harm (Table 7.2); archaeological excavation in the areas of impact.
11 – Kellyville Station	NWRL PAD9	Total	Basic Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
12 - Samantha Riley Drive to Windsor Rd	45-5-0933	Near total	Detailed Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).

Construction site	Site/PAD name	Degree of harm	Aboriginal heritage management, mitigation and recommendations
13, 14 – Old Windsor Rd to White Hart Dr, Rouse Hill Station	NWRL PAD 10	Partial	Limit harm as detailed in Table 7.2. Basic Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
13 – Old Windsor Rd to White Hart Dr	45-5-3188	Total	Determine whether an area with archaeological potential remains through a basic Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
14, 15 – Rouse Hill Station, Windsor Road Viaduct	NWRL PAD 11	Partial	Limit harm as detailed in Table 7.2. Basic Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1). This PAD has a low level of potential—single objects have been found in the area. Some basic testing is warranted across the wider impact area to confirm the general absence of dense archaeological deposit and impact in this area.
16 – Windsor Rd Viaduct to Cudgegong Rd	45-5-2805 RH/SP15	Partial	Limit harm as detailed in Table 7.2. Detailed Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
16 – Windsor Rd Viaduct to Cudgegong Rd	45-5-3930	Total	Community collection of object. No further archaeological work required.
16 – Windsor Rd Viaduct to Cudgegong Rd	69 Schofields Road 45-5-4112	Total	Detailed Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1). This site may be subject to some test excavation by the RMS (in 2012). This work may alter the required scope of work for the NWRL.
16/17 – Windsor Rd Viaduct to Cudgegong Rd/ Tallawong Stabling Facility	59 Schofields Road	Total	Detailed Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
16/17 – Windsor Rd Viaduct to Cudgegong Rd/ Tallawong Stabling Facility	65 Schofields Road	Total	Community collection of object. No further archaeological work required.
16 – Windsor Rd Viaduct to Cudgegong Rd	45-5-3931	Total	Community collection of object. No further archaeological work required.
17 – Tallawong Stabling Facility	45-5-3392	Total	Determination as to the extent of archaeological excavation undertaken under Part 3A. Potentially a detailed Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
17 – Tallawong Stabling Facility	45-5-3933 RH/A20P 18	Total	Community collection of object. No further archaeological work required.

Construction site	Site/PAD name	Degree of harm	Aboriginal heritage management, mitigation and recommendations
17 – Tallawong Stabling Facility	45-5-3355	Total	Community collection of object. No further archaeological work required.
17 – Tallawong Stabling Facility	RH/A20P PAD 5	Total	Detailed Phase 1 archaeological excavation in the areas of impact. Possibly Phase 2 archaeological excavation (to be determined based on the results of Phase 1).
17 – Tallawong Stabling Facility	28 Tallawong Road	Total	Community collection of object. No further archaeological work required.

7.5 Endnotes

- ¹ After DECCW Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (24 September 2010), Requirement 11.

8.0 Appendices

Appendix A

Community Consultation Log

Appendix B

Community Consultation Letters and Attendance Records

Appendix C

AHIMS Search Results

Appendix A

Community Consultation Log

Aboriginal Consultation Log

Stage 1–Notification of project proposal and registration of interest

Stage 1.1–Compilation of a list of Aboriginal stakeholders

Body/Group	Contact	Date Sent	Date Reply	Comment	Reference
DECCW EPRG region office	Ms Lou Ewins	21/10/11			11-8339lec1
Metropolitan Local Aboriginal Land Council (MLALC)	Mr Ricky Lyons	21/10/11			11-8339rlc1
Deerubbin Local Aboriginal Land Council (DLALC)	Mr Kevin Cavanagh	21/10/11			11-8339kcc1
The Registrar, <i>Aboriginal Lands Right Act 1983</i>	Mr Stephen Wright	21/10/11	25/10/11	A search of the register of Aboriginal owners does not appear to have Registered Aboriginal Owners pursuant to Division 3 of the <i>Aboriginal Land Rights Act 1983</i> (NSW). Suggest we contact MLALC who may be able to assist in identifying other Aboriginal stakeholders for this project.	11-8339swc1
National Native Title Tribunal (NNTT)	Ms Kimberley Wilson	21/10/11	27/10/11	The only native title activity in search area of Parramatta, Hornsby, The Hills and Blacktown Councils is for the MLALC on the National Native Title Register for Hornsby Council only.	11-8339nnttc1
Native Title Services Corporation (NTSCORP Limited)	Mr Peter Schultz	21/10/11			11-8339psc1

