

# Tarrone Gas-fired Power Station and Gas Pipeline, Victoria: Cultural Heritage Assessment

July 2009

**Final Report for  
URS Australia Pty Ltd**

**Tarrone Gas-fired Power  
Station and Gas Pipeline,  
Victoria: Cultural Heritage  
Assessment**

July 2009

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## ABBREVIATIONS

|        |  |
|--------|--|
| AAV    | Aboriginal Affairs Victoria (Heritage Services Branch)                 |
| AHA    | <i>Aboriginal Heritage Act 2006</i>                                    |
| AHC    | Australian Heritage Commission   |
| AMG    | Australian Map Grid  |
| BP     | Before Present   |
| CHMP   | Cultural Heritage Management Plan                                      |
| CHP    | Cultural Heritage Permit   |
| DCNR   | Department of Conservation and Natural Resources (now DNRE)            |
| DNRE   | Department of Natural Resources and Environment                        |
| DPCD   | Department of Planning, Community and Development                      |
| DSE    | Department of Sustainability and Environment (formerly DNRE)           |
| DOI    | Department of Infrastructure   |
| DVC    | Department for Victorian Communities                                   |
| EES    | Environment Effects Statement  |
| EVC    | Ecological Vegetation Class  |
| GMTOAC | Gunditj Mirring Traditional Owners Aboriginal Corporation              |
| HV     | Heritage Victoria (DSE)  |
| HVI    | Heritage Victoria Inventory  |
| HVR    | Heritage Victoria Register   |
| ICOMOS | International Council on Monuments and Sites                           |
| LCC    | Land Conservation Council  |
| RAP    | Registered Aboriginal Party  |
| RNE    | Register of the National Estate  |
| VAHR   | Victorian Aboriginal Heritage Register (maintained by AAV)             |
| VAS    | Victoria Archaeological Survey (now part of AAV and Heritage Victoria) |
| VCAT   | Victoria Civil and Administrative Claims Tribunal                      |

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## SUMMARY

This report details the results of a standard cultural heritage investigation of the proposed Tarrone Gas-fired Power Station and 2 Gas Pipeline options, a North-West Option and East-West Option, Victoria (see Figures 1 and 2). Biosis Research Pty. Ltd. was commissioned by URS Australia Pty Ltd to investigate the area potentially affected by proposed works and to identify any cultural heritage constraints on the development. The areas of highest impact at the proposed gas power station project are located approximately 500 metres north of the intersection of Riordans road and Landers lane as well as the crossings of creeks and waterways.

The study area is located within the Moyne Shire, 8 kilometres south-west of Willatook, Victoria, approximately 297 kilometres west of Melbourne. Two pipeline corridors are under consideration to provide a connection from the SEA gas pipeline to the proposed Tarrone Power Station (Figures 1 and 2).

### *North-South Option*

The North-South Option is approximately 10 kilometres long running adjacent to Landers Lane, crossing Woolsthorpe-Heywood Road and terminating at the SEA Gas pipeline approximately 500 metres north of Kangertong Road (Figures 1 and 2). The North-South Option traverses numerous stony basalt knolls, drainage lines, and low lying areas prone to seasonal inundation. The study area included a buffer area of variable width up to 400 metres either side of the proposed pipeline (Figure 2).

### *East-West Option*

The East-West Option is approximately 8 kilometres long following the on title access to Tarrone North Road, then north along Tarrone North Road for about 500 metres, then east-north-east to the Willatook Valve Station on the SEA Gas pipeline, crossing Back Creek, Coomete Road and Willatook-Warrong Road (Figures 1 and 2). The East-West Option traverses mostly improved pasture dominated by exotic grasses, but also traverses Back Creek, includes two stony basalt knolls, several drainage lines and low lying areas prone to seasonal inundation. The study area included a buffer area of 100m on both sides of the proposed pipeline (Figure 2).

A surface survey of the study area was carried out between 25 - 29 May, 2009 by Andrew Orr, Tamarind Meara and Danielle Gorke (Biosis Research Pty. Ltd.); Lindsay Saunders, Eloise Saunders, Tim Church, Simone Sailor, Tom Day, Leon Walker, Candina Kanda and Melissa Lovitt (Gunditj Mirring Traditional Owners Corporation) and Travis Harradine and Jason Clark (Framlingham Aboriginal Trust).

