Appendix F

Aboriginal Heritage Assessment Addendum



Additional Areas, South West Rail Link - Glenfield to Leppington Rail Line: Aboriginal Heritage Assessment

Prepared by Australian Museum Business Services for Parsons Brinckerhoff

Brief Addendum Report

July 2010

100077





1 Introduction

Australian Museum Business Services (AMBS) was commissioned by Parsons Brinckerhoff Australia Pty Ltd (PB), on behalf of Transport Infrastructure Development Corporation (TIDC; now the Transport Construction Authority [TCA]), in January 2010 to prepare an Aboriginal Heritage Assessment of the proposed South West Rail Link (SWRL) – Glenfield to Leppington Rail Line project. This project comprises Stage 2 of the SWRL (which was previously known as Stage B2). This brief addendum report is to be appended to the Aboriginal Heritage Assessment (AMBS 2010), and forms part of the supporting documentation for the application for Project Approval under Part 3A, section 75B of the Environmental Planning and Assessment Act 1979.

The aim of this addendum report is to provide TCA with advice concerning the potential impacts on Aboriginal cultural heritage values at a number of additional areas along the SWRL route, which were not assessed as part of the previous Aboriginal Heritage Assessment (AMBS 2010).

2 Background

The additional areas requiring assessment are located along the length of the SWRL route (Figure 1). As this addendum report is to be appended to the 2010 Aboriginal Heritage Assessment prepared by AMBS for SWRL Stage 2, none of the background context is reproduced herein. It should be noted that none of the additional areas are within the direct vicinity of sites previously recorded by Dallas (1989, 1999; Figure 2 and Figure 3).

Aboriginal consultation was undertaken in accordance with *The Consultants Brief for Identifying and Assessing Aboriginal Cultural Heritage within the Sydney Growth Centres* (Context 2006) and its Appendices, particularly Appendix A. AMBS' 2010 assessment and the current additional assessment continue the consultation process undertaken by Heritage Concepts in 2006, which identified the following stakeholder Aboriginal communities for this project in Step 1:

Cubbitch Barta Native Title Claimants Aboriginal Corporation (CBNTCAC);
Darug Aboriginal Cultural Heritage Assessments (DACHA);
Darug Custodian Aboriginal Corporation (DCAC);
Darug Tribal Aboriginal Corporation (DTAC);
Tharawal Local Aboriginal Land Council (TLALC); and
Northern Illawarra Aboriginal Collective (NIAC).

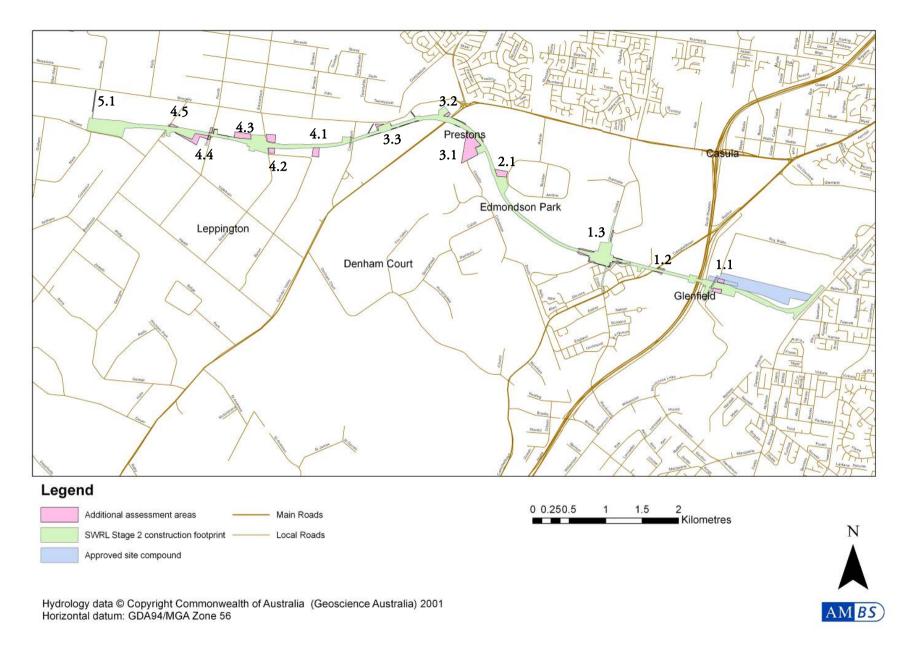


Figure 1 Location of additional assessment areas (1.1-5.1) for SWRL Stage 2.

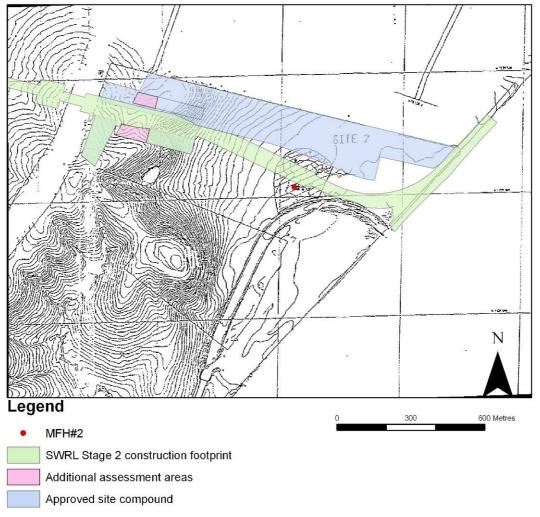
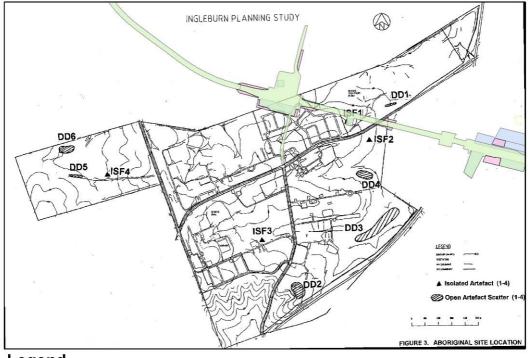


Figure 2 Location of MFH#2 and adjacent area of PAD (cross-hatching) in relation to the additional area 1.1 (Dallas 1989: Map 3).



Legend

- SWRL Stage 2 construction footprint
- Approved site compound
- Additional assessment areas

Figure 3 Location of sites recorded by Dallas (1999:Figure 3) in relation to additional areas 1.2 and 1.3.

3 Field Survey

3.1 Survey Methodology

A field survey of the additional areas was undertaken by AMBS archaeologist Jenna Weston on 28 and 29 June 2010, accompanied by Aboriginal community representatives (see Table 1). The survey aimed to determine whether any Aboriginal archaeological sites or areas of potential Aboriginal archaeological sensitivity were present within the additional areas.

Table 1 Aboriginal community fieldwork participants

Aboriginal Community Organisation	Field Representative
Cubbitch Barta Native Title Claimants Aboriginal Corporation	Rebecca & Kirsty-Lee Chalker
Darug Aboriginal Cultural Heritage Assessments	Tim Wells
Darug Custodian Aboriginal Corporation	Jessica Wright
Darug Tribal Aboriginal Corporation	John Riley
Tharawal Local Aboriginal Land Council	Donna Whillock
Northern Illawarra Aboriginal Collective, representing La Perouse	Mark Cummins
Botany Bay Aboriginal Corporation, Wadi Wadi Coomaditchie Aboriginal	Keith Ball
Corporation, and Woronora Plateau Gundungara Elders Council	Paul Cummins

The survey methodology involved pedestrian survey of the additional areas that had not been traversed as part of the previous assessment. During the survey, particular attention was paid to areas of ground surface exposure. When Aboriginal artefacts were encountered, notes were made regarding their type, size, material, and descriptions of the site were recorded including the environmental setting with details of any disturbance to archaeological material in the site's vicinity, and Australian Map Grid (AMG) coordinates were taken. Photographs of the area were taken using a Canon EOS 300D digital camera.

