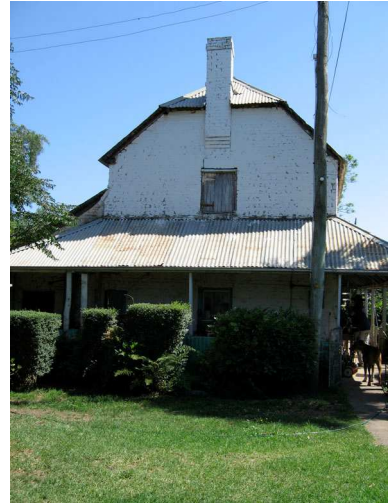


Godden Mackay Logan

Heritage Consultants



Penrith Lakes Scheme

Hadley Park Archaeology Handbook

(Part of Appendix A—Archaeological Management Plan)

Draft Report

Report prepared for Penrith Lakes Development Corporation
September 2008

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Report Register

The following report register documents the development and issue of the report entitled Penrith Lakes Scheme—Archaeological Management Plan (Hadley Park Archaeology Handbook), undertaken by Godden Mackay Logan Pty Ltd in accordance with its quality management system. Godden Mackay Logan operates under a quality management system which has been certified as complying with the Australian/New Zealand Standard for quality management systems AS/NZS ISO 9001:2000.

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Hadley Park—Archaeology Handbook

1.0 Introduction

Hadley Park is a highly intact Georgian homestead with associated outbuildings and gardens. It is a prominent local landmark and retains links to a number of local and historical families, including the Hadley family.

2.0 Description and Setting

The Hadley Park group consists of 'Hadley Park' (a two-storey Georgian homestead) and a possibly earlier two-room slab cottage to its immediate north. Ancillary structures of largely utilitarian function are located around the main building, including a former washroom, stables, milking shed, hay sheds, WC, workshop, a tank stand, an area once occupied by a c1920 tennis court, and gardens.

Much of the land surrounding the Hadley Park conservation area has been quarried. An area of un-quarried farmland lies to the north. 'Nepean Park' (a homestead of slightly later date) is located to the south of Hadley Park. Views to the east capture 'Christ Church' on a prominent escarpment, while other views encompass a Mass Concrete House on a ridge top to the north (on Smith Road). The foothills of the Blue Mountains, across the Nepean River, dominate the western vista.

Significant nineteenth century plantings at Hadley Park include peppercorn trees, native kurrajongs, mature fruit trees, Chinese windmill palms, a cactus and a small-leaf privet hedge. Twentieth century plantings include an oak tree, a wisteria, a mulberry tree, a flame tree, a jacaranda, an oleander, cypresses and a fig tree. The immediate surroundings of the homestead contain an ornamental garden.

3.0 Phases of Development

| Date | Event |
|------|--|
| | Mulgoa country, the traditional land of the Mulgoa people. |
| 1803 | 80 acres originally granted to Martin Mince (or Mentz) in 1803. Mince farmed 50 acres and leased his remaining 30 acres (on the northern side of the grant) to Charles Hadley. |
| 1811 | In 1811, Martin Mince sold all 80 acres of his grant to Ann Landers for £150 who then immediately transferred the property to Charles Hadley for the same sum. He then named it 'Hadley Park'. |



Figure 1 Hadley Park from the south

Location

RMB 113 Castlereagh Road (Portion 47).

Located on the western side of Castlereagh Road (lots 1 and 2 DP87060).

On the river flat between the Nepean River and Castlereagh Road in the central west part of the Scheme area.

Historic Use

Farm and homestead.

Present Use

Vacant; residence until mid-2008.

Associated People

Original grantee Martin Mince (or Mentz).

The Hadley and Childs families.



Figure 2 Hadley Park from the east.



Figure 3 Hadley park from the east.

Key References

Archaeological Computing Laboratory, University of Sydney, May 2008, Ground Penetrating Radar Survey of Sites in the Penrith Lakes Scheme, report prepared for PLDC.

Bently F and J Birmingham 1981, Penrith Lakes Scheme Regional Environmental Study: History of European Settlement, report prepared for PLDC.

Britton G and C Morris 1999, Castlereagh Cultural Landscape Study, report prepared for PLDC.

Nepean District Historical Archaeology Group 2003, In Search of the Early Nepean Pioneers, unpublished report.

Stedinger Associates 2006, European Heritage Within the Penrith Lakes Scheme, A Conservation Management Plan (Masterplan), report prepared for PLDC.

Stedinger Associates Pty Ltd 2007, Hadley Park: A Conservation Management Plan and Schedule of Works, prepared for PLDC.

Lavelle S, Anne Bickford and Associates and The Nepean District Historical Archaeology Group, 1997, DA4 Management Study Heritage Assessment—Penrith Lakes Scheme Area, Castlereagh, NSW, prepared for PLDC.

Fox and Associates, March 1987, Heritage Study of the City of Penrith, prepared on behalf of Penrith City Council

| Date | Event |
|-------------|---|
| 1811–1828 | Hadley is believed to have built the single-storey slab cottage north of the extant residence c1806 during early tenancy and then, between 1811 and 1828, built the main farmhouse, the former stables, a milking shed, a barn (which burnt down in 1873) and other farmhouse outbuildings (possibly including a wood storage shed). By 1822 Hadley had expanded his land holdings to 400 acres, including an orchard and a slaughter yard (supplying meat to the Government Stores, 1815–1824). He was also recorded in 1826 as an innkeeper of the ‘First and Last Inn’ but no building on the site has ever been identified as the inn. |
| 1828 | Charles Hadley died and left Hadley Park to son Charles Hadley Jnr. |
| 1828–1891 | Worst flood in the Nepean district in 1867—only the top floor of the homestead remained above flood levels. Charles Hadley Jnr remained at Hadley Park until his death in 1891, and was responsible for several modifications. His eldest daughter Louise Matilda, and husband William Alvin Childs, inherited the property. |
| c1900–1950s | In 1905 Hadley Park was in the ownership of William Charles Hadley Childs, the eldest son of Louise Matilda Hadley and William Alvin Childs. Following his death the property was divided in two between his son and daughters; however, it continued to be farmed as one concern. Dairy farming continued into the 1950s. A number of modifications were made to the property 1900–1950. |
| Present | Currently unoccupied but until mid-2008 it was occupied by Jacqueline Flower, a sixth generation descendant of Charles Hadley. |

4.0 Archaeological Potential

4.1 Introduction

‘Archaeological potential’ refers to the likelihood of archaeological remains to survive at a site. It should be distinguished from ‘archaeological significance’ which refers to the heritage values of any remains that may prove to have survived. Thus, there may be ‘low potential’ for certain remains to survive, but if they do survive, they might be assessed as being of ‘High significance’ (for example, if they are rare examples from the convict period).

The potential for relics to survive at a site depends on the ‘site formation processes’ that have operated there. These processes include the physical development of the site (for example the phases of building construction) and the activities that occurred there.

Ask: Have parts of the site been subject to actions that may have deposited relics (on the one hand) or which might have destroyed relics (on the other hand)?

For example, a site that has been graded by earthmoving machinery may have low archaeological potential because grading works often disturb or remove archaeological evidence. Some archaeological remains are more vulnerable to disturbance (for example, botanical remains), while others are more robust (for example, wall footings).

4.2 Site Formation Processes

The Hadley Park property has been occupied for c200 years. In that time, a number of activities have taken place with the potential to both deposit and disturb archaeological relics. The kinds of relics that may survive in the different parts of the site, and their potential for survival, are described below by archaeological zone.

All ground disturbance works at the site should proceed with the following in mind:

- The area in the immediate vicinity of the main house and timber cottage was historically a high activity area, and there is high archaeological potential for evidence of former structures (skillions, ancillary buildings, privies etc) and isolated artefacts.
- The area of the sheds, to the south of the house, was historically a high activity area, and there is high archaeological potential for evidence of farm activities.
- Agricultural activities in some areas (especially east and north of the house and buildings) are likely to have disturbed or destroyed archaeological relics in those locations.
- Rural properties often accumulate artefacts in discrete locations, commonly in refuse pits but also in informal 'dumps'. These locations are easily forgotten and can become unanticipated finds during ground disturbance works.
- Evidence of former paths, road cuttings, fords etc are also archaeological relics that often survive as remnants in the landscape that only become visible when vegetation has been cleared.
- The site of Hadley Park was flooded several times over the course of the nineteenth and early twentieth



Figure 4 Hadley Park from the south.

Gradings of Archaeological Potential

High

Historical research indicates that there was previous human activity or development in the area and that physical evidence of this activity would have been created. There has been little or no evidence of subsequent ground disturbance. There is a very good chance that physical evidence of this previous activity or development (archaeological remains) will survive in situ.

Moderate

Historical research indicates that there was previous human activity or development in the area and that physical evidence of this activity may have been created. There has been some ground disturbance in the area. There is some chance that physical evidence (archaeological remains) will survive in situ.

Low

Historical research indicates that there has been no human activity or development in the area, or that there would be little or no physical evidence of any former activity or development. The area has been subject to significant ground disturbance. It is unlikely that any physical evidence of previous activity or development (archaeological remains) would be present.



Figure 5 Hadley park masonry.

Gradings of Archaeological Significance

Archaeological remains are generally graded as being of local, State or National significance.

These grades are sometimes further subdivided so that a place can be of Low, Moderate or High local, State or National significance.

Burra Charter

Article 1.2—Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects.



Figure 6 Hadley Park from the north.

centuries. Floodwaters have the potential to move artefacts from their place of original deposition, washing them into hollows etc. Artefacts recovered from the surface or near the surface across the site should not be regarded as being in situ without other supporting evidence. Being a flood plain subject to hot dry summers, the ground surface tends to be hard and artefact-impermeable. Artefacts dropped on the surface would therefore be less likely to embed in the soils and be sealed under later deposits. The location of artefacts within the landscape (particularly smaller objects such as coins, marbles, buttons etc) may therefore not be related to the occupation of the area (that is, they may not be in situ).

- Sand and gravel mining would have disturbed or destroyed any archaeological remains in areas where those activities have occurred.
- Sealed driveways and turf may provide a protective layer, covering underlying deposits and earlier features.

5.0 Archaeological Significance

5.1 Introduction

'Archaeological significance' refers to the heritage significance of archaeological relics (known or potential).

Assessments of heritage significance endeavour to establish why a place or item is considered important and why it is valued by a community. Significance assessments are carried out applying a range of criteria expressed in a variety of documents including *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance 1999* (for general application), the *NSW Heritage Manual* (for assessing State and local significance) and the *Environment Protection and Biodiversity Conservation Act 1999* (Cwth) (for places of National significance).

While all of the assessment criteria may be applied to archaeological remains, the most relevant criteria relate to the research potential of the remains (that is, their ability to provide information), as well as their associations with significant historical places, events or people. Remains that have higher research potential would generally have greater heritage significance.

Archaeological remains should be managed according to

their significance, which can influence the degree of impact that may be acceptable, or the level of investigation and recording that may be required. In some cases, the most appropriate management strategy may be to protect the remains from any impact or to retain any exposed archaeological remains in situ.

5.2 Summary Statement of Significance

Hadley Park is significant at the local, State and National level because it:

- Demonstrates the early settlement of the Castlereagh area (historical significance).
- Contains two of Australia's earliest buildings including a slab cottage thought to predate 1806 (historical significance).
- Has close associations with the original grantee, Martin Mince, and early Castlereagh families the Hadleys and the Childs. The association with the Hadley family is ongoing (associative significance).
- Has a close physical relationship with nearby Nepean Park (associative significance).
- Displays a distinctive jerkin-headed farmhouse and garden and is a local landmark (aesthetic significance).
- Is an early colonial property, valued by the community as part of the history of Penrith (social significance).
- Demonstrates early construction materials and techniques (scientific significance).
- Has high archaeological potential (scientific significance).
- Is a highly intact example of a Georgian rural residence (rarity value).
- Is one of two of the earliest surviving homesteads in the district, state and nation (rarity value).
- Is a fine example of a Georgian farmhouse group (representative significance).



Figure 7 Timber cottage north of Hadley Park, viewed from the east

NSW Heritage Manual Criteria

Criterion (a)—Important in the course, or pattern, of our cultural history.

Criterion (b)—Strong or special association with the life or works of a person, or group of persons.

Criterion (c)—Demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement.

Criterion (d)—Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

Criterion (e)—Potential to yield information that will contribute to an understanding of cultural history.

Criterion (f)—Possesses uncommon, rare or endangered aspects of cultural history.

Criterion (g)—Important in demonstrating the principal characteristics of a class of cultural places.

Other Assessment Criteria

1. Can the site contribute knowledge that no other resource can?
2. Can the site contribute knowledge that no other site can?
3. Is this knowledge relevant to general questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?

(Bickford A and S Sullivan 1984¹)

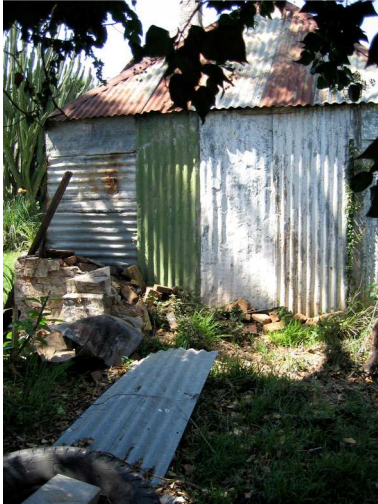


Figure 8 Hadley Park sheds.

Need for a Research Framework

The archaeological remains at a site are a finite resource. Where subsurface disturbance or excavation is required and remains cannot be retained in situ (not disturbed or destroyed), it is essential that the research potential of the archaeological resource be fully realised.

An Archaeological Research Design (ARD) helps to ensure that this occurs. It provides a research framework for the archaeologist, including a range of 'research questions' that help the archaeologist formulate excavation methodologies prior to work commencing. A number of research 'historic themes' have been developed to provide a framework for developing these research questions.

An ARD sets out the appropriate excavation methodologies for a proposed excavation. Excavation methodologies should be designed to best answer the research questions posed by the ARD, and to contribute to interpretation and other mitigative strategies.



Figure 9 Timber cottage north of Hadley Park (note the metal cladding).

6.0 Archaeological Research Design

The following research framework should be applied to any archaeological investigation undertaken within the Hadley Park site. Others research questions relevant to particular archaeological zones are presented below.

6.1 Research Questions—General

- What physical evidence of former activities survives at the site?
- What is the extent of the surviving archaeological evidence?
- What is the nature of extant archaeological features?
- What is the date of the identified features?
- What can the cultural evidence contribute to our knowledge about this site or other sites?

6.2 Research Questions—Penrith Lakes Precinct Generally

- What evidence is there of the pre-European landscape?
- Is there physical evidence of Aboriginal and non-Aboriginal contact?
- What does the archaeological evidence tell us about the types of people that lived and worked in the area (in terms of socio-economic groups, race, religion, nationalities etc)?
- How did the inhabitants of the area respond to the environment? What evidence is there of strategies for survival in a difficult environment?
- What does the archaeological evidence tell us about the diet of the inhabitants of the rural area? Can comparisons be made between rural and urban communities based on the archaeological evidence?
- Does the archaeological resource shed any light on relations between convicts and free settlers, and adherents of the different religions, in the area?
- What does the archaeological record tell us about nineteenth century links between the rural west and Sydney city?
- What evidence is there of the nineteenth century floods and local responses to them?

6.3 Research Questions—Specific to Hadley Park

The archaeological evidence at Hadley Park might be used to address the following questions. Additional questions for specific parts of the site are also presented below, by archaeological zone.

- Is there any archaeological evidence to test or confirm the accuracy of the musters records from 1805–1806 and 1811?
- Does the archaeological evidence clarify the debates concerning the date of the timber cottage next to the Hadley Park brick homestead? Does it support the claim that this is the oldest surviving timber structure in the country?
- What does the archaeological resource tell us about the phases and kinds of construction at Hadley Park?
- Is there any archaeological evidence of former landscaping around Hadley Park?
- What archaeological evidence is there of self-sufficiency at the site (for example, vegetable gardens, dairying, wells etc)?
- What evidence is there of sanitation and waste disposal around the site?
- Is there evidence of nineteenth-century water supply (wells, cisterns etc)?
- What does the archaeological evidence reveal about the animals raised at the site and how they were managed (yards, fences, stables, etc)? Is there any evidence of slaughter yards that Hadley is said to have operated in the 1820s?
- Is there any evidence of a building that may have been the 'First and Last Inn', which Hadley is said to have run c1826? Is there any evidence to suggest that Hadley Park itself operated as the inn for a brief period?
- What does the archaeological evidence tell us about the living arrangements of, and social intercourse between, the different social classes living at the site in the 1840s (namely, the Hadley's, their domestic servants, their agricultural labourers (ticket-of-leave men) and the 'others' recorded in the 1841 census)?



Figure 10 Hadley Park from the east.



Figure 11 Hadley Park from the north.



Figure 12 The rear of Hadley Park.



Figure 13 Hadley Park chimney.



Figure 14 Hadley Park front garden.



Figure 15 Garden east of timber cottage.

7.0 Archaeological Management

The potential archaeological resource at the Hadley Park group makes an important contribution to the area's heritage values. It must be managed in accordance with its assessed significance. Where possible, significant remains should not be disturbed and should be retained in situ. Future masterplanning and design development will need to take account of the location and significance of the potential archaeological resource. Proposed development requiring ground disturbance may need to be preceded by archaeological investigation, or modified where it will impact on significant archaeological remains.

The potential archaeological resource must be managed by applying the principles and policies in this Archaeological Management Plan.

7.1 Roles and Responsibilities

- Penrith Lakes Development Corporation (PLDC) has ultimate responsibility for the appropriate management of archaeological resources within the Penrith Lakes Scheme.
- PLDC should appoint a Heritage Officer as the primary point of contact and communication for the management of heritage issues within the Penrith Lakes Scheme.
- The PLDC Heritage Officer should be consulted before ground disturbance is undertaken in areas identified as being of archaeological sensitivity. If in doubt—ask.
- The PLDC Heritage Officer must be responsible for applying the principles and policies in this document. The PLDC Heritage Officer should consult with relevant heritage professionals and, where appropriate, the Heritage Branch, NSW Department of Planning if in doubt.
- Contractors involved in ground disturbance of archaeologically sensitive areas must be informed of their obligations in relation to archaeological issues by the PLDC Heritage Officer. A copy of this Archaeology Handbook must be provided to site contractors. Contractors are also responsible for the appropriate management and treatment of the archaeological remains, in consultation with the

PLDC Heritage Officer.

- Where the development of the site is determined to be a 'major project' under Part 3A of the *Environmental Planning and Assessment Act 1979* (NSW), the Minister for Planning would be the consent authority for the project. This AMP should be submitted with the Concept Application and related Project Applications. Consents should be conditioned such that works carried out in accordance with the provisions of this document require no further consents.

7.2 General Policies—Archaeological Management

The following policies form the basis of archaeological management at the site.

Prioritise Management of Historical Archaeological Relics—Appropriate management of historical archaeological relics (known and potential) should be given high priority in the management of the site's heritage values.

Minimise Archaeological Impacts—Ground disturbance should be minimised or avoided in areas of archaeological potential, where possible.

In Situ Retention—Archaeological relics of State significance should be retained in situ, where possible.

Site Protection—Strategies should be put in place to minimise or avoid uncontrolled disturbance of areas of archaeological potential (for example restricted movement of heavy machinery across these areas).

Archaeological Investigation—Where disturbance of areas of archaeological potential is proposed, this disturbance should be preceded by, or undertaken in conjunction with, archaeological investigation and recording.

Underground Utility Services—Excavation or ground disturbance for the purpose of exposing or accessing underground utility services infrastructure is generally appropriate where the excavation or disturbance would occur within an existing trench and the excavation or disturbance would not affect known or potential archaeological remains (other than the service infrastructure itself).

Statutory Framework

If relics of National significance would be significantly impacted by works, it may be necessary to refer the matter to the Australian Government Minister for Environment, Water, Heritage and the Arts (applying the *Environment Protection and Biodiversity Conservation Act 1999*).

The Penrith Lakes Scheme has been declared a 'major project' governed by Part 3A of the *Environmental Planning and Assessment Act 1979* (NSW). In most cases, the Minister for Planning will be the consent authority.

The Penrith Lakes Scheme is implemented under the provisions of *Sydney Regional Environmental Plan 11* (SREP 11). The Minister for Planning is also the consent authority under the SREP.

The Minister for Planning can approve works and can condition that approval such that the works are undertaken in accordance with this AMP.

For all other circumstances, the provisions of the *Heritage Act 1977* (NSW) would apply.

The Heritage Act provides automatic statutory protection to 'relics'. The Heritage Act defines a 'relic' as:

Any deposit, object or material evidence relating to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and which is 50 or more years old.

Sections 139–145 of the Heritage Act prevent the excavation of a relic, except in accordance with a gazetted exception or an excavation permit issued by the Heritage Council of NSW (except where specified by other prevailing legislation).

The site has the potential to contain historical archaeological relics as defined by the Heritage Act.

The management of the Penrith Lakes Scheme heritage resource is also governed by the provisions of a Confidential Deed entered into between PLDC and State government in 1987, and the conditions of consent attaching to a number of DAs. Always consult these before commencing works that may impact on the archaeological resource.



Figure 16 Hadley Park from the south.

Consultation and Liaison

If Aboriginal objects are exposed by ground disturbance, consult with those parties identified in the Aboriginal Cultural Heritage Management Plan (this may include the Department of the Environment and Climate Change (DECC), Aboriginal community representatives and others). Consult the guidelines for consultation published by the DECC.

The PLDC Heritage Officer should consult with heritage professionals and/or the Heritage Branch, NSW Department of Planning, as appropriate.

The PLDC Heritage Officer may wish to involve community groups in the management of the archaeological resource.



Figure 17 Hadley Park from the north.

Suitably Qualified Personnel—Any archaeological investigation or recording should be undertaken by suitably qualified personnel. The archaeologist on site (Excavation Director) must have the authority to stop or redirect works, as required, to allow archaeological relics to be appropriately investigated or recorded.

Contractors and Subcontractors—Suitable clauses should be included in all contractor and subcontractor contracts to ensure that on-site personnel are aware of their obligations in relation to the site's archaeological significance. Site inductions should include a heritage component. Relevant contracts should include provision for potential delays related to the discovery of unexpected archaeological remains.

Notification—The Heritage Branch, NSW Department of Planning, should be notified of the commencement and completion of any archaeological investigations.

Reporting—The results of any archaeological investigation should be presented in an Archaeological Excavation Report within 12 months of completion of the investigation and a copy of the report should be submitted to the Heritage Branch, NSW Department of Planning and Mitchell Library.

Conservation and Storage of Artefacts—PLDC (or its successors) is responsible for the safekeeping of relics recovered from the site unless alternative arrangements are negotiated with the Heritage Branch, NSW Department of Planning. 'Safekeeping' may include cleaning, stabilising, labelling, cataloguing, storing etc in an appropriate repository.

Interpretation—Interpretation of archaeological remains should occur within the Penrith Lakes Scheme where appropriate and should be undertaken in accordance with the policies and recommendations identified in the Penrith Lakes Scheme Interpretation Strategy (2008) and relevant Special Element Interpretation Plans.

Unexpected Aboriginal Archaeological Objects—If any unexpected Aboriginal archaeological objects are exposed during site works, work should cease and consultation with relevant Aboriginal community representatives and the Department of the Environment and Climate Change should be initiated.

Unexpected Relics of National Significance—If any unexpected remains of potentially National heritage significance are encountered during site works, work should

cease until a proper assessment has been made by a heritage professional. It may be necessary to make a 'referral' to the Australian Government Minister for the Environment, Water, Heritage and the Arts.