### **Aboriginal Archaeological Places**

Background research indicates that 7 Aboriginal archaeological sites have been previously recorded within a five kilometre radius of the study area. These Victorian

Aboriginal Heritage Register (VAHR) sites consist of 4 Aboriginal earth mounds and 3 artefact scatters. These previously recorded sites are mostly found around the watercourses or temporary lakes within the wider region.

No new Aboriginal archaeological sites were recorded during the survey; however, several areas of potential Aboriginal archaeological sensitivity were identified. These are located in areas of stony rises and ridge lines, Back Creek, ephemeral creek lines and prior waterways (Figures 5a-5k). Under s.46 of the *Aboriginal Heritage Act 2006* and Aboriginal Heritage Regulations 2007 s.6, a Cultural Heritage Management Plan (CHMP) is required if a high impact activity occurs within an activity area which contains an area of cultural heritage sensitivity (Recommendation 1).

### Historical Archaeological Places

Background research indicates that two historical archaeological sites are listed on the Heritage Inventory within a five kilometre radius of the study area. No new historical sites or areas of European historic sensitivity were identified during the survey area; however a dry stone wall site was recorded within ten metres of the study area boundary. The wall was assessed as having no historical archaeological value however it is of local historical significance. Furthermore, there is low potential for proposed works to impact on historical cultural heritage within the study area.

## MANAGEMENT RECOMMENDATIONS

The most effective form of heritage management is to avoid impact on heritage places during the initial planning stages. Hence, where practicable, the responsible authority should endeavour to avoid impacting on known heritage places. The following recommendations indicate legislative requirements and ways in which best cultural heritage practice may be maintained. These recommendations were devised in consultation with Lindsay Saunders, Tim Church, Candina Kanda, Tom Day, Melissa Lovett and Simone Sailor from the Gunditj Mirring Traditional Owners Corporation (GMOAC) and Jason Clarke and Travis Harradine from the Framlingham Aboriginal Trust.

### Recommendation 1

Under s.46 of the *Aboriginal Heritage Act 2006* and Aboriginal Heritage Regulations 2007 s.6, a Cultural Heritage Management Plan (CHMP) is required if any activity that is considered high impact occurs within any part of the activity area that is regarded culturally sensitive. The background research and survey for this project identified areas of Aboriginal cultural sensitivity within the study area (Figures 5a-5k). Identified areas of sensitivity within the North-South and East-West Options include: prominent stony rises; 200m either side of the crossing at Back Creek (specifically East-West Option); 100m



from ephemeral creek lines and crest of ridges overlooking floodplains. A Cultural Heritage Management Plan is **mandatory** for the entirety of any future construction works in the study area according to the Aboriginal Heritage Regulations 2007–

The construction of a building or the construction or carrying out of works on land is a high impact activity if the construction of the buildings or the construction or carrying out of the works would result in significant ground disturbance; and is for or associated with the use of the land for a linear project that is the construction of a pipeline with a length exceeding 500 metres, and or, land used to generate electricity - Division 5, s.43 (1) (a)(b) (xxiii and xxvi).

Furthermore, according to s.49, a CHMP is mandatory if an Environmental Effects Statement is required for the project.

A CHMP would require a complex assessment (sub-surface testing) of the identified areas of sensitivity within the proposed activity area, constituting the north-south pipeline construction easement of 25 metres or the east-west pipeline construction easement of 25 metres and the proposed gas fired power station site at Riordans Road. It should be noted that any CHMP required for either of the proposed options would not require additional standard assessment as the present cultural heritage assessment would be incorporated into any submitted plan. After completion of additional complex assessment recommendations would be made for management of any sites found. The CHMP would then be lodged with the relevant RAP or the Secretary, DPCD, for assessment.

## Recommendation 2

If Aboriginal archaeological sites are identified during works, they must cease immediately and a qualified archaeologist must be contacted to record and assess the site.

Prior to the recommencement of works in the vicinity of recorded cultural heritage sites, an application for a Cultural Heritage Permit will need to be submitted to the relevant Registered Aboriginal Party/Parties for the study area (RAP/s). If there is no RAP/s established in the study area at the time the permit is applied for, it will be processed by the AAV Cultural Heritage Secretary. The application can take up to 30 days to be processed, and will incur a cost of \$506.90.

