

# Assessment of European Heritage for the Dunheved Precinct

*Casey & Lowe*

8 April 2014

Glyn Richards  
Development Manager  
Communities | Lend Lease  
Level 2, 88 Phillip Street, Parramatta NSW 2150

Dear Mr Richards

**RE: Site 3, Central Precinct, St Marys Development Site – DA Application  
Non-Indigenous Archaeology**

The only non-indigenous archaeological site within the Central Precinct is Site 3, Elizabeth Farm. This archaeological site was assessed in 2008, *Archaeological Assessment, Central Precinct, St Marys Development, St Marys, NSW*. Site 3 is an early brickfield site (c. 1807 to 1830s and 1860s/70) thought to be associated with Dunheved (Site 1) a State significant site conserved *in situ* and located within the future Regional Park. The 2008 Archaeological Assessment has recently been reviewed and updated in accordance with the 2009 amendments to the *NSW Heritage Act 1977* and the guidelines for *Assessing significance for historical archaeological sites and ‘relics’* (2009). Site 3 was identified as having potential for State heritage significance through its association with Dunheved as a satellite site for the estate.

Further to this reassessment consultation with Dr Siobhan Lavelle, Senior Team Leader Archaeological Heritage, Heritage Division, Office of Environment & Heritage was undertaken in relation to seeking approval under S139 and S140 of the Heritage Act for the proposed development of Site 3. The agreed approval process requires the:

- Lodgement of a S140 application and Research Design which identifies an appropriate archaeological excavation and reporting strategy, and identification of mitigation measures. The mitigation measures are key to the approval and are to include appropriate interpretation strategy, which is to include the results of the archaeological program, and may incorporate a mixture of the following interpretation approaches:
  - Salvage material from site and either reinstate or interpret as a part of the landscape elements within the open space. This could be done reusing the bricks within walling, seating, gabions and paving etc.
  - Utilise the typical layout/configuration of brickyard as an interpretation within the landscape e.g. ground plain interpretation, the layout of the playground and or picnic facilities to replicate this indicative configuration as indicated in the figure below.
  - Interpretative signage as a part of an overall historical signage trail along the riparian corridor.
  - Signage within the open space to tell the story and make reference to the history. This could include the different stages of the brickmaking process along the trail and the importance of being next to the creek, therefore providing an informative historical journey.

As agreed with Lend Lease Casey & Lowe will be writing and lodging a S140 application seeing approval to remove the archaeology from the site. As part of this approval a detailed archaeological recording of the brickfields site would be undertaken to record buried information and undertake analysis of the brickmaking technology and manufacturing. Hopefully this will assist us with understanding the historical phases of brickmaking at this site.

Please contact the undersigned if you have any questions.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Mary Casey', written in a cursive style.

Dr Mary Casey  
Director

# **STATEMENT OF HERITAGE IMPACT**

## **Dunheved Precincts St Marys Development St Marys, N.S.W**



**(The fence line marks the curtilage between South Dunheved Precinct and the Dunheved Homestead Site)**

**for  
Maryland Development Company**

**January 2007**

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# Statement of Heritage Impact Dunheved Precincts St Marys Development

## 1.0 Study Area<sup>1</sup>

The study area is the North and South Dunheved Precincts (Fig 1). These precincts do not contain any of the identified heritage items scheduled in SREP 30 but the southwestern boundary borders on the State significant archaeological site of the Dunheved Homestead Site (Site 1) which also includes various plantings, some of which are just within its curtilage and therefore immediately adjacent to the study area. There are no standing structures within the study area which was intensively used during the munitions period of operations.

The land immediately within the Dunheved Precincts has some limited potential to contain archaeological remains associated with the adjacent Dunheved Homestead Site, purely on the grounds that this was a large complex of buildings and the defined curtilage of Site 1 is intended to include the core of the site. Any archaeological remains within the Dunheved Precincts are anticipated to be quite limited.

In addition to the works near Site 1, additional works for flood mitigation will be undertaken near Site 2, a group of plantings thought to be associated with the Dunheved Homestead but on the opposite side of South Creek.

## 2.0 Date prepared:

20 December, 2006 and 16 January, 2007.

## 3.0 Statement Prepared by:

This Statement of Heritage Impact was prepared by Dr Mary Casey and reviewed by Tony Lowe of Casey & Lowe Pty Ltd for the Maryland Development Corporation.

## 4.0 Heritage Listings

Immediately adjacent to the study area is the King family Dunheved Homestead Site which is listed on Sydney Regional Environmental Plan No. 30–St Marys, Site 1.