Disputes and Uncertainty—Should disagreement or uncertainty arise concerning the application of this AMP, the matter should be referred to the Heritage Branch, NSW Department of Planning for determination.

7.3 Specific Management—Hadley Park Group Management Zones

The site has been divided into a number of management zones below. The zones are illustrated in Figures 23 and 24. Figures 22, 23 and 24 also illustrate known structures and archaeological features at the site. The results of the geophysical survey are illustrated in Figure 25. For each management zone the following is provided:

- A summary of potential archaeological relics and their significance.
- Research questions that the potential archaeology in the zones might be used to address, and which should guide future excavation methodologies.
- Management recommendations for the various zones, based on likely and anticipated actions, and the identified potential relics.

Remember: if a specific circumstance is not covered in this Archaeology Handbook use the policy framework in Part A of the Archaeological Management Plan for guidance.



Figure 18 Hadley Park from the south.



Figure 19 Hadley Park from the northeast.



Figure 20 Hadley Park.

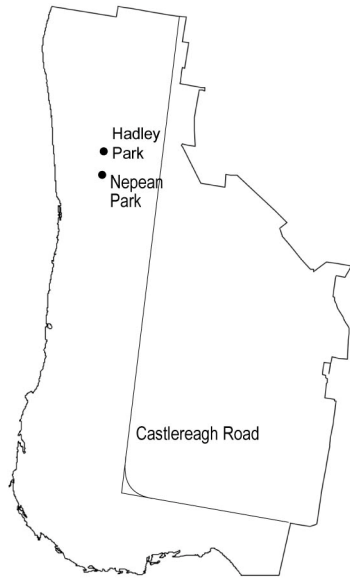


Figure 21 Location Plan within the Scheme Area.

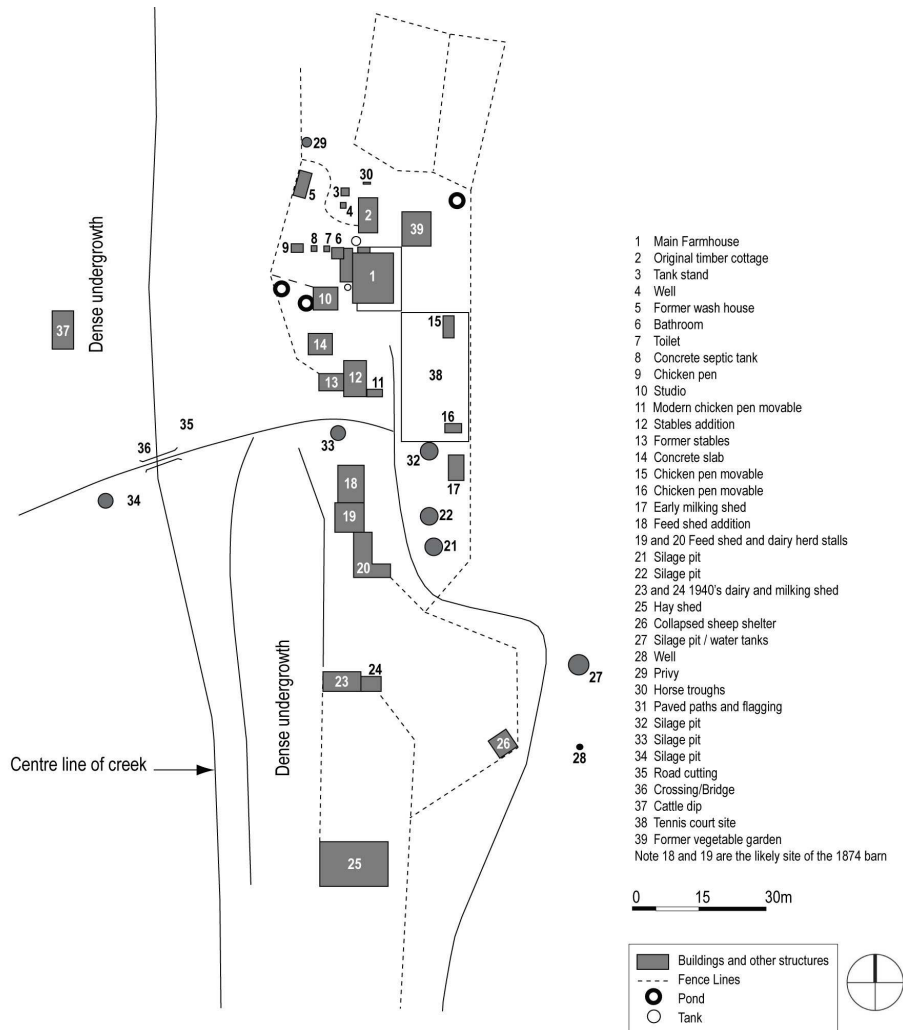


Figure 22 Schematic drawing showing the layout of the Hadley Park group.

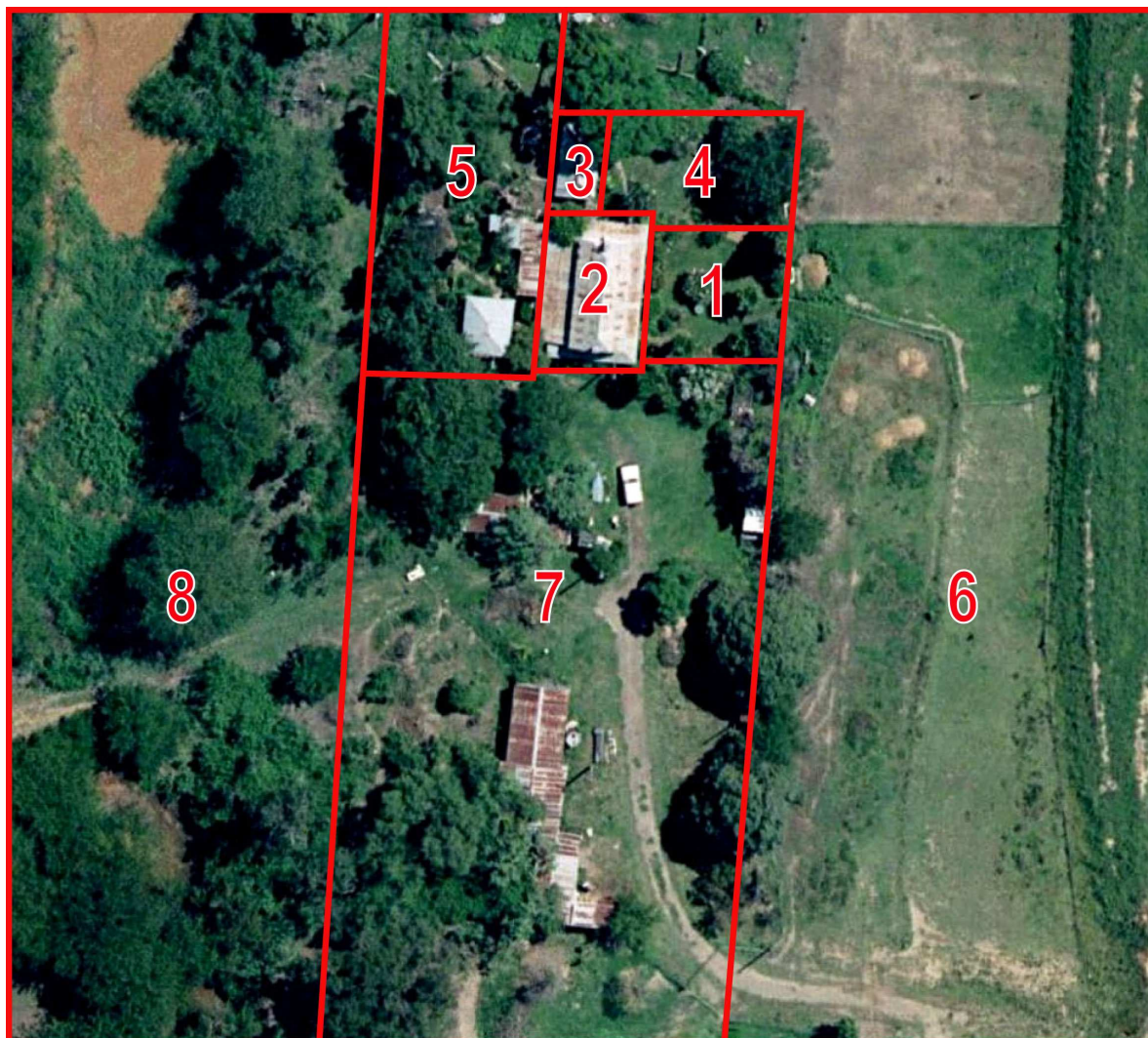


Figure 23 Aerial view of the Hadley Park group showing archaeological management zones. The main residence is in Zone 2 and the slab cottage in Zone 3. (Base photo: Google Earth)



Figure 24 Aerial view of the Hadley Park group showing archaeological management Zone 9. (Base photo: Google Earth)



Figure 25 Ground Penetrating Radar (GPR) image showing location of former structure (dashed rectangle), silage pits (circles) and services (dashed lines). (Source: Archaeological Computing Laboratory, University of Sydney)

Zone 1—Hadley Park Front Garden

Potential Relics

| Potential Relics | Possible Archaeological Evidence | Archaeological Potential | Archaeological Significance |
|--|--|--------------------------|-----------------------------|
| Turning circle—it was common for grand homesteads to have a turning circle for carriages and, later, automobiles. These were commonly located at the front entrance to the main house so that visitors could pass directly from the vehicle to the front door. | Compacted deposits and road base. Gravel surface. Kerbing (stones, brick, concrete). Deposits reflecting the location of edge planting (flower beds etc). | Moderate | High |
| Former landscaping—flower beds, kerbs and edging, garden paths, tree roots etc. | Soil deposits (eg introduced loams in the otherwise clayey substrate). Cuts (eg pits excavated for the introduction of plantings). Stone and/or brick edging/kerbs (in situ and ex situ). Remains of tree roots or 'shadows' in the soils reflecting decayed roots. Artefact fragments (eg broken flower pots, gardening tools etc). | Moderate | High |
| Evidence of former plantings—macrofossils and microfossils. | Botanical remains are sometimes preserved as: <ul style="list-style-type: none"> macrofossils (seeds, fruits, charcoals etc)—evidence of tree fruits and berry fruits such as peaches, apples and raspberries (all of which have notably hardy seeds) are most common. microfossils (pollen and phytoliths, ie silica microfossils). <p>With respect to macrofossils, these can be preserved in anaerobic sediments (usually permanently waterlogged/dry) and if charred (partially burnt) or mineralised (fossilised). There is low potential for such fossils to have survived within the front garden.</p> <p>With respect to microfossils, pollen requires anaerobic (usually permanently waterlogged/dry) conditions to persist. Given that the site has been subject to repeated wetting and drying there is a low potential for pollens to survive.</p> <p>Phytoliths are persistent in all conditions and may therefore survive at the site of the front garden.</p> | Low-to-Moderate | High |
| Evidence of former occupants and their activities—gardens are areas commonly used for work, play and entertainment. | Isolated artefacts that have been lost or discarded (coins, marbles, toys, gardening tools etc). | Moderate | High |
| Services—sewer and water pipes etc. | Metal and terracotta pipes. Trenches—cuts and fills. | Moderate-to-High | Low |

Zone 1

| Potential Relics | Possible Archaeological Evidence | Archaeological Potential | Archaeological Significance |
|---|---|--------------------------|-----------------------------|
| Former structures—gardens were often furnished with temporary and light-weight permanent structures such as gazebos, trellises etc. | Post holes. Compacted surfaces. Ambiguous historical records suggest that an inn ('The First and Last Inn') may have existed in the vicinity of the main house. All excavation in this vicinity should proceed with this in mind. | Low | High |

Research Questions Specific to the Hadley Park Front Garden

- How extensive was the original/early front garden? Where were its 'boundaries'?
- What was the layout of the original/early front garden? How was it landscaped? Did it have garden paths, garden beds etc, and where were they located?
- Did the front garden incorporate a turning circle?
- Was the front garden ever furnished with structures (such as gazebos, trellises)?
- What plants did the garden contain?
- What activities were carried out in the front garden?