## Recommendation 3

It is possible, although highly unlikely, that human remains are located within the study area and may be disturbed during works. In this instance, all work in the area must cease and the Police or State Coroner's Office must be immediately notified. The State Coroners Office can be contacted on (03) 9684 4444. If there are reasonable grounds to suspect that the human remains are Aboriginal, then Aboriginal Affairs Victoria must also be notified on 1300 888 544. For detailed information about the procedure to be followed please see Appendix 3.

## Historical Sites

### Recommendation 4

Although no historical sites were recorded during the survey, sub-surface sites may be impacted upon by the proposed works. In accordance with the *Victorian Heritage Act* 1995, if any previously unrecorded historical archaeological sites are uncovered during the proposed activities, works must stop immediately in the vicinity, the discovery reported to Heritage Victoria and a qualified archaeologist need to be engaged to appropriately record the sites.

### Recommendation 5

In the event of a historical place being identified during the proposed construction the proponent of the development would be required to obtain consent to disturb or destroy the site from Heritage Victoria.

Archaeological reports and the management recommendations contained therein will be independently reviewed by the Heritage Services Branch of Aboriginal Affairs Victoria, the relevant Aboriginal community and Heritage Victoria.

Although the findings of a consultant's report will be taken into consideration, recommendations in relation to managing heritage place should not be taken to imply automatic approval of those actions by Aboriginal Affairs Victoria, the Aboriginal community or Heritage Victoria.

## 1.0 INTRODUCTION

Cultural heritage legislation protecting Aboriginal and non-Aboriginal heritage places applies in Victoria. These places are an important part of our heritage; they represent evidence of more than 30,000 years of occupation of Victoria by Aboriginal people and of the more recent period of settlement by non-Aboriginal people.

Heritage places can provide us with important information about past lifestyles and cultural change. Preserving and enhancing these important and non-renewable resources is encouraged.

It is an offence under sections of legislation to damage or destroy heritage sites without a permit or consent from the appropriate body (see Appendix 3 for a complete discussion of relevant heritage legislation and constraints).

When a project or new development is proposed, it must be established if any cultural heritage places are in the area and how they might be affected by the project. Often it is possible to minimise the impact of development or find an alternative to damaging or destroying a heritage place. Therefore, preliminary research and survey to identify heritage places is a fundamental part of the background study for most developments.

The first stage of a study incorporates background research to collect information about the land relevant to the proposed development project (the study area). A second stage often involves a field inspection of this area.

Possibly the most important part of the study involves assessing the cultural heritage significance of heritage places in the study area. Understanding the significance of a heritage place is essential for formulating management recommendations and making decisions.

The subject matter of this report involves the use of a number of technical words and terms with which the reader may be unfamiliar. An extensive glossary has been included at the end of the report and reference to this may be of assistance.

## 1.1 Project Background

This report contains the results of an Aboriginal and historical cultural heritage assessment for the proposed Tarrone Gas-fired Power Station and 2 Gas Pipeline Options, a North-South Option and East-West Option (Figures 1 and 2).

Biosis Research Pty. Ltd. was commissioned by URS Australia to investigate the area between Riordans Road, Willatook and Kangertong Road, Hawkesdale West affected by a future Tarrone gas power station and associated gas pipeline options with the purpose to identify any cultural heritage constraints on proceeding with the proposed activity. This report contains results and recommendations, based on the field survey and background research.

The study area is located within the Moyne Shire, 8 kilometres south-west of Willatook, Victoria, approximately 297 kilometres west of Melbourne. Two pipeline corridors are under consideration to provide a connection from the SEA gas pipeline to the proposed Tarrone Power Station (Figures 1 and 2).

### *North-South Option*

The North-South Option is approximately 10 kilometres long running adjacent to Landers Lane, crossing Woolsthorpe-Heywood Road and terminating at the SEA Gas pipeline approximately 500 metres north of Kangertong Road (Figures 1 and 2). The North-South Option traverses numerous stony basalt knolls, drainage lines, and low lying areas prone to seasonal inundation. The study area included a buffer area of variable width up to 400 metres either side of the proposed pipeline (Figure 2).

### *East-West Option*

The East-West Option is approximately 8 kilometres long following the on title access to Tarrone North Road, then north along Tarrone North Road for about 500 metres, then east-north-east to the Willatook Valve Station on the SEA Gas pipeline, crossing Back Creek, Coomete Road and Willatook-Warrong Road (Figures 1 and 2). The East-West Option traverses mostly improved pasture dominated by exotic grasses, but also traverses Back Creek, includes two stony basalt knolls, several drainage lines and low lying areas prone to seasonal inundation. The study area included a buffer area of 100m on both sides of the proposed pipeline (Figure 2).

The areas of highest impact at the proposed gas power station project are located approximately 500 metres north of the intersection of Riordans road and Landers lane as well as the crossings of creeks and waterways.

The proposed works include:

- Construction of a Gas fired peaking power station.

- Construction of a gas pipeline to connect with the existing SEA gas pipeline.

## 1.2 Aims

The major objectives of this archaeological assessment are:

- to undertake background research into the archaeology, history and environmental context of the study area;
- to locate any Aboriginal or historical cultural heritage places, or areas of potential sensitivity, within the study area using a systematic field-survey strategy;
- to establish the views of the relevant Aboriginal community(ies), and of any other groups with a special interest in the cultural heritage of the study area, on the significance of any cultural heritage places and on appropriate management procedures;
- to provide a clear description of the cultural heritage values of the study area;
- to assess the potential impacts of the proposed development works on cultural heritage sites or areas of archaeological sensitivity;
- to provide an assessment of the implications for the project arising from relevant heritage and planning legislation; and
- to write a report detailing the results of the above investigation according to the standards required by the *Guide to Preparing Aboriginal Cultural Heritage Management Plans (2007)*.

## 1.3 Consultation

Before undertaking surveys for heritage places there is a statutory requirement to notify Heritage Victoria and the Heritage Branch of Aboriginal Affairs Victoria - the State government agencies responsible for Aboriginal and non-Aboriginal heritage places and the relevant Aboriginal communities (Gunditj Mirring Traditional Owners Corporation and Framlingham Aboriginal Trust).

### 1.3.1 Consultation with Aboriginal Communities

The relevant local Aboriginal organisations responsible for the study area are the Gunditj Mirring Traditional Owners Corporation and Framlingham Aboriginal Trust. Both Aboriginal organisations were contacted prior to fieldwork and invited to participate in the

field survey. The study area was surveyed between 25 - 29 May, 2009 by Andrew Orr, Tamarind Meara and Danielle Gorke (Biosis Research), Lindsay Saunders, Eloise Saunders, Tim Church, Simone Sailor, Tom Day, Leon Walker, Candina Kanda and Melissa Lovitt (GMTOAC) and Travis Harradine and Jason Clark (Framlingham Aboriginal Trust).

During the survey, the consultant discussed recommendations with representatives from the GMTOAC and the Framlingham Aboriginal Trust. A draft of this report has been supplied to the Gunditj Mirring Traditional Owners and the Framlingham Aboriginal Trust for comment.

### 1.3.2 Consultation with Heritage Victoria

Heritage Victoria must be informed when a survey that aims to identify historical archaeological sites is to be undertaken by submitting a standard form (Notification of Intent to Conduct a Survey) under section 131 of the *Heritage Act* 1995. A completed notification form was forwarded to Heritage Victoria on 29 May 2009. Acknowledgement of receipt of this notification is in Appendix 1. Heritage Victoria allocated the project number 3587 to this study.

The Victorian Heritage Inventory, Heritage Overlay, National Trust, Register of the National Estate, and Heritage Register were checked for information about historical archaeological sites, other heritage places and archaeological studies.

## 1.4 Authorship

Tamarind Meara and Bridgette Slavin completed the report; Tamarind Meara, Andrew Orr and Danielle Gorke carried out the required field work; Kendal Houghton undertook additional background research and Paul Young compiled all the figures. Matt Schlitz edited and reviewed the report for quality assurance.

## 2.0 ENVIRONMENTAL BACKGROUND

The environmental information is important to consider in archaeological assessments as it provides a broader context in which to view archaeological sites and understand how they are formed and have changed over time. Geology and geomorphology are valuable in contributing information on past environments and climate, and allow an understanding of where sites might be found in the landscape, how old they may be, and how landscape alterations have influenced them over time.

### 2.1.1 Geology and Landforms

The study area is located within the west Victorian Volcanic Plains. Volcanic activity has had a major impact on the south western Victorian landscape. Eruptions in this region continued from the late Tertiary Period through to the Pleistocene (LCC 1996:22). Extensive sheets of basalt blanket the underlying Tertiