

Heritage Significance and Impact Assessment for Ten Sites in Box Hill



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Prepared for
Sydney Water

Prepared by

AECOM Australia Pty Ltd

Level 21, 420 George Street, Sydney NSW 2000, PO Box Q410, QVB Post Office NSW 1230, Australia
T +61 2 8934 0000 F +61 2 8934 0001 www.aecom.com
ABN 20 093 846 925

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Prepared by Dr Susan Lampard

Reviewed by Luke Kirkwood

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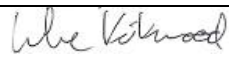
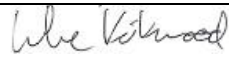
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Executive Summary

Sydney Water Corporation (Sydney Water) is currently preparing an Environmental Assessment (EA), under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in relation to the installation of essential water and wastewater infrastructure in the Schofield, Box Hill and Box Hill Industrial Urban Release Precincts. The works are in advance of the proposed redevelopment of these precincts.

Sydney Water commissioned Biosis Research Pty Ltd (Biosis) to undertake the non-Aboriginal heritage assessment of the proposed infrastructure. Biosis delivered its report to Sydney Water in March 2011. The report was forwarded, together with the balance of the EA to the Department of Planning and Infrastructure (DP&I) for adequacy review. Based on this review, DP&I requested Sydney Water provide additional information before display of the EA. Sydney Water commissioned AECOM to provide this additional information, particularly further significance and impact assessments for several items identified in the Biosis report.'

Sydney Water requested the impacts to the following sites be addressed:

- NW 51 Rouse Hill Cultural Landscape
- NW 58 'Copenhagen'.
- NW 59 LEP listed old alignment of Old Pitt Town Road.
- NW 95 unlisted possible old alignment of Old Pitt Town Road.
- NW 98 unlisted possible old alignment of Old Pitt Town Road.
- NW 119 section of former Old Hawkesbury Road alignment.
- NW 120 section of former Old Hawkesbury Road alignment.
- NW 121 section of former Old Hawkesbury Road alignment.
- NW 122 unlisted features in the vicinity of Box Hill House.
- NW 124 Guntawong Road through former part of Rouse Hill Estate.

This report has assessed the heritage significance of ten sites potentially impacted by proposed water and wastewater infrastructure in, and adjacent to, the Box Hill and Box Hill Industrial precincts of the North WestGrowth Centre. The significance assessments, using Heritage Branch guidelines, have been based on the detailed site descriptions and historical context provided. Based on the significance, the impact of the proposed infrastructure has been assessed and a Statement of Heritage Impact prepared for the sites of heritage significance.

The significance assessment determined that four of the sites/features were not of heritage significance:

- NW 51 Rouse Hill Cultural Landscape;
- NW 58 'Copenhagen';
- NW 122 unlisted features in the vicinity of Box Hill House; and
- NW 124 Guntawong Road through former part of Rouse Hill Estate.

No further assessment or mitigation recommendations are required in relation to the proposed pipelines in these locations.

The significance assessment determined that six of the sites were of local historical and technical heritage significance. The Old Pitt Town Road items were also of local associative significance:

- NW 95 LEP listed old alignment of Old Pitt Town Road;
- NW 95 unlisted possible old alignment of Old Pitt Town Road;
- NW 98 unlisted possible old alignment of Old Pitt Town Road;
- NW 119 section of former Old Hawkesbury Road alignment;
- NW 120 section of former Old Hawkesbury Road alignment; and

- NW 121 section of former Old Hawkesbury Road alignment.

The proposed pipelines will have no impact on the historical or associative significance of the items as the significance is vested in the route of the roads, which will remain unchanged. Based on the significance of the above items, and in light of the varied potential for archaeological features associated with the former Road alignments to be preserved, the following mitigation measures are recommended as summarised in Table 1.

Table 1 Summary of mitigation recommendations for sites of heritage significance

Site	Recommendations
NW 59 – Listed old alignment of Old Pitt Town Road	Recommendations will be based on the outcomes of monitoring at site NW 95, which will determine the likelihood, extent, nature and significance of the potential archaeological deposits.
NW 95 – unlisted old alignment of Old Pitt Town Road (behind fire station)	Monitor site during construction to determine extent, nature and significance of archaeological deposits associated with the former alignment of the Old Pitt Town Road.
NW 98 – unlisted old alignment of Old Pitt Town Road (road verge)	Recommendations will be based on the outcomes of monitoring at site NW 95, which will determine the likelihood, extent, nature and significance of the potential archaeological deposits.
NW 119 – section of former Old Hawkesbury Road alignment (within 3 Boundary Rd)	Monitor during construction and archival recording if evidence of the road is uncovered.
NW 120 - section of former Old Hawkesbury Road alignment (Terry Road)	Stop work if unidentified archaeological features encountered and seek the advice of an archaeologist.
NW 121 - section of former Old Hawkesbury Road alignment (Nelson Road)	Stop work if unidentified archaeological features encountered and seek the advice of an archaeologist.

A Statement of Heritage Impact has been prepared to assess the proposed impact in relation to the assessed significance. The SOHI determined that the impact to the significance of the above items will be of a minor negative nature with the recommended mitigation measures. It is therefore concluded that the project may proceed as planned given that the recommended mitigation measures are carried out and subject to approval by the Department of Planning and Infrastructure.

1.0 Introduction

1.1 Project Background

Sydney Water Corporation (Sydney Water) is currently preparing an Environmental Assessment (EA), under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in relation to the installation of essential water and wastewater infrastructure in the Schofield, Box Hill and Box Hill Industrial Urban Release Precincts. The works are in advance of the proposed redevelopment of these precincts.

Sydney Water commissioned Biosis Research Pty Ltd (Biosis) to undertake the non-Aboriginal heritage assessment of the proposed infrastructure. Biosis delivered its report to Sydney Water in March 2011. The report was forwarded, together with the balance of the EA to the Department of Planning and Infrastructure (DP&I) for adequacy review. Based on this review, DP&I requested Sydney Water provide additional information before display of the EA. Sydney Water commissioned AECOM to provide this additional information, particularly further significance and impact assessments for several items identified in the Biosis report.'

Sydney Water requested the impacts to the following sites be addressed:

- NW 51 Rouse Hill Cultural Landscape
- NW 58 'Copenhagen'.
- NW 59 LEP listed old alignment of Old Pitt Town Road.
- NW 95 unlisted possible old alignment of Old Pitt Town Road.
- NW 98 unlisted possible old alignment of Old Pitt Town Road.
- NW 119 section of former Old Hawkesbury Road alignment.
- NW 120 section of former Old Hawkesbury Road alignment.
- NW 121 section of former Old Hawkesbury Road alignment.
- NW 122 unlisted features in the vicinity of Box Hill House.
- NW 124 Guntawong Road through former part of Rouse Hill Estate.

1.2 Assessment Aim and Objectives

The aim of this report is to address the comments from DP&I and the Heritage Branch. The comments provided by DP&I are as follows and include a reference to the section within this report that addresses the comment:

- *It is noted that the impacts are predicted (either direct or indirect) to a number of non-Aboriginal heritage items including those stated as being of local, state or national significance.*
- *The assessment does not include an assessment of impacts to the identified heritage items and there is not enough information to determine what the impacts are or whether those impacts are appropriate. Table 6-17 lists a variety of impacts to items considered or potentially likely to be of local, State or National significance and proposes mitigation measures. For example, whether the direct impact will result in complete removal of the whole item or whether it would result in part or curtilage only impacts or what the residual impact would be and whether any of the impact and mitigation measures proposed are appropriate given the significance of the item... See the tables in Section 4.0 for a detailed assessment of the significance and the impact.*
- *The completion of a SOHI is listed as a mitigation measure for some items. The SOHI should be prepared for the items as part of this assessment. See Section 5.0.*
- *The Box Hill and Box Hill Industrial European Heritage Assessment identifies the Hunting Lodge in the Box Hill Industrial Precinct which is listed on the State Heritage Register but this is not referred to in the EA although it is in the proximity of the proposed works. See Section 4.12.*
- *It is also noted that no subsurface investigations have been undertaken to confirm the presence and significance of items identified. If this is not required it needs to be justified. See Section 4.13.*

The objectives of the report are therefore to:

- Assess the heritage significance of the ten items identified by Sydney Water as being directly impacted;
- Determine the extent of the impact to the heritage significance by the proposed pipelines;
- Prepare a SOHI for items of heritage significance to be impacted by the proposed pipelines;
- Assess the impact of the proposed pipelines to the Hunting Lodge (State Heritage Register No. 00632)
- Determine the need for or justify why subsurface investigations are not required; and
- Make recommendations regarding the requirement for mitigation measures.

1.3 Project Location

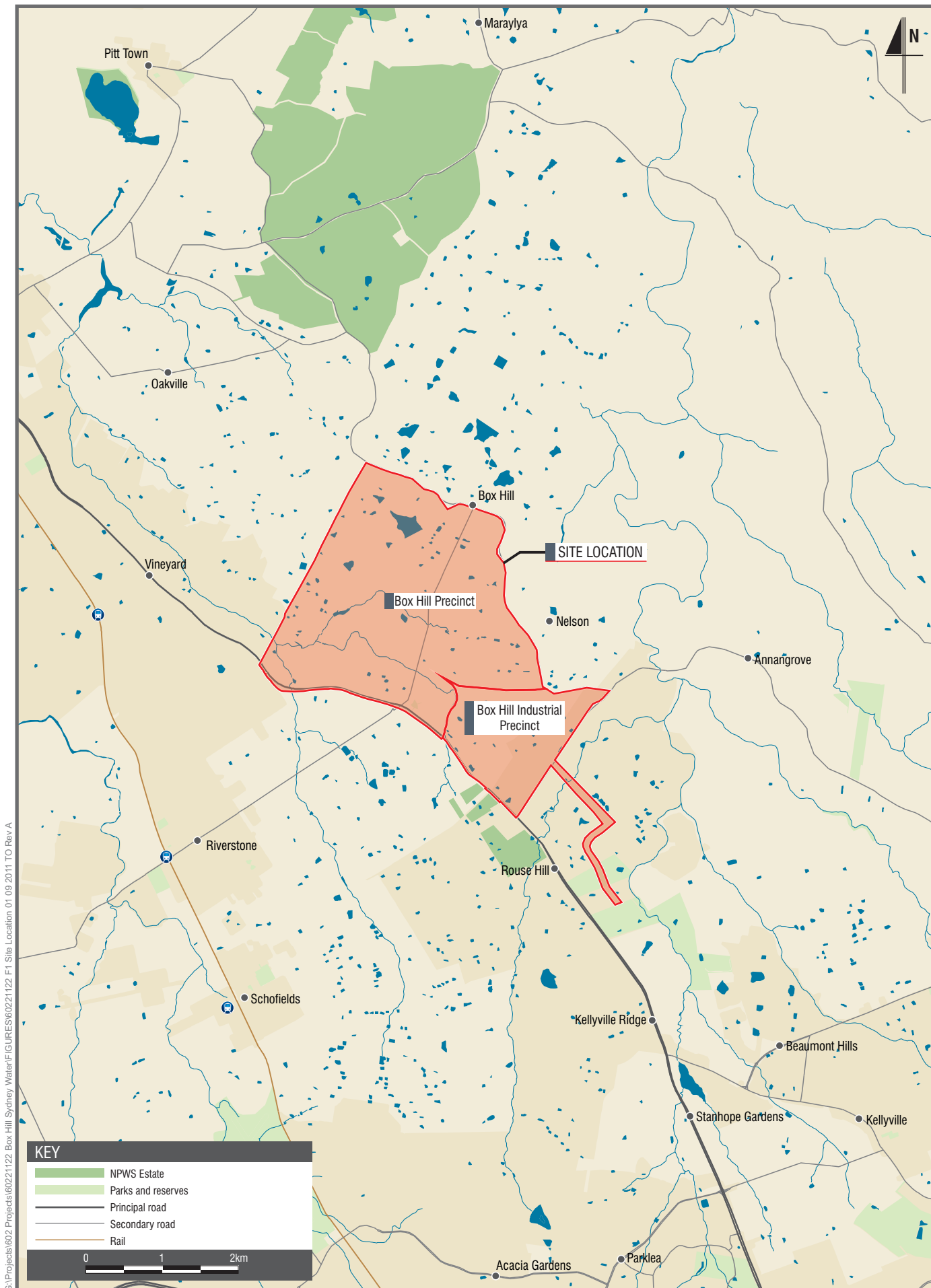
The Box Hill and Box Hill Industrial Precincts are second release precincts in the North West Growth Centre (NWGC). Both fall within the boundaries of the Hills Shire LGA (Figure 1). The Box Hill Precinct covers an area of approximately 764 hectares and is expected to contain around 10,000 dwellings for 28,000 people. At around 245 hectares, the Box Hill Industrial Precinct is being investigated for employment lands, and is being planned in conjunction with the Box Hill Precinct. Both precincts currently consist of a mix of residential areas and rural land uses.