3.2 Survey Results

Three new Aboriginal heritage sites were recorded during the survey, and the location of artefacts at one previously identified site was extended. The new sites comprise one artefact scatter and two isolated stone artefacts. The new identified sites are referred to in this report as SWRL Sites 11 to 13, dependent upon the order in which they were recorded. A summary of sites identified during the survey is presented in Table 2, and their location relative to the overall proposed railway corridor is presented in Figure 4. Figure 7, Figure 12 and Figure 15 show more closely the locations of each site, in order from east to west.

Table 2 Summary of Aboriginal heritage sites identified during survey

Site Name	Type	Easting	Northing	Landform	Details
SWRL Site 10 SWRL Site 10 (02)	Stone Artefact Scatter	300379 300380	6240545 6240640	Flat/gentle slope	14 artefacts previously recorded 1 additional artefact recorded
SWRL Site 11	Isolated Artefact	300276	6240709	Flat	1 artefact recorded
SWRL Site 12	Isolated Artefact	299228	6240872	Ridge	1 artefact recorded
SWRL Site 13 (01) SWRL Site 13 (02)	Stone Artefact Scatter	297164 297274	6240839 6240820	Slope	7 artefacts recorded

^{*}given the extensive area in which artefacts were located, more than one GPS location was recorded for the site

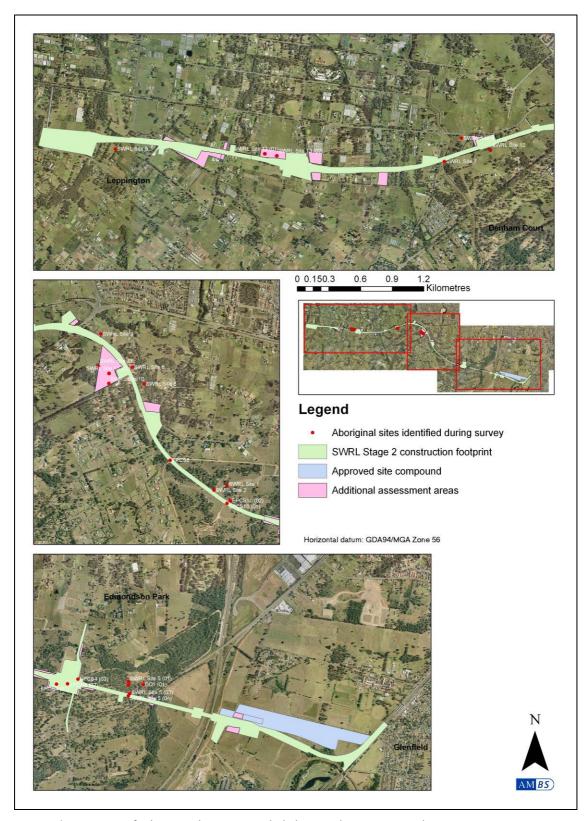


Figure 4 Location of Aboriginal sites recorded during the current and previous AMBS surveys. NB the SWRL Stage 2 construction footprint was assessed in the AMBS 2010 Aboriginal Heritage Assessment.

SWRL Site 10 - Stone Artefact Scatter

Landform: Flat/gentle slope **Site Size:** 70m x 100m

Exposure: Current powerline easement, and track downslope into vegetated area

Site Description: SWRL Site 10 was originally located in March 2010, in a powerline easement directly adjacent to the end of Cassidy Street, within Lot 7 D205472. An additional artefact was located during the current survey, on a track approximately 100m downslope from the transmission easement (Figure 7). A small second order tributary of Cabramatta Creek is located approximately 15m downslope from this additional artefact. The track is currently being impacted by water erosion.

Table 3 SWRL Site 10 artefact details

Material	Colour	Maximum Size (cm)	Artefact Type	Source of Information
Silcrete	Red	2	Flake	AMBS (2010)
Mudstone	Yellow	1.5	Flake	AMBS (2010)
Mudstone	Grey/brown	1	Flake	AMBS (2010)
Mudstone	Grey/brown	2	Flake	AMBS (2010)
Quartz	White	1.5	Flaked piece	AMBS (2010)
Mudstone	Red/brown	5	Flaked piece	AMBS (2010)
Mudstone	Red/brown	5	Flaked piece	AMBS (2010)
Mudstone	Red/brown	4	Flaked piece	AMBS (2010)
Mudstone	Red/brown	4	Flaked piece	AMBS (2010)
Mudstone	Red/brown	1	Flaked piece	AMBS (2010)
Mudstone	Red/brown	1.5	Flaked piece	AMBS (2010)
Mudstone	Red/brown	4	Flaked piece	AMBS (2010)
Mudstone	Grey/brown	4	Flake	AMBS (2010)
Silcrete	Red	2	Heat shatter	Current survey



Figure 5 Track, on which additional artefact was recorded, leading upslope to original recorded location of SWRL Site 10 (view to south west).



Figure 6 Additional silcrete artefact at SWRL Site 10.

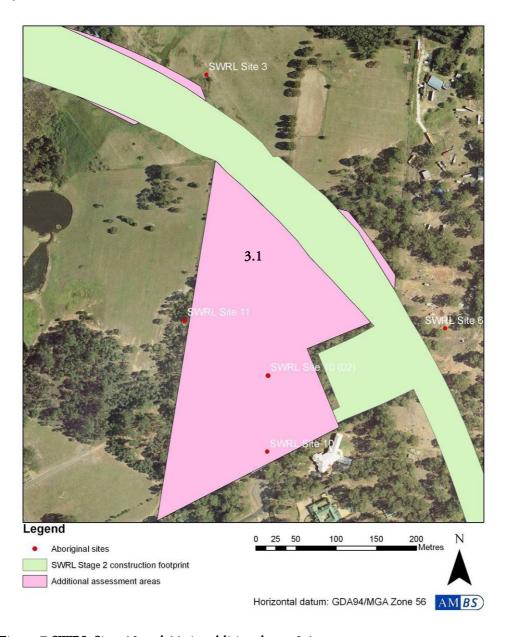


Figure 7 SWRL Sites 10 and 11, in additional area 3.1.

SWRL Site 11 – Isolated Find

Landform: Flat Site Size: N/A

Exposure: Dirt track adjacent to old fenceline

Site Description: This isolated artefact is located on a dirt track adjacent to an old property boundary fenceline, c.70m north west of a small second order tributary of Cabramatta Creek, within Lot 7 D205472 (Figure 7). The site comprises a single flaked silcrete artefact. There are no indications of subsurface deposit. A number of BMX bike jumps have been formed on the western side of the track.

Table 4 SWRL Site 11 artefact details

Material	Colour	Maximum Size (cm)	Artefact Type	
Silcrete	Red	3	Flake	



Figure 8 Track on which SWRL Site 11 artefact was recorded (view to north). Note BMX bike jumps next to track.



Figure 9 Silcrete artefact at SWRL Site 11.

SWRL Site 12 - Isolated Find

Landform: Ridge Site Size: N/A

Exposure: Area adjacent to stand of trees

Site Description: This isolated artefact is located on an area of exposure adjacent to a stand of trees, in a horse paddock c.70m south west of a small first order tributary of Cabramatta Creek, within Lot 1 D513403 (Figure 12). There is a small hill crest approximately 50m to the south of the exposure. The artefact is a distal flake made of quartz.

Table 5 SWRL Site 12 artefact details

Material	Colour	Maximum Size (cm)	Artefact Type
Quartz	White	1	Distal flake



Figure 10 Exposure on which SWRL Site 12 artefact was recorded (view to south east).

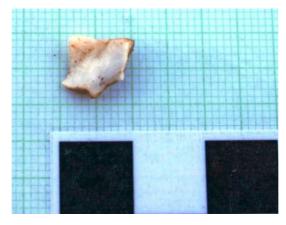


Figure 11 Quartz artefact at SWRL Site 12.