Blacktown City Council	General Manager	21/10/11	26/10/11	Robert Leslie, Blacktown Council left a phone message for Lyndon Patterson (LP), GML regarding consultation. LP left a phone message for Robert Leslie on 28/10/11 returning his call. LP spoke with Robert Leslie on 31/10/11. Robert Leslie said the key stakeholders in the Blacktown community development were DLALC, DTAC and DCAC. LP requested a written response with stakeholders, if possible.	11-8339bccc1
Parramatta City Council	General Manager	21/10/11	26/10/11	Parramatta Council Aboriginal and Torres Strait Islander Advisory Committee wish to register an interest. Contact person is Ms Maggie Kyle.	11-8339pccc1
Hornsby Shire Council	General Manager	21/10/11			11-8339hscc1
The Hills Shire Council	Mr Dave Walker, General Manager	21/10/11			11-8339thsc1
Hawkesbury Nepean Catchment Management Authority	Manager	21/10/11			11-8339hncmac1
Sydney Metropolitan Catchment Management Authority	Manager	21/10/11	28/10/11	Because of the size and complexity of Sydney, SMCMA is unable to provide a list of all known local Aboriginal people who may be interested in being consulted on the project. As project falls within both SMCMA and HNCMA, we will also need to write to HNCMA, PO Box 4515, Westfield Penrith NSW 2750 (contact Margaret Bottrell).	11-8339smcmac1

Following a meeting between the Department of Planning, Office of Environment and Heritage, GML and AECOM, it was established that the notification letters would need to be revised to remove any reference to an Aboriginal Heritage Impact Permit (AHIP) and be re-issued to all organisations along with a cover letter explaining the change. Below is the log for the re-issue of the letters.

Body/Group	Contact	Date Sent	Date Reply	Comment	Reference
DECCW EPRG region office	Ms Lou Ewins	01/11/11	10/11/11	As the project has been identified as a State Significant Infrastructure (SSI) project, the consultation process should be in accordance with relevant guidelines as stipulated by the DoPI. The list of stakeholders known to OEH that may have an interest in the project are: DCAC, DTAC, DACHA, DLO, DALI, Gunjeewong Cultural Heritage Aboriginal Corporation, Scott Franks, Deerubbin LALC, Metropolitan LALC.	11-8339lec1 11-8339lec2
Metropolitan Local Aboriginal Land Council (MLALC)	Mr Ricky Lyons	01/11/11			11-8339rlc1 11-8339rlc2
Deerubbin Local Aboriginal Land Council (DLALC)	Mr Kevin Cavanagh	01/11/11			11-8339kcc1 11-8339kcc2
The Registrar, <i>Aboriginal Lands Right Act</i> 1983	Mr Stephen Wright	01/11/11	25/10/11		11-8399swc1 11-8399swc2

National Native Title Tribunal (NNTT)	Ms Kimberley Wilson	01/11/11	16/11/11	The only native title activity in search area of Parramatta City Council, Hornsby, The Hills and Blacktown Councils is for the MLALC on the National Native Title Register for Hornsby Council only. The matters determined read: there are no native title rights and interests existing in relation to portions 883 Shire of Hornsby, Parish of South Colah, County of Cumberland. Determination date: 12/04/2002.	11-8339nnttc1 11-8339nnttc2
	Native Title Services Corporation (NTSCORP Limited)	Mr Peter Schultz	01/11/11		11-8339psc1 11-8339psc2
	Blacktown City Council	General Manager	01/11/11	07/11/11 Email from Sue Galt, Blacktown City Council with list of Western Sydney Aboriginal stakeholders that council has been made aware of: Deerubbin Local Aboriginal Land Council, Darug Custodian Aboriginal Corporation, Darug Tribal Aboriginal Corporation, Darug Aboriginal Cultural Heritage Assessments and Tocomwall.	11-8339bccc1 11-8339bccc2
	Parramatta City Council	General Manager	01/11/11		11-8339pccc1 11-8339pccc2

Hornsby Shire Council	General Manager	01/11/11	21/11/11	Response letter from Hornsby Shire Council. The following person may have an interest in the project: Aunty Edna Watson (0408 272 660) Community Care Northern Beaches (CCNB) who provide information, support and advocacy services for Aboriginal people living within a number of local government areas including Hornsby Shire, may also be of assistance in identifying people of interest. Jeanne Townsend, CCNM Aboriginal Advisor can be contacted on 9998 2953.	11-8339hscc1 11-8339hscc2
The Hills Shire Council	Mr Dave Walker, General Manager	01/11/11	07/11/11	Council has the following list which may need to be consulted: Deerubbin Local Aboriginal Land Council, Darg Aboriginal Cultural Heritage Assessments, Darug Custodian Aboriginal Corporation, Darug Tribal Aboriginal Corporation, Bidjigal Reserve Trust, Michael Wilmshurst at Northwest Aboriginal Development Association	11-8339thscc1 11-8339thscc2
Hawkesbury Nepean Catchment Management Authority	Manager	01/11/11	15/11/11	The Hawkesbury-Nepean CMA does not hold a register of stakeholders for the information you are seeking and refer you to the Aboriginal Heritage section of the OEH for this information.	11-8339hncmac1 11-8339hncmac2
Sydney Metropolitan Catchment Management Authority	Manager	01/11/11			11-8339smcmac1 11-8339smcmac2

Approximately 10 days was allowed for these groups to respond.

Stage 1.2–Newspaper Advert

Newspaper	Date Sent	Date Printed	Reference
Hills News		25/10/11	
Hills Shire Times		25/10/11	
National Indigenous Times		26/10/11	
Rouse Hills Times		26/10/11	

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents* (DECCW 2010) 14 days were allowed for Aboriginal people to respond to the newspaper advertisement (i.e. by 11 November 2011).

Stage 1.3–List of Aboriginal groups/people from Stage 1.1 and 1.2.

Organisation/Person	Contact	Date Identified	How the name was obtained and any comments	Reference
MLALC	Mr Ricky Lyons	21/10/11	Identified land council under <i>Aboriginal Land Rights Act 1983</i> (NSW)	
DLALC	Mr Kevin Cavanagh	21/10/11	Identified land council under <i>Aboriginal Land Rights Act 1983</i> (NSW)	
Parramatta Council Aboriginal and Torres Strait Islander Advisory Committee	Ms Maggie Kyle	26/10/11	GML sent letter to Parramatta City Council	Via email
Mr Tony Williams	Mr Tony Williams, 1 Pyrenees Way, Beaumont Hills NSW 2155	27/10/11	Received email from Mr Tony Williams	Via email

Darug Custodial Aboriginal Corporation (DCAC)	Ms Leanne Watson	30/10/11	Email registration	Via email
Darug Aboriginal Cultural Assessments (DACHA)	Mr Gordon Morton and Ms Celestine Everingham	01/11/11	Registration of interest	Via fax
Darug Land Observations (DLO)	Mr Gordon Workman	10/11/11	OEH list of Aboriginal stakeholders	OEH letter
Darug Tribal Aboriginal Corporation (DTAC)	Ms Sandra Lee	10/11/11	OEH list of Aboriginal stakeholders	OEH letter
Darug Aboriginal Land Care Inc (DALCI)	Mr Des Dyer	10/11/11	OEH list of Aboriginal stakeholders	OEH letter
Gunjeewong Cultural Heritage Aboriginal Corporation	Ms Cherie Carroll Turrise	10/11/11	OEH list of Aboriginal stakeholders	OEH letter
Yarrowalk / Tocumwall	Mr Scott Franks	10/11/11	OEH list of Aboriginal stakeholders	OEH letter
Bidjigal Reserve Trust	PO BOX 382, Baulkham Hills NSW 1755	07/11/11	The Hills Shire Council	letter
Northwest Aboriginal Development Association	Michael Wilmshurst PO Box 6062, Baulkham Hills BC NSW 1755	07/11/11	The Hills Shire Council	letter

Aunty Edna Watson	Aunty Edna Watson Ph: 0408 272 660 or 4573 6964	21/11/11	Hornsby Shire Council	Letter
Community Care Northern Beaches (CCNB), Mona Vale	Contact: Jeanne Townsend, CCNB Aboriginal Advisor	21/11/11	Hornsby Shire Council Left a telephone message for Jeanne Townsend on 22/11/11. Jeanne Townsend returned the call and GML gave some background on the project and asked if she would like further information to be sent for consideration. Jeanne Townsend said she was from Warren in Central West NSW, but works for a non for profit organisation, providing Aboriginal Advisory services in the northern Sydney region.	Letter

Stage 1.4—Aboriginal notification of the proposed project and an offer to be involved in the consultation

Aboriginal Organisation/Person	Contact	Date Sent	Reference
MLALC	Mr Ricky Lyons	14/11/11	Via email
DLALC	Mr Kevin Cavanagh	14/11/11	Via email
Parramatta Council Aboriginal and Torres Strait Islander Advisory Committee	Ms Maggie Kyle	14/11/11	Via email
Mr Tony Williams	Mr Tony Williams, 1 Pyrenees Way, Beaumont Hills NSW 2155	14/11/11	Via email
Darug Custodial Aboriginal Corporation (DCAC)	Ms Leanne Watson	14/11/11	Via email
Darug Aboriginal Cultural Heritage Assessments (DACHA)	Mr Gordon Morton and Ms Celestine Everingham	14/11/11	11-8339dachac1 (via fax)

Darug Land Observations (DLO)	Mr Gordon Workman	14/11/11	Via email
Darug Tribal Aboriginal Corporation (DTAC)	Ms Sandra Lee	14/11/11	Via email
Darug Aboriginal Land Care Inc (DALCI)	Mr Des Dyer	14/11/11	Via email
Gunjeewong Cultural Heritage Aboriginal Corporation	Ms Cherie Carroll Turrise	15/11/11	Via letter
Yarrowalk / Tocumwall	Mr Scott Franks	14/11/11	Via email
Bidjigal Reserve Trust	PO BOX 342, Baulkham Hills NSW 1755	15/11/11	Via letter
Northwest Aboriginal Development Association	Michael Wilmshurst PO Box 6062, Baulkham Hills BC NSW 1755	15/11/11	Via letter
Aunty Edna Watson	Aunty Edna Watson	22/11/11	Contacted by telephone. Aunty Edna Watson said she is represented by Leanne Watson, DCAC.
Community Care Northern Beaches (CCNB)	Contact: Jeanne Townsend, CCNB Aboriginal Advisor	22/11/11	Via email

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents* (DECCW 2010) 14 days were allowed for Aboriginal people to register an interest to be consulted (i.e. by 14 November 2011).

Stage 1.5 – Registered Aboriginal Parties (RAP) Contact Details

Aboriginal Organisation/Person	Contact	Date Received and comments	Reference
MLALC	Paul Morris, CEO	14/11/11	Email registration

DLALC	Steven Randall	15/11/11	Email registration
Parramatta Council Aboriginal and Torres Strait Islander Advisory Committee	Ms Maggie Kyle	26/10/11 Email registration 15/11/11 GML received telephone call from Gill Saunders who says he is a traditional owner/elder and is a member of the committee and wishes to be involved with the project but registered as part of the committee. 16/11/11 GML received an email from the Committee regarding Bruce Gale, Chairperson of Council's Aboriginal and Torres Strait Islander Advisory Committee will attend on Friday and will invoice for his time.	Email registration
Mr Tony Williams (Individual)	Mr Tony Williams	27/10/11 Email from Tony – he is a registered traditional owner and a community elder and wishes to register for the NWRL project. He has lived in the Hills Shire for over 65 years and have a cultural interest in the project as his great grandfather is buried on the breed bed near when he lives.	Received email from Mr Tony Williams
DCAC	Ms Leanne Watson	30/10/11 Registration of interest	Email registration
DACHA	Mr Gordon Morton and Ms Celestine Everingham	01/11/11 Registration of interest	Fax registration
Darug Aboriginal Land Care Inc (DALCI)	Mr Des Dyer	14/11/11	Email registration
Darug Land Observations (DLO)	Mr Gordon Workman	15/11/11	Email registration
Yarrowalk / Tocumwall	Mr Scott Franks	15/11/11	Email registration
Darug Tribal Aboriginal Corporation (DTAC)	Ms Sandra Lee	16/11/11 DTAC wishes to register as primary registrants and will provide one representative for the meeting this Friday.	Email registration

Gunjeewong Cultural Heritage Aboriginal Corporation	Ms Cherie Carroll Turrise	16/11/11? Interest in attending briefing meeting for more project information? Registration of interest? Confirm this with them.	Phone registration

GML provided a copy of the registered Aboriginal parties to the DECCW and the LALC within 28 days following the closing date for registering an interest, as per the *Aboriginal cultural heritage consultation requirements for proponents* (DECCW 2010).

Stage 2 – Presentation of information about the proposed project

Stage 2.1 – Presentation of proposed project information

All registered and potential stakeholders identified through the processes above were invited to attend a project briefing meeting on 18/11/11 at Rouse Hill Shopping Centre. The attendants had an opportunity to visit a number of key locations, including proposed stations.