The Precincts lie on the north eastern side of Windsor Road at Box Hill. The Precinct is bounded by Windsor Road to the south, Boundary Road to the west, Old Pitt Town and Edwards Roads to the north and Annangrove Road to the east. In order to adequately service the Precincts, Sydney Water has identified the need to construct water and wastewater infrastructure outside these precincts to the south of Windsor Road, along Guntawong Road and within 1034 to 1106 Windsor Road, Rouse Hill. These areas south of Windsor Road are in the Blacktown LGA.

The topography of the project area consists largely of gently undulating terrain formed on sediments of the Wianamatta Group. However, flat to gently sloping alluvial plain is also well represented, dominating the south-western portion of the project area in association with the Killarney Chain of Ponds and First Ponds Creek. Dominant landform elements in the project area comprise broad rounded crests and associated ridgelines and gently inclined slopes. Elevations range between 12 and 81 m AHD, with the highest elevations occurring in the northern, eastern and southeastern parts of the project area. Box Hill, the area's name sake, itself lies towards the centre of the project area and rises to 55 m AHD. Local relief is up to 69 m.

1.4 Project Team

This project has been managed by Dr Susan Lampard, Professional Archaeologist, who undertook the field survey and prepared this report. Susan was aided in the field by Rochelle Coxon, Graduate Archaeologist. Project direction and quality assurance review was undertaken by Luke Kirkwood, Senior Professional Archaeologist. Graphics were created by Tim Osborne and administrative assistance provided by Jodie Glennan.



G:\Projects\602 Projects\6021122 Box Hill Sydney Water\FIGURES\6021122 F1 Site Location 01 09 2011 TO Rev A

2.0 Statutory Controls Relating to Heritage

A number of planning and legislative documents govern how heritage is managed in NSW and Australia. The following section provides an overview of the requirements under each as they apply to the current project.

2.1 Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act; the Act) took effect on 16 July 2000.

Under Part 9 of the EPBC Act, any action that is likely to have a significant impact on a matter of National Environmental Significance (known as a controlled action under the Act), may only progress with approval of the Commonwealth Minister for Sustainability, Environment, Water, Population and Communities. An action is defined as a project, development, undertaking, activity (or series of activities), or alteration. An action will also require approval if:

- It is undertaken on Commonwealth land and will have or is likely to have a significant impact;
- It is undertaken outside Commonwealth land and will have or is likely to have a significant impact on the environment on Commonwealth land; and,
- It is undertaken by the Commonwealth and will have or is likely to have a significant impact.

The EPBC Act defines 'environment' as both natural and cultural environments and therefore includes Aboriginal and historic cultural heritage items. Under the Act protected heritage items are listed on the National Heritage List (items of significance to the nation) or the Commonwealth Heritage List (items belonging to the Commonwealth or its agencies). These two lists replaced the Register of the National Estate (RNE). While the RNE has been suspended and is no longer a statutory list, Section 391A of the Act requires the Minister to consider RNE listing if a referral is made. This requirement expires in 2012, by which time all RNE listings are to be transferred to a relevant heritage register. Items on the RNE can have a variety of statuses, including Registered (it is inscribed on the Register) and Indicative (it is in the database, but no formal nomination has been received or an assessment has not been completed).

The heritage registers mandated by the EPBC Act have been consulted and there are no items within the project area on these registers. In relation to heritage the EPBC Act therefore is not of further relevance to this project.

2.2 Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) allows for the preparation of planning instruments to direct development within NSW. This includes Local Environment Plans (LEP), which are administered by local government, and principally determine land use and the process for development applications. LEPs usually include clauses requiring that heritage be considered during development applications and provide a schedule of identified heritage items. Of relevance to this project is the Baulkham Hills LEP (2005), as discussed in Section 2.4 and the Blacktown LEP (1988), as discussed in Section 2.5.

Part 3A of the EP&A Act provides an approvals regime for all 'major projects'. Major projects are defined under Schedule 1 of the Major Development SEPP (2005) and are identified by way of declaration as a listed project in the Major Development SEPP or by notice in the NSW Government Gazette. Part 3A applies to all projects where the Minister for Planning has the approval role. Under Part 3A, the Minister can issue a Project Approval or a Concept Approval. Both maintain the requirement for consultation with the community and relevant State Government agencies. However, the requirement for certain other permits and licences is removed under Part 3A.

Non-Indigenous heritage impact assessments carried out under Part 3A of the EP&A Act should firstly address the Director General's Requirements then the guidelines developed by the Heritage Branch, Office of Environment and Heritage (Heritage Branch). This Project is subject to Part 3A of the EP&A Act.

The Heritage Branch, Office of Environment and Heritage does not have specific guidelines to follow regarding heritage assessments under Part 3A. This Project has therefore used the following guidelines as an indication of methods and principles required by the Heritage Branch, together with the ICOMOS Burra Charter (2004):

- Heritage Manual (1996)
- Assessing Heritage Significance (2001)

- Heritage Curtilages (1996)
- Levels of Heritage Significance (2008)

2.3 Sydney Water Act 1994

The *Sydney Water Act 1994* is administered by Sydney Water. Under the Act, Sydney Water has the authority to “operate, repair, replace, maintain, remove, extend, expand, connect, disconnect, improve or do any other things” necessary to provide water and waste water services within its area of operation.

2.4 Baulkham Hills Local Environmental Plan 2005

Under Division 4 of the Baulkham Hills LEP there is a requirement to prepare a Statement of Heritage Impact for submission with a development application that will affect a heritage building, relic (archaeological site) or structure listed in the heritage schedule (Schedule 1). These provisions also apply to land where an archaeological site is suspected or where development may have an impact on a heritage item in the vicinity. Additionally, the LEP allows Council to request the preparation of a Statement of Heritage Impact prior to the development or demolition of structures over 50 years old that are not listed in the heritage schedule.

As a project under Part 3A of the EP&A Act the provisions of the LEP will not apply, however, the heritage schedule has been used to gain an appreciation of the heritage resource within the LGA and to identify heritage items potentially impacted by the proposed pipelines.

2.5 Blacktown Local Environmental Plan 1988

Division 5 of the Blacktown LEP deals with the protection of heritage within the LGA. As a project under Part 3A of the EP&A Act the provisions of the LEP will not apply, however, the heritage schedule (Schedule 2) has been used to gain an appreciation of the heritage resource within the LGA and to identify heritage items potentially impacted by the proposed pipelines.

2.6 Heritage Act 1977

The *Heritage Act 1977* was enacted to conserve the environmental heritage of New South Wales. Under section 32, places, buildings, works, relics, moveable objects or precincts of heritage significance are protected by means of either Interim Heritage Orders (IHO) or by listing on the State Heritage Register (SHR). Items that are assessed as having State heritage significance can be listed on the SHR by the Minister on the recommendation of the Heritage Council.

Archaeological relics (any relics that are buried) are protected by the provisions of Section 139. Under this section it is illegal to disturb or excavate any land knowing or suspecting that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed. In such cases an excavation permit under Section 140 is required. Note that no formal listing is required for archaeological relics; they are automatically protected if they are of local significance or higher.

Proposals to alter, damage, move or destroy places, buildings, works, relics, moveable objects or precincts protected by an IHO or listed on the SHR require an approval under Section 60. Demolition of whole buildings will not normally be approved except under certain conditions (Section 63). Some of the sites listed on the SHR or on LEPs may either be ‘relics’ or have relics associated with them. In such cases, a Section 60 approval is also required for any disturbance to relics *associated* with a listed item.

Under Section 170 of the *Heritage Act* NSW Government agencies are required to maintain a register of heritage assets. The Register places obligations on the agencies, but not on non-government proponents, beyond their responsibility to assess the impact on surrounding heritage items.

The Heritage Act will control development activities within the curtilages of the items listed on the State Heritage Register.

The State Heritage Inventory data base has been used to identify items of heritage significance that potentially will be impacted by the proposed pipelines.

3.0 Methods

3.1 Introduction

Sydney Water provided the following scope of works:

- Undertake the significance assessments of the ten sites listed in Table 2;
- Undertake archaeological excavation, if necessary, to determine significance;
- Prepare Statements of Heritage Impact (SoHI);
- Revise or confirm the mitigation measures proposed by Biosis; and
- Summarise these elements into a succinct report.

Sydney Water has requested that the existing information be used wherever possible. The existing information consisted of the following reports:

AECOM (2011) *Box Hill and Box Hill Industrial Non-Indigenous Heritage Precinct Planning Heritage Report*. Prepared for Department of Planning, February 2011.

Biosis Research (2011) *Water Related Services for the North West Growth Centre Second Release Precincts: Non-Aboriginal Cultural Heritage Impact Assessment Report*. Prepared for Sydney Water, March 2011.

Table 2 Sites for assessment

Site Number	Site Name	Location	Heritage Listing
NW 51	Rouse Hill Cultural Landscape	1034-1106 Windsor Rd, Rouse Hill	Within land allocated Rouse Hill Regional Park
NW 58	Copenhagen	Cr Nelson & Old Pitt Town Road	Nil
NW 59	LEP listed old alignment of Old Pitt Town Road	Road in front of 162-170 Old Pitt Town Rd	Baulkham Hills Shire LEP
NW 95	Unlisted possible old alignment of Old Pitt Town Road	Access road for 138-142 Old Pitt Town Rd, behind Fire Station	Nil
NW 98	Unlisted possible old alignment of Old Pitt Town Road	Road verge outside 156 Old Pitt Town Rd	Nil
NW 119	Section of Old Hawkesbury Road alignment	3 Boundary Rd	Nil
NW 120	Section of Old Hawkesbury Road alignment	Intersection of Terry Rd & Alan St	Nil
NW 121	Section of Old Hawkesbury Road alignment	Boundary between 805 Winsor Rd & 2 Nelson Rd	Nil
NW 122	Unlisted features in vicinity of Box Hill House	Southern side of Killarney Chain of Ponds, west of Terry Rd	Nil – adjacent to SHR, LEP listed Box Hill House/McCall Gardens Colony
NW 124	Guntawong Rd through former part of Rouse Hill Estate	Rd runs south from Windsor Rd on the western edge of current Rouse Hill House	Nil – lies between the RNE, SHR, LEP listed Rouse Hill House and Rouse Hill Regional Park

3.2 Method

AECOM used the following methodology to assess the sites and address the comments of DP&I and the Heritage Branch:

- Assemble the previous significance assessments for the sites, where extant. Enter the information into the Heritage Branch Heritage Inventory Sheets to enable assessment of gaps in the data.
- Undertake some brief research utilising resources on the internet, Mitchell Library and previous AECOM reports to begin filling the identified gaps.
- AECOM archaeologists Dr Susan Lampard and Rochelle Coxon undertook a one day site inspection in order to critique the extant significance assessments and to begin the process of formulating an assessment, if necessary. The site inspection also gathered data regarding the potential impacts.
- In discussion with Sydney Water and the Heritage Branch determine which, if any, sites require test excavation to determine significance and potential impact.
- Prepare Statements of Heritage Impact for sites of heritage significance impacted by the proposed pipelines.

3.3 Significance Assessment

In order to understand how development will impact on a heritage item, it is essential to understand why an item is significant. An assessment of significance is undertaken to explain why a particular site is important and to enable the appropriate site management and curtilage to be determined. Cultural significance is defined in the Australia ICOMOS Charter for the conservation of places of Cultural Significance (the Burra Charter) as meaning "aesthetic, historic, scientific or social value for past, present or future generations" (Article 1.1). Cultural significance may be derived from a place's fabric, association with a person or event, or for its research potential. The significance of a place is not fixed for all time, and what is of significance to us now may change as similar items are located, more historical research is undertaken and community tastes change.