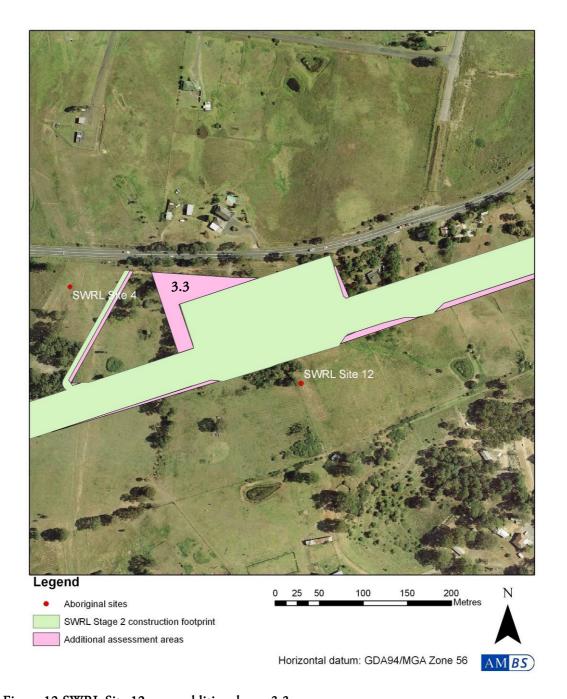


Figure 12 SWRL Site 12, near additional area 3.3.

SWRL Site 13 – Stone Artefact Scatter

Landform: Slope **Site Size:** 100 x 40m

Exposure: Old vehicle tracks

Site Description: SWRL Site 13 is located on a gentle slope c.250-350m west of a small second order tributary of Kemps Creek, within Lot 2 DP1082805 (Figure 15). The site comprises seven silcrete and mudstone flaked artefacts on old vehicle tracks, within a property which has recently been vacated and cleared of buildings and other items (Figure 16). The site has previously being impacted by erosion from vehicle use of the tracks. There are no indications of subsurface deposit, as the exposures are on the clay substrate.

Table 6 SWRL Site 13 artefact details

Material	Colour	Maximum Size (cm)	Artefact Type	Location
Silcrete	Red	2.5	Flake	SWRL Site 13 (01)
Silcrete	Red	3	Proximal flake	SWRL Site 13 (01)
Silcrete	Pink	2	Proximal flake	SWRL Site 13 (01)
Mudstone	Cream	1.5	Distal flake	SWRL Site 13 (01)
Silcrete	Red	2	Medial flake	SWRL Site 13 (02)
Silcrete	Red/grey	2	Flake	SWRL Site 13 (02)
Silcrete	Purple	2.5	Distal flake	SWRL Site 13 (02)



Figure 10 View north east at SWRL Site 13 (01). Note old house foundations in background.



Figure 11 Silcrete and mudstone artefacts located at SWRL Site 13 (01).

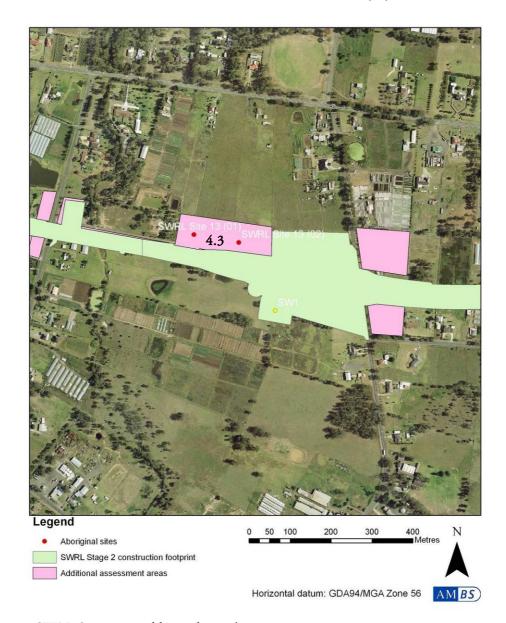


Figure 15 SWRL Site 13, in additional area 4.3.



Figure 16 Location of SWRL Site 13 on 2007 aerial, showing recent occupation of the land.

3.3 Discussion of Survey Results

The additional areas surveyed during the current assessment are located adjacent to the SWRL Stage 2 route assessed by AMBS in 2010, and as such they have been incorporated into the assessment of potential Aboriginal archaeological sensitivity (see Section 5.3.1 of the AMBS 2010 report for the background to this assessment; and see Figure 14 for the updated areas of archaeological sensitivity).

Area of Archaeological Sensitivity 2

An area to the west of previously recorded site MFH#2, extending upslope to a ridge between Quarter Sessions Road and the Hume Highway (including additional area 1.1), was identified as having moderate archaeological sensitivity. This is a relatively undisturbed, elevated area between Bunbury Curran Creek and Maxwells Creek, which represent reliable water sources. There are also sites in the surrounding area (MFH#2 and MLE1). Site MFH#2 (#45-6-2495) was excavated by Dallas in 2000 and found to comprise a low density background scatter of stone artefacts, of types common in the region, and hence is considered to have low archaeological significance. However, the excavated area was situated on the low-lying area surrounding the creek. More recent work by ENSR (2009) suggests that sites are more extensive on elevated areas above reliable water sources, and as such, the ridge is considered to have moderate potential for *in situ* subsurface archaeological deposit.

Area of Archaeological Sensitivity 3

An area within the Ingleburn Army Camp, in the south east corner of the land owned by Landcom, and on the adjacent (eastern) properties (including additional area 1.3), was identified as having **high** archaeological sensitivity. The area is known to contain sites with a moderate

density of stone artefacts (ISF1, SWRL Site 5, DD1, EPCS3 and EPCS4), in a relatively undisturbed, elevated area between two second order creeks, which would represent reliable water sources. AMBS considered EPCS4 to have high potential for *in situ* subsurface archaeological deposit because of its prime geographic location on a slope within the same creek confluence as EPCS3 (2003:25). It should be noted that Dallas (1999) assessed DD1 as containing a low density of artefacts in a disturbed context and, as such, considered it unlikely to have archaeological deposit (1999:14, 22). However, the current investigation has located additional artefacts in this area, and when taken in context with the surrounding landscape, the area is considered to be relatively undisturbed.

Area of Archaeological Sensitivity 6

An area adjacent to Jardine Drive (including additional area 2.1) was identified as having **moderate** archaeological sensitivity because it comprises a ridge landform in the vicinity of Cabramatta Creek, which has been subject to relatively minor disturbance, and isolated find site EPCS7 is located in the vicinity.

Area of Archaeological Sensitivity 7

An area north west and adjacent to a hill crest, including the back of the Adventureland property and additional area 3.1, was identified as having **low** archaeological sensitivity. The area is known to contain sites with a low-moderate density of stone artefacts (SWRL Sites 6, 8, 10 and 11, EPCS5 and 6, and LLB1 Edmondson Park). Test excavations in the area have also located a low density of stone artefacts (Navin Officer 2007; see Section 4.2.3 of the AMBS 2010 report).

Area of Archaeological Sensitivity 8

An area adjacent to Camden Valley Way, near its intersection with Bringelly and Old Cowpasture Roads (including additional area 3.2), was identified as having **low** archaeological sensitivity. The area is low-lying, swampy, and has been disturbed. It contains SWRL Site 3, which has a moderate density of stone artefacts.

Area of Archaeological Sensitivity 9

An area to the east of the Sydney Water Supply Upper Canal and south of Bringelly Road, including additional area 3.3, was identified as having **moderate** archaeological sensitivity. The area is relatively undisturbed with some mature vegetation, and it is known to contain SWRL Sites 4, 7 and 12.

Area of Archaeological Sensitivity 10

An area west of and adjacent to Rickard Road, including additional area 4.3, was identified as having **low** archaeological sensitivity because it is in a vegetated area that is relatively undisturbed and isolated find site SW1 is located in the vicinity. Although the area is relatively undisturbed, there is evidence that market gardens were previously grown adjacent to the creek. SWRL Site 13 is also located in this area, but is on land which has been disturbed by recent occupation.

Area of Archaeological Sensitivity 12

An area at the southern end of 511 Bringelly Road, and extending to the northern end of the western-most McCann Road property for the stabling facility (including additional area 5.1), was identified as having **moderate** archaeological sensitivity because it is an elevated area overlooking

the local landscape, in the immediate vicinity of a tributary of Kemps Creek, in a partly vegetated area that is relatively undisturbed.