### *Part 7 - Development Controls*

#### *Clause 55*

The lodging of a DA to affect an item of environmental heritage must include:

- significance assessment of the item
- extent to which the item will be impacted by development
- whether aspects of the item should be retained, including horticultural and archaeological elements
- whether the item constitutes a danger to the public.

The consent authority needs to consider a statement of heritage impact or a conservation plan prior to granting of development consent.

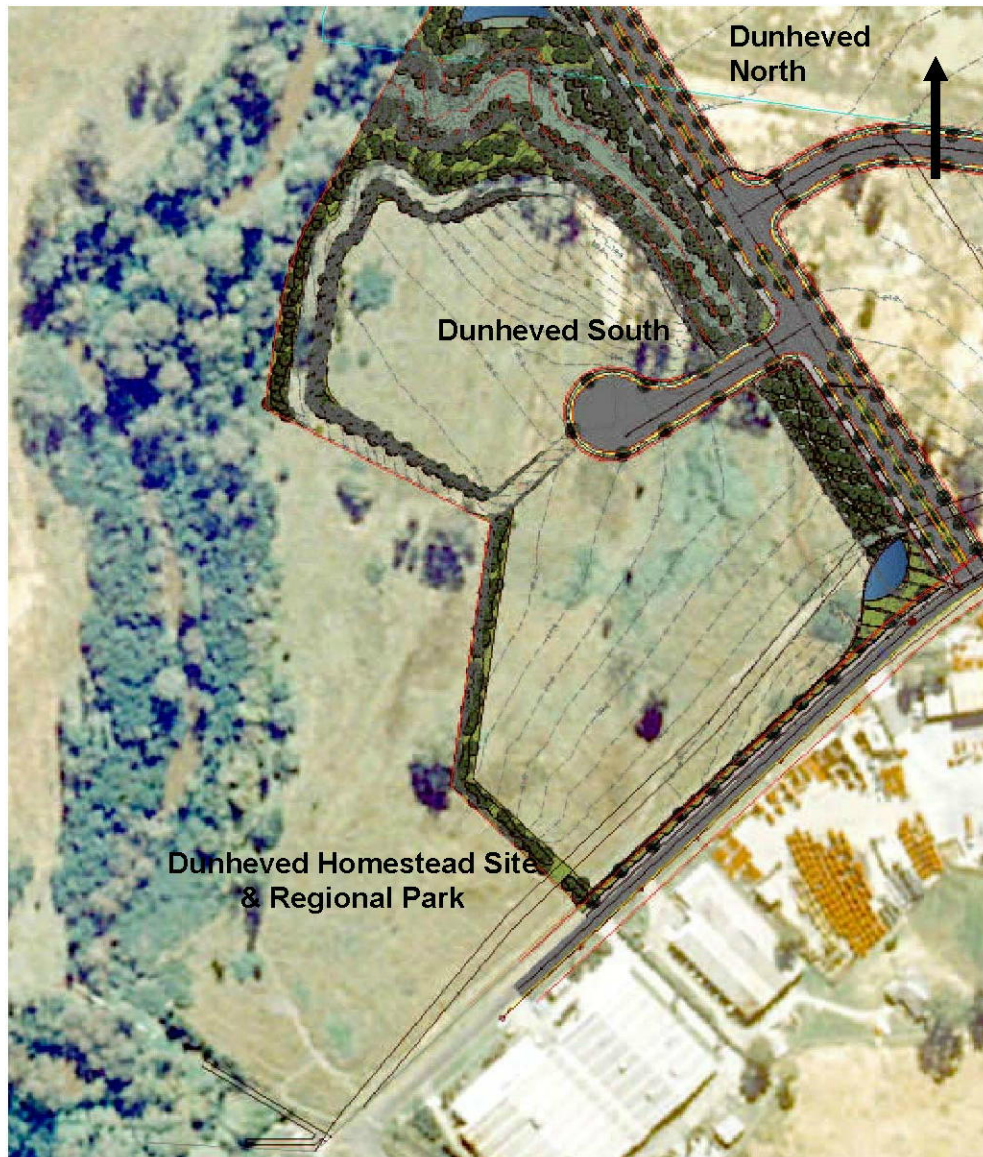
Development consent may be granted on items of non-Aboriginal heritage by the consent authority only if it has considered a statement of heritage impact or a conservation plan relating to the item and the proposed development.

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<sup>1</sup> The structure of this report is based on that suggested in the Heritage Office Guidelines.

**Site 1**, in addition to being listed on SREP 30 is also listed on the Register of the National Estate and because it is an archaeological site it is protected under the s.139, s140 relics provision of the *NSW Heritage Act, 1977*. Under SREP 30, Clause 55, Blacktown City Council is a consent authority for any proposed impacts on this heritage item as the relevant DA authority. The NSW Heritage Office is the consent authority under the relics provisions.

**Site 2**, a group of trees across from South Creek, is also identified in SREP 30.



**Figure 1:** Study area and the adjacent Dunheved Homestead Site.

There are no heritage listings within the North and South Dunheved Precincts but the southern precinct does have limited potential to contain archaeological remains associated with Site 1, the Dunheved Homestead Site, and is therefore subject to the relics provisions of the *NSW Heritage Act, 1977*.

## 5.0 Background

This report is one of a series of heritage reports written on the former ADI Site, St Marys. The first was by Glenda Gartrell and Peter Spearritt for the Masterplan (1992), *History, Heritage and Archaeology of Proposal to Redevelop ADI's Site at St Marys NSW*. This report provided historical

background on the history of the munitions factory as well as some background on the pre-munitions subdivision and land use. The archaeological component of the report mostly dealt with potential for Aboriginal sites.

In 1994 Casey & Lowe surveyed the former St Marys munitions factory site to identify pre-munitions period structures and archaeological sites: *Historical Archaeological Survey St Marys Munitions Factory*. During this process we identified 17 sites, including standing structures. In 1998/99 a further study for Sydney Regional Environmental Plan, No. 30 (SREP 30), which included the study area, was undertaken which identified the significant heritage sites. As a result of the SREP component the important site of Dunheved Homestead Site (Site 1), the home of Governor King's descendants, was excluded from the development area and will be retained *in situ* in the new regional park to be managed and owned by NPWS/DEC. Casey & Lowe have since written a further report on heritage issues associated with the North & South Dunheved Precincts: *Heritage Assessment, Dunheved Precincts, St Marys Development, St Marys* (March 2005). Appendix 1 of that report contained an report by Warwick-Mayne Wilson & Associates *Landscape Heritage & Visual Issues, Arising from Proposed Future Development around Historic Dunheved Homestead Site, St Marys Development* (June 2004).

The Heritage Assessment (March 2005) noted that:

- The identified curtilage for Dunheved Homestead Site should contain all of the important archaeological remains associated with this site of State heritage significance. This site is within the Regional Park and will be owned and managed by DEC and subject to a Regional Park Plan of Management.
- The land within the Dunheved Precincts has limited potential to contain archaeological relics associated with the Dunheved Homestead Site.
  - If such remains are found they will require approval under the s139 of the NSW *Heritage Act* before they can be removed or disturbed.
  - Application will need to be made to NSW Heritage Council to allow for removal and recording of any potential remains within the areas of the Dunheved Precincts.
- The most important views out from the homestead, and toward the homestead, were gained from the west, across South Creek. The opportunity for preserving such views will remain following development of the Dunheved Precinct.
- The boundary between the Dunheved Homestead Site curtilage and the new Dunheved Precincts employment lands needs to be appropriately treated so as to mitigate visual issues associated with any potential filling and raising in this area. Mitigative measures would include:
  - Creating a buffer zone along the eastern and south-eastern curtilage boundary of the employment lands, to screen out or significantly reduce the potential visual intrusion of large structures of the industrial zone, both present and forecast, in those sectors.
    - Appropriate treatment of edges to the mounding or terracing associated with the Dunheved Precincts to ensure that when standing within the historic site people should be less aware — being at a lower level — of the presence of industrial structures.
    - Plant a vegetation buffer with endemic native trees and shrubs to assist in forming a backdrop to the homestead similar to the nineteenth-century images of the site. Native trees will have a better prospect of survival under the foreseen tough site conditions.
    - The buffer should be planted within the Dunheved Precinct Employment Lands.
- The Dunheved Homestead Site should be accessible from the Dunheved Precinct Employment Lands.
- The buffer zone should seek to enhance and frame vistas from the homestead site.
- Opportunities exist for the incorporation of the Dunheved Homestead Site and Dunheved Precincts for interpretative and educational uses and as part of the heritage trail within the Regional Park.

The **Recommendations** arising from the March 2005 Heritage Assessment were:

### Landscape

1. As part of the design process it is important to deal with issues associated with the boundary between the Dunheved Homestead Site curtilage and the Dunheved Precincts to provide an appropriate space for the



future enjoyment of this site and to minimise impacts on its sense of place or appreciation of its visual heritage values.

2. The design of areas adjacent to the curtilage need to take into account issues associated with:
  - proposed higher ground of the Dunheved Precincts
  - appropriate plantings that suit the character of the curtilage landscape and to assist and promote an understanding of this historic place of the Dunheved Homestead Site.
3. A Heritage Impact statement will need to be written as part of DA approval addressing the final concept design solution for the immediately adjacent lands within Dunheved Precincts, so as to assess impacts on the setting and curtilage of the Dunheved Homestead Site.