Aboriginal Organisation/Person	Date Sent	Date Reply	Comments, outcomes and/or issues	Reference
MLALC, Mr Paul Morris, Chairperson	14/11/11		Project information sent on 14/11/11. Invitation to attend project briefing meeting on 18/11/11. MLALC did not attend project briefing meeting.	Via email
DLALC, Mr Kevin Cavanagh (Chairperson) and Mr Steven Randall (Sites Officer)	14/11/11		Project information sent on 14/11/11. Invitation to attend project briefing meeting on 18/11/11. DLALC did not attend project briefing meeting.	Via email
Parramatta Council Aboriginal and Torres Strait Islander Advisory Committee (PCA&TSIAC)	14/11/11		Project information sent on 14/11/11. Three representatives from PCA&TSIAC attended the briefing meeting on 18/11/11 – Gilson Saunders, Bruce Gale, Paul Warby	Via email

Mr Tony Williams	14/11/11	Project information sent on 14/11/11. Mr Williams attended the project briefing meeting on 18/11/11.	Via email
Darug Custodial Aboriginal Corporation (DCAC)	14/11/11	Project information sent on 14/11/11. Ms Leanne Watson attended the project briefing meeting on 18/11/11.	Via email
Darug Aboriginal Cultural Heritage Assessments (DACHA)	14/11/11	Project information sent on 14/11/11. Mr Gordon Morton attended the project briefing meeting on 18/11/11.	Via fax
Darug Land Observations (DLO)	14/11/11	Project information sent on 14/11/11. Mr Gordon Workman attended the project briefing meeting on 18/11/11.	Via email
Darug Tribal Aboriginal Corporation (DTAC)	14/11/11	Project information sent on 14/11/11. Mr Dennis Hardy attended the project briefing meeting on 18/11/11.	Via email
Darug Aboriginal Land Care Inc (DALCI)	14/11/11	Project information sent on 14/11/11. Mr Desmond Dyer attended the project briefing meeting on 18/11/11.	Via email
Gunjeewong Cultural Heritage Aboriginal Corporation	14/11/11	Project information sent on 14/11/11. Invitation to attend project briefing meeting on 18/11/11. Did not attend project briefing meeting.	Via email
Yarrowalk / Tocumwall	14/11/11	Invitation to attend project briefing meeting on 18/11/11. Mr Scott Franks attended the project briefing meeting on 18/11/11.	Via email

Bidjigal Reserve Trust	14/11/11	Project information sent on 14/11/11.	Via email
		Invitation to attend project briefing meeting on 18/11/11. Did not attend project briefing meeting.	
Northwest Aboriginal Development Association	14/11/11	Project information sent on 14/11/11.	Via email
		Invitation to attend project briefing meeting on 18/11/11. Did not attend project briefing meeting.	
Community Care Northern Beaches (CCNB)	14/11/11	Project information sent on 22/11/11, due to Hornsby Shire Council only providing GML the contact details on 21/11/11.	Via email

Stage 2.2 – Provision of the proposed assessment methodology to the RAP

Aboriginal Organisation/Person	Date Sent	Date Reply	Comment and details of how input has been considered	Reference
MLALC, Mr Paul Morris, Chairperson	22/11/11		Follow up emails sent on 22/11/11 and 25/11/11 regarding the draft survey methodology. No response given.	
DLALC, Mr Kevin Cavanagh (Chairperson) and Mr Steven Randall (Sites Officer)	22/11/11	23/11/11	DLALC has no problems with the survey methodology for the NWRL project.	Email
Parramatta Council Aboriginal and Torres Strait Islander Advisory Committee (PCA&TSIAC)	22/11/11	02/12/11	LP spoke with Maggie Kylie from, the PCA&TSIAC. Maggie said the background documentation had been forwarded to the committee members and that no comments had been received as yet. Maggie said that Bruce Gale may be interested in representing the committee for the field surveys.	Telephone call
Mr Tony Williams	22/11/11		No response.	
			No telephone number provided, so a follow up telephone call could not be done.	