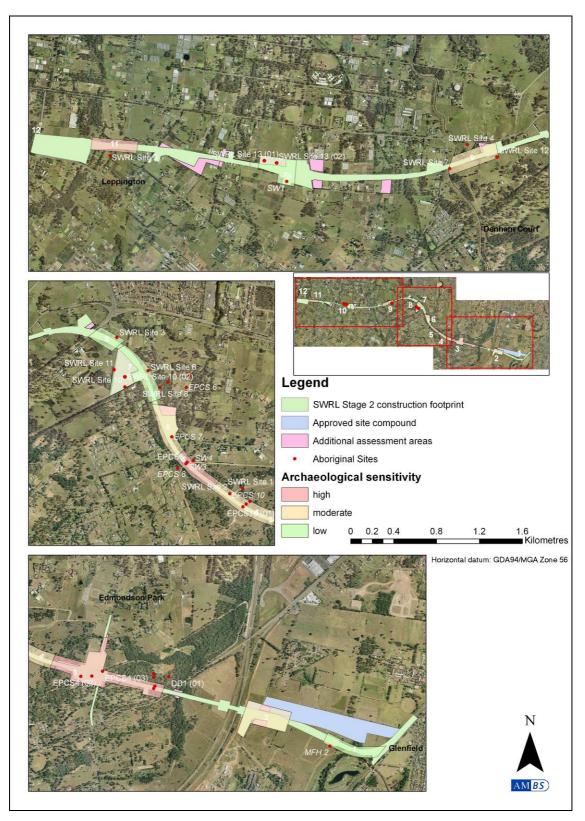


Figure 14 Areas of archaeological sensitivity.

4 Assessment of Significance

4.1 Scientific Significance Assessment

4.1.1 Archaeological Research Potential (SHR Criterion e)

SWRL Sites 10 & 11

SWRL Sites 10 and 11 are located in the general vicinity of Cabramatta Creek and have moderate potential for *in situ* subsurface archaeological deposit, given the relatively shallow level of ground disturbance. Although the number of artefacts recorded on the surface of these sites is suggestive of an archaeological deposit of some complexity, test excavations in the area by Navin Officer (2007) have revealed a low density of artefacts, concentrated on the low slopes of the creek, c.500-600m north east of these sites. As such, these sites are considered to have **low** research potential.

SWRL Site 12

SWRL Site 12 comprises a single quartz artefact within a sloping landscape, a short distance from a very minor, first order creek. The nature of the landscape suggests that the site is likely to represent incidental, background Aboriginal activity within the region, and as such it is considered to have **low** research potential.

SWRL Site 13

SWRL Site 13 comprises a low density of stone artefacts, of types common in the region. The level of disturbance caused by recent occupation of the area, including vehicle use, indicates that the landform is unlikely to contain undisturbed *in situ* archaeological deposits. As such, the site is considered to have **low** research potential.

4.1.2 Representativeness (SHR Criterion f)

SWRL Sites 10-13

Stone artefact sites are the most common type of site previously recorded in the local region. Such site types represent a continuity of use of water resources across the study area. It is considered likely that a background scatter of such artefacts is present throughout similar landforms in the region. SWRL Sites 10-13 are likely to represent such incidental, background Aboriginal activity in the region. All identified sites are considered to be representative of the local archaeology.

4.1.3 Rarity (SHR Criterion g)

SWRL Sites 10-13

The complex of stone artefact sites present in the vicinity of the study area may be regarded as being relatively common in the local region. Such sites are the most common site type both locally and regionally, and are therefore not considered to have archaeological rarity.

4.2 Summary of Archaeological Significance

Based on current scientific evidence, Aboriginal stone artefact sites SWRL Sites 10-13 are regarded as being of **low scientific significance**. A summary of the assessed levels of archaeological significance for identified sites is presented in Table 1, below.

Table 1 Assessed levels of scientific significance for identified sites

Assessed	Archaeolo	gical Research	Potential	Representativeness	Rarity	Overall Scientific
Site	Low	Moderate	High			Significance
SWRL 10	✓			Local	No	Low
SWRL 11	\checkmark			Local	No	Low
SWRL 12	✓			Local	No	Low
SWRL 13	✓			Local	No	Low

4.3 Assessment of Aboriginal Cultural Significance

Aboriginal communities consulted with throughout this project have indicated that, while all Aboriginal heritage sites recorded contain intrinsic cultural significance, there are no further specific cultural significances attached to the identified sites.

5 Conclusions and Recommendations

SWRL Sites 11 and 12 are not located within the impact zone of the proposed project route and are unlikely to be impacted by its construction (see Figure 7, Figure 12). SWRL Site 10 is located within an additional area (3.1) of the proposed SWRL construction footprint; however, it has not yet been confirmed whether the entire additional area will be subject to impact. A substation and access road are to be located within this area.

SWRL Site 13 is located within the impact zone of additional area 4.3. Therefore, this site will be directly impacted by the project construction. Construction activities impacting the site will include excavation, levelling and filling, as well as associated infrastructure development, which will destroy the site and any associated sub-surface archaeological deposit. Given the assessed low significance of this Aboriginal heritage sites, its destruction represents a minor cumulative impact upon the overall heritage significance and archaeology of the region.

Ridge Adjacent to MFH#2

The area to the west of MFH#2, extending upslope to a ridge between Quarter Sessions Road and the Hume Highway, where additional area 1.1 is located, is considered to have moderate archaeological potential for *in situ* subsurface archaeological deposit. This area is discussed in detail in Section 7.2.2 of the AMBS 2010 report, and test excavations were recommended and approved to be undertaken in the SWRL Stage 2 area. Additional area 1.1 should therefore be incorporated into the test excavation area (see Figure 15; Recommendation 4 in AMBS 2010).

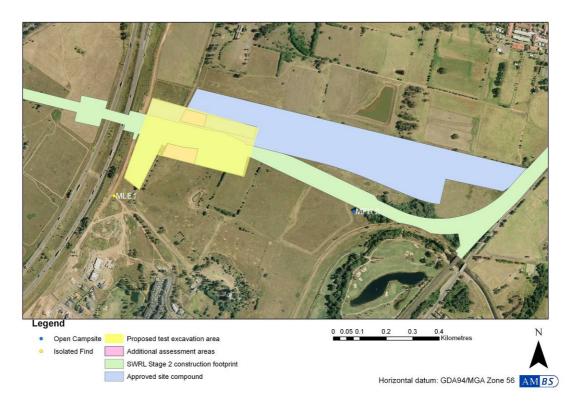


Figure 15 Proposed archaeological test excavation area, above Bunbury Curran Creek, showing location of additional area 1.1.

Area between Maxwells and Cabramatta Creeks

Additional areas 1.3 and 2.1 are located between Maxwells and Cabramatta Creeks, which is considered to have the potential to reveal a continuity of activity in the landscape around Cabramatta and Maxwells Creeks, on Ingleburn and Landcom land. This area is discussed in detail in Section 7.2.3 of the AMBS 2010 report, and test excavations were recommended and approved to be undertaken in the SWRL Stage 2 area. Additional areas 1.3 and 2.1 should therefore be incorporated into the test excavation area (see Figure 16; Recommendation 5 in AMBS 2010).

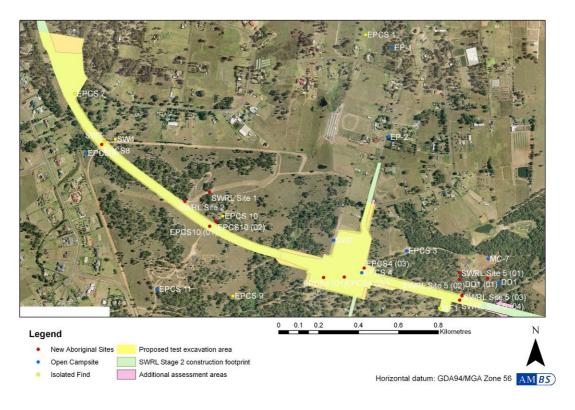


Figure 16 Proposed archaeological test excavation area, Cabramatta and Maxwells Creeks, showing location of additional areas 1.3 and 2.1.

SWRL Site 10

SWRL Site 10 has been assessed as having low research potential and low archaeological significance. Results from archaeological excavations undertaken in the local area on similar landforms by Navin Officer in 2007 indicate that it is unlikely that subsurface archaeological deposits are present at this site, and that archaeological material is limited to a surface scatter of stone artefacts. As such, further archaeological investigation of this site, including archaeological excavation, is unlikely to increase the current scientific knowledge of the region. Nevertheless, if it is possible, this site should be avoided in the proposed construction of a substation and associated access road within additional area 3.1 (see Figure 7). If construction cannot be avoided in these areas and will directly impact on artefacts, the Aboriginal community should be offered the opportunity to collect and relocate artefacts outside of the construction area prior to initiation of works.

SWRL Site 13

SWRL Site 13 has been assessed as having low research potential and low archaeological significance. As such, further archaeological investigation of this site is unlikely to increase the current scientific knowledge of the region. However, the site will be directly impacted as part of additional area 4.3, and as such, the Aboriginal community should be offered the opportunity to collect and relocate artefacts outside of the construction area prior to initiation of works.

Area of Archaeological Sensitivity 12

An area of archaeological sensitivity was identified and recommended for test excavation in AMBS 2010 (Recommendation 13). One of the additional areas (5.1) is located within this test excavation area (Figure 17).

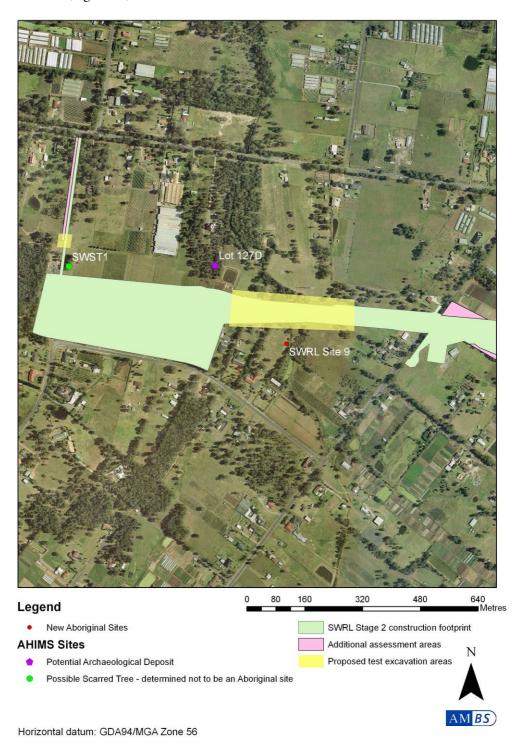


Figure 17 Proposed archaeological test excavation areas, showing additional area (5.1) of access track between Bringelly Road and the train stabling facility.

Aboriginal Community Consultation

This draft letter report should be provided to each registered Aboriginal community group for review and comment.

6 References

AMBS (2003) Edmondson Park Composite Site Master Plan: Aboriginal Heritage Management Plan. Consultancy report to Liverpool and Campbelltown City Councils.

AMBS (2010) South West Rail Link – Glenfield to Leppington Rail Line: Aboriginal Heritage Assessment. Consultancy report to Parsons Brinckerhoff Australia Pty Ltd.

Context (2006) NSW The Consultants Brief for Identifying and Assessing Aboriginal Cultural Heritage in the Sydney Growth Centres.

Dallas M (1989) Macquarie Field House Estate: Archaeological Survey. Consultancy report to Wellings Smith & Byrnes.

Dallas M (1999) Preliminary Archaeological Assessment of the Department of Defence land at Ingleburn, NSW. Consultancy report to Department of Defence.

ENSR (2009) Phase 2 Archaeological Excavations – Oran Park and Turner Road Precincts, South West Sydney, NSW. Consultancy report to Landcom/Greenfield Development Corporation, Dart West Developments Pty Ltd and Paynter Dixon Golf Pty Ltd.

Navin Officer (2007) Locality LB, Edmondson Park: Archaeological Subsurface Testing Program. Consultancy report to Manidis Roberts.

7 New Site Cards

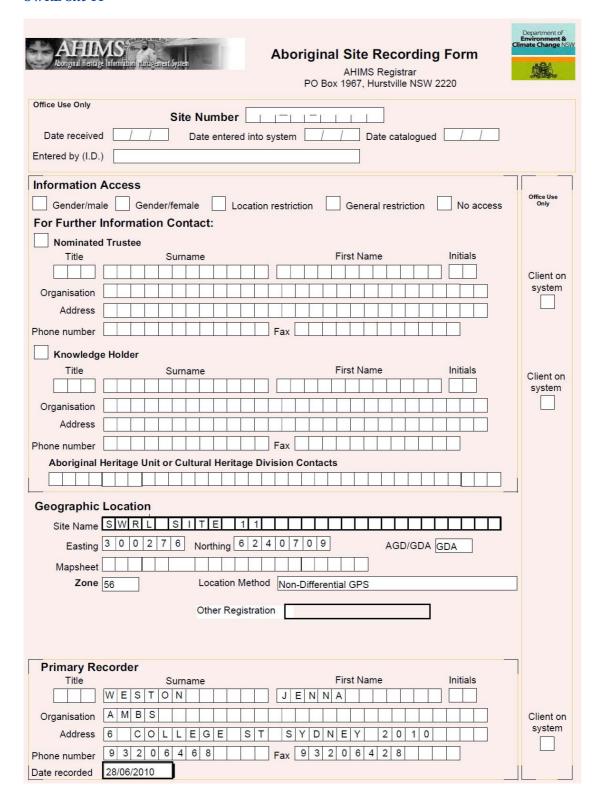
SWRL Site 10

Aboriginal Site Recording Form AHIMS Registrar PO Box 1967, Hurstville NSW 2220	Department of Environment & mate Change NSW
Office Use Only Site Number	
Date received Date entered into system Date catalogued	
Entered by (I.D.)	
Information Access	
Gender/male Gender/female Location restriction General restriction No access	Office Use Only
For Further Information Contact:	
Nominated Trustee	
Title Surname First Name Initials	
	Client on
Organisation	system
Address	
Phone number Fax	
Knowledge Holder	
Title Surname First Name Initials	Client on
	system
Organisation	
Address	
Phone number Fax	
Aboriginal Heritage Unit or Cultural Heritage Division Contacts	
Geographic Location	
Site Name S W R L S I T E 1 0	
Easting 3 0 0 3 8 0 Northing 6 2 4 0 6 4 0 AGD/GDA GDA	
Mapsheet	
Zone 56 Location Method Non-Differential GPS	
Other Registration	
Primary Recorder	
Title Surname First Name Initials	
WESTON	
Organisation A M B S	Client on system
Address 6 C O L L E G E S T S Y D N E Y 2 0 1 0	System
Phone number 9 3 2 0 6 4 6 8 Fax 9 3 2 0 6 4 2 8	
Date recorded 28/06/2010	

NPWS Aboriginal S	ite Recording Forn	n - :	Site Inform	ation		page 2	
	OPEN/CLOSE SITE	Оре	n Site				
Site Context	_						
Landform	Landform Unit						
Mountainous	Beach		Tidal Flat	✓ Upper slope	Stre	am bank	
Plain	Coastal rock platform		Cliff	Plain	Stre	am channel	
Rolling hills	Dune	L	Crest	Ridge	Swa	amp	
Steep hills	Intertidal flat	√	Flat	Tor	Teri	race	
✓ Undulating plain	Lagoon	√	Lower slope	Valley flat	Teri	ace flat	
Slope	Tidal Creek	✓	Mid slope	Levy			
degrees							
Vegetation	Land use	Wa	iter				
Closed forest	Conservation	Dis	tance to perman	nent water source	850	metres	
Grasslands	Established urban	Dis	tance to tempora	ary water source	15	metres	
Isolated clumps of trees	Farming-intensive	Nar	me of nearest pe	ermanent water sour	ce C A B	RAMATTA	
Open forest	Farming-low intensity	Nar	me of nearest te	mporary water	CAB	RAMATTA	
Open woodland	Forestry			Directions for Re	location		
Scrub	Industrial		Coming from S	Sydney, travel west		ne Highway, bea <mark>r</mark>	
Woodland	Mining		left at Campbe	elltown Road, turn ri	ght at Zouc	h Road, turn righ <mark>t</mark>	
Cleared	✓ Pastoral/grazing		at Culverston Ave, and turn right at Cassidy St. The site is				
Revegetated	Recreation		located in a po	owerline easement a	and on a tra	ck downslope into	
N/A	Semi-rural		100000000000000000000000000000000000000	rea, directly adjacen	t to the end	of Cassidy	
	✓ Service corridor		Street.				
	Urban expansion			Site Locatio	n Map		
	N/A	NW		N		NE	
O	IN/A						
Current Land Tenure National Pa	irk / other Government						
Public Dept. Private TCA (FORM		-					
FIIVALE FCA (FORM)	ERLY TIDC)	-					
Primary report I.D.	(I.D. Office Use only)						
AMBS (2010) South West Ra						N	
Leppington Rail Line: Aborigi		w				N E	
(and Appendix). Consultance						4	
Brinckerhoff Australia Pty Ltc							
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NPWS Aboriginal	Site Recording Fo	orm - Site Info	ormation	page 3
Closed Site	Rock Surface Condition Boulder Sandstone platform Silica gloss Tessellated Weathered Other platform Shelter Aspect North North East East South East South West West North West	Open Site Site Orientation N-S NE-SW E-W SE-NW N/A	Features 1. Aboriginal Ceremony & Dreamin 2. Aboriginal Resource & Gatherin 3. Art 4. Artefact 5. Burial 6. Ceremonial Ring 7. Conflict 8. Earth Mound 9. Fish Trap 10. Grinding Groove 11. Habitation Structure 12. Hearth 13. Non Human Bone & Organic N 14. Ochre quarry 15. Potential Archaeological Depo 16. Stone Quarry 17. Shell 18. Stone Arrangement 19. Modified Tree 20. Water Hole	g //aterial
Site Plan Ind	dicate scale, boundaries of site, fea	NE NE	Site Dimensions Closed Site Dimensions (m) Internal length Internal width Shelter height Shelter floor area Open Site Dimensions (m) 100 Total length of visible si 20 Average width of visible 240 Estimated area of visible 100 Length of assessed site	e site e site

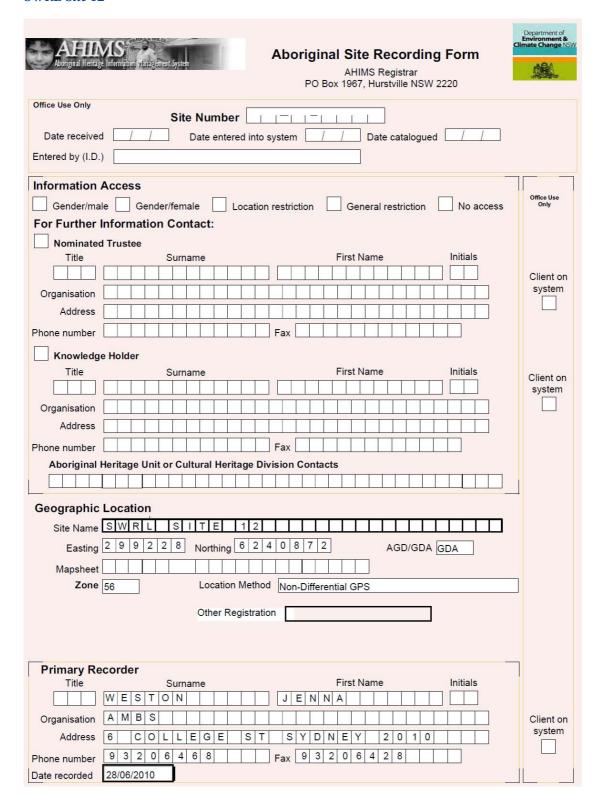
NPWS Aboriginal Site Recording Form - Site Interpretation and Community Statement page 4
Aboriginal Community Interpretation and Management Recommendations
Preliminary Site Assessment
Site Cultural & Scientific Analysis and Preliminary Management Recommendations SWRL Site 10 has been assessed as having low research potential and low archaeological significance. Results from
archaeological excavations undertaken in the local area on similar landforms by Navin Officer in 2007 indicate that it is
unlikely that subsurface archaeological deposits are present at this site, and that archaeological material is limited to a
surface scatter of stone artefacts. As such, further archaeological investigation of this site, including archaeological
excavation, is unlikely to increase the current scientific knowledge of the region. Nevertheless, if it is possible, this site should be avoided in the proposed construction of a substation and associated access road. If construction cannot be
avoided in these areas and will directly impact on artefacts, the Aboriginal community should be offered the opportunity to
collect and relocate artefacts outside of the construction area prior to works beginning.
This section should only be filled in by the Endorsees
Endorsed by: Knowledge Holder Nominated Trustee Native Title Holder Community Consensus
Title Surname First Name Initials
Organisation Organisation
Address
Phone number Fax
Attachments (No.) Comments
✓ A4 location map
B/W photographs —
✓ Colour photographs
Slides
Site plans, drawings
▼ Recording tables
Other
Feature inserts-No.