### **Relics**

4. If any archaeological remains are found within the Dunheved Precincts they can only be removed or disturbed with a s.140 approval from the NSW Heritage Office. Therefore approval (excavation permit application) should be sought prior to the commencement of works in this area. The permit application must include a research design.
5. These development works should be archaeologically monitored.
6. If any remains are found they will need to be recorded in accordance with Casey & Lowe's Archaeological Management Guidelines (Appendix 2).
7. The results from any recording program should be incorporated into an overall interpretation strategy that is to be developed for the St Marys Development and for the Regional Park (subject to PoM).

To provide a visual buffer between the archaeological site a 10m buffer of tree planting was identified in the Precinct Plan.<sup>2</sup>

This Statement of Heritage Impact is written to respond to the requirements identified in point 3 above. This Statement of Heritage Impact draws on a new report by the Warwick Mayne-Wilson & Associates (December 2006), *Heritage & Visual Impact Assessment of the Proposed Changes to the Landform of the Dunheved Precincts* which addresses the landscape issues identified in the above Results and Recommendations. The results of the Mayne-Wilson report are adopted for this Statement of Heritage Impact.

## **6.0 Heritage Significance**

### **Significance of Dunheved Homestead Site:<sup>3</sup>**

The Dunheved Homestead Site has historical, social, architectural and archaeological significance for past, present and future generations. It was associated with the family of Governor King for many years. It was managed by Harriet King for a number of years while her husband was away navigating around South America. It was a well-managed agricultural concern of some renown in nineteenth-century NSW. This site is likely to contain extensive intact archaeological structures, features, deposits and relics that span 140 years of European settlement beginning c. 1807. The excavation and subsequent analysis of this site have the ability to illustrate the evolution of a homestead complex through 140 years of occupation; the changing nature of living and working conditions across the social spectrum, from naval Captain to convict; the evolution of architectural building styles in an early Australian context; general conflict with and adaptation to a new environment; changing settlement patterns; evidence for construction of gender roles in nineteenth-century colonial society; relations between Aboriginal peoples and other relevant research questions. This site is of State heritage significance.<sup>4</sup>

### **Significance of Potential Archaeological Resource within the Dunheved Precincts**

<sup>2</sup> JBA Planning, *Draft Precinct Plan & Development Control Strategy, North & South Dunheved Precincts, St Marys*, June 2006.

<sup>3</sup> Casey & Lowe, March 2005:20.

<sup>4</sup> Adapted from Casey & Lowe 1994:28.

According to the *Heritage Assessment* (p. 21):

It is considered that the established curtilage of the Dunheved Homestead Site will contain 90 to 95 percent of the archaeological remains, including all of the known significant remains. It is possible that some activities extended to the north and east of the identified curtilage for the Homestead Site and therefore may be present within the Dunheved Precincts but these are likely to be more peripheral and not part of the core activities of the homestead.

While there are likely to be impacts from the munitions use of the area there were no specific buildings known in this area for the second-half of the twentieth century. In addition rabbit activities in these areas will also have caused damage to potential archaeological remains.

Any potential archaeological remains outside the curtilage of the Dunheved Homestead Site, while associated with the occupation of the homestead, are likely to be peripheral to the significant archaeological remains within the curtilage. Therefore the predicted potential remains within the South Dunheved Precinct are considered to have Local Significance rather than the State significance of the main Homestead site.

## 7.0 Proposed Impacts

### Landscape Issues<sup>5</sup>

The heritage item at issue in this report is the curtilage of the Dunheved Homestead Site and historic plantings adjacent to and within the curtilage and how they will be impacted by the proposed works within the Dunheved Precincts. These proposed impacts include:

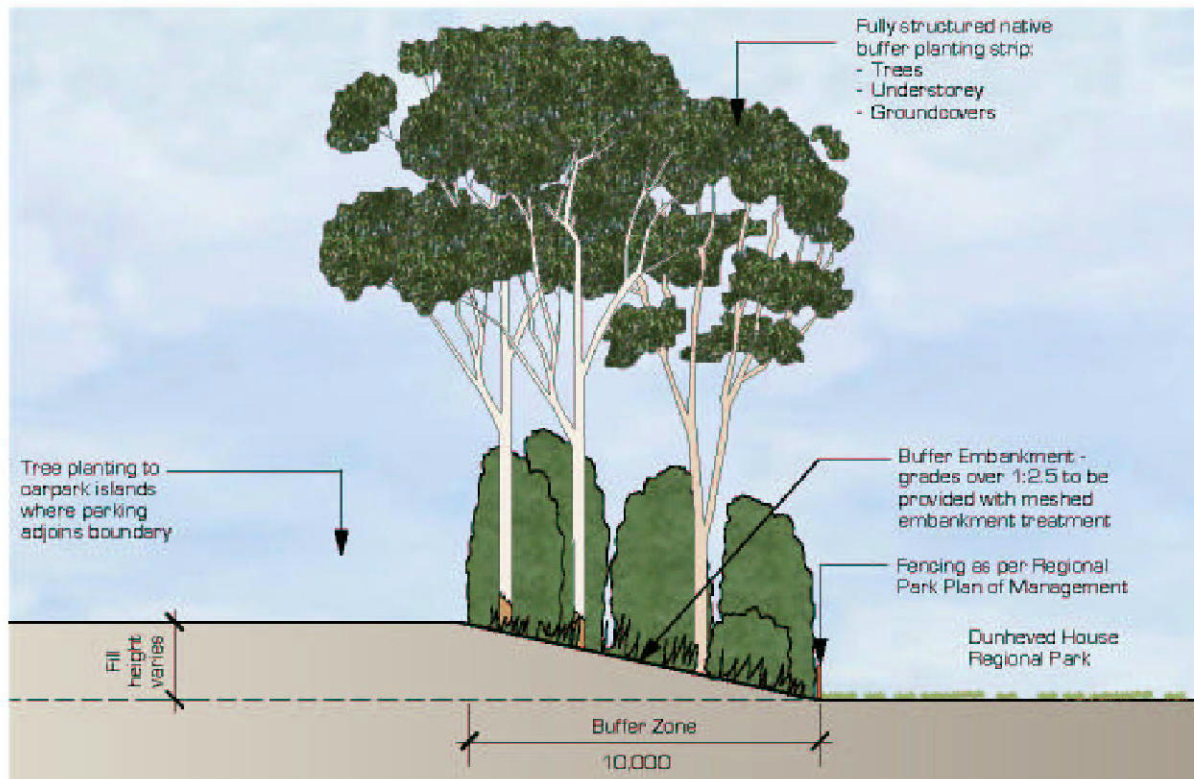
- Raising ground levels on average by 2.5m–3.0m (to be achieved by substantial landfill) over the land to the east of the Dunheved curtilage. This would have the effect of creating a podium for new industrial/commercial structures and would make them even more visually intrusive (See note below about fill depth). This intrusiveness would be heightened if these structures were erected along the edge of the buffer zone, and if the buildings were high. This was recognized by the planners. The Precinct Plan states that buildings within 20m of the boundary of the Dunheved Homestead site are to have a maximum wall height of 7m and a maximum overall height of 9m above finished ground level. This compares with the maximum wall heights for the rest of the precinct of wall height of 8.5m and building (roof apex) of 12m.

In order to further mitigate the visual impact of such structures, and taking into account the suggestions made at the on-site meeting, the landscape architects of Environmental Partnership NSW prepared the following sketches (Figs 2, 3).

**Note:** According to our consultant engineers that the fill depth ranges from 1.5m to 4m along the Precinct boundary with the Dunheved Homestead Site. The depth is typically 1.5m from Links Road to Proposed Road 4 (cul-de-sac off the Collector Road). The fill depth then rises up to 4m but the batter is set back from the boundary at least 7.5m to allow for the provision of a fire access road. This batter will be subject to the same treatment as the batter adjacent to the boundary and described below.

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<sup>5</sup> Mayne-Wilson & Associates prepared a report which addresses heritage visual issues for the Dunheved development.



**Figure 2:** Section showing the planting of the buffer zone adjacent to the Dunheved site. Plantings within the buffer zone are to be placed within the fill. Environmental Partnerships

## Archaeological Issues

### Site Preparation

The potential for archaeology is likely to be limited to within 20m to 30m of the boundary between the Dunheved site and Dunheved South. The following is taken from the Jeffery & Katauskas *Report to the Maryland Development Company on Geotechnical Assessment of Proposed Employment Zone at Dunheved Precinct*, (December 2006). The Geotechnical report (pp. 9-14) indicates:

- That the ground is already highly compacted and should not require any further compaction.
- Most of the remnant vegetation will need to be removed. There are a couple of trees adjacent to the boundary which would need to be removed with caution.
- Where appropriate, silty soils may be mixed with better quality fill to decrease their moisture sensitivity and improve their 'wet strength'.
- All soils will be rolled with a 10 tonne smooth drum vibrating roller. If after 8 passes there are areas indicating disturbance these will be excavated or if deeper than 600mm will be covered with a special layer.
- Disturbed soils will be stripped down to undisturbed natural strata.