Archaeological Management Regime—Hadley Park Front Garden

Minimise ground disturbance in the area of the front garden. If the following works are proposed they should be undertaken in the manner specified below:

Introducing New Landscaping

- As a general principle, archaeological relics should be left undisturbed where possible. However, the reinstatement of the original/early garden form in this area is a desirable heritage outcome that would justify the disturbance or destruction of the potential archaeological resource, provided the research potential of the garden's archaeology is met.
- New landscaping and plantings should be preceded and informed by a program of archaeological excavation which could be used to determine the location and nature of previous plantings and landscape features in the front garden.
- Avoid incremental destruction of the archaeological resource in the front garden (for example excavation of multiple root pits and garden beds over a long period). If there is an expectation that the reinstatement of historic landscaping will involve significant ground disturbance, data from the archaeological resource is best obtained in a controlled open area excavation across the entire front garden area.
- In relation to appropriate consents:
 - If this AMP has been endorsed by the Heritage Council of NSW, proceed with the works by following the methodology below.

- If the works do not form part of a Part 3A Major Project, and the AMP has not been endorsed by the Heritage Council of NSW, an excavation permit must be obtained from the Heritage Council pursuant to Section 139 of the *Heritage Act 1977* (NSW). The excavation methodology presented in this report should be submitted as the Archaeological Research Design in support of that application.
- If the works form part of a Part 3A Major Project, the following methodology should be observed.
- Open area excavation in the front garden should be carried out observing the following methodology:
 - Excavation should be carried out by experienced archaeologists. An excavation director should be appointed who has previously had excavation permits issued in their name by the Heritage Council of NSW (or delegate).
 - Before any excavations commence the area of the front garden should be investigated by geophysical survey to provide direction in relation to archaeologically sensitive areas and to augment any results obtained through the actual excavation.
 - Given the vulnerability to disturbance of the potential archaeological resource in the garden area, the proposed archaeological investigations should be undertaken by hand excavation (pick, shovel, trowel etc), although it may be necessary to remove some deposits (for example the first layer of turf) using a small bobcat. The excavation director should monitor any machine work carefully and should make recommendations for tracks used, access and egress points etc, as appropriate.
 - The archaeologist should have authority to direct site works, as required, in order to undertake all necessary investigation or detailed recording.
 - The depth of excavation required across the site should be determined by the excavation director, based on the nature of the subsurface profile.
 - The need for detailed investigation and recording of specific deposits or features should be determined by the excavation director throughout the course of the investigation to ensure that the important parts of the site are adequately investigated and recorded, and that resources are not employed in areas that do not warrant further investigation. The investigation should continue until the excavation director is satisfied that the research potential of the subsurface deposits has been realised and that the site has been adequately investigated and recorded, or that culturally sterile deposits have been encountered across the site.
- Archaeological investigations should include a soil sampling strategy:
 - Microfossil samples must be taken, primarily for pollen. These samples should comprise small bags of soil (c100g maximum weight) from the likely garden bed areas. It is vital that the samples be taken in a manner that minimises contamination by the topsoil. Thus, only samples from intact soil profiles should be taken. At least 10 soil samples should also be collected from the topsoil to act as a basis for comparison to the pollen samples.

Zone 1

- Macrofossil samples should be collected from across the front garden area, again from the strata beneath the topsoil. The archaeologist should also collect at least five samples from the topsoil for comparison purposes. All samples should be a minimum of 50 litres in volume. They should be wet-sieved on a 1mm mesh sieve to remove as much soil as possible. One litre from each sample should be retained unsieved.
- A minimum of 12 samples should be collected for each type (microfossils and macrofossils). The sieved material should be bagged.
- Samples should be taken from across the area in order to get best site coverage and spatial analysis data.
- If the soil is sodden when collected, and the samples contain a lot of organics, they should not be dried after sieving. They should be sealed in bags and analysed in a laboratory as soon as possible.
- Comprehensive site recording should be undertaken. The entire investigation process should be recorded photographically. Additional detailed site recording should be undertaken (measured drawings, context sheets etc) if and when archaeological deposits and features are encountered. Measured drawings should be made of physical remains. The location of exposed structural relics (such as kerbing and wall footings) should be recorded by survey.
- Any artefacts that are recovered should be provenanced according to their contexts. Artefacts should be conserved (washed and bagged) and stored in an appropriate repository, observing specialist conservation requirements where appropriate (for example for leather artefacts). Artefacts should be logged in a database that reflects current best-practice archaeological data recording.
- A report of the results of the fieldwork should be produced at the completion of the archaeological investigation. This report should include:
 - a description of the results of the investigation, including a discussion of the nature of the archaeological remains recorded;
 - a response to the research questions raised in this Archaeological Research Design;
 - a discussion of the relics recovered by excavation including artefact or sample analysis;
 - site records, including measured drawings and photographs;
 - a CD containing the artefact database; and
 - conclusions relating to the nature and extent of surviving archaeological remains.
- All relevant site personnel (including contractors) should attend a site induction prior to commencement of works on site to ensure that all are aware of the heritage issues associated with the site and the role of the excavation director and other archaeologists.
- In the event that archaeological evidence relating to Aboriginal use of the site is discovered, the Director of the NSW National Parks and Wildlife Service must be notified immediately, in accordance with Section 91 of the *National Parks and Wildlife Act 1974* (NSW). Appropriate

Aboriginal consultation must be undertaken consistent with Department of Environment and Climate Change guidelines.

Introducing New Services (Assumes Width of Trenches Does not Exceed c500mm)

- Do not run new services through the front garden area if alternatives are available. Always seek alternatives. (If the original/early garden is reinstated at the site, then after that has occurred the potential for archaeological relics to survive will be low and new services can be installed in this area without consideration of archaeological potential.)
- If active services exist in the front garden which need repair or replacement, confine excavation to previous service trenches (or seek alternatives).
- In relation to appropriate consents:
 - If this AMP has been endorsed by the Heritage Council of NSW, proceed with the works by following the methodology below.
 - If the works do not form part of a Part 3A Major Project, and the AMP has not been endorsed by the Heritage Council of NSW, proceed by way of an Exception application to the Heritage Branch, NSW Department of Planning (the application should provide for the excavation methodology presented below).
 - If the works form part of a Part 3A Major Project, and if the provisions of the Heritage Act do not apply, the works should be monitored by an archaeologist who has previously had excavation permits issued in their name by the Heritage Council of NSW (or delegate).
- Prior to the works commencing, a site induction of all relevant personnel should be undertaken by a qualified archaeologist, who would explain the obligations of all personnel and the appropriate excavation methodology for the management of the archaeological resource.
- The proposed works should be monitored by a qualified archaeologist in order to ensure that potential archaeological relics are identified and appropriately recorded. The archaeologist should be empowered to direct the excavation of the trenches etc and to halt works, as required.
- It would be appropriate for the works to be undertaken using a combination of machine and manual excavation, monitored and directed by an archaeologist.
- Generally, if relics of local significance or relics in highly disturbed contexts are encountered, they can be removed after being appropriately recorded (in words, photography, survey and measured drawings, as appropriate), then conserved and stored. This decision should be made only after a full significance assessment has been prepared by an archaeologist. However, relics of State or National significance (for example an in situ early nineteenth century well, nineteenth century refuse pit etc) should be kept in situ. This may require the re-routing of trenches.
- Wherever subsurface disturbance can be restricted, this should be done in order to reduce the impact on any potential archaeological relics at the site.

Zone 1

- In the event that archaeological evidence relating to Aboriginal use of the site is discovered, the Director of the NSW National Parks and Wildlife Service must be notified immediately, in accordance with Section 91 of the *National Parks and Wildlife Act 1974* (NSW). Appropriate Aboriginal consultation must be undertaken consistent with Department of Environment and Climate Change guidelines.
- On completion of the works, a succinct report should be prepared and submitted to the Heritage Branch, NSW Department of Planning that presents the results of the excavation, illustrated by photographs and survey plans and other drawings, as appropriate. It should include a CD-ROM containing the photographic images taken during the works, and a catalogue of those images.

Ongoing Garden Maintenance and Miscellaneous Ground Disturbance

- The ongoing care and maintenance of garden areas is generally a positive heritage outcome. Ground disturbance in the front garden for this purpose (for example mulching etc) is generally appropriate. If the original/early garden is reinstated at the site, then after that has occurred the potential for archaeological relics to survive here will be low and garden maintenance will be able to occur without consideration of archaeological potential.
- Ground disturbance in areas and deposits that are already clearly disturbed (for example much used garden beds) can take place without the need for consent or archaeological monitoring. If in doubt, consult an archaeologist.
- Where ground disturbance is required in areas *not* already clearly disturbed (for example for the improvement of drainage etc):
 - If this AMP has been endorsed by the Heritage Council of NSW, proceed with the works by following the methodology below.
 - If the works do not form part of a Part 3A Major Project, and the AMP has not been endorsed by the Heritage Council of NSW, proceed by way of an Exception application to the Heritage Branch, NSW Department of Planning (the application should provide for an archaeologist to monitor the works).
 - If the works form part of a Part 3A Major Project, and if the provisions of the Heritage Act do not apply, the works should be monitored by an archaeologist who has previously had excavation permits issued in their name by the Heritage Council of NSW (or delegate).
- Generally, if relics of local significance or relics in highly disturbed contexts are encountered, they can be removed after being appropriately recorded (in words, photography, survey and measured drawings, as appropriate), conserved and stored. This decision should be made only after a full significance assessment has been prepared by an archaeologist. However, relics of State or National significance (for example an in situ early nineteenth century well, nineteenth century refuse pit etc) should be kept in situ. This may require the redesign of landscape designs etc.

Zone 2—Footprint of Hadley Park Homestead

Potential Relics

| Potential Relics | Possible Archaeological Evidence | Archaeological Potential | Archaeological Significance |
|-------------------------------------|--|--------------------------|-----------------------------|
| Under-floor artefacts and deposits. | Artefacts located in discrete areas under the floors. These are commonly small artefacts (buttons, pins, coins, etc) that have slipped between ill-fitting floor boards. | High | High |
| Structural elements. | Earlier floors/paving, piers, post holes, impressions of floor joists and bearers, wall footings. Defunct services. Cellars. | High | High |

Research Questions Specific to the Hadley Park Footprint

- Is there any evidence of the structural development of the house? Is there any evidence of structural modification?
- Is there evidence that can help to more specifically date the house?
- What evidence is there of the activities that took place in the house?
- What evidence is there of the occupants in the house? Are there any artefacts that can be dated to the original inhabitants of the house?
- What evidence is there of the earliest period of occupation? What changes over time are evident in the archaeological record in relation to occupants and activities?

Archaeological Management Regime—Hadley Park Footprint

Ground Disturbance for Any Reason Under the Floors

- Do not disturb the deposits under the floors of Hadley Park except for overwhelming conservation reasons (for example to ascertain and rectify structural and physical conservation problems) or overwhelming health and safety reasons (for example to prevent structural failure). Where ground disturbance would result from the physical conservation of the house (for example to rectify damp problems) this is appropriate.
- Where ground disturbance is required that would disturb less than 30% of the total floor area:
 - If this AMP has been endorsed by the Heritage Council of NSW, proceed with the works by following the methodology below.
 - If the works do not form part of a Part 3A Major Project, and the AMP has not been endorsed by the Heritage Council of NSW, proceed by way of an Exception application to the Heritage Branch, NSW Department of Planning (the application should provide for the excavation methodology presented below).