The process of linking this assessment with a site's historical context has been developed through the NSW Heritage Management System and is outlined in the guideline *Assessing Heritage Significance*, part of the NSW Heritage Manual (Heritage Branch, Department of Planning 2001). The *Assessing Heritage Significance* guidelines establish seven evaluation criteria (which reflect four categories of significance and whether a place is rare or representative) under which a place can be evaluated in the context of State or local historical themes. Similarly, a heritage item can be significant at a local level (ie to the people living in the vicinity of the item), at a State level (ie to all people living within New South Wales) or be significant to the country as a whole and be of National or Commonwealth significance.

This project uses the NSW heritage significance criteria, which are:

Criterion (a) – an item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).

The site must show evidence of significant human activity or maintains or shows the continuity of historical process or activity. An item is excluded if it has been so altered that it can no longer provide evidence of association.

Criterion (b) – an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local to area).

The site must show evidence of significant human occupation. An item is excluded if it has been so altered that it can no longer provide evidence of association.

Criterion (c) – an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).

An item can be excluded on the grounds that it has lost its design or technical integrity or its landmark qualities have been more than temporarily degraded.

Criterion (d) – an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.

This criterion does not cover importance for reasons of amenity or retention in preference to proposed alternative.

Criterion (e) – an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area). Significance under this criterion must have the potential to yield new or further substantial information.

Guidelines for exclusion include the information would be irrelevant or only contains information available in other sources.

Criterion (f) – an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area). The site must show evidence of the element/function etc proposed to be rare.

Criterion (g) – an item is important in demonstrating the principal characteristics of a class of NSW's:

- cultural or natural places; or
- cultural or natural environments.

An item is excluded under this criterion if it is a poor example or has lost the range of characteristics of a type.

3.4 Statements of Heritage Impact

The method for the Statement of Heritage Impact is discussed in Section 5.1.

4.0 Results

4.1 Introduction

This section provides detailed descriptions of the sites and develops a significance assessment for each. The significance assessments follow Heritage Branch guidelines, as detailed in Section 3.3. Following on from this, the impacts are assessed in light of the significance and mitigation measures, if appropriate, are recommended. The sites are arranged by the site number assigned by Biosis (2011). The sites discussed below are shown on Figure 3.

4.2 NW 51 Rouse Hill Cultural Landscape

4.2.1 Description

The property is identified as 1034 to 1106 Windsor Road, Rouse Hill. It is situated on the south eastern side of Windsor Road, to the north of the intersection with Guntawong Road. The property is intersected by the Killarney Chain of Ponds. The land is currently grazed by cattle, sheep and horses. The area is intended to become part of the Rouse Hill Regional Park. The land is identified in the North West Growth Centre Development Plan as a Cultural Heritage Landscape associated with the Rouse Hill House Estate.

The ground, during the current AECOM field survey, was waterlogged and marsh-like. A dam is located in proximity to the southern boundary, towards the rear of the allotment.

Biosis (2011) identified four features, AECOMs observations of which are as follows:

- a) Remnant timber gate posts and driveway near creek. During the AECOM field survey there was no indication of a driveway. The feature consisted of two fence posts, one located within the Killarney Chain of Ponds and the second located on the south-western bank. Both posts had six holes drilled through, indicative of once having been strung with plain wire. There was no evidence to suggest either post had been used to hang a gate, the location of one post within the tributary being an impracticable situation for a gate. Note: the mapping data provided in the Biosis report (2011) locates a cattle shed rather than the gate posts intended. The item was relocated via the images in the report.



Figure 2 Site NW 51a – fence posts within the Killarney Chain of Ponds. Identified by Biosis as gate posts and driveway, view north

- b) Old gate posts of former driveway. During the AECOM field survey the site consisted of a raised causeway across the Killarney Chain of Ponds, running roughly east-west. At the western termination of the causeway was one standing timber gate post (on the northern side). The post on the southern



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side had been broken off at ground level, potentially due to water related rotting. Both posts contained galvanised iron bolts, indicative of a gate fitting. The posts also exhibited notches, which Biosis suggested was possible evidence of a post and rail fence. These are more likely to be cross-bracing of the gate posts to enable them to act as strainer posts for a larger section of fence line. There was no other evidence of the former fence line.



Figure 4 NW 51b – Gate posts and causeway across Killarney Chain of Ponds, view north

- c) Windmill on northern edge of dam. Remnants of former dam or ford. Biosis (2011) identified these two components as being located together. AECOM field survey identified the former dam/ford to be located on the Killarney Chain of Ponds, while the windmill was on the bank of the extant dam, approximately 230 m to the west. The windmill on the bank of the dam is a standard windmill, painted with “Southern Cross” on the tail. It is disconnected and not in use. Associated with the windmill is small concrete footing, together with some corrugated iron and wooden posts, probably a pump house.



Figure 5 NW 51c – windmill on dam bank, view south

The 'ford/dam' consists of a reinforced concrete block with random rubble sandstone rocks adhered to it. The item has been redeposited from elsewhere as rubbish. On the eastern bank of the Killarney Chain of Ponds is a small dump of construction rubble containing red and cream bricks, treated pine posts and other elements.



Figure 6 NW 51 c – ford/dam on bank of Killarney Chain of Ponds, view south east

- d) Old fence posts along creek line. AECOM could not relocate this item, despite walking the length of the Killarney Chain of Ponds within the property boundary. The locational data provided indicated one of the standing structures in the north-eastern corner of the property and well outside the area of potential impact. No images were provided in the report of the item in question. It is possible Biosis are referring to the boundary fence where the Killarney Chain of Ponds passes into the property. The fence, at this point, consists of timber posts alternating with star pickets and strung with plain and barbed wire.

4.2.2 History

The property in question was originally part of a grant to John Martin of 530 acres (Biosis 2011). Godden Mackay Logan (2010) and Biosis (2011) indicate that the property passed into the hands of Richard Rouse, or a descendant. However, an 1885 road plan (R.3172.1603) notes that the land was then in the hands of S.H. Terry – Samuel Henry Terry of Box Hill. The land is noted as being cleared paddock.

4.2.3 Significance Assessment

The elements identified by Biosis are assessed as having no historical significance. The fence and gate post elements (a, b and d) are of such a fragmentary nature that they have no ability to contribute to historical understanding of the operation of the property. The 'dam/ford' is a modern feature and also not of historical significance. The windmill and associated elements have no distinguishing features and are not of historical significance. The following addresses all the elements against NSW Heritage Office guidelines:

Criterion a – historical: The identified elements do not meet this criterion as they do not have the potential to contribute to historical understanding at a local, State or National level.

Criterion b – associative: These items do not meet this criterion as they do not have a strong or special association with the life or works of a person or group of persons important in state or local history.

Criterion c – aesthetic: These items do not meet this criterion as they do not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.

Criterion d – social: These items do not meet this criterion as they do not have a strong or special association with a particular community or group.

Criterion e – technical: These items do not meet this criterion as they do not have the potential to yield information that will contribute to and/or enhance our understanding of state or local cultural history.

Criterion f – rarity: These items do not meet this criterion as they are not rare.

Criterion g – representative: These items do not meet this criterion as they do not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

4.2.4 Statement of Significance

The site does not meet the significance threshold and is not of heritage significance.

IMPACT AND RECOMMENDATIONS	
Impact	<p>The remnant timber gate posts (a) are located outside the 25 m buffer and are unlikely to be impacted by the proposed pipelines.</p> <p>The old gate posts of the former driveway (b) are within the 25 m buffer zone and will potentially be removed by the proposed pipelines.</p> <p>The windmill (c) is on the edge of the 25 m buffer zone and will potentially be removed by the proposed pipelines.</p> <p>The 'ford/dam' (c) is outside the 25 m buffer zone and is unlikely to be impacted by the proposed pipelines.</p> <p>The old fence posts along creek line (d) appear to be outside the 25 m buffer zone and are unlikely to be impacted by the proposed pipelines.</p>
Recommendations	<p>None of the identified elements are of historical significance. In addition, the proposed pipeline runs through a marshy section of land, unsuitable for construction. It is therefore considered unlikely that structures will be identified along the pipeline route. No mitigation measures are therefore required and the items can be removed without further historical or archaeological consideration. It should be noted, however, that a general stop work provision should be enacted – should unexpected archaeological relics be uncovered during the course of works all activity must cease and the advice of a heritage professional sought.</p>

4.3 NW 58 'Copenhagen'

4.3.1 Description

The site named 'Copenhagen' by Biosis (2011), after the name of the original land grant, is located in the south-eastern corner of the intersection of Old Pitt Town Road and Mason Road. The relevance of the name to the site, however, is unclear. As discussed in Section 4.2.2, the land was originally granted to William Bligh under the name Copenhagen. The grant extended from Second Creek along Windsor Road almost as far as Boundary Road and to just beyond Old Pitt Town Road to the north. Bligh did not undertake any improvements to the property, with the exception of constructing Old Pitt Town Road to his property Blighton, near present day Pitt Town. The majority of Copenhagen became part of the Box Hill Estate in the 1840s. Copenhagen, therefore, was little more than a name on the map and is in no way particular to the parcel of land in question.

The intersection and the property are located on the crest of a hill, with the land sloping towards the south and east. Located on the eastern side of the slope is an area of introduced vegetation, olives and blackberries. Interspersed with the vegetation is rubble and rubbish of modern appearance. Included are red and cream bricks, roof tiles, stoneware sewer pipes, 200 litre drums filled with demolition rubble. In the northern part of the site are some intact piers for a weatherboard/fibro type structure.

Biosis (2011) identified some dressed sandstone within the debris and suggested that it may be associated with the construction of the Hunting Lodge. AECOM assessment indicates that this is unlikely given that the Hunting Lodge is located over one kilometre to the south and the sandstone is of a different colour and quality. The Hunting Lodge is constructed of high quality yellow sandstone, while the sandstone located at the Copenhagen site is grey and has a coarser matrix.

Biosis (2011) identified on the 1919 Box Hill Estate subdivision map a trig station near the intersection of Old Pitt Town and Mason Roads, but could not locate it during field survey. The Mason trig station is located on the intersection of Old Pitt Town and Mason Roads and is visible from Mason Road.



Figure 7 NW 58 – pile of sandstone rubble. No evidence of working. View north



Figure 8 NW 58 – brick piers of former structure, view south



Figure 9 NW 58 – general view of debris, including drums, rubble and corrugated iron, view south

4.3.2 History

Research by Biosis (2011) indicates that the land was originally part of the 'Copenhagen' grant to William Bligh. The land was then purchased by the Terry family in 1841 and then subsequently sold to the Carroll's (1887) and the Mason's (1903-1946). It was resumed by the Water Board in 1949.

There is no indication of structures on the site in the historical plans. The 1947 aerial indicates the land had been cleared, but there are no visible structures. The 1961 aerial indicates an L shaped structure, probably a house. Two or three smaller auxiliary structures are located to the south. The 1970 aerial indicates the complex has grown, with additions to the probable house and a larger collection of outbuildings to the south and west. It is therefore suggested that a weatherboard or fibro house was constructed between 1947 and 1961. It is unclear when it was demolished, but the condition of the site and vegetation growth indicates it was over 10 years ago.



Figure 10 1961 aerial of proposed reservoir. House and outbuildings enclosed in square.

4.3.3 Significance Assessment

Criterion a – historical: This item does not meet this criterion as it not important to the cultural history of the local area.

Criterion b – associative: This item does not meet this criterion as it does not have a strong or special association with the life or works of a person or group of persons important in state or local history.

Criterion c – aesthetic: This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.

Criterion d – social: This item does not meet this criterion as it does not have a strong or special association with a particular community or group.

Criterion e – technical: This item does not meet this criterion as it does not have the potential to yield information that could contribute to and/or enhance our understanding of state or local cultural history.

Criterion f – rarity: This item does not meet this criterion as it is not rare.

Criterion g – representative: This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

4.3.4 Statement of Significance

The identified elements do not meet the significance threshold and are not of heritage significance.