This report notes that further details on the nature of the fill are required before all issues associated with site preparation can be identified.

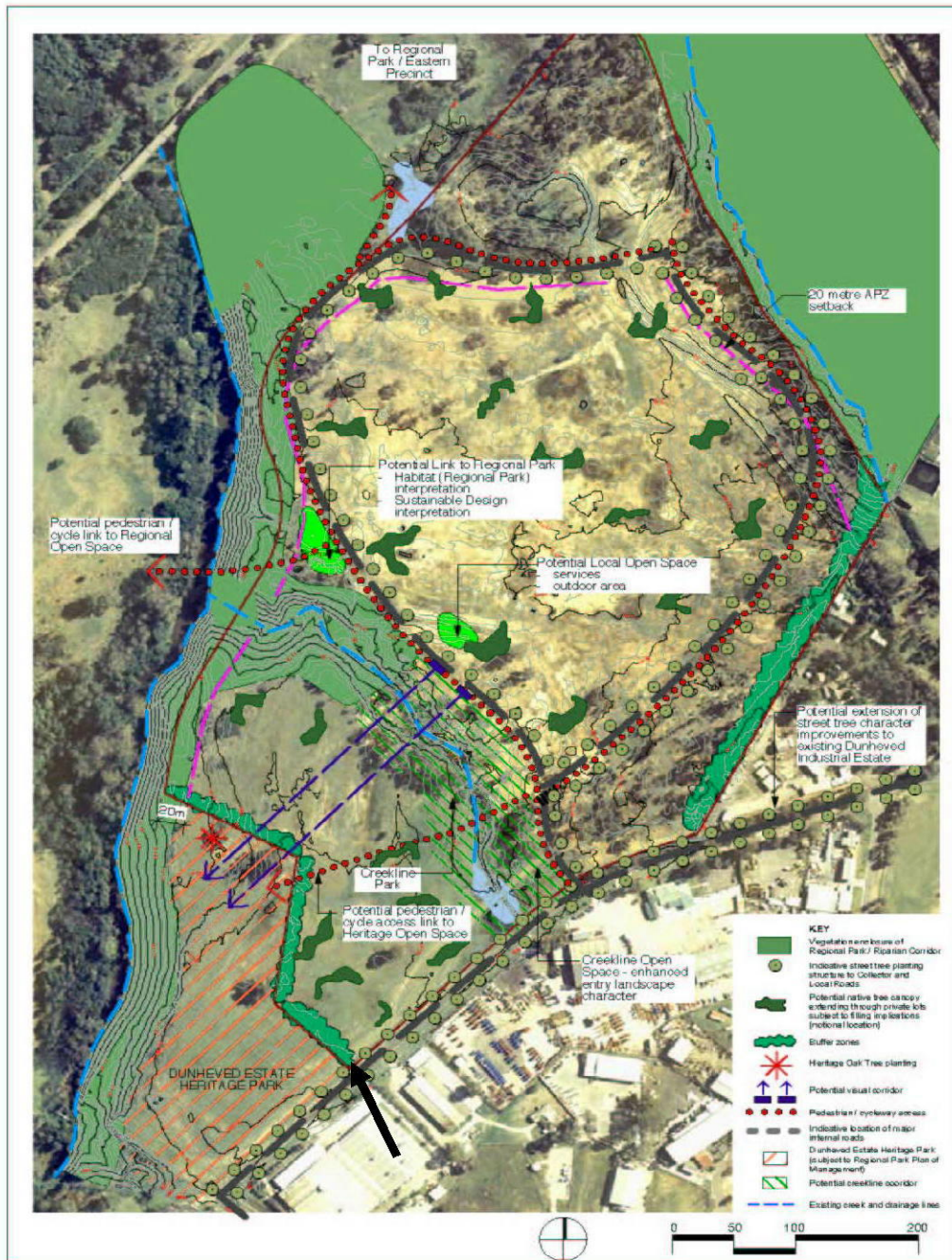
In the Heritage Assessment the possibility of needing to excavate rabbit holes was flagged. The need to remove rabbit holes only refers to ones made in the newly disturbed soils rather than the existing burrows which can be left. Therefore the removal of newly made rabbit burrows is not considered to be an archaeological issue.

In summary the site preparation works indicates that there is potential to disturb any surviving archaeological remains that may survive within the 30m adjacent to the Dunheved Homestead Site boundary. Therefore it is appropriate on this basis to apply for an exception to S139(4) of the

*Heritage Act 1977* which allows for the disturbance of land 'where the excavation or disturbance of land will have a minor impact on the archaeological resource'. This is identified as exception (b). Typically the NSW Heritage Office processes S139/140 approvals following the granting of DA approval but they may also deal with them at this prior to DA approval where there are no major impacts.

### Planting of Buffer Zone

Advice from Adam Hunter, Environmental Partnerships indicates that 'planting within the buffer zone will require up to 500mm depth planting pit excavations. It is noted that the majority of this will be in fill and so will not require excavation into existing ground'.<sup>6</sup>



**Figure 3:** Landscape plan indicating the planting of the buffer zone (arrowed) along the boundary fence between Dunheved Homestead Site and Dunheved South Precinct. Environmental Partnerships

<sup>6</sup> Adam Hunter, Environmental Partnerships, pers. comm. 20/12/2006.

## 8.0 Discussion of Proposed Impacts

### Landscape

Taken from Mayne-Wilson & Associates (December 2006:8).

It would appear that a reasonable balance has been struck between the need to provide some visual separation between the Dunheved Homestead Precinct and the establishment of the proposed industrial zone to the east by means of a sloping and densely planted 10m wide buffer zone along the Homestead site curtilage. The location of possible future car parking rather than industrial structures along the edge of the buffer zone, and lower building heights along that edge, would assist in mitigating the visual impact of those structures.

The increased height of the buffer to 4m in the northern sector of the curtilage boundary is less than ideal, but fortunately this is at the furthest end of the Homestead Precinct away from the site of the former Homestead itself. In addition, there will be a fire road between the boundary and the beginning of the batter slope, which should help mitigate its impact. So too would the implementation of the planting treatment as depicted in Figure 5 (Fig. 3 this report).

### Archaeology

There is limited potential for archaeological remains to survive within 30m of the boundary of the Dunheved Homestead Site within the Dunheved South Precinct. As the first 10m is to be a buffer zone between the boundary fence and the development areas this further limits the potential to disturb any archaeology that survives within the development precincts.

#### **The proposal impacts on the heritage significance of the item in the following way:**

There is limited impact on the significance of the Landscape and Visual issues as the main views out from the Homestead, and toward the homestead, were gained from the west, across South Creek. The opportunity for preserving such views will remain following development of the Dunheved Precinct.

There is likely to be some limited impact on the limited archaeological remains predicted to survive within 30m of the Dunheved Homestead Site boundary, within the South Dunheved Precinct. The first 10m of this is within a buffer zone. Potential remains within the South Dunheved Precinct are considered to have local heritage significance.

## 9.0 Site 2: Heritage Trees

The trees at site 2 are adjacent to areas which were raised as part of a munitions-period embankment (Fig. 4). These trees are addressed in the Mayne-Wilson & Associates report (p5-6). One of the trees, an old Stone Pine was struck by lightning in the last few years and is now dead. The bifurcated Bunya is at the edge of the embankment but it is considered that this tree can be retained. The lowering of the embankment is considered unlikely to impact on the trees, other than the dead one in the middle of the embankment. The Mayne-Wilson report (p. 8) concluded:

The lowering of the height of the old railway embankment in the proposed regional park on the western side of South Creek by 0.5m is not likely to have any significant impact on the heritage trees. Although the Stone Pine (Fig. 7) was judged to be within the western end of the embankment, it will need to be removed in any case because it is dead. The two Bunyas to the south-west of it (Fig. 8) are not located within the embankment. However, the Bunya Pine closest to South Creek (Fig. 6) is at the foot of the northern edge of the embankment, and care should be taken to ensure that no cut or fill occurs within the area covered by the dripline of its canopy.

Therefore the lowering of the embankment is not considered to have an impact on the significant heritage trees in this area but due care needs to be taken so as not to impact on trees adjacent to the embankment.

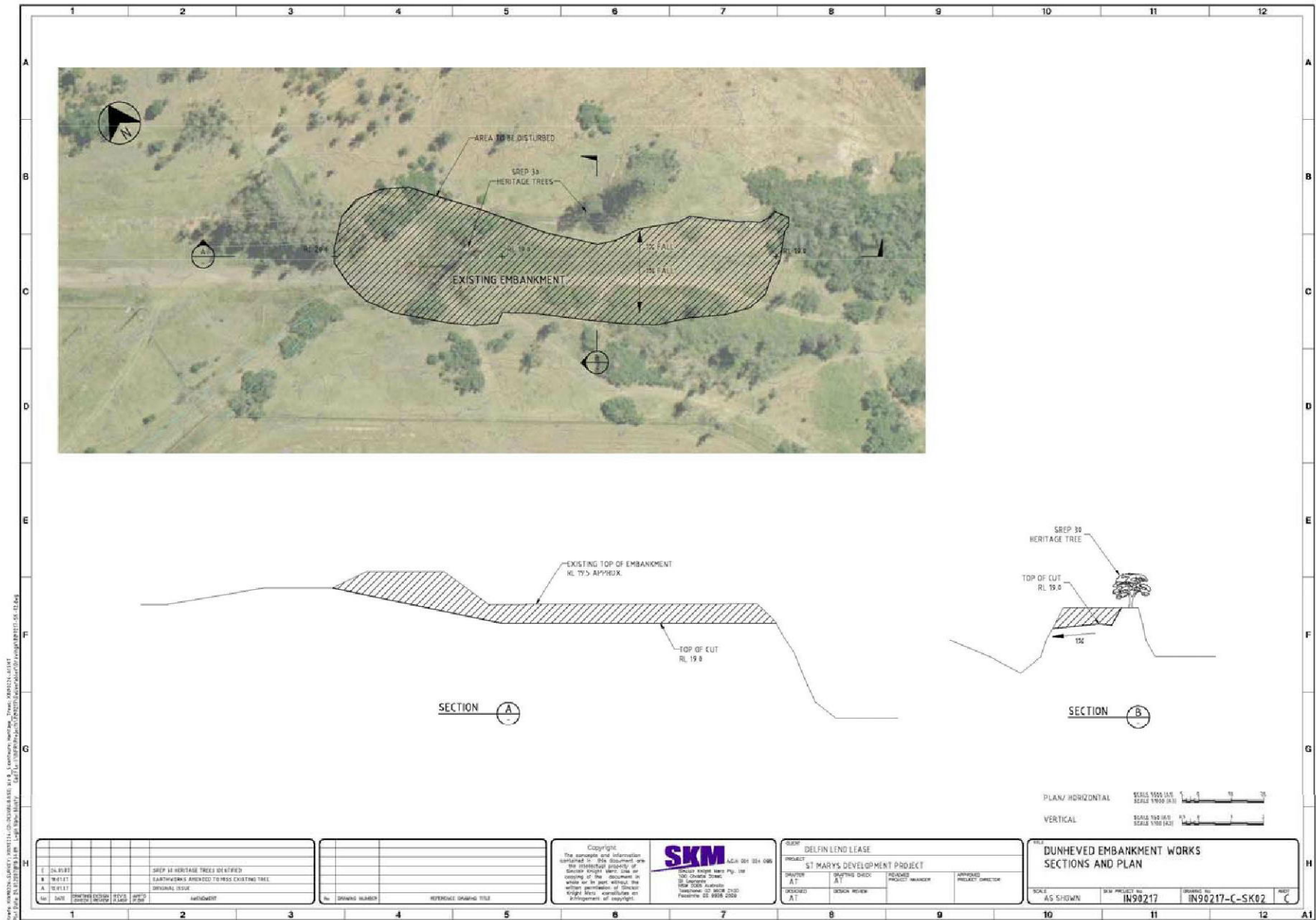


Figure 4: Plan of the extent of the embankment and the location of the heritage trees at Site 2. Note that the tree in the middle of the embankment is the dead tree killed by a lightning strike. SKM

## 10.0 Recommendations

1. The design of the buffer, with the sloping ground and recommended plantings, and the placement of carparking areas adjacent to the buffer should be implemented as part of the management and protection of the curtilage of the Dunheved Homestead Site and the Regional Park.
2. A s139(4) exception should be applied for to allow monitoring of the site preparation for the layering of fill.
3. If archaeological remains are found during site preparation they should be recorded according to best practice and Casey & Lowe's *Procedure Manual*.
4. The Site 2 heritage trees need to be cordoned off with appropriate fencing so as to avoid any inadvertent impacts on the trees during the lowering of the earthworks in this area. No excavation should be undertaken within the dripline of the canopy of the trees. The works team responsible for the removal of the embankment have to be appropriately inducted about the trees, so as to make sure there are no inadvertent impacts on them.

### List of Figures:

**Figure 1:** Study area and the adjacent Dunheved Homestead Site. Masterplan.

**Figure 2:** Section showing the planting of the buffer zone adjacent to the Dunheved site. Plantings within the buffer zone are to be placed within the fill. Environmental Partnerships.

**Figure 3:** Landscape plan indicating the planting of the buffer zone (arrowed) along the boundary fence between Dunheved Homestead Site and Dunheved South Precinct. Environmental Partnerships.

**Figure 4:** Plan of the extent of the embankment and the location of the heritage trees at Site 2. Note that the tree in the middle of the embankment is the dead tree killed by a lightning strike.  
SKM