Site Context Landform
Landform
Mountainous Beach Tidal Flat Upper slope Stream bank ✓ Plain Coastal rock platform Cliff Plain Stream channel Rolling hills Dune Crest Ridge Swamp Steep hills Intertidal flat ✓ Flat Tor Terrace Undulating plain Lagoon Lower slope Valley flat Terrace flat Slope Tidal Creek Mid slope Levy degrees Vegetation Land use Water Closed forest Conservation Distance to permanent water source 950 metres Grasslands Established urban Distance to temporary water source 70 metres Isolated clumps of trees Farming-intensive Name of nearest permanent water source C A B R A M A T T A Open forest Farming-low intensity Name of nearest temporary water C A B R A M A T T A Open woodland Forestry ✓ Scrub Industrial Woodland Mining Distance to temporary water on the Hume Highway, bear left at Camden Valley Way and follow until just past Rynan
✓ Plain Coastal rock platform Cliff Plain Stream channel Rolling hills Dune Crest Ridge Swamp Steep hills Intertidal flat ✓ Flat Tor Terrace Undulating plain Lagoon Lower slope Valley flat Terrace flat Slope Tidal Creek Mid slope Levy degrees Vegetation Land use Water Closed forest Conservation Distance to permanent water source 95.0 metres Grasslands Established urban Distance to temporary water source 70 metres Isolated clumps of trees Farming-intensive Name of nearest permanent water source C A B R A M A T T A Open forest Farming-low intensity Name of nearest temporary water C A B R A M A T T A Open woodland Forestry Directions for Relocation ✓ Scrub Industrial Woodland Mining Coming from Sydney, travel west on the Hume Highway, bear left at Camden Valley Way and follow until just past Rynan
Rolling hills Dune Crest Ridge Swamp Terrace Undulating plain Lagoon Lower slope Valley flat Terrace flat Slope Tidal Creek Mid slope Levy degrees Vegetation Closed forest Conservation Distance to permanent water source Grasslands Established urban Distance to temporary water source Farming-intensive Name of nearest permanent water source C A B R A M A T T A Open forest Copen woodland Forestry Voodland Mining Crest Ridge Swamp Terrace Swamp Terrace Valley flat Terrace flat Terrace flat Terrace flat Terrace flat Terrace flat Terrace flat Terrace flat Name of nearest permanent water source G A B R A M A T T A Directions for Relocation Coming from Sydney, travel west on the Hume Highway, bear left at Camden Valley Way and follow until just past Rynan
Steep hills
Undulating plain Lagoon Lower slope Tidal Creek Mid slope Levy Water Closed forest Conservation Grasslands Established urban Isolated clumps of trees Farming-intensive Open forest Open woodland Forestry Woodland Mining Lagoon Lower slope Valley flat Terrace fl
Slope
Vegetation Land use Water Closed forest Conservation Distance to permanent water source 950 metres Grasslands Established urban Distance to temporary water source 70 metres Isolated clumps of trees Farming-intensive Name of nearest permanent water source C A B R A M A T T A Open forest Farming-low intensity Name of nearest temporary water C A B R A M A T T A Open woodland Forestry ✓ Scrub Industrial Woodland Mining Open woodland Ieft at Camden Valley Way and follow until just past Rynan
Vegetation Land use Water Closed forest Conservation Distance to permanent water source 950 metres Grasslands Established urban Distance to temporary water source 70 metres Isolated clumps of trees Farming-intensive Name of nearest permanent water source C A B R A M A T T A Open forest Farming-low intensity Name of nearest temporary water C A B R A M A T T A Open woodland Forestry ✓ Scrub Industrial Woodland Mining Ieft at Camden Valley Way and follow until just past Rynan
Closed forest Conservation Distance to permanent water source 950 metres Grasslands Established urban Distance to temporary water source 70 metres Isolated clumps of trees Farming-intensive Name of nearest permanent water source C A B R A M A T T A Open forest Farming-low intensity Name of nearest temporary water C A B R A M A T T A Open woodland Forestry Scrub Industrial Directions for Relocation Coming from Sydney, travel west on the Hume Highway, bear left at Camden Valley Way and follow until just past Rynan
Closed forest Conservation Distance to permanent water source 950 metres Grasslands Established urban Distance to temporary water source 70 metres Isolated clumps of trees Farming-intensive Name of nearest permanent water source CABRAMATTA Open forest Farming-low intensity Name of nearest temporary water CABRAMATTA Open woodland Forestry Scrub Industrial Directions for Relocation Coming from Sydney, travel west on the Hume Highway, bear left at Camden Valley Way and follow until just past Rynan
Grasslands Established urban Distance to temporary water source 70 metres Isolated clumps of trees Farming-intensive Name of nearest permanent water source C A B R A M A T T A Open forest Farming-low intensity Name of nearest temporary water C A B R A M A T T A Open woodland Forestry Scrub Industrial Distance to temporary water source C A B R A M A T T A Distance to temporary water source C A B R A M A T T A Distance to temporary water C A B R A M A T T A Open forest Directions for Relocation Coming from Sydney, travel west on the Hume Highway, bear left at Camden Valley Way and follow until just past Rynan
Isolated clumps of trees
Open forest
Open woodland Forestry ✓ Scrub Industrial Coming from Sydney, travel west on the Hume Highway, bear left at Camden Valley Way and follow until just past Rynan
✓ Scrub Industrial Directions for Relocation Woodland Mining Coming from Sydney, travel west on the Hume Highway, bear left at Camden ∀alley Way and follow until just past Rynan
Woodland Mining Coming from Sydney, travel west on the Hume Highway, bear left at Camden ∀alley Way and follow until just past Rynan
Woodland
✓ Cleared ✓ Pastoral/grazing Ave. Enter the property west of Adventureland, and follow the
Revegetated Recreation western boundary fence south into a vegetated area near the
N/A Semi-rural back of the property.
Service corridor
Transport corridor Site Location Map
Urban expansion N NE
N/A
Current Land Tenure
Public National Park / other Government Dept.
✓ Private
Primary report I.D. (I.D. Office Use only)
Primary report I.D. (I.D. Office Use only) AMBS (2010) South West Rail Link - Glenfield to
Leibpirlotton Rail Line: Abbridinal Heritlade Assessment
(and Appendix) Consultancy report to Parsons /
Brinckerhoff Australia Pty Ltb.
SW S SE

NPWS Aboriginal Site Recording Form - Site Information page						
Closed Site	neral Site Information Rock Surface Condition Boulder Sandstone platform Silica gloss Tessellated Weathered Other platform Shelter Aspect North North East East South East South South West West North West	Open Site Site Orientation N-S NE-SW E-W SE-NW N/A	Features 1. Aboriginal Ceremony & Dreaming 2. Aboriginal Resource & Gathering 3. Art ✓ 4. Artefact 5. Burial 6. Ceremonial Ring 7. Conflict 8. Earth Mound 9. Fish Trap 10. Grinding Groove 11. Habitation Structure 12. Hearth 13. Non Human Bone & Organic Ma 14. Ochre quarry 15. Potential Archaeological Deposit 16. Stone Quarry 17. Shell 18. Stone Arrangement 19. Modified Tree 20. Water Hole	aterial		
NW W	Indicate scale, boundaries of site, fer	NE NE	Site Dimensions Closed Site Dimensions (m) Internal length Internal width Shelter height Shelter floor area Open Site Dimensions (m)			
SW	S	SE	Total length of visible site Average width of visible site Estimated area of visible Length of assessed site a	site site		

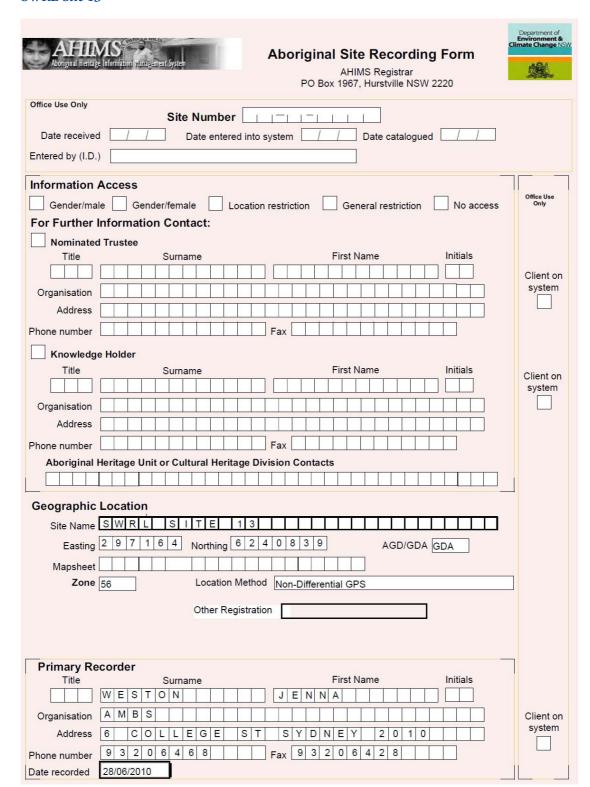
NPWS Aboriginal Site R	ecording Form - Site Interpretation and Community Statement page 4					
Aboriginal Community Interpretation and Management Recommendations						
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Dreliminary Site Assess	man*					
Preliminary Site Assess Site Cultural & Scientific Ana	alysis and Preliminary Management Recommendations					
	ssed as having low research potential and low archaeological significance. Results from					
archaeological excavations ur	ndertaken in the local area on similar landforms by Navin Officer in 2007 indicate that it is					
unlikely that subsurface archa	eological deposits are present at this site, and that archaeological material is limited to a					
surface scatter of stone artefa	cts. As such, further archaeological investigation of this site, including archaeological					
excavation, is unlikely to incre	ease the current scientific knowledge of the region. The site is outside of the proposed impact					
area for the SWRL project.						
-						
-						
Jir.						
This section should only be fille	ed in by the Endorsees					
	edge Holder Nominated Trustee Native Title Holder Community Consensus					
Title	Surname First Name Initials					
Organisation						
Address						
Phone number	Fax					
	Comments					
Attachments (No.) A4 location map	Comments					
B/W photographs						
Colour photographs						
Slides						
Aerial photographs						
Site plans, drawings						
Recording tables						
Other						
Feature inserts-No.						
reature inserts-No						



NPWS Aboriginal Site Recording Form - Site Information page 2						
	OPEN/CLOSE SITE	ре	n Site			
Site Context						
Landform L	andform Unit					
Mountainous	Beach		Tidal Flat	Upper slope	Stre	am bank
Plain	Coastal rock platform		Cliff	Plain	Stre	am channel
✓ Rolling hills	Dune		Crest	✓ Ridge	Swa	ımp
Steep hills	Intertidal flat		Flat	Tor	Terr	ace
Undulating plain	Lagoon		Lower slope	Valley flat	Terr	ace flat
Slope	Tidal Creek		Mid slope	Levy		
degrees						
Vegetation L	and use	Wa	tor			
Closed forest	Conservation			ont water course	1900	
	Established urban		•	ent water source	7.0	metres
Grasslands				ary water source	0.3.5	RAMATTA
Isolated clumps of trees	Farming-intensive			rmanent water sour		RAMATTA
Open forest	Farming-low intensity	Nan	ne of nearest ter	mporary water	CAB	AHAIIA
Open woodland	Forestry			Directions for Rel	ocation	
Scrub	Industrial		Coming from S	Sydney, travel west		ie Highway, bea <mark>r</mark>
Woodland	Mining		left at Camden	Valley Way, then b	ear left at E	Bringelly Road.
Cleared	Pastoral/grazing		Enter the prope	erty west of 101 Bri	ngelly Road	l, and follow the
Revegetated	Recreation		western bound	lary fence south of a	a vegetated	area near the top
N/A	Semi-rural		of a hill.			
Ļ	Service corridor		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
	Transport corridor			Cita Lagation	n Man	
Ĺ	Urban expansion	NW.		Site Location	пмар	NE
	N/A	200200-0				
Current Land Tenure						
Public	/ other Government					
✓ Private Dept.						
		+				
Primary report I.D.	(I.D. Office Use only)					
AMBS (2010) South West Rail						N
Leppington Rail Line: Aborigina		w				N E
(and Appendix) Consultancy	eport to Parsons					
Brinckerhoff Australia Pty Ltd.						$\overline{}$
		sw				
		SVV		S		SE

NPWS Aboriginal Site Recording Form - Site Information page 3						
Closed Site	neral Site Information Rock Surface Condition Boulder Sandstone platform Silica gloss Tessellated Weathered Other platform Shelter Aspect North North East East South South West West North West North West	Features 1. Aboriginal Ceremony & Dreaming 2. Aboriginal Resource & Gathering 3. Art √ 4. Artefact 5. Burial 6. Ceremonial Ring 7. Conflict 8. Earth Mound 9. Fish Trap 10. Grinding Groove 11. Habitation Structure 12. Hearth 13. Non Human Bone & Organic Material 14. Ochre quarry 15. Potential Archaeological Deposit 16. Stone Quarry 17. Shell 18. Stone Arrangement 19. Modified Tree 20. Water Hole				
Site Plan	Indicate scale, boundaries of site, fe	NE				
W		N E	Site Dimensions Closed Site Dimensions (m) Internal length Internal width Shelter height Shelter floor area Open Site Dimensions (m) Total length of visible site Average width of visible site Estimated area of visible site Length of assessed site area			
sw	S	SE				

NPWS Aboriginal Site Recording Form - Site Interpretation and Community Statement page 4					
Aboriginal Community Interpretation and Management Recommendations					
Preliminary Site Assess	ment				
	alysis and Preliminary Management Recommendations ssed as having low research potential and low archaeological significance. The site is				
outside of the proposed impa	MIC (1)				
,					
-					
This section should only be filled	ed in by the Endorsees				
Endorsed by: Knowl	edge Holder Nominated Trustee Native Title Holder Community Consensus				
Title	Surname First Name Initials				
Organisation					
Address					
Phone number	Fax				
Attachments (No.)	Comments				
A4 location map B/W photographs					
✓ Colour photographs					
Slides					
Aerial photographs					
Site plans, drawings					
✓ Recording tables					
Other					
Feature inserts-No.					



NPWS Aboriginal Site Recording Form - Site Information page 2							
	OPEN/CLOSE SITE	Эре	n Site				
Site Context							
Landform	Landform Unit						
Mountainous	Beach		Tidal Flat	√ Upp	er slope	Stream	m bank
Plain	Coastal rock platform		Cliff	Plai	n	Stream	m channel
Rolling hills	Dune		Crest	Ridg	ge	Swam	ıp
Steep hills	Intertidal flat		Flat	Tor		Terra	ce
✓ Undulating plain	Lagoon	✓	Lower slope	Valle	ey flat	Terra	ce flat
Slope	Tidal Creek	✓	Mid slope	Lev	/		
degrees							
Vegetation I	Land use	Wa	ıter				
Closed forest	Conservation	Dis	tance to permar	nent water:	source	1250	metres
Grasslands	Established urban		tance to tempor			250	metres
Isolated clumps of trees	Farming-intensive		ne of nearest pe			KEMI	
Open forest	Farming-low intensity		ne of nearest te			KEMI	2 S
Open woodland	Forestry						
Scrub	Industrial		O i		ns for Relo		I liaborari di ann
Woodland	Mining		left at Camder				Highway, bear
✓ Cleared	Pastoral/grazing		turn left at Dic		• .		
Revegetated	Recreation		south of 152 [<u> </u>
N/A	Semi-rural		property. The				
	Service corridor				_		
	Transport corridor						
	✓ Urban expansion	NW.		Site	Location N	Мар	NE
	N/A						
Current Land Tenure		-					
Public National Parl	k / other Government						
Private TCA (FORME)	RLY TIDC)						
		+					
Primary report I.D. AMBS (2010) South West Rail	(I.D. Office Use only)						
Leppington Rail Line: Aborigin							N
(and Appendix) Consultancy		W					E
Brinckerhoff Australia Pty Ltd.							4
							+ + -
		SW			S		SE

NPWS Aboriginal Site Recording Form - Site Information page 3							
Closed Site Shelter/Cave Formation Boulder Wind erosion Water erosion Rock collapse Condition of Ceiling Boulder Sandstone platform Silica gloss Tessellated Weathered Other platform	Rock Surface Condition Boulder Sandstone platform Silica gloss Tessellated Weathered Other platform Shelter Aspect North North East East South East South West West North West	Open Site Site Orientation N-S NE-SW E-W SE-NW N/A	Features 1. Aboriginal Ceremony & Dreaming 2. Aboriginal Resource & Gathering 3. Art ✓ 4. Artefact 5. Burial 6. Ceremonial Ring 7. Conflict 8. Earth Mound 9. Fish Trap 10. Grinding Groove 11. Habitation Structure 12. Hearth 13. Non Human Bone & Organic Materia 14. Ochre quarry 15. Potential Archaeological Deposit 16. Stone Quarry 17. Shell 18. Stone Arrangement 19. Modified Tree 20. Water Hole	al			
NW	N	NE					
W		N E	Site Dimensions Closed Site Dimensions (m) Internal length Internal width Shelter height Shelter floor area Open Site Dimensions (m) 100 Total length of visible site 4000 Estimated area of visible site Length of assessed site area				
SW	S	SE					

NPWS Aboriginal Site Recording Form - Site Interpretation and Community Statement page 4						
Aboriginal Community Interpretation and Management Recommendations						
Dualinainama Cita Accessment						
Preliminary Site Assessment Site Cultural & Scientific Analysis and Preliminary Management Recommendations						
SWRL Site 13 has been assessed as having low research potential and low archaeological significance. As such, further						
archaeological investigation of this site is unlikely to increase the current scientific knowledge of the region. However, the						
site will be directly impacted as part of the SWRL project, and as such, the Aboriginal community should be offered the						
opportunity to collect and relocate artefacts outside of the construction area prior to works beginning.						
This section should only be filled in by the Endorsees						
Endorsed by: Knowledge Holder Nominated Trustee Native Title Holder Community Consensus Title Surname First Name Initials						
Organisation Organisation						
Address Address						
Phone number Fax						
Attachments (No.) Comments						
✓ A4 location map						
B/W photographs —						
✓ Colour photographs						
Slides						
Aerial photographs						
Site plans, drawings						
✓ Recording tables						
Other						
Feature inserts-No.						