IMPACT AND RECOMMENDATIONS	
Impact	Sydney Water proposes the construction of two reservoir tanks and associated structures on the property. The proposed structures will require the removal of the identified features.
Recommendations	The site is not of historical significance. No mitigation measures are therefore required and the debris can be removed without further historical or archaeological consideration. It should be noted, however, that a general stop work provision should be enacted – should unexpected archaeological relics be uncovered during the course of works all activity must cease and the advice of a heritage professional sought.

4.4 NW 59 LEP listed section of Old Pitt Town Road.

4.4.1 Description

Old Pitt Town Road originates at the intersection of Nelson and Edwards Roads and runs approximately north north west to Pitt Town, changing its name to Eldon Street on the outskirts. Historically, Old Pitt Town Road connected with Windsor Road in the vicinity of Rouse Hill House. The section of road traversing Box Hill runs along the ridge top.

The listed section has been by-passed by a new alignment, located up to three metres to the east. The new section has been cut into a rise, while the old alignment goes over the top. The old alignment is shaped roughly like a 'C'. Currently it serves as an access road for properties no. 162-170. It is located at the top of a slight rise, and the exit back onto Old Pitt Town road has a reasonably sharp curve. The bypassed section is well-maintained, is gravelled, and has no potholes. It is approximately 260m in length.

This section of road is listed on the Hills LEP as "Bypassed section of road, within road reserve in front of street" on Sheet 17. The Inventory sheet does not provide a significance assessment against Heritage Branch criteria and therefore the significance assessment has been undertaken.



Figure 11 NW 59 – entrance/exit from current Old Pitt Town Road onto old alignment. The pipeline will cross the old alignment at this point, view south

4.4.2 History

Old Pitt Town Road is of a considerable interest. It was created by Governor Bligh to connect his farm, Copenhagen, at Box Hill (on Windsor Road) with his Hawkesbury farm of Blighton (later Pitt Town). Presumably made by convicts, the road led to the original Pitt Town of 1811 (on the east side of Old Stock Route Road) and continued to be used until Pitt Town was resited in 1815.

4.4.3 Significance Assessment

Criterion a – historical: The bypassed section of road is of local historical significance. Pitt Town Road was created to link Bligh's two country properties – the Copenhagen Estate and Blighton (later Pitt Town). It was created for Bligh's convenience, but was increasingly used by the public.

Criterion b – associative: This bypassed section of Old Pitt Town Road is of local significance for its associations with Governor Bligh. Old Pitt Town Road is of a considerable interest. It was created by Governor Bligh to connect Copenhagen, at Box Hill (on Windsor Road) with his Hawkesbury farm of Blighton (later Pitt Town). Presumably made by convicts, the road led to the original Pitt Town of 1811 (on the east side of Old Stock Route Road) and continued to be used until Pitt Town was resited in 1815.

Criterion c – aesthetic: This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.

Criterion d – social: This item does not meet this criterion as it does not have a strong or special association with a particular community or group.

Criterion e – technical: This item is of local archaeological significance, having potential to reveal road construction techniques and the subsequent maintenance of the road between c. 1811 and the present.

Criterion f – rarity: The road is of local significance for its rarity. This bypassed section of Old Pitt Town Road is extremely rare, as an example of an early line of road created primarily for a Governor's convenience to connect two country properties, while increasingly fulfilling a public convenience. It is very unusual to retain an earlier alignment in working order.

Criterion g – representative: This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

4.4.4 Statement of Significance

The bypassed section of Road is of local historical, associative and technical significance. Pitt Town Road was created to link Bligh's two country properties – the Copenhagen Estate and Blighton. As with Windsor Road, it was originally envisaged as a straight line between the two points, but terrain made this impracticable and the road alignment was changed several times. Pitt Town Road followed the top of the ridge, but in more recent times the advent of earth moving machinery has made it possible to cut the road into the ridge to allow for a less sinuous route. The bypassed section of road is a remnant of the earlier alignment. Pitt Town Road, now known as Old Pitt Town Road, has been bituminised, but the short loop has been bypassed and retains a dirt surface. The by-passed section has the potential to reveal road construction techniques and the subsequent maintenance of the road between c. 1811 and the present.

The Road is of local significance for its rarity. It is very unusual to retain an earlier alignment in working order.

IMPACT AND RECOMMENDATIONS	
Impact	A water pipeline is proposed for construction along Old Pitt Town Road. If the pipe is inserted on the western side of the Road the bypassed section will potentially be intersected at two locations, where it connects with the current alignment, by the pipeline trench. The trenching will directly impact any potential archaeological deposits.
Recommendations	<p>It is recommended that the trenching works during construction be monitored in the vicinity of site NW 95. Based on the results of the monitoring it is recommended the following be undertaken at this (NW 59) site:</p> <ol style="list-style-type: none"> 1. If no evidence of the former road surface or construction is evident at NW 95 it is recommended that monitoring will not be required at NW 59. An archaeologist should, however, be on call in the event of an unexpected find. 2. Should evidence of the former road be identified at NW 95 that is assessed as providing limited historical and/or archaeological information it is recommended that the site (NW 59) be monitored and the section of the trench drawn and photographed. <p>Should evidence of the former road be identified at NW 95 that is assessed as having high archaeological significance it is recommended that archaeological test excavation be carried out ahead of the trenching works for the pipeline at NW 59.</p>

4.5 NW 95 LEP unlisted section of Old Pitt Town Road.

4.5.1 Description

Old Pitt Town Road originates at the intersection of Nelson and Edwards Roads and runs approximately north north west to Pitt Town, changing its name to Eldon Street on the outskirts. Historically, Old Pitt Town Road connected with Windsor Road in the vicinity of Rouse Hill House. The section of road traversing Box Hill runs along the ridge top.

The potential old alignment of the road is shaped roughly like a 'V', forming a triangle with the current alignment. The Box Hill Fire Station is located inside the triangle. The former alignment also provides property access to 138-142 Old Pitt Town Road. The surface is gravelled.



Figure 12 NW 95 – possible old alignment of Old Pitt Town Road, view south west

4.5.2 History

See Section 4.4.2.

Biosis' (2011) analysis of the 1947 aerial in relation to the current alignment suggests the road has been realigned in the intervening years to present.

4.5.3 Significance Assessment

Criterion a – historical: The bypassed section of road is of local historical significance. Pitt Town Road was created to link Bligh's two country properties – the Copenhagen Estate and Blighton (later Pitt Town). It was created for Bligh's convenience, but was increasingly used by the public.

Criterion b – associative: This bypassed section of Old Pitt Town Road is of local significance for its associations with Governor Bligh. Old Pitt Town Road is of a considerable interest. It was created by Governor Bligh to connect Copenhagen, at Box Hill (on Windsor Road) with his Hawkesbury farm of Blighton (later Pitt Town). Presumably made by convicts, the road led to the original Pitt Town of 1811 (on the east side of Old Stock Route Road) and continued to be used until Pitt Town was resited in 1815.

Criterion c – aesthetic: This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.

Criterion d – social: This item does not meet this criterion as it does not have a strong or special association with a particular community or group.

Criterion e – technical: This item is of local archaeological significance, having potential to reveal road construction techniques and the subsequent maintenance of the road between c. 1811 and the present.

Criterion f – rarity: The Road is of local significance for its rarity. This bypassed section of Old Pitt Town Road is extremely rare, as an example of an early line of road created primarily for a Governor's convenience to connect two country properties, while increasingly fulfilling a public convenience. It is very unusual to retain an earlier alignment in working order.

Criterion g – representative: This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

4.5.4 Statement of Significance

The Bypassed section of road is of local historical, associative and technical significance. Pitt Town Road was created to link Bligh's two country properties – the Copenhagen Estate and Blighton. As with Windsor Road, it was originally envisaged as a straight line between the two points, but terrain made this impracticable and the road alignment was changed several times. Pitt Town Road followed the top of the ridge, but in more recent times the advent of earth moving machinery has made it possible to cut the road into the ridge to allow for a less sinuous route. The bypassed section of road is a remnant of the earlier alignment. Pitt Town Road, now known as Old Pitt Town Road, is now bituminised, but the short loop has been bypassed and retains a dirt surface. The bypassed section has the potential to reveal road construction techniques and the subsequent maintenance of the road between c. 1811 and the present.

The road is of local significance for its rarity. It is very unusual to retain an earlier alignment in working order.

IMPACT AND RECOMMENDATIONS	
Impact	A water pipeline is proposed for construction along Old Pitt Town Road. If the pipe is inserted on the western side of the road the bypassed section will potentially be intersected at two locations, where it connects with the current alignment, by the pipeline trench. The trenching will directly impact the potential archaeological deposits.
Recommendations	It is recommended that the trenching works be monitored in the vicinity of the by-passed section of road (NW 95) by a suitably qualified archaeologist. The potential for archaeological evidence is considered to be low, but of sufficient significance to ensure no information is lost. It is recommended that this section of trenching be undertaken in advance of trenching at NW 59 and NW 98, as the results will inform whether monitoring or further mitigation measures are required at those sites. The section of the trench should be drawn and photographed for future reference.

4.6 NW 98 LEP unlisted section of Old Pitt Town Road.

4.6.1 Description

Old Pitt Town Road originates at the intersection of Nelson and Edwards Roads and runs approximately north north west to Pitt Town, changing its name to Eldon Street on the outskirts. Historically, Old Pitt Town Road connected with Windsor Road in the vicinity of Rouse Hill House. The section of road traversing Box Hill runs along the ridge top.

The potential old alignment of the road lies on the western side of the current alignment and is currently a grassed verge of approximately ten metres in width. The new alignment softens the curve of the road.



Figure 13 NW 98 – possible old alignment of Old Pitt Town Road, view north west

4.6.2 History

See Section 4.4.2.

Biosis' (2011) analysis of the 1947 aerial in relation to the current alignment suggests the road has been realigned in the intervening years to present.

4.6.3 Significance Assessment

Criterion a – historical: The bypassed section of road is of local historical significance. Pitt Town Road was created to link Bligh's two country properties – the Copenhagen Estate and Blighton (later Pitt Town). It was created for Bligh's convenience, but was increasingly used by the public.

Criterion b – associative: This bypassed section of Old Pitt Town Road is of local significance for its associations with Governor Bligh. Old Pitt Town Road is of a considerable interest. It was created by Governor Bligh to connect Copenhagen, at Box Hill (on Windsor Road) with his Hawkesbury farm of Blighton (later Pitt Town). Presumably made by convicts, the road led to the original Pitt Town of 1811 (on the east side of Old Stock Route Road) and continued to be used until Pitt Town was resited in 1815.

Criterion c – aesthetic: This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.

Criterion d – social: This item does not meet this criterion as it does not have a strong or special association with a particular community or group.

Criterion e – technical: This item is of local archaeological significance, having potential to reveal road construction techniques and the subsequent maintenance of the road between c. 1811 and the present.

Criterion f – rarity: The road is of local significance for its rarity. This bypassed section of Old Pitt Town Road is extremely rare, as an example of an early line of road created primarily for a Governor's convenience to connect two country properties, while increasingly fulfilling a public convenience. It is very unusual to retain an earlier alignment in working order.

Criterion g – representative: This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

4.6.4 Statement of Significance

The bypassed section of road is of local historical, associative and technical significance. Pitt Town Road was created to link Bligh's two country properties – the Copenhagen Estate and Blighton. As with Windsor Road, it was originally envisaged as a straight line between the two points, but terrain made this impracticable and the

road alignment was changed several times. Pitt Town Road followed the top of the ridge, but in more recent times the advent of earth moving machinery has made it possible to cut the road into the ridge to allow for a less sinuous route. The bypassed section of road is a remnant of the earlier alignment. Pitt Town Road, now known as Old Pitt Town Road, is now bituminised, but the short loop has been bypassed and retains a dirt surface. The bypassed section has the potential to reveal road construction techniques and the subsequent maintenance of the road between c. 1811 and the present.

The road is of local significance for its rarity. It is very unusual to retain an earlier alignment in working order.