Zone 2

- If the works form part of a Part 3A Major Project, and if the provisions of the Heritage Act do not apply, proceed by following the methodology below.
- Where ground disturbance is required that would disturb more than 30% of the total floor area:
 - If this AMP has been endorsed by the Heritage Council of NSW, proceed with the works by following the methodology below.
 - If the works do not form part of a Part 3A Major Project, and the AMP has not been endorsed by the Heritage Council of NSW, proceed by way of an application for an Excavation Permit to the Heritage Branch, NSW Department of Planning (the application should provide for the excavation methodology presented below).
 - If the works form part of a Part 3A Major Project, and if the provisions of the Heritage Act do not apply, proceed by following the methodology below.
- Prior to works commencing, a site induction of all relevant personnel should be undertaken by a qualified archaeologist, who would explain the obligations of all personnel and the appropriate excavation methodology for the management of the archaeological resource.
- Where ground disturbance must occur, this should be undertaken by an archaeologist.
- The archaeologist should excavate the deposits applying the principles of stratigraphic excavation.
- Where exploratory ground disturbance is proposed for conservation reasons (for example to ascertain structural issues) the discrete areas of ground disturbance should be excavated within a controlled 1m x 1m square by an archaeologist.
- All under floor deposits should be sieved and finds provenanced by context.
- Any artefacts that are recovered should be washed, labelled and stored. Arrangements should be made for appropriate conservation to occur where artefacts with particular conservation requirements are found (for example leather and metal artefacts). Artefacts should be logged in a database that reflects current best-practice archaeological data recording.
- Wherever subsurface disturbance can be restricted, this should be done in order to reduce the impact on any potential archaeological relics at the site.
- Where historic structural remains are exposed, those remains should be left in situ unless this is impossible for overwhelming conservation or health and safety reasons. In any case, the location, nature, function, dimensions etc of these remains should be archaeologically recorded (text, photography, survey and measured drawing).
- If archaeological evidence relating to Aboriginal use of the site is discovered, the Director of the NSW National Parks and Wildlife Service must be notified, in accordance with Section 91 of the *National Parks and Wildlife Act 1974* (NSW). Appropriate Aboriginal consultation must be undertaken consistent with Department of Environment and Climate Change guidelines.

- On completion of the works, a succinct report should be prepared and submitted to the Heritage Branch, NSW Department of Planning that presents the results of the excavation, illustrated by photographs and survey plans and other drawings, as appropriate. It should include a CD-ROM containing an artefact database (if relevant) and any photographic images taken during the works, and a catalogue of those images.

Ground Disturbance in the Verandah Areas

- The existing verandah slab is a late addition and can be removed if necessary. Minimise ground disturbance should this occur. If the works occasion no ground disturbance, no consents are required in relation to archaeology. However, the works should be monitored by an archaeologist.
- If new verandahs are to be introduced, minimise ground disturbance. If the works occasion no ground disturbance, no consents are required with respect to archaeology.
- If ground disturbance is necessary in constructing a new verandah, the verandah areas should first be archaeologically investigated observing the methodology described above in relation to ground disturbance under the floors of Hadley Park.

Zone 2

Zone 3—Footprint of Timber Cottage North of Hadley Park

Potential Relics

| Potential Relics | Possible Archaeological Evidence | Archaeological Potential | Archaeological Significance |
|-----------------------|--|--------------------------|-----------------------------|
| Under-floor deposits. | Artefacts located in discrete areas under the floors. These are commonly small artefacts (buttons, pins, coins, etc) that have slipped between ill-fitting floor boards or impressed into dirt floors. | High | High |
| Structural elements. | Piers, post holes, impressions of floor joists and bearers, wall footings. Defunct services. | High | High |

Research Questions Specific to the Timber Cottage North of Hadley Park

- Is there any archaeological evidence to support the claim that the timber cottage is the oldest surviving timber structure in the country? Is there evidence that can help to more specifically date the house?
- Is there any evidence of the development of the structure? Is there any evidence of structural modification over time?
- What evidence is there of the activities that took place in the structure?
- What evidence is there of the occupants in the structure? Are there any artefacts that can be dated to the original inhabitants of the structure?
- What evidence is there of the earliest period of occupation? What changes over time are evident in the archaeological record in relation to occupants and activities?

Archaeological Management Regime—Footprint of Timber Cottage North of Hadley Park

In undertaking the conservation of the timber cottage, seek an option for the floor that will involve no ground disturbance. The most desirable archaeological outcome would be for any archaeological relics in this area to be retained undisturbed and in situ as part of the conserved cottage.

Given the significance of the potential archaeological resource within the footprint of the timber cottage, it would be undesirable to archaeologically investigate it in a piecemeal manner. Therefore, if conservation of the timber cottage would cause significant ground disturbance of the cottage's floor area (ie greater than 2m²), the works should be preceded by an open area research excavation, observing the same excavation methodology as presented above for the Hadley Park footprint (Zone 2).

Very minor ground disturbance (for example exploratory excavation to ascertain the nature of the cottage's construction, in a total area not exceeding 2m²) may be undertaken but only by an archaeologist, treating the discrete disturbance as an opportunity for archaeological sampling. This limited excavation should be undertaken following the methodology provided above for the footprint of Hadley Park (Zone 2).

Zone 3

Zone 4—Front Garden of Timber Cottage

Potential Relics

| Potential Relics | Possible Archaeological Evidence | Archaeological Potential | Archaeological Significance |
|---|--|--------------------------|-----------------------------|
| Former landscaping—flower beds, kerbs and edging, garden paths, tree roots etc. | Soil deposits (eg introduced loams in the otherwise clayey substrate). Cuts (eg pits excavated for the introduction of plantings). Stone and/or brick edging/kerbs (in situ and ex situ). Remains of tree roots or 'shadows' in the soils reflecting decayed roots. Artefact fragments (eg broken flower pots, gardening tools etc). | Moderate | High |
| Former vegetable garden. | A vegetable garden of at least twentieth century date is known to have been located to the east of the timber cottage's front garden. See below for the kinds of botanical remains that may survive in the archaeological record. | Low-to-Moderate | Moderate |
| Evidence of former plantings—macrofossils and microfossils. | Botanical remains are sometimes preserved as: <ul style="list-style-type: none"> macrofossils (seeds, fruits, charcoals etc)—evidence of tree fruits and berry fruits such as peaches, apples and raspberries (all of which have notably hardy seeds) are most common. microfossils (pollen and phytoliths, ie silica microfossils). <p>With respect to macrofossils, these can be preserved in anaerobic sediments (usually permanently waterlogged/dry) and if charred (partially burnt) or mineralised (fossilised). There is low potential for such fossils to have survived within the front garden.</p> <p>With respect to microfossils, pollen requires anaerobic (usually permanently waterlogged/dry) conditions to persist. Given that the site has been subject to repeated wetting and drying there is a low potential for pollens to survive.</p> <p>Phytoliths are persistent in all conditions and may therefore survive at the site of the front garden.</p> | Low-to-Moderate | High |
| Evidence of former occupants and their activities—gardens are areas commonly used for work, play and entertainment. | Isolated artefacts that have been lost or discarded (coins, marbles, toys, gardening tools etc). | Moderate | High |
| Services—sewer and water pipes etc. | Metal and terracotta pipes. Trenches—cuts and fills. | Moderate-to-High | Low |
| Former structures—gardens were often furnished with temporary and light-weight permanent structures such as gazebos, trellises etc. | Post holes. Compacted surfaces. Ambiguous historical records suggest that an inn ('The First and Last Inn') may have existed in the vicinity of the main house. All excavation in this vicinity should proceed with this in mind. | Low | High |

Zone 4

Research Questions Specific to the Timber Cottage Front Garden

- Is there evidence of the original/early front garden? Where were its 'boundaries'?
- What was the layout of the original/early front garden? How was it landscaped? Did it have garden paths, garden beds etc, and where were they located?
- Was the front garden ever furnished with structures (such as gazebos, trellises)?
- What plants did the front garden and vegetable garden contain?
- What activities were carried out in the front garden and vegetable garden?
- What changes over time are evident in the archaeological record in relation to occupants and activities?

Archaeological Management Regime—Timber Cottage Front Garden

For ground disturbance proposed within the front garden of the timber cottage observe the same recommendations and methodologies as are provided for Hadley Park Front Garden—Zone 1 (above).

Zone 5—The Rear (West) of Hadley Park and the Timber Cottage

Potential Relics

| Potential Relics | Possible Archaeological Evidence | Archaeological Potential | Archaeological Significance |
|--|---|--------------------------|------------------------------------|
| Water storage and supply structures. | A well and remains of a tank stand exist to the rear of the timber cottage. The well itself is an archaeological feature. Further, artefacts often accumulate in the bottom of wells as a result of deliberate discard and accidental loss. Ponds exist to the west of the house. Evidence of previous land forming (cuts in the natural stratigraphy, deposits of fill etc) may survive here. | Moderate | Moderate-to-High depending on date |
| Ablutions etc belonging to the main house and its additions. | A privy was located to the northwest of the timber cottage. A wash house, bathroom, toilet and concrete septic tank was located to the west of the main house. These features would be represented by brick footings, piers, service trenches and pipes, and concrete. | High | Low-to-High depending on date |
| Former structural elements. | This area has been the location of a large number of work and domestic structures over the last 200 years (some of which are still standing or otherwise known, and which are illustrated in Figure 1). Archaeological evidence of former structures might include: <ul style="list-style-type: none"> • brick piers, post holes, slabs, brick and concrete wall footings; • defunct services; and • differential soil deposits, compact surfaces etc. Ambiguous historical records suggest that an inn ('The First and Last Inn') may have existed in the vicinity of the main house. All excavation in this vicinity should proceed with this in mind. | High | Low-to-High depending on date |
| Isolated artefacts and disposal pits. | The rear of a house was often used as the location for the disposal of waste and the accumulation of discarded objects. This may be represented in the archaeological record by garbage pits (often with an artefact-rich fill) and isolated artefacts. | Moderate | Low-to-High depending on date |

Research Questions Specific to the Rear (West) of Hadley Park and the Timber Cottage

- What evidence is there of the activities undertaken in this part of the property?
- What evidence is there of the disposal patterns at the site? What kinds of objects were disposed of or discarded? What does this tell us about the things that were valued at the site?
- Is there evidence of previous structures that have since been demolished and forgotten?
- What evidence is there of the activities that took place in the house and cottage?
- What evidence is there of the occupants of the house and cottage?

Zone 5

- What evidence is there of the earliest period of occupation? What changes over time are evident in the archaeological record in relation to occupants and activities?

Archaeological Management Regime—Rear (West) of Hadley Park and the Timber Cottage

Constructing New Buildings (Amenities, Dwellings etc)

If possible, avoid new structures in this zone that would cause significant ground disturbance in their construction. Favour structures that are suspended above the ground on piers, occasioning only minor and discrete ground disturbance.

- In relation to appropriate consents:
 - If this AMP has been endorsed by the Heritage Council of NSW, proceed with the works by following the methodology below.
 - If the works do not form part of a Part 3A Major Project, and the AMP has not been endorsed by the Heritage Council of NSW, proceed by way of an Exception application to the Heritage Branch, NSW Department of Planning (the application should provide for the excavation methodology presented below).
 - If the works form part of a Part 3A Major Project, and if the provisions of the Heritage Act do not apply, the works should be undertaken observing the following methodology.
- Prior to the works commencing a site induction of all relevant personnel should be undertaken by a qualified archaeologist, who would explain the obligations of all personnel and the appropriate excavation methodology for the management of the archaeological resource.
- The proposed works should be monitored by a qualified archaeologist in order to ensure that potential archaeological relics are identified and appropriately recorded. The archaeologist should be empowered to direct the excavation of the trenches etc and to halt works, as required.
- It would be appropriate for the works to be undertaken using a combination of machine and manual excavation, monitored and directed by an archaeologist.
- Generally, if relics of local significance or relics in highly disturbed contexts are encountered, they can be removed after being appropriately recorded (in words, photography, survey and measured drawings, as appropriate), then conserved and stored. This decision should be made only after a full significance assessment has been prepared by an archaeologist. However, where possible, relics of State or National significance (for example an in situ early nineteenth century well, nineteenth century refuse pit etc) should be kept in situ. This may require the redesign or relocation of the structure etc.
- If in situ retention of State significant relics is impossible for overwhelming conservation, health or safety reasons, they may be removed only after this has been demonstrated and by a qualified archaeologist observing the principles of stratigraphic excavation and ensuring appropriate recording (in words, photography, survey and measured drawings, as

appropriate) and conservation and storage of relics. In such a case, it may be necessary to expand the area of archaeological investigation beyond the area of the proposed pier/s.

- Wherever subsurface disturbance can be restricted, this should be done in order to reduce the impact on any potential archaeological relics at the site.
- In the event that archaeological evidence relating to Aboriginal use of the site is discovered, the Director of the NSW National Parks and Wildlife Service must be notified immediately, in accordance with Section 91 of the *National Parks and Wildlife Act 1974* (NSW). Appropriate Aboriginal consultation must be undertaken consistent with Department of Environment and Climate Change guidelines.
- On completion of the works, a succinct report should be prepared and submitted to the Heritage Branch, NSW Department of Planning that presents the results of the excavation, illustrated by photographs and survey plans and other drawings, as appropriate. It should include a CD-ROM containing the photographic images taken during the works, and a catalogue of those images.

Introducing New Services

- Avoid running new services through this area if alternatives are available. Always seek alternatives.
- If active services exist in the area which need repair or replacement, confine excavation to previous service trenches (or seek alternatives).
- In relation to appropriate consents:
 - If this AMP has been endorsed by the Heritage Council of NSW, proceed with the works by following the methodology below.
 - If the works do not form part of a Part 3A Major Project, and the AMP has not been endorsed by the Heritage Council of NSW, proceed by way of an Exception application to the Heritage Branch, NSW Department of Planning (the application should provide for the methodology below).
 - If the works form part of a Part 3A Major Project, and if the provisions of the Heritage Act do not apply, proceed by following the methodology below.
- Prior to the works commencing, a site induction of all relevant personnel should be undertaken by a qualified archaeologist, who would explain the obligations of all personnel and the appropriate excavation methodology for the management of the archaeological resource.
- The proposed works should be monitored by a qualified archaeologist in order to ensure that potential archaeological relics are identified and appropriately recorded. The archaeologist should be empowered to direct the excavation of the trenches etc and to halt works, as required.
- It would be appropriate for the works to be undertaken using a combination of machine and manual excavation, monitored and directed by an archaeologist.

Zone 5

- Generally, if relics of local significance, or relics in highly disturbed contexts, are encountered they can be removed after being appropriately recorded (in words, photography, survey and measured drawings, as appropriate), conserved and stored. This decision should be made only after a full significance assessment has been prepared by an archaeologist. However, relics of State or National significance (for example an in situ early nineteenth century well, nineteenth century refuse pit etc) should be kept in situ. This may require the re-routing of trenches etc.
- Wherever subsurface disturbance can be restricted, this should be done in order to reduce the impact on any potential archaeological relics at the site.
- In the event that archaeological evidence relating to Aboriginal use of the site is discovered, the Director of the NSW National Parks and Wildlife Service must be notified immediately, in accordance with Section 91 of the *National Parks and Wildlife Act 1974* (NSW). Appropriate Aboriginal consultation must be undertaken consistent with Department of Environment and Climate Change guidelines.
- On completion of the works, a succinct report should be prepared and submitted to the Heritage Branch, NSW Department of Planning that presents the results of the excavation, illustrated by photographs and survey plans and other drawings, as appropriate. It should include a CD-ROM containing the photographic images taken during the works, and a catalogue of those images.

Landscaping, Ongoing Garden Maintenance and Miscellaneous Ground Disturbance

- The ongoing care and maintenance of garden areas and the introduction of improved landscaping in this area would generally be a positive heritage outcome. Ground disturbance for this purpose is generally appropriate.
- The soil sampling strategy described above in relation to the front garden of Hadley Park and the timber cottage is not required for the rear area.
- Ground disturbance in areas and deposits that are already clearly disturbed (for example much used garden beds) can take place without the need for consent. If in doubt, consult an archaeologist.
- Where ground disturbance is required in areas *not* already clearly disturbed:
 - If this AMP has been endorsed by the Heritage Council of NSW, proceed with the works by following the methodology below.
 - If the AMP has not been endorsed by the Heritage Council of NSW, and the works do not form part of a Part 3A Major Project, proceed by way of an Exception application to the Heritage Branch, NSW Department of Planning. The application should recommend the methodology presented below.
 - If the works form part of a Part 3A Major Project, and if the provisions of the Heritage Act do not apply, the works should be undertaken following the methodology below.

- The recommended ground disturbance methodology for works in previously undisturbed areas is:
 - Prior to the works commencing, a site induction of all relevant personnel should be undertaken by a qualified archaeologist, who would explain the obligations of all personnel and the appropriate excavation methodology for the management of the archaeological resource.
 - The proposed works should be carried out in the presence of a qualified archaeologist in order to ensure that potential archaeological relics are identified, investigated and appropriately recorded. Where ground disturbance must occur, this should be undertaken by the archaeologist or another person under their direction.
 - If relics of local significance or relics in highly disturbed contexts are encountered, they can be removed after being appropriately recorded (in words, photography, survey and measured drawings, as appropriate), and then conserved and stored. This decision should be made only after a full significance assessment has been prepared by an archaeologist. However, relics of State or National significance (for example an in situ early nineteenth century well, nineteenth century refuse pit etc) should be kept in situ. This may require the redesign of landscape designs etc.
 - On completion of the works, a succinct report should be prepared and submitted to the Heritage Branch, NSW Department of Planning that presents the results of the excavation, illustrated by photographs and survey plans and other drawings, as appropriate. It should include a CD-ROM containing an artefact database and the photographic images taken during the works, and a catalogue of those images.
 - Any artefacts that are recovered should be washed, labelled and stored. Arrangements should be made for appropriate conservation to occur where artefacts with particular conservation requirements are found (for example leather and metal artefacts).
- Wherever subsurface disturbance can be restricted, this should be done in order to reduce the impact on any potential archaeological relics at the site.
- If archaeological evidence relating to Aboriginal use of the site is discovered, the Director of the NSW National Parks and Wildlife Service must be notified immediately, in accordance with Section 91 of the *National Parks and Wildlife Act 1974* (NSW). Appropriate Aboriginal consultation must be undertaken consistent with Department of Environment and Climate Change guidelines.

Zone 5

Zone 6—Agricultural Area East of Sheds etc

Potential Relics

| Potential Relics | Possible Archaeological Evidence | Archaeological Potential | Archaeological Significance |
|---|--|--------------------------|--|
| Isolated artefacts. | This part of the site has been the subject of ongoing and repeated ground disturbance for agricultural purposes for over 100 years. The potential for in situ relics to survive here is low. Any relics that may survive are likely to be isolated finds with unclear relationships to the main house. | Low | Low (although very early artefacts may have High significance even if in disturbed contexts) |
| Evidence of former plantings—macrofossils and microfossils. | This part of the site has been the subject of ongoing and repeated ground disturbance for agricultural purposes for over 100 years. The potential for the survival of macrofossils or microfossils that reflect agricultural practices in the early and mid-nineteenth century is low. It would be difficult to relate any that may survive to a clear historical phase and therefore their research potential would be limited. | Low | Low given disturbed context |

Research Questions Specific to the Agricultural Area East of Sheds etc

- What evidence is there of the agricultural activities that took place on the property?

Archaeological Management Regime—Agricultural Area East of Sheds etc

- Works involving ground disturbance in this area can be carried out without the need for further consultation or consents (so far as archaeology is concerned). However, if unexpected archaeological relics are encountered works must cease and an archaeologist should be engaged to assess the likely extent and significance of the relics.
- Where unexpected relics are exposed and the proposed ground disturbance would disturb or destroy them:
 - If this AMP has been endorsed by the Heritage Council of NSW, proceed with the works by following the methodology below.
 - If the AMP has not been endorsed by the Heritage Council of NSW, and the works do not form part of a Part 3A Major Project, notify the Heritage Branch, NSW Department of Planning of the discovery and proceed by way of an Exception application to the Heritage Branch. The application should recommend the following methodology. For significant damage to State significant relics it will be necessary to apply to the Heritage Branch, NSW Department of Planning, for an Excavation Permit.
 - If the works form part of a Part 3A Major Project, and if the provisions of the Heritage Act do not apply, the works should be undertaken observing the following methodology.

Zone 6

- The recommended ground disturbance methodology is:
 - If relics of local significance or relics in highly disturbed contexts are encountered, they can be removed after being appropriately recorded (in words, photography, survey and measured drawings, as appropriate), then conserved and stored. This decision should be made only after a full significance assessment has been prepared by an archaeologist. However, relics of State or National significance (for example an in situ early nineteenth century well, nineteenth century refuse pit etc) should be kept in situ. This may require the redesign of landscape designs etc.
 - If in situ retention of State significant relics is impossible for overwhelming conservation, health or safety reasons, they may be removed only after this has been demonstrated and by a qualified archaeologist observing the principles of stratigraphic excavation and ensuring appropriate recording (in words, photography, survey and measured drawings, as appropriate) and conservation and storage of relics.
- On completion of the works, a succinct report should be prepared and submitted to the Heritage Branch, NSW Department of Planning that presents the results of the excavation, illustrated by photographs and survey plans and other drawings, as appropriate. It should include a CD-ROM containing an artefact database and the photographic images taken during the works, and a catalogue of those images.
- Any artefacts that are recovered should be washed, labelled and stored. Arrangements should be made for appropriate conservation to occur where artefacts with particular conservation requirements are found (for example leather and metal artefacts).
- Wherever subsurface disturbance can be restricted, this should be done in order to reduce the impact on any potential archaeological relics at the site.
- If archaeological evidence relating to Aboriginal use of the site is discovered, the Director of the NSW National Parks and Wildlife Service must be notified immediately, in accordance with Section 91 of the *National Parks and Wildlife Act 1974* (NSW). Appropriate Aboriginal consultation must be undertaken consistent with Department of Environment and Climate Change guidelines.

Zone 7—Sheds, Drive and Work Areas South of the Main House

Potential Relics

| Potential Relics | Possible Archaeological Evidence | Archaeological Potential | Archaeological Significance |
|--|---|--------------------------|---|
| Evidence of the original, 1806 farmhouse (?) | <p>The historical sources record that before and during the construction of the main farmhouse, the Hadley family lived in a nearby timber cottage. It has always been assumed that the extant timber cottage immediately north of the main house is the one referred to, which would make it one of the earliest surviving timber structures in Australia. However, it is possible that the extant structure belongs to a slightly later period and that another timber structure, since demolished, was the one the Hadleys occupied.</p> <p>All ground disturbance in the vicinity of the main house should be undertaken with this in mind.</p> <p>In particular, geophysical survey has suggested the existence of a former structure south of the main house of the size of a small cottage (see Figure 24). No evidence of this building was visible by surface survey at the time of the geophysical survey. There is some possibility that this was the site of an early cottage.</p> | High | High |
| Evidence of farm activities carried out in the existing structures, and modifications to those structures over time. | A number of farm structures exist in this zone, including chicken pens, a milking shed, and feed sheds. Archaeological evidence of the activities undertaken in these areas may survive as isolated artefacts (discarded or lost), soil deposits, compacted surfaces, brick piers etc. | High | Low-to-High depending on date and levels of disturbance |
| Evidence of former structures and activities undertaken in them. | <p>This area has historically been used for a variety of farm activities and there is the potential for the remains of previous structures to survive here. These might include:</p> <ul style="list-style-type: none"> • brick piers, post holes, slabs, brick and concrete wall footings; • defunct services; and • soil deposits, compact surfaces etc. <p>In addition to the structural elements that have been previously identified in this zone, there remains the potential for other structures to once have existed here. For example, two barns (pre-1873) are known to have existed on the site (probably in the general area of the existing work sheds). These might be represented in the archaeological record by post holes, footings, piers, compacted surfaces etc. One of the barns is known to have burnt down and might therefore be represented in the archaeological record by charcoal and ash deposits.</p> <p>Archaeological evidence of the activities undertaken in these areas may also survive, eg as isolated artefacts.</p> | High | Low-to-High depending on date and levels of disturbance |