Darug Custodial Aboriginal Corporation (DCAC)	22/11/11		Leanne Watson from DCAC provided a verbal comment that she was very happy with draft survey methodology. Leanne said DCAC representatives had walked most of the NWRL corridor previously and to advise which days we would be walking where so she could decide when to send representatives.	Telephone call
Darug Aboriginal Cultural Heritage Assessments (DACHA)	22/11/11	29/11/11	DACHA has reviewed the methodology for the survey and we support your objectives. Gordon Morton from DACHA has over 20 years field experience in survey techniques and is the native title claimant for the region and is aware of the cultural values and significance of the area. Their rates are \$600/day.	Fax
Darug Land Observations (DLO)	22/11/11		Gordon Workman, DLO said it was a good proposed survey methodology and wished to be involved with the field surveys.	Telephone call
Darug Tribal Aboriginal Corporation (DTAC)	22/11/11		Gai from DTAC said that DTAC did not have a chance to respond to the methodology yet. Gai left a message later in the day that she agreed with the proposed survey methodology.	Telephone call
Darug Aboriginal Land Care Inc (DALCI)	22/11/11	04/12/11	LP tried to call DALCI three times on 02/12/11 regarding the proposed survey methodology. No message could be left on the telephone. GML received a response from Desmond Dyer, DALCI on 04/12/11 having no objections to the development of the North West Rail Link. DALCI agree with the proposed survey methodology. DALCI see a need to further archaeological work be carried out in the development area and would like to be involved.	Telephone calls and letter response sent via email
Gunjeewong Cultural Heritage Aboriginal Corporation (GCHAC)	22/11/11		LP telephoned Cherie Carroll from GCHAC on 02/12/11 regarding the proposed survey methodology. Cherie Carroll said she has not had a chance to read the methodology as she was not well.	Telephone call

Yarrowalk / Tocumwal	22/11/11	Telephone message left on 02/12/11 regarding the proposed survey methodology.
Bidjigal Reserve Trust	22/11/11	No response
Northwest Aboriginal Association	22/11/11	No response
Community Care Northern Beaches (CCNB)	22/11/11	No response

Stage 2.3 – Field Survey or opportunity for RAP to visit the proposed project site

RAP	Representative	Date
DLALC	Mr Steven Randall (Sites Officer)	29/11 – 2/12
DTAC	John Reilly	6/12/11, 8/12/11, 9/12/11
DLO	Gordon Workman	6/12/11, 8/12/11, 9/12/11
DLO	Margaret Crawford (Anne)	6/12/11, 8/12/11, 9/12/11
DCAC	Libby Coplin	6/12/11, 8/12/11, 9/12/11
DACHA	Gordon Morton	6/12/11, 9/12/11
DALCI	Des Dyer	6/12/11, 9/12/11
Yarrowalk/ Tocumwal	Danny Franks	6/12/11
Deerubbin LALC	Steve Randall	29/11/11, 30/11/11, 01/12/11

Stage 2.4 – Seek information from RAP on (a) the presence of Aboriginal objects of cultural value and (b) places of cultural value

In addition to discussions during the field survey which informed the findings of the survey, GML provided each RAP with the draft report by post on the 29th February 2012, for them to make an informed comment on the cultural significance of the project area. The period for comments closed on the 28th of March 2012 and all comments received were incorporated into this report. The table below details all submissions made by the RAPs with respect to cultural knowledge and the cultural heritage values of the study area.

#	RAP	Date of Submission	Format	Comment
1	Tony Williams	27 October 2011	Email	Tony is a community elder and traditional owner who has lived in the Hills Shire for over 65 years. His great grandfather is buried on the creek bed near where he lives.
2	DLO – Gordon Workman	15 November 2011	Email	DLO comprises traditional owners from the area under study. These traditional owners retain strong story and song lines, oral history and continued contact.
3	DACHA – Celestine Everingham	29 November 2011	Fax	Gordon Morton has over 20 years of field experience in the area and is aware of the cultural values and significance of the area.
4	DACHA – Celestine Everingham	7 March 2012	Fax	DACHA supports the summary of heritage management, mitigation and recommendations made in the heritage assessment report. DACHA would like to participate in all future field work as this area is a very important Darug Landscape.
5	DLALC – Kevin Cavanagh	12 March 2012	Email attachment	DLALC 'report that a number of areas within the Land Council boundary have the potential to contain subsurface Aboriginal cultural materials, namely, the Hills Centre, Kellyville, Samantha Riley Drive, Rouse Hill and the Tallawong stabling yards, as well as near the waterways along the rail route. Deenrubbin LALC recommends further investigation be undertaken with salvage or excavations program before any development occurs.'
6	Bidjigal Reserve Trust – Wendy Goonan	26 March 2012	Email	'Bidjigal Reserve Trust manages Bidjigal Reserve, a substantial bushland located south of the proposed route of the NWRL in West Pennant Hills and Castle Hill. It is unlikely that the Rail Link will impact on the Aboriginal Cultural Heritage of the Reserve in any way.'