IMPACT AND RECOMMENDATIONS	
Impact	A water pipeline is proposed for construction along Old Pitt Town Road. If the pipe is inserted on the western side of the Road the bypassed section will potentially be intersected at two locations, where it connects with the current alignment, by the pipeline trench. The trenching will directly impact any potential archaeological deposits.
Recommendations	<p>It is recommended that the trenching works be monitored during construction in the vicinity of site NW 95. Based on the results of the monitoring it is recommended the following be undertaken at this (NW 98) site:</p> <ol style="list-style-type: none"> 1. If no evidence of the former road surface or construction is evident at NW 95 it is recommended that monitoring will not be required at NW 98. An archaeologist should, however, be on call in the event of an unexpected find. 2. Should evidence of the former road be identified at NW 98 that is assessed as providing limited historical and/or archaeological information it is recommended that the site (NW 98) be monitored. <p>Should evidence of the former road be identified at NW 95 that is assessed as having high archaeological significance it is recommended that archaeological test excavation be carried out ahead of the trenching works for the pipeline at NW 98.</p>

4.7 NW 119 section of former Old Hawkesbury Road alignment

4.7.1 Description

Biosis (2011) identified the former Old Hawkesbury Road alignment potentially passed through 3 Boundary Road (Lot 7 DP 230092). The former alignment potentially intersects a proposed wastewater pipeline in the central portion of the property. The former alignment was identified by overlaying historical plans onto a modern aerial. It is unclear whether the area was ground-truthed.

The site is a horse paddock, intersected by a series of electric fences. A house is located on the northern boundary of the property and is well outside the potential area of impact. The site is bound to the south by the Killarney Chain of Ponds. Towards the creek the ground cover becomes thicker and reaches knee height. Ground surface visibility is at 0%. The banks of the Killarney Chain of Ponds are heavily vegetated at this point and infested with blackberry bushes. It was not possible to inspect the bank for potential crossing locations. There was no physical indication of the former road alignment in the paddock, as stated, however, visibility was limited.

4.7.2 History

In 1794, the first land grants in the Hawkesbury were made, necessitating a track (the future Old Windsor Road) linking the Parramatta settlement with the Green Hill/Hawkesbury area. In 1805 surveyor James Meehan surveyed what was to become the alignment of Windsor Road between Parramatta and Kellyville. In 1810, Governor Macquarie, unhappy with the state of existing road, contracted to have Meehan's alignment constructed (Clive Lucas, Stapleton and Partners 2005). Works were completed in 1813 and included 70 bridges and numerous boundary and alignment stones. Macquarie introduced a toll system in 1816, with toll booths north of Parramatta and south of Rouse Hill. Mapping evidence indicates that the alignment of the Old Hawkesbury Road had fallen out of use before 1822 (Clive Lucas, Stapleton and Partners 2005:10). Historical accounts indicate the road was, at most, a dirt track. Any archaeological evidence of the road is therefore likely to be ephemeral.

In 1833 Windsor Road was declared a Major Road and was to be maintained at the public's expense. This was achieved via a convict gang, although lack of experience largely mitigated the time and expense spent on repairs. Minor upgrades continued throughout the rest of the century, with the next large undertaking being the cutting and

filling of sections of the road by American military in the 1940s to prepare for the evacuation of Sydney. This was followed in 1948 by the widening of the shoulder to allow for anticipated increases in traffic flow.

The final major upgrade occurred in 2006 when significant works were undertaken along the length of the road. During the course of the roads' operation numerous smaller scale works have been undertaken, including patching bitumen, erection of signage, and insertion and upgrade of footpaths.

When Windsor Road was planned it was drawn as a straight line between Parramatta and Windsor. The physical reality of the road was that it was more sinuous, to enable the terrain to be negotiated. The original grants, including Bligh's Copenhagen Estate, were aligned with the straight line on the plan. Windsor Road, in actuality was constructed to the south of Copenhagen Estate, leaving a thin wedge of land between the two. This created later issues and it was not until 1864 that the vacant land was transferred to Samuel Henry Terry. This was also confused by the realignment of Windsor Road, again in response to difficulties in negotiating the terrain. During the intervening time it was occupied by squatters and there is some indication that Terry undertook some improvements, possibly to strengthen his claim for ownership.

4.7.3 Significance Assessment

Criterion a – historical: The Old Hawkesbury Road is of local historical significance. The former Old Hawkesbury Road alignment is indicative of the alterations to Windsor Road as settlers came to terms with the landscape and terrain. It is also indicative of improvements in road and bridge construction techniques, which allowed greater flexibility in the positioning of the road.

Criterion b – associative: This item does not meet this criterion as it does not have a strong or special association with the life or works of a person or group of persons important in state or local history.

Criterion c – aesthetic: This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.

Criterion d – social: This item does not meet this criterion as it does not have a strong or special association with a particular community or group.

Criterion e – technical: This item is of local archaeological significance, having potential to reveal road construction techniques and the subsequent maintenance of the road between c. 1794 and when it fell out of use prior to 1822.

Criterion f – rarity: This item does not meet this criterion as it is not rare.

Criterion g – representative: This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

4.7.4 Statement of Significance

The alignment of the Old Hawkesbury Road is of local historical and technical significance. The former road alignment is indicative of the alterations to Windsor Road as settlers came to terms with the landscape and terrain. It is also indicative of improvements in road and bridge construction techniques, which allowed greater flexibility in the positioning of the road.

There is potential for evidence of the road to remain intact and visible archaeologically. Should intact deposits relating to the road exist, they have the potential to provide information regarding road construction and maintenance during the early colonial period.

IMPACT AND RECOMMENDATIONS	
Impact	A waste water pipeline is proposed for construction roughly in an east-west direction across 3 Boundary Road. The proposed pipeline will potentially intersect the former Old Hawkesbury Road. The trenching will directly impact the potential archaeological deposits. It is considered unlikely, however, that there will be archaeological evidence of the road in the vicinity of the pipeline.
Recommendations	It is recommended that the pipeline trenching be monitored during construction in this property to identify evidence of the former road, should it be present. It is recommended that if the road is identified during construction that the features be fully recorded photographically and with drawing. It is not anticipated that the archaeological features will inhibit construction.

4.8 NW 120 section of former Old Hawkesbury Road alignment

4.8.1 Description

Biosis (2011) identified the former Old Hawkesbury Road alignment potentially crossed Terry Road near the intersection with Alan Street. The former alignment was identified by overlaying historical plans onto a modern aerial. It is unclear whether the area was ground-truthed. The former alignment potentially intersects a water pipeline proposed for construction along Terry Road. Topographically, the two roads intersect on a northern facing slope, Terry Road being cut into the rise to the south of Alan Street. There is no indication of a former road in the cutting.

The area to the south east of the Terry Road and Alan Street intersection has been heavily disturbed by subdivision and construction of a medium to high density housing development. The area to the north east of the intersection is a horse paddock. The land to the west of Terry Road has been heavily disturbed through extensive landscaping to flatten the area and a heavy duty sandstone gravel access road created, roughly following the line of the Old Hawkesbury Road as indicated by Biosis (2011). The construction of Terry Road itself is also likely to have adversely impacted any potential archaeological remains of the former road.



Figure 14 NW 120 - View west along approximate line of former Old Hawkesbury Road identified by Biosis. Terry Rd is in the foreground.

4.8.2 History

See Section 4.7.2.

4.8.3 Significance Assessment

Criterion a – historical: The Old Hawkesbury Road is of local historical significance. The former Old Hawkesbury Road alignment is indicative of the alterations to Windsor Road as settlers came to terms with the landscape and terrain. It is also indicative of improvements in road and bridge construction techniques, which allowed greater flexibility in the positioning of the road.

Criterion b – associative: This item does not meet this criterion as it does not have a strong or special association with the life or works of a person or group of persons important in state or local history.

Criterion c – aesthetic: This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.

Criterion d – social: This item does not meet this criterion as it does not have a strong or special association with a particular community or group.

Criterion e – technical: This item is of local archaeological significance, having potential to reveal road construction techniques and the subsequent maintenance of the road between c. 1794 and when it fell out of use prior to 1822. Given the subsequent land use and disturbance to the area it is considered unlikely that evidence of the road will remain.

Criterion f – rarity: This item does not meet this criterion as it is not rare.

Criterion g – representative: This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

4.8.4 Statement of Significance

The alignment of the Old Hawkesbury Road is of local historical significance. The former road alignment is indicative of the alterations to Windsor Road as settlers came to terms with the landscape and terrain. It is also indicative of improvements in road and bridge construction techniques, which allowed greater flexibility in the positioning of the road.

There is potential for evidence of the road to remain intact and visible archaeologically. Should intact deposits relating to the road exist, they have the potential to provide information regarding road construction and maintenance during the early colonial period.

IMPACT AND RECOMMENDATIONS	
Impact	A water pipeline is proposed for construction along Terry Road. The proposed pipeline will potentially intersect the former Old Hawkesbury Road near Alan Street. The trenching will directly impact the potential archaeological deposits. It is considered unlikely, however, that there will be archaeological evidence of the road in the vicinity of the pipeline.
Recommendations	Given the land use and subsequent disturbance of the land it is considered unlikely that evidence of the former road will exist at this location. Monitoring during construction is therefore not considered to be warranted. It is recommended that the construction crew are briefed regarding the potential of the area, the likely visible archaeological expression of the road and that an archaeologist be on-call in the event that evidence of the road is uncovered.

4.9 NW 121 section of former Old Hawkesbury Road alignment

4.9.1 Description

Biosis (2011) identified the former Old Hawkesbury Road alignment potentially crossed Nelson Road approximately 100 m north of Windsor Road. The former alignment was identified by overlaying historical plans onto a modern aerial. It is unclear whether the area was ground-truthed. A wastewater pipeline is proposed for construction on the boundary between 805 Windsor Road and 2 Nelson Road. A shed is located on the eastern boundary of 805 Windsor Road at the approximate location of the former road alignment. On 2 Nelson Road approximately 20 m from the boundary is a dam and an associated pump house. While neither are of heritage

significance, they are likely to have disturbed the archaeological record. In addition, 2 Nelson Road appears to have been impacted by heavy machinery or similar as its surface is disturbed.



Figure 15 NW 121 – approximate alignment of the former Old Hawkesbury Rd identified by Biosis, view west from Nelson Rd

4.9.2 History

See Section 4.7.2.

4.9.3 Significance Assessment

Criterion a – historical: The Old Hawkesbury Road is of local historical significance. The former Old Hawkesbury Road alignment is indicative of the alterations to Windsor Road as settlers came to terms with the landscape and terrain. It is also indicative of improvements in road and bridge construction techniques, which allowed greater flexibility in the positioning of the road.

Criterion b – associative: This item does not meet this criterion as it does not have a strong or special association with the life or works of a person or group of persons important in state or local history.

Criterion c – aesthetic: This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.

Criterion d – social: This item does not meet this criterion as it does not have a strong or special association with a particular community or group.

Criterion e – technical: This item is of local archaeological significance, having potential to reveal road construction techniques and the subsequent maintenance of the road between c. 1794 and when it fell out of use prior to 1822.

Criterion f – rarity: This item does not meet this criterion as it is not rare.

Criterion g – representative: This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

4.9.4 Statement of Significance

The alignment of the Old Hawkesbury Road is of local historical and technical significance. The former Road alignment is indicative of the alterations to Windsor Road as settlers came to terms with the landscape and terrain. It is also indicative of improvements in road and bridge construction techniques, which allowed greater flexibility in the positioning of the road.

There is potential for evidence of the Road to remain intact and visible archaeologically. Should intact deposits relating to the road exist, they have the potential to provide information regarding road construction and maintenance during the early colonial period.

IMPACT AND RECOMMENDATIONS	
Impact	A wastewater pipeline is proposed for construction on the boundary between 805 Windsor Road and 2 Nelson Road. The proposed pipeline will potentially intersect the former Old Hawkesbury Road.
Recommendations	Given the land use and subsequent disturbance of the land it is considered unlikely that evidence of the former road will exist at this location. Monitoring during construction is therefore not considered to be warranted. It is recommended that the construction crew are briefed regarding the potential of the area, the likely visible archaeological expression of the road and that an archaeologist be on-call in the event that evidence of the road is uncovered.

4.10 NW 122 Unlisted features in the vicinity of Box Hill House

4.10.1 Description

Biosis (2011) identified three features adjacent to the Killarney Chain of Ponds on the Box Hill House property. Box Hill House is listed on the State Heritage Register (00613) and on the Hills Shire LEP (as McCall Garden Colony). The features identified by Biosis fall outside of the SHR and LEP curtilage.

Biosis (2011) identified four features, AECOM's observations of which are as follows:

- A) Sandstone rubble, identified as potentially being from a former river crossing. AECOM field survey identified that the sandstone rubble was intermixed with bitumen and pre-cast concrete reminiscent of a bridge or ford. There was no evidence of a road or track in the vicinity of the rubble. The material had the appearance of having been dumped into the creek, rather than being the disintegration of an in situ structure.



Figure 16 NW 122a – sandstone and concrete rubble in Killarney Chain of Ponds, view south



Figure 17 NW 122a – sandstone and concrete rubble in Killarney Chain of Ponds, view west

- B) Concrete rubble, steel items and modern pottery. Identified as being the former location of a water tank. This item was assessed as having no heritage significance. AECOM support this conclusion.



Figure 18 NW 122b – site of former water tank, view west

- C) Early fence with square timber fence posts. It was said to be unlikely to be impacted by the proposal. The description of the feature placed it north of Box Hill House and well away from the proposed pipeline (Biosis 2011: Survey Recording Form NW122). The mapping, however, indicated it was located on or adjacent to the Killarney Chain of Ponds (Biosis 2011: Figure 8). AECOM could not relocate this site.

In addition AECOM identified two features:

- D) Brick edging to a slightly elevated track leading from the gate on Terry Road adjacent to the northern side of Killarney Chain of Ponds. The brick edging and track peters out approximately ten metres from the gate.

- E) A collapsed timber, corrugated iron and chicken mesh structure on the northern bank of the Killarney Chain of Ponds approximately 15 m from Terry Road. A bath, reused as a drinking trough, is associated with the structure. To the north is a small rectangular concrete foundation of approximately 2 x 3 m, although trees have disturbed and obscured the foundation and it may be marginally larger. The area is scattered with fragments of asbestos sheeting, pulleys and fragments of a broken hand basin or similar. The structures are likely to be related to animal husbandry, potentially a chicken shed and an equipment shed or similar. After the property was purchased by the Challenge Foundation in 1956, the Foundation trialled a number of agricultural pursuits to employ the men and to supplement the budget. It is suggested the structures are related to one of these enterprises.



Figure 19 NW 122 e – collapsed timber and iron structure, possibly a chicken shed, view south



Figure 20 NW 122 e – scatter of hand basin fragments, concrete foundation is underneath trees in foreground, view south

4.10.2 History

The formation of the Box Hill House began on a grant of 600 acres issued to Robert Fitz on 19 July 1808. Fitz was the Clerk of Petty Sessions in Windsor and seems to have been involved in some dubious activities (Bowd 1994). By 1820 he was in financial difficulty and put his grant up for sale.

It is unclear what prompted Samuel Terry's interest in the Box Hill area, but on 30 May 1820 Fitz's grant was conveyed to Terry, who established 'Box Hill Estate'. The name is said to come from a stand of fine Box Trees that was on the northern part of the Copenhagen Estate (Bowd 1994:42). Box Hill Estate was to be the Terry's country seat. Initially, all that was built was a slab or weatherboard cottage (Baulkham Hills Shire Council Heritage inventory Sheet No. 192). Terry was an emancipist, who by 1820 has already amassed great wealth and held property in Pitt Street, Sydney, on the Nepean River and in the Illawarra. He was an important supplier of flour and meat to the Government Stores and between 1817 and 1820 he held over one fifth of the total of mortgages registered in the Colony. Commissioner John Bigge reported in 1820 that Terry had 1450 cattle, 3800 sheep and 19,000 acres (7689 hectares) and was a major shareholder in the Bank of New South Wales (Dow 1967:508-509). Terry died on 22 February 1838.

Over the subsequent years the Terry family continued to expand their holdings in the area and Terry's son John purchased the Lots numbered 1 to 5 and 11 to 16 of Bligh's 'Copenhagen' on 5 September 1841. Bligh appears to have done little to Copenhagen other than create a road to his Blighton estate, which departed from Windsor Road near Rouse Hill House, travelled adjacent to Annangrove Road and then connected with the present day Edwards Road near Hynds Road.

John Terry married Eleanor Rouse, daughter of Richard Rouse of Rouse Hill Estate, in 1831 and thereby began the continuing connection between the two families and the two properties. John and Eleanor lived at Box Hill and it is probable they were responsible for the construction of the sandstone stables (extant) and the kitchen buildings (since demolished).

John Terry died after falling from his horse in November 1842. He left Box Hill to Eleanor, however, it appears that their eldest son, Samuel Henry Terry, took over the administration of the Estate. Samuel Henry Terry continued to buy land on both sides of Windsor Road to consolidate the Terry holdings in Box Hill.

In 1895, the connection between the Terry and Rouse families was strengthened and renewed with the marriage of George Terry and Nina Rouse. The pair lived at Rouse Hill for a year after their marriage. During this time the weatherboard cottage at Box Hill was demolished and replaced with the current brick house. The weatherboard cottage is thought to have replaced an earlier structure, although there is no evidence for this. At the same time the stables were renovated. George borrowed heavily to undertake the works and, together with his love of society (SHR listing), this led to the family's undoing. George initially mortgaged his properties, but by the late 1910s it was evident that further measures were required.

George's financial difficulties led to the subdivision of the portion of the Box Hill Estate between Terry and Nelson Roads, a section of land east of Nelson Road and between Windsor Road and The Water Lane. It also appears at this time that passed-in portions from the original 1841-2 subdivision were re-offered for sale (Box Hill Auction map). The auction was handled by Henry F. Halloran & Co. who produced a booklet espousing the virtues of the Box Hill Estate, together with numerous photographs, which depict the area as cleared farm land. There are very few trees, and there are extensive views from Box Hill House to Windsor Road. The surrounding district is advertised as being ideal for poultry farms and citrus orchards, of which there were several already established in the area.

George, Nina and their five sons continued to live at Box Hill, probably until 1924, by which time both George and Nina had been declared bankrupt. They moved to Rouse Hill House where they continued to live until their deaths in 1957 and 1968 respectively.

Box Hill House passed into the ownership of a string of families including Mr Neville, Mr Singer and Mr Bingham. By 1956 the house and land were owned by William McCall, who had placed the house on the market. Representations were made to him by Hazel Nelson of the Sub-Normal Children's Welfare Association for the purchase of the property. The Association was formed with the aim of providing care and accommodation for disabled boys for the entirety of their life when their parents could no longer care for them. McCall was apparently so impressed with Nelson's enthusiasm that he donated the property to the Association (Challenge Foundation 1987:18).

It appears that Box Hill House, known within the Association as Terry House or The Homestead, was in a state of disrepair. It took two years to get the House fit for habitation, with work being carried out by the parents of the

boys and volunteers. The home opened on 27 September 1958 with 14 boys taking up residence (Challenge Foundation 1987:18). Initially the residents and the managers (a husband and wife) were accommodated within the House.

The Association made significant changes to the House and property. The upper floor of the stable building, named Nelson House in honour of Hazel Nelson, was converted into a ward for several boys. The ground level became a living quarters for a number of staff. In 1963 the roof of the House was replaced. The need for further accommodation space was met through the purchase and relocation of huts from the Richmond RAAF base. In 1965 a swimming pool was installed to improve the health of the boys.

In 1967 substantial changes were made to the House, with the addition of the kitchen and dining hall to the south western corner. In the same year an office was built onto the northern side of the House. The kitchen was modernised in 1983.

In 1975 the RAAF base buildings were replaced with a brick building, which had 44 beds. At this time the boys were moved out of the House, which became office space, meeting rooms and a doctor's consulting room for his weekly visits.

Over the years there were a number of agricultural pursuits. Due to the lack of water the initial aim of growing vegetables for the use of the residents and for sale was not realistic. Sheep were also a failure. A herd of milking cows was kept for a number of years until the Milk Board required that the milk be processed before it was consumed. After this the milk was used in the piggery, which was another successful venture for a number of years (Challenge Foundation 1987:6).

The Association, now known as Challenge Foundation, continues to provide a stable environment for the original boys, who are now men. The facility continues to evolve to meet the needs of the residents as they mature.

4.10.3 Significance Assessment

Criterion a – historical: The identified elements do not meet this criterion as they do not have the potential to contribute to historical understanding at a local, State or National level.

Criterion b – associative: These items do not meet this criterion as they do not have a strong or special association with the life or works of a person or group of persons important in state or local history.

Criterion c – aesthetic: These items do not meet this criterion as they do not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.

Criterion d – social: These items do not meet this criterion as they do not have a strong or special association with a particular community or group.

Criterion e – technical: These items do not meet this criterion as they do not have the potential to yield information that will contribute to and/or enhance our understanding of state or local cultural history.

Criterion f – rarity: These items do not meet this criterion as they are not rare.

Criterion g – representative: These items do not meet this criterion as they do not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

4.10.4 Statement of Significance

The identified items adjacent to Killarney Chain of Ponds do not meet the significance threshold and are not of heritage significance.

IMPACT AND RECOMMENDATIONS	
Impact	<p>A wastewater pipeline is proposed for construction along Killarney Chain of Ponds in the vicinity of Box Hill House. The current pipeline alignment will have the potential following impact:</p> <ul style="list-style-type: none"> A) Sandstone rubble, identified as potentially being from a former river crossing. This item is unlikely to be impacted as the pipeline will not be constructed within the creek banks. B) Concrete rubble, steel items and modern pottery. This item is within the 25 m buffer, but the current alignment suggests that the pipeline will be constructed on the southern side of the creek at this point, while the site is located on the northern side. Should the alignment change to the northern bank there is the possibility this item will be directly impacted by the construction of the pipeline. C) Early fence with square timber fence posts. It was said to be unlikely to be impacted by the proposal. As AECOM could not relocate this item the proposed impacts cannot be addressed. <p>In addition AECOM identified two features:</p> <ul style="list-style-type: none"> D) Brick edging to a slightly elevated track leading from the gate on Terry Road adjacent to the northern side of Killarney Chain of Ponds. There is the possibility this item will be directly impacted by the construction of the pipeline. E) A collapsed timber, corrugated iron and chicken mesh structure and concrete foundation. There is the possibility this item will be directly impacted by the construction of the pipeline.
Recommendations	<p>None of the identified elements are of historical significance. In addition, the proposed pipeline runs through a marshy section of land, unsuitable for construction. It is therefore considered unlikely that structures will be identified along the pipeline route. No mitigation measures are therefore required and the items can be removed without further historical or archaeological consideration. It should be noted, however, that a general stop work provision should be enacted – should unexpected archaeological relics be uncovered during the course of works all activity must cease and the advice of a heritage professional sought.</p>

4.11 NW 124 Guntawong Road through former part of Rouse Hill Estate.

4.11.1 Description

Biosis (2011) identified the Guntawong Road reserve as an area of archaeological potential as it was formerly part of the Rouse Hill Estate. Guntawong Road runs south south west from Windsor Road approximately 380 m west of Rouse Hill House. It is a formed bitumen road of two lanes. From the intersection with Windsor Road it climbs a small rise, which crests at the entrance to Rouse Hill House Estate. The road is cut through in a small cutting to lessen the slope of the rise. Both sides of the road are vegetated with a thin strip of mature gum trees with an understorey of introduced species.

A water pipeline is proposed for construction along Guntawong Road from Windsor Road to Cudgegong Road. Current mapping indicates the pipeline will be inserted into the road reserve. The road is situated between the listed Rouse Hill House and Farm (SHR No.00002, RNE, Blacktown LEP and North West Growth Centres SEPP as part of Rouse Hill House Estate Cultural Landscape.) and the Regional Park (Regional Environmental Plan). The road itself is not listed on a heritage inventory.



Figure 21 NW 124 – view south along Guntawong Road from near the Rouse Hill House entrance gate.

4.11.2 History

The following history has been adapted from the SHR listing (no.00002).

Richard Rouse began building Rouse Hill House, also sometimes referred to as Vinegar Hill, in 1813. The land was officially granted to him in 1816. The Rouse family moved into the new residence between 1818 and 1825. While the grant was farmed, it was probably used for its strategic location on Windsor Road, with the property used as an administrative centre to oversee pastoral holdings in North Richmond and north western NSW.

It is slightly unclear when the Rouse family obtained the land to the north of the house, but both Richard Rouse and subsequent generations consolidated holdings around the House. The breakup of the property began with subdivisions in 1951 and through until 1963. A final subdivision was undertaken in 1974.

Guntawong Road does not appear on the 1947 aerial (Biosis 2011), but has been formed by the 1961 aerial run.

4.11.3 Significance Assessment

This assessment relates to Guntawong Road and its reserve only.

Criterion a – historical: This item does not meet this criterion as it not important to the cultural history of the local area.

Criterion b – associative: This item does not meet this criterion as it does not have a strong or special association with the life or works of a person or group of persons important in state or local history.

Criterion c – aesthetic: This item does not meet this criterion as it does not demonstrate aesthetic characteristics and/or a high degree of creative or technical accomplishment.

Criterion d – social: This item does not meet this criterion as it does not have a strong or special association with a particular community or group.

Criterion e – technical: This item does not meet this criterion as it does not have the potential to yield information that could contribute to and/or enhance our understanding of state or local cultural history. The road alignment itself is not significance, having been constructed post 1947, probably as part of the subdivision of the Rouse Hill

Estate from 1951 onwards. There is no indication of buildings in the vicinity prior to the construction of the road and the road is likely to have adversely impacted archaeological features that were in existence. It is therefore considered highly unlikely that the construction of the pipeline will encounter features of heritage significance.

Criterion f – rarity: This item does not meet this criterion as it is not rare.

Criterion g – representative: This item does not meet this criterion as it does not demonstrate the principal characteristics of a class of state or local cultural or natural places/environments.

4.11.4 Statement of Significance

The identified elements do not meet the significance threshold and are not of heritage significance.

IMPACT AND RECOMMENDATIONS	
Impact	A water pipeline is proposed for construction along Guntawong Road, within the road reserve. The road alignment itself is not significant, having been constructed post 1947, probably as part of the subdivision of the Rouse Hill Estate from 1951 onwards. There is no indication of buildings in the vicinity prior to the construction of the road and the road is likely to have adversely impacted archaeological features that were in existence. It is therefore considered highly unlikely that the construction of the pipeline will encounter features of heritage significance.
Recommendations	No items of heritage significance have been identified and it considered unlikely that works will encounter archaeological features. No mitigation measures are therefore required. It should be noted, however, that a general stop work provision should be enacted – should unexpected archaeological relics be uncovered during the course of works all activity must cease and the advice of a heritage professional sought.

4.12 Hunting Lodge

4.12.1 Description

The Heritage Branch identified that the Hunting Lodge was within the vicinity and questioned whether the proposed pipelines would impact the SHR listed property. The Hunting Lodge is located off The Water Lane, which runs north west off Annangrove Road.

The building is a small single storey dressed sandstone cottage of crucifix shape with an attic. The building has a simple high pitched gable roof with small Tudor rose shaped windows to gable ends. There is fine stone detailing to doors and windows. The building has diamond lead-light windows, centre pivoting.

There is stone paving to the rear of the lodge – possibly leading to a former detached building well to the southeast. This may possibly have been the former kitchen for the lodge. A standing U-shaped structure associated with this potential detached structure could also possibly be the remains of a fireplace. There is concrete present on this feature, which may possibly either be a later addition or be structurally significant, holding the feature together.

Up to the 1970s the lodge is said to have had a moat around it, presumably to keep away animals and possibly fire. It is not known when the moat was constructed but it has now been filled in with soil. There was also a small avenue of wattle trees which may have also been destroyed.

North-east of the lodge there is located a corrugated iron standing structure. Sandstone blocks form edging to a garden bed located at the South-east corner of this structure. This structure is a rectangular building with a brick chimney attached to the North-east corner. There are several windows inserted in the southern façade, along with a centrally positioned fibro addition (toilet).

There are mature plantings around the lodge, including citrus trees. These are probably not contemporaneous with the lodge itself, but were most likely built approximately thirty to forty years ago.



Figure 22 Hunting Lodge, view east

4.12.2 History

The Hunting Lodge is also known by as 'Bligh's Hunting Lodge' although it is evident that Bligh had no part in its construction. The association comes as the Lodge is on the original Copenhagen grant, but as no improvements were made by Bligh to the land prior to his death this is an inaccurate association. The land was transferred to John Terry as part of the Copenhagen Estate purchase of 1840 and was included in the subdivision of 1841-2. Ownership was transferred to Henry Montgomery in August of 1857. Montgomery made improvements to the land as a 1861 plan of the new road to Pitt Town shows a house and orchard occupied by 'Montgomery' in the vicinity of the Hunting Lodge. The structure shown is probably the Hunting Lodge. It is generally held that the Lodge was constructed around 1860 (NSW Heritage Branch State Heritage Register listing No. 00632). Henry Montgomery was a stonemason, making him the likely builder of the Hunting Lodge, given it is constructed of sandstone, which is unusual for the area, and the level of detail.

In 1873 Henry Montgomery transferred ownership to a C.W. Montgomery, relationship unknown. C.W. Montgomery leased the property to a Cornwall in 1874. On 5 December 1876 a W.C. Montgomery sold the property to Samuel Henry Terry.

The association of the structure as a hunting lodge is of unknown origin, but is probably a result of the Terry family's association with the Sydney Hunt Club, earlier the Cumberland Hunt Club (First Check, 1907:504-508). Both Edward and George Terry were Hunt Master's during the 1890s. Hunts were regularly run across the area, with post-hunt refreshments at either Box Hill or Rouse Hill Houses. At one point the Terrys housed the hounds at Box Hill and a report on hunting in NSW indicates that George Terry kept a dingo, which when released ran for Box Hill and was used as the object of the hunt, although it is said to have always made it home before the hounds caught it and so no blood was shed (First Check, 1907: 505).

The property was put up for sale with the other Lots in 1919 and it is strange that no mention of the Hunting Lodge is made in the extensive booklet produced for the sale (Halloran & Co. 1919). It is currently unclear whether the Lot sold in 1919, but by 1930 it was owned by Edith and Henry James Foley (Merchant) of Sydney. It was transferred to Margaret Mason in 1948 and from her to Muriel Evelyn Shepley in 1957. Muriel transferred the property in 1960 to Frederick Raun-Pedersen, who in turn sold it to Noel Earnest and Patricia Anne Machon in 1981. During the Machons ownership the family operated a series of three tracks for radio controlled cars. The tracks were open weekly for practice and race meets were held on Sundays. A bitumen race track is still evident to the south east of the Hunting Lodge. The Machons transferred the property to Charlest Holdings Pty Ltd in 1989.

The Hunting Lodge is currently not occupied, although the adjacent weatherboard house is.

4.12.3 Significance Assessment

Criterion a – historical: The Hunting Lodge is of State historical significance because of its ability to reflect the previous cultural landscape in which the Box Hill Estate was the predominant feature. It reflects the changing fortunes of the Terry family and the general subdivision pattern of the Box Hill area

in that it was purchased by the Terry's, then subsequently sold, acquired again and finally transferred from the family during the 1919 subdivision of the Box Hill Estate.

Criterion b – associative: The Hunting Lodge is of State significance for its associations with Samuel Terry and the Terry family, a well known and influential family in the Box Hill area for many years, who were closely interconnected with the equally renowned and influential Rouse family of Rouse Hill. At his death in 1838 Samuel Terry was one of the richest men in the Colony, remarkable as he had arrived as a convict. The land on which the Hunting Lodge is situated was transferred to John Terry as part of the Copenhagen Estate purchase of 1840. John sold the land in 1841-2, but John's son Samuel Henry purchased the property again in 1876. It remained in the family until at least 1919 when it was subdivided.

While the Hunting Lodge is widely known today as 'Bligh's Hunting Lodge', there is no evidence that Bligh had any part in its construction and while the property was on the original Copenhagen grant, no improvements were made to it by Bligh prior to his death. Therefore this is an inaccurate association on present evidence.

Criterion c – aesthetic: The Hunting Lodge is of State aesthetic significance as it is a rare example of a nineteenth century folly. The Hunting Lodge is built in a gothic/baronial design. The structure is also significant as it is constructed of sandstone, which is unusual for the area, and has a high level of attention to detail, making it architecturally distinctive in the Box Hill area.

Criterion d – social: The Hunting Lodge does not meet this criterion as it is not of social significance at a State or local level.

Criterion e – technical: The Hunting Lodge is of local significance for its archaeological potential to reveal the former location of the moat. There is also the potential to uncover deposits relating to the use or occupation of the Lodge, which may clarify its use.

Criterion f – rarity: The Hunting Lodge is of State significance as it is a rare surviving example of a nineteenth century hunting lodge, whether constructed for that purpose or not, with associated architectural features and elements including gothic/baronial design quirks.

Criterion g – representative: The Hunting Lodge does not meet this criterion as it is not representative.

4.12.4 Statement of Significance

The Hunting Lodge is of State significance for its associations with Samuel Henry Terry and Box Hill House. While it is unclear if the building was constructed as a hunting lodge, it is probable that it was associated with the activities of the Sydney Hunt Club, in which the Terry's were heavily involved. In this respect it is rare in the Australian context. It is also significant at a State level for its aesthetic appeal as a gothic/baronial folly.

IMPACT AND RECOMMENDATIONS	
Impact	The closest pipeline is a water pipe proposed for the road reserve along Terry Road, which is over 430 m to the north west of the Hunting Lodge. Therefore there will be no impacts, either direct or indirect, to the Hunting Lodge.
Recommendations	No recommendations required as the item will not be impacted by the proposal

4.13 Summary

The previous sections have provided a description and historical context for the ten sites that were assessed. Based on these attributes, the significance of the items has been assessed and management recommendations commensurate with their significance developed.

This assessment has concluded that NW 51, NW 58, NW 122 and NW 124 have no heritage significance and the proposed pipelines can proceed without further heritage consideration. The sites identified in relation to the Old Pitt Town Road (NW 59, NW 95, NW 98) and the former Old Hawkesbury Road (NW 119, NW 120, NW 121) were determined to have local historical and technical (archaeological) significance, with the Old Pitt Town Road also having associative significance with William Bligh. Sites NW 120 and NW 121 are considered to be unlikely to retain archaeological features relating to the Old Hawkesbury Road, while site NW 119 has potential to retain archaeological evidence of the road.

It is recommended that NW 95 be monitored during construction with the results to inform the management of NW 59 and NW 98. The likelihood, nature, extent and significance of the archaeological features is currently undetermined. The DGRs allowed for subsurface investigation to determine the potential archaeological deposits. Sydney Water and AECOM met with Gary Estcourt of the Heritage Branch on site on 3rd August 2011 to discuss the proposed infrastructure. During this discussion it was determined that subsurface testing was unwarranted at this stage for the following reasons:

- The pipeline along Old Pitt Town Road is not for construction until 2020, by which time the exact alignment may have altered or other projects may have caused the archaeological potential of the site to be clarified. Other projects could include an upgrade to Old Pitt Town Road, which is currently two lanes and is unlikely to meet the increased traffic demands placed on it by the proposed Growth Centres development;
- The likelihood of archaeological deposits is considered to be low;
- The ability of the deposits to contribute substantial information regarding the formation, maintenance and use of the road is considered to be low; and
- The proposed impacts will not remove the entire archaeological resource and it is therefore not necessary to plan for their retention.

Table 3 summarises the significance, impact and recommendations. The Department of Planning and Infrastructure and the Heritage Branch requested a Statement of Heritage Impact (SOHI) be prepared for items of historical significance that will potentially be impacted by the proposed pipelines. The above assessment has determined that the six items relating to the two roads will be impacted and are of historical significance. Rather than preparing six SOHIs, the following section provides one SOHI, incorporating each of the sites, for each road.

Table 3 Summary of site significance, impact and recommendations

Site	Significance	Impact to heritage significance	Recommendations
NW 51 – Rouse Hill Cultural Landscape	None	None	Stop work if unidentified archaeological features encountered and seek the advice of an archaeologist.
NW 58 – Copenhagen	None	None	Stop work if unidentified archaeological features encountered and seek the advice of an archaeologist.
NW 59 – Listed old alignment of Old Pitt Town Road	Local historical, associative and technical significance	Direct impact in two small portions where the former alignment reconnects with the current road.	Recommendations will be based on the outcomes of monitoring at site NW 95, which will determine the likelihood, extent, nature and significance of the potential archaeological deposits.
NW 95 – unlisted old alignment of Old Pitt Town Road (behind fire station)	Local historical, associative and technical significance	Direct impact in two small portions where the former alignment reconnects with the current road.	Monitor site during construction to determine extent, nature and significance of archaeological deposits associated with the former alignment of the Old Pitt Town Road.
NW 98 – unlisted old alignment of Old Pitt Town Road (road verge)	Local historical, associative and technical significance	Direct impact, potentially for the length of old alignment.	Recommendations will be based on the outcomes of monitoring at site NW 95, which will determine the likelihood, extent, nature and significance of the potential archaeological deposits.
NW 119 – section of former Old Hawkesbury Road alignment (within 3 Boundary Rd)	Local historical and technical significance	Direct impact, the proposed pipeline will intersect the former road alignment.	Monitor during construction and archival recording if evidence of the road is uncovered.
NW 120 - section of former Old Hawkesbury Road alignment (Terry Road)	Local historical and technical significance	Direct impact, the proposed pipeline will intersect the former road alignment.	Stop work if unidentified archaeological features encountered and seek the advice of an archaeologist.
NW 121 - section of former Old Hawkesbury Road alignment (Nelson Road)	Local historical and technical significance	Direct impact, the proposed pipeline will intersect the former road alignment.	Stop work if unidentified archaeological features encountered and seek the advice of an archaeologist.
NW 122 – unlisted features in the vicinity of Box Hill House	None	None	Stop work if unidentified archaeological features encountered and seek the advice of an archaeologist.
NW 124 – Guntawong Road through former part of Rouse Hill Estate	None	None	Stop work if unidentified archaeological features encountered and seek the advice of an archaeologist.

5.0 Statement of Heritage Impact

5.1 Introduction

The objective of a Statement of Heritage Impact (SOHI) is to evaluate and explain how the proposed development, rehabilitation or land use change will affect the value of the heritage item and/or place. A Statement of Heritage Impact should also address how the heritage value of the item/place can be conserved or maintained, or preferably enhanced by the proposed works.

This report has been prepared in accordance with the NSW Heritage Office & Department of Urban Affairs and Planning (1996a) *NSW Heritage Manual* and NSW Heritage Office (2002) *Statements of Heritage Impact*. The guidelines pose a series of questions as prompts to aid in the consideration of impacts due to the proposed works. In keeping with the guideline format, questions are posed and addressed for the Old Pitt Town Road and Old Hawkesbury Road. The series of questions of greatest relevance to the proposed pipelines are “New Services”.

5.2 Statement of Heritage Impact – Old Pitt Town Road

5.2.1 Summary of Impact

The proposed pipeline will intersect the old alignment of Old Pitt Town Road at the entrance/exit of the old alignment back on to the current alignment at NW 59 and NW 95. As NW 98 is essentially road verge, there is potential for the length of the site to be impacted, however, it is more likely that the impacts will be similar to NW 59 and NW 98.

5.2.2 Heritage Impact Assessment

How has the impact of the new services on the heritage significance of the item been minimised?

The proposed pipelines will not impact on the historical significance of the road, which is vested in the alignment. The alignment will not be altered by the proposal and will remain intact. It will also not impact on the rarity of the road, which is based on the maintenance of the alignment in working order. During construction the working order may be impacted for a brief period, however, it will be short lived and will have no long term impact on the rarity significance.

The technical (archaeological) significance of the road will be subject to a minor impact. The impact is deemed to be minor as:

- The majority of the archaeological resource will remain intact;
- Impact will be contained to the portions adjacent to the current road and have already been subject to the greatest amount of disturbance through the maintenance and operation of the current road;
- The trench for the pipeline will be between 1.3 and 1.7 m wide;
- The trench depth will vary according to topography, but will be around 1.8 m deep for water and 3-5 m for wastewater;
- Should evidence of the former road surface and/or construction be uncovered it will be recorded with photography and scale drawings. The information will therefore not be lost and will be able to inform the location of subsequent service trenches in the vicinity.

Has under-boring of the deposits been considered?

Under-boring the road alignment has been considered. It was determined to be unnecessary for the following reasons:

- The impact to the significance of the item are not considered to be high enough to warrant the additional expense involved in under-boring (see above for a discussion on the limited nature of the impact on the significance of the road);
- Trenching, rather than under-boring, will allow for greater visibility and reduce the risk of the potential deposits being inadvertently disturbed; and

- Trenching will allow for information regarding the nature, extent and significance of the potential deposits to be gathered.

Are any of the existing services of heritage significance?

There are no known service trenches currently cutting the old road alignment or running beside it in the vicinity of the sites.

Has the advice of a conservation consultant been sought? Has the consultant's advice been implemented?

This report outlines the advice of a historical archaeologist. The report has clarified the significance of the items, identified the impacts and proposed management recommendations. The implementation of the advice provided herein will be dependent on approval from the Department of Planning and Infrastructure and the Heritage Branch.

5.2.3 Statement of Heritage Impact

From the detailed assessment against the Heritage Branch guidelines a number of potential impacts have been assessed. These are graded to determine their impact against the significance of the site.

The proposed pipelines will have the following impacts:

- Major negative impacts (substantially affects fabric or values of state significance)
 - None
- Moderate negative impacts (irreversible loss of fabric or values of local significance; minor impacts on State significance)
 - None
- Minor negative impacts (reversible loss of local significance fabric or where mitigation retrieves some value of significance; loss of fabric not of significance but which supports or buffers local significance values)
 - Trenching across portions of the potential archaeological feature. The impact to the technical significance will be mitigated by the recording of features, should they be encountered, and the retention of the majority of the former road alignments in an undisturbed state.
- Negligible or no impacts (does not affect heritage values either negatively or positively)
 - None
- Minor positive impacts (enhances access to, understanding or conservation of fabric or values of local significance)
 - None
- Major positive impacts (enhances access to, understanding or conservation of fabric or values of state significance)
 - None

5.3 Statement of Heritage Impact – former Old Hawkesbury Road

5.3.1 Summary of Impact

The proposed pipelines will potentially intersect the former alignment of the Old Hawkesbury Road in three places:

- NW 119 - Within the property at 3 Boundary Road;
- NW 120 - Near the intersection of Terry Road and Alan Street; and
- NW 121 - On the boundary between 805 Windsor Road and 2 Nelson Road.

It is considered there is the greatest archaeological potential at NW 119, while it is considered that subsequent land use and disturbance is likely to have removed evidence of the former Road at NW 120 and NW 121. The proposed pipeline will potentially require the removal of between 1.3 and 1.7 m wide portion of the potential archaeological site at each of the locations

5.3.2 Heritage Impact Assessment

How has the impact of the new services on the heritage significance of the item been minimised?

The proposed pipelines will not impact on the historical significance of the road, which is vested in the alignment. The alignment will not be altered by the proposal and will remain intact.

The technical (archaeological) significance of the road will be subject to a minor impact. The impact is deemed to be minor as:

- The majority of the archaeological resource will remain intact;
- The trench for the pipeline will be between 1.3 and 1.7 m wide;
- Should evidence of the former road surface and/or construction be uncovered it will be recorded with photography and scale drawings. The information will therefore not be lost and will be able to inform the location of subsequent service trenches in the vicinity.

Has under-boring of the deposits been considered?

Under-boring the road alignment has been considered. It was determined to be unnecessary for the following reasons:

- The exact location of the road is unknown;
- The impact to the significance of the item are not considered to be high enough to warrant the additional expense involved in under-boring (see above for a discussion on the limited nature of the impact on the significance of the road);
- Trenching, rather than under-boring, will allow for greater visibility and reduce the risk of the potential deposits being inadvertently disturbed; and
- Allow for information regarding the nature, extent and significance of the potential deposits.

Are any of the existing services of heritage significance?

There are no known service trenches currently cutting the old road alignment or running beside it in the vicinity of the sites.

Has the advice of a conservation consultant been sought? Has the consultant's advice been implemented?

This report outlines the advice of a historical archaeologist. The report has clarified the significance of the items, identified the impacts and proposed management recommendations. The implementation of the advice provided herein will be dependent on approval from the Department of Planning and Infrastructure and the Heritage Branch.

5.3.3 Statement of Heritage Impact

From the detailed assessment against the Heritage Branch guidelines a number of potential impacts have been assessed. These are graded to determine their impact against the significance of the site.

The proposed pipelines will have the following impacts:

- Major negative impacts (substantially affects fabric or values of state significance)
 - None
- Moderate negative impacts (irreversible loss of fabric or values of local significance; minor impacts on State significance)
 - None
- Minor negative impacts (reversible loss of local significance fabric or where mitigation retrieves some value of significance; loss of fabric not of significance but which supports or buffers local significance values)
 - Trenching across portions of the potential archaeological feature. The impact to the technical significance will be mitigated by the recording of features, should they be encountered, and the retention of the majority of the former road alignments in an undisturbed state.
- Negligible or no impacts (does not affect heritage values either negatively or positively)

- None
- Minor positive impacts (enhances access to, understanding or conservation of fabric or values of local significance)
 - None
- Major positive impacts (enhances access to, understanding or conservation of fabric or values of state significance)
 - None

6.0 Recommendations

This report has assessed the heritage significance of ten sites potentially impacted by proposed water and wastewater infrastructure in, and adjacent to, the Box Hill and Box Hill Industrial precincts of the North West Growth Centre. The significance assessments, using Heritage Branch guidelines, have been based on the detailed site descriptions and historical context provided. Based on the significance, the impact of the proposed pipelines has been assessed and a Statement of Heritage Impact prepared for the sites of heritage significance.

The significance assessment determined that four of the sites were not of heritage significance:

- NW 51 Rouse Hill Cultural Landscape;
- NW 58 'Copenhagen';
- NW 122 unlisted features in the vicinity of Box Hill House; and
- NW 124 Guntawong Road through former part of Rouse Hill Estate.

No further assessment or mitigation recommendations are required in relation to the proposed infrastructure in these locations.

The significance assessment determined that six of the sites were of local historical and technical heritage significance. The Old Pitt Town Road items were also of local associative significance:

- NW 95 LEP listed old alignment of Old Pitt Town Road;
- NW 95 unlisted possible old alignment of Old Pitt Town Road;
- NW 98 unlisted possible old alignment of Old Pitt Town Road;
- NW 119 section of former Old Hawkesbury Road alignment;
- NW 120 section of former Old Hawkesbury Road alignment; and
- NW 121 section of former Old Hawkesbury Road alignment.

The proposed pipelines will have no impact on the historical or associative significance of the items as the significance is vested in the route of the roads, which will remain unchanged. Based on the significance of the above items, and in light of the varied potential for archaeological features associated with the former road alignments to be preserved, the following mitigation measures are recommended as summarised in Table 4.

Table 4 Summary of mitigation recommendations for sites of heritage significance

Site	Recommendations
NW 59 – Listed old alignment of Old Pitt Town Road	Recommendations will be based on the outcomes of monitoring at site NW 95, which will determine the likelihood, extent, nature and significance of the potential archaeological deposits.
NW 95 – unlisted old alignment of Old Pitt Town Road (behind fire station)	Monitor site during construction to determine extent, nature and significance of archaeological deposits associated with the former alignment of the Old Pitt Town Road.
NW 98 – unlisted old alignment of Old Pitt Town Road (road verge)	Recommendations will be based on the outcomes of monitoring at site NW 95, which will determine the likelihood, extent, nature and significance of the potential archaeological deposits.
NW 119 – section of former Old Hawkesbury Road alignment (within 3 Boundary Rd)	Monitor during construction and archival recording if evidence of the road is uncovered.
NW 120 - section of former Old Hawkesbury Road alignment (Terry Road)	Stop work if unidentified archaeological features encountered and seek the advice of an archaeologist.
NW 121 - section of former Old Hawkesbury Road alignment (Nelson Road)	Stop work if unidentified archaeological features encountered and seek the advice of an archaeologist.

A Statement of Heritage Impact has been prepared to assess the proposed impact in relation to the assessed significance. The SOHI determined that the impact to the significance of the above items will be of a minor negative nature with the recommended mitigation measures. It is therefore concluded that the project may proceed as planned given that the recommended mitigation measures are carried out and subject to approval by the Department of Planning and Infrastructure.

7.0 References

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