Zone 7

| Potential Relics | Possible Archaeological Evidence | Archaeological Potential | Archaeological Significance |
|-------------------------|--|---|--------------------------------------|
| | <p>Ambiguous historical records suggest that an inn ('The First and Last Inn') may have existed in the vicinity of the main house. All excavation in this vicinity should proceed with this in mind.</p> <p>Historical sources record that Charles Hadley supplied meat to the Government Stores between 1815 and 1824. A slaughter yard may have existed on the site, in which case it may have existed in this general area. Such a yard may be represented in the archaeological record by fence post/post holes, compacted surfaces, isolated artefacts etc.</p> | | |
| Pits—refuse and silage. | <p>Geophysical survey and surface survey has confirmed the existence of a number of silage pits in this zone. These are archaeological relics in their own right (although of limited significance). They may also contain isolated artefacts discarded or lost. The pits would be represented in the archaeological record by cuts in the natural deposits and fill.</p> <p>Work areas often became locations for discarded objects and were sometimes used for waste disposal, eg in pits. There is potential for such pits to exist in this zone. The pits would be represented in the archaeological record by cuts in the natural deposits and artefact-rich fill. Other artefacts may have been dumped on the surface and subsequently covered by soil deposits. These would be shallow concentrations of artefacts.</p> | <p>Refuse—Moderate</p> <p>Silage—High</p> | <p>Refuse—High</p> <p>Silage—Low</p> |
| 1920s tennis court. | A tennis court was constructed to the southeast of the main house in the 1920s, but removed before 1950. The tennis court may be represented in the archaeological record by differences in soil deposits, compact surfaces. | High | Low |
| Driveway and path. | The existing driveway appears to follow the early alignment of former driveways. Geophysical survey identified the compacted surface of the driveway and, below that, features of what may be an earlier road (see Figure 24). The earlier road might be represented in the archaeological record by different soil deposits, gravels and compaction, and kerbing. | High | High |

Research Questions Specific to the Sheds, Drive and Work Areas South of the Main House

- Is it possible to identify and date the building whose footprint was identified by the geophysical survey? Is there any evidence that this building was the original residence of the Hadleys during the construction of the main house?
- What evidence is there of the farm activities that took place on the property? What agricultural products were produced in the early period of occupation?
- What evidence is there of early colonial diet in this area?

- What evidence is there of early agricultural technologies in the area?
- What evidence is there of the site's physical development and change over time?
- What evidence is there of the earliest period of occupation?
- Is there any evidence of the earliest (and changes in) alignment of the drive?

Archaeological Management Regime—Sheds, Drive and Work Areas South of the Main House

Ground Disturbance in the Area of the Possible Original Timber Slab Cottage

Do not undertake works involving ground disturbance in the area identified by geophysical survey as a potential building footprint (see Figure 24).

If environmental conditions (for example erosion) are causing the destruction of the area identified by geophysical survey as a potential building footprint, it would be appropriate to undertake an open area research excavation in order to ensure that valuable data are not lost. In that circumstance, follow the methodology presented above for the Hadley Park footprint (Zone 2 above).

Constructing New Buildings (Amenities, Dwellings etc)

Observe the recommendations and methodologies provided for Zone 5 above.

Introducing New Services

Observe the recommendations and methodologies provided for Zone 5 above.

Landscaping and Ongoing Garden Maintenance, Including Reinstatement of Driveway and Path/Cutting

- The ongoing care and maintenance of garden areas, and the introduction of improved landscaping in this area (such as the reinstatement of the original/early driveway and the path/cutting to the creek to the west), would generally be a positive heritage outcome. Ground disturbance for this purpose is appropriate.
- Ground disturbance in areas and deposits that are already clearly disturbed (for example much used garden beds) can take place without the need for consent (so far as archaeology is concerned). If in doubt, consult an archaeologist.
- Where ground disturbance is required in areas *not* already clearly disturbed:
 - If this AMP has been endorsed by the Heritage Council of NSW, proceed with the works by following the methodology below.
 - If the AMP has not been endorsed by the Heritage Council of NSW, and the works do not form part of a Part 3A Major Project, proceed by way of an Exception application to the Heritage Branch, NSW Department of Planning. The application should recommend the methodology presented below.
 - If the works form part of a Part 3A Major Project, and if the provisions of the Heritage Act do not apply, the works should be undertaken following the methodology below.

Zone 7

- The recommended ground disturbance methodology for works in previously undisturbed areas is:
 - Prior to the works commencing, a site induction of all relevant personnel should be undertaken by a qualified archaeologist, who would explain the obligations of all personnel and the appropriate excavation methodology for the management of the archaeological resource.
 - The proposed works should be carried out in the presence of a qualified archaeologist in order to ensure that potential archaeological relics are identified, investigated and appropriately recorded. Where ground disturbance must occur, this should be undertaken by the archaeologist or another person under their direction.
 - If unexpected relics of local significance or relics in highly disturbed contexts are encountered, they can be removed after being appropriately recorded (in words, photography, survey and measured drawings, as appropriate), and then conserved and stored. This decision should be made only after a full significance assessment has been prepared by an archaeologist. However, relics of State or National significance (for example an in situ early nineteenth century well, nineteenth century refuse pit etc) should be kept in situ. This may require the redesign of landscape designs etc.
 - In reinstating the historic driveway and path, favour an approach that would cause minimal ground disturbance. If the reinstatement of these landscape features requires ground disturbance, and the possible disturbance or destruction of historic surfaces, this would be appropriate because the archaeological impacts would be mitigated by the positive heritage outcomes for the setting of the historic house and buildings. Prior to the ground disturbance occurring, the driveway and path should be investigated by a qualified archaeologist, using a sampling strategy (a minimum of five slit trenches bisecting the driveway and path at regular intervals) and observing the principles of stratigraphic excavation. The archaeologist should ensure appropriate recording (in words, photography, survey and measured drawings) and conservation and storage of movable relics.
 - On completion of the works, a succinct report should be prepared and submitted to the Heritage Branch, NSW Department of Planning that presents the results of the excavation, illustrated by photographs and survey plans and other drawings, as appropriate. It should include a CD-ROM containing an artefact database and the photographic images taken during the works, and a catalogue of those images.
 - Any artefacts that are recovered should be washed, labelled and stored. Arrangements should be made for appropriate conservation to occur where artefacts with particular conservation requirements are found (for example leather and metal artefacts).
- Wherever subsurface disturbance can be restricted, this should be done in order to reduce the impact on any potential archaeological relics at the site.
- If archaeological evidence relating to Aboriginal use of the site is discovered, the Director of the NSW National Parks and Wildlife Service must be notified immediately, in accordance

with Section 91 of the *National Parks and Wildlife Act 1974* (NSW). Appropriate Aboriginal consultation must be undertaken consistent with Department of Environment and Climate Change guidelines.

Conservation and Stabilisation of Farm Buildings

In undertaking the conservation and stabilisation of the farm buildings, seek an option for the floor surfaces that will involve minimal ground disturbance. The most desirable archaeological outcome would be for any archaeological relics in the building footprints to be retained undisturbed and in situ as part of the conserved and stabilised buildings.

If conservation or stabilisation of the farm buildings would cause ground disturbance of the floor areas, the works should be undertaken observing the methodology below:

- In relation to appropriate consents:
 - If this AMP has been endorsed by the Heritage Council of NSW, proceed with the works by following the methodology below.
 - If the works do not form part of a Part 3A Major Project, and the AMP has not been endorsed by the Heritage Council of NSW, proceed by way of an Exception application to the Heritage Branch, NSW Department of Planning (the application should provide for the excavation methodology presented below).
 - If the works form part of a Part 3A Major Project, and if the provisions of the Heritage Act do not apply, the works should be undertaken observing the following methodology.
- Prior to the works commencing, a site induction of all relevant personnel should be undertaken by a qualified archaeologist, who would explain the obligations of all personnel and the appropriate excavation methodology for the management of the archaeological resource.
- The proposed works should be monitored by a qualified archaeologist in order to ensure that potential archaeological relics are identified and appropriately recorded. The archaeologist should be empowered to direct the excavation of the trenches etc and to halt works, as required.
- It would be appropriate for the works to be undertaken using a combination of machine and manual excavation, monitored and directed by an archaeologist.
- Generally, if relics of local significance or relics in highly disturbed contexts are encountered, they can be removed after being appropriately recorded (in words, photography, survey and measured drawings, as appropriate), then conserved and stored. This decision should be made only after a full significance assessment has been prepared by an archaeologist. However, where possible, relics of State or National significance should be kept in situ. This may require the redesign of the conservation or stabilisation measures etc.
- If in situ retention of State significant relics is impossible for overwhelming conservation, health or safety reasons, they may be removed only after this has been demonstrated and by a qualified archaeologist observing the principles of stratigraphic excavation and ensuring appropriate recording (in words, photography, survey and measured drawings, as

Zone 7

appropriate) and conservation and storage of relics. In particular, if evidence of the burned barn is exposed in the form of an ash deposit, this deposit may be an excellent dating device for lower strata. The deposit and lower strata, should any be identified, should be excavated with particular care. (Note: if the works do not form part of a Part 3A Major Project, for significant damage to State significant relics it may be necessary to apply to the Heritage Branch, NSW Department of Planning, for an Excavation Permit.)

- Wherever subsurface disturbance can be restricted, this should be done in order to reduce the impact on any potential archaeological relics at the site.
- In the event that archaeological evidence relating to Aboriginal use of the site is discovered, the Director of the NSW National Parks and Wildlife Service must be notified immediately, in accordance with Section 91 of the *National Parks and Wildlife Act 1974* (NSW). Appropriate Aboriginal consultation must be undertaken consistent with Department of Environment and Climate Change guidelines.
- On completion of the works, a succinct report should be prepared and submitted to the Heritage Branch, NSW Department of Planning that presents the results of the excavation, illustrated by photographs and survey plans and other drawings, as appropriate. It should include a CD-ROM containing the photographic images taken during the works, and a catalogue of those images.

Zone 8—Area West of the House and Outbuildings to the Creek

Potential Relics

| Potential Relics | Possible Archaeological Evidence | Archaeological Potential | Archaeological Significance |
|--|--|--------------------------------|-----------------------------|
| Evidence of former structures and activities undertaken in them. | <p>This area has historically been used for a variety of farm activities and there is the potential for the remains of previous structures to survive here. These might include:</p> <ul style="list-style-type: none"> brick piers, post holes, slabs, brick and concrete wall footings; defunct services; and soil deposits, compact surfaces etc. <p>Archaeological evidence of the activities undertaken in these areas may also survive as isolated artefacts.</p> <p>Historical sources record that Charles Hadley supplied meat to the Government Stores between 1815 and 1824. A slaughter yard may have existed on the site, in which case it may have existed in this general area. Such a yard may be represented in the archaeological record by fence post/post holes, compacted surfaces, isolated artefacts etc.</p> | Low-to-Moderate | High, depending on date |
| Bridges, crossings and path. | The extant path tracking west from the driveway follows a historic alignment to the remains of a bridge. Archaeological evidence of historic crossings, paths etc may survive as compacted surfaces, gravel deposits, timber posts, stone kerbing etc. | High | Moderate |
| Pits—refuse and silage. | A silage pit (possibly also a rubbish pit) is identified in this zone (see Figure 21). A pit is an archaeological relic in its own right. It may also contain artefacts discarded or lost. The pit would be represented in the archaeological record by a cut in the natural deposits and fill (in the case of a rubbish pit the fill would be artefact-rich). | Refuse—Moderate Silage—High | Refuse—High Silage—Low |

Research Questions Specific to the Area West of the House and Outbuildings to the Creek

- What evidence is there of the original and early path alignment?
- Is there any evidence of previous creek crossings (bridges, fords)? What form did they take?
- What evidence is there of the farm activities that took place on the property?
- What evidence is there of the site's physical development and change over time?
- What evidence is there of the earliest period of occupation?

Zone 8

Archaeological Management Regime—Area West of the House and Outbuildings to the Creek

Constructing New Buildings (Amenities, Dwellings etc)

Observe the same management regime as described for Zone 5 above.

Introducing New Services

Observe the same management regime as described for Zone 5 above.

Landscaping and Ongoing Garden Maintenance

Observe the same management regime as described for Zone 5 above.

Zone 9—Area South of Driveway Entrance

Potential Relics

| Potential Relics | Possible Archaeological Evidence | Archaeological Potential | Archaeological Significance |
|--|---|--------------------------|--|
| Evidence of former structures and activities undertaken in them. | <p>This area has historically been used for a variety of farm activities and there is the potential for the remains of previous structures to survive here. These might include:</p> <ul style="list-style-type: none"> brick piers, post holes, slabs, brick and concrete wall footings; defunct services; and soil deposits, compact surfaces etc. <p>Archaeological evidence of the activities undertaken in these areas may also survive as isolated artefacts.</p> <p>Ambiguous historical records suggest that an inn ('The First and Last Inn') may have existed in the vicinity of the main house. All excavation in this vicinity should proceed with this in mind.</p> <p>Historical sources record that Charles Hadley supplied meat to the Government Stores between 1815 and 1824. A slaughter yard may have existed on the site, in which case it may have existed in this general area. Such a yard may be represented in the archaeological record by fence post/post holes, compacted surfaces, isolated artefacts etc.</p> | Low-to-Moderate | High, depending on date |
| Evidence of farm activities carried out in the existing structures, and modifications to those structures over time. | <p>A number of farm structures exist in this zone, including a 1940s dairy and milking shed, hay shed and collapsed sheep shelter.</p> <p>Archaeological evidence of the activities undertaken in these areas may survive as isolated artefacts (discarded or lost), soil deposits, compacted surfaces, brick piers etc.</p> | Low-to-Moderate | High, depending on date |
| Pits/tanks. | <p>A silage pit or water tank has been identified in this zone (see Figure 21). This is an archaeological relic in its own right (although probably of limited significance). It may contain isolated artefacts discarded or lost in the pit/tank. The pit/tank would be represented in the archaeological record by a cut in the natural deposits, fill and, in some cases, sealed sides and base.</p> | High | Low-to-High depending on date and function |
| Wells. | <p>A well has been identified in the northeast corner of this zone (see Figure 21). The well itself is an archaeological feature. Further, artefacts often accumulate in the bottom of wells as a result of deliberate discard and accidental loss.</p> | High | Moderate-to-High |

Zone 9

| Potential Relics | Possible Archaeological Evidence | Archaeological Potential | Archaeological Significance |
|-----------------------------|---|--------------------------|-----------------------------|
| Driveway. | The existing driveway appears to follow the early alignment of former driveways. Geophysical survey identified the compacted surface of the driveway and, below that, features of what may be an earlier road (see Figure 24). The earlier road might be represented in the archaeological record by different soil deposits, gravels and compaction. | High | High |
| Historic fence lines/posts. | This area has been used for agricultural purposes for c200 years and those activities are often reflected in the location of existing and past fence lines. Past fence lines may be represented in the archaeological record by post holes. | Low | Moderate-to-High |

Research Questions Specific to the Area South of the Driveway Entrance

- What evidence is there of the farm activities that took place on the property? What agricultural products were produced in the early period of occupation?
- What evidence is there of early colonial diet in this area?
- What evidence is there of early agricultural technologies in the area?
- What evidence is there of the site's physical development and change over time?
- What evidence is there of the earliest period of occupation?
- Is there any evidence of the earliest (and changes in) alignment of the drive?

Archaeological Management Regime—Area South of the Driveway Entrance

Ground Disturbance Within 5m of Dairy, Hay Shed and Sheep Shelter

Observe the same management regime as described for Zone 5 above (Landscaping, Ongoing Garden Maintenance and Miscellaneous Ground Disturbance).

Ground Disturbance More than 5m from Dairy, Hay Shed and Sheep Shelter

Observe the same management regime as described for Zone 6 above.

Reinstating Driveway

- The ongoing care and maintenance of garden areas and the introduction of improved landscaping in this area (such as the reinstatement of the original/early driveway) would generally be a positive heritage outcome. Ground disturbance for this purpose is appropriate.
- Where ground disturbance is required along the driveway:
 - If this AMP has been endorsed by the Heritage Council of NSW, proceed with the works by following the methodology below.

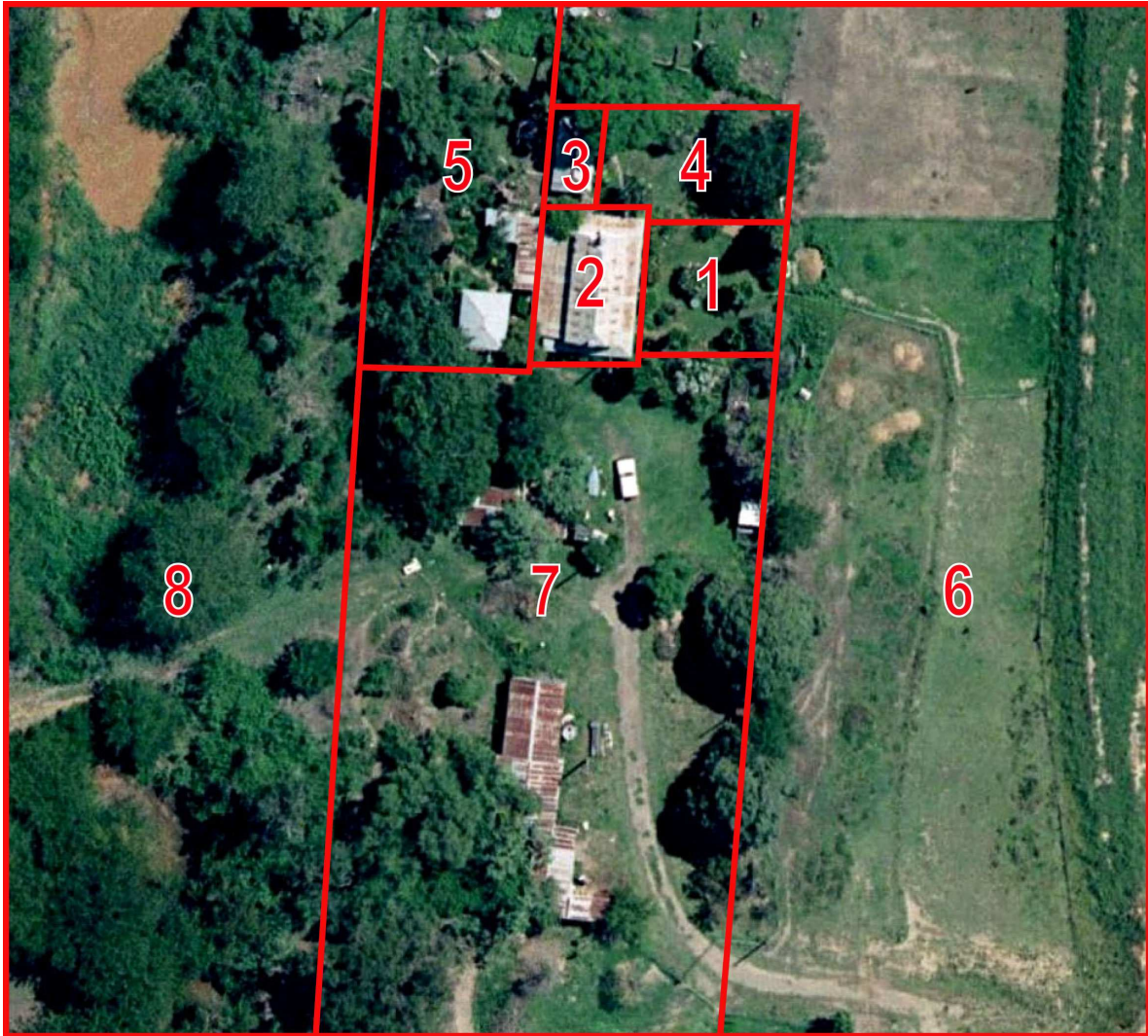
- If the AMP has not been endorsed by the Heritage Council of NSW, and the works do not form part of a Part 3A Major Project, proceed by way of an Exception application to the Heritage Branch, NSW Department of Planning. The application should recommend the methodology presented below.
- If the works form part of a Part 3A Major Project, and if the provisions of the Heritage Act do not apply, the works should be undertaken observing the methodology below.
- The recommended ground disturbance methodology for works along the driveway is as follows:
 - Prior to the works commencing, a site induction of all relevant personnel should be undertaken by a qualified archaeologist, who would explain the obligations of all personnel and the appropriate excavation methodology for the management of the archaeological resource.
 - The proposed works should be carried out in the presence of a qualified archaeologist in order to ensure that potential archaeological relics are identified, investigated and appropriately recorded. Where ground disturbance must occur, this should be undertaken by the archaeologist or another person under their direction.
 - If unexpected relics of local significance or relics in highly disturbed contexts are encountered, they can be removed after being appropriately recorded (in words, photography, survey and measured drawings, as appropriate), and then conserved and stored. This decision should be made only after a full significance assessment has been prepared by an archaeologist. However, relics of State or National significance should be kept in situ. This may require the redesign of landscape designs etc. (Note: if the works do not form part of a Part 3A Major Project, for significant damage to State significant relics it may be necessary to apply to the Heritage Branch, NSW Department of Planning, for an Excavation Permit.)
 - In reinstating the historic driveway, favour an approach that would cause minimal ground disturbance. If the reinstatement of this landscape feature requires ground disturbance and the possible disturbance or destruction of historic surfaces, this would be appropriate because the archaeological impacts would be mitigated by the positive heritage outcomes for the setting of the historic house and buildings. Prior to the ground disturbance occurring the driveway should be investigated by a qualified archaeologist, using a sampling strategy (a minimum of five slit trenches bisecting the driveway and path at regular intervals) and observing the principles of stratigraphic excavation. The archaeologist should ensure appropriate recording (in words, photography, survey and measured drawings) and the conservation and storage of movable relics.
 - On completion of the works, a succinct report should be prepared and submitted to the Heritage Branch, NSW Department of Planning that presents the results of the excavation, illustrated by photographs and survey plans and other drawings, as appropriate. It should include a CD-ROM containing an artefact database and the photographic images taken during the works, and a catalogue of those images.

Zone 9

- Any artefacts that are recovered should be washed, labelled and stored. Arrangements should be made for appropriate conservation to occur where artefacts with particular conservation requirements are found (for example leather and metal artefacts).
- Wherever subsurface disturbance can be restricted, this should be done in order to reduce the impact on any potential archaeological relics at the site.
- If archaeological evidence relating to Aboriginal use of the site is discovered, the Director of the NSW National Parks and Wildlife Service must be notified immediately, in accordance with Section 91 of the *National Parks and Wildlife Act 1974* (NSW). Appropriate Aboriginal consultation must be undertaken consistent with Department of Environment and Climate Change guidelines.

8.0 Endnotes

- ¹ Lavelle, S and A Bickford 1997, DA4 Management Study Heritage Assessment—Penrith Lakes Scheme Area, Castlereagh, NSW.
- ¹ Bickford, A and S Sullivan 1984, 'Assessing the Research Significance of Historic Sites', in Sullivan S and S Bowdler (eds) *Site Surveys and Significance Assessment in Australian Archaeology* (proceedings of the 1981 Springwood Conference on Australian Prehistory), Department of Prehistory, Research School of Pacific Studies, The Australian National University, Canberra.



Site plans with management zones overlaid. The main residence is in Zone 2 and the slab cottage in Zone 3. (Base photo: Google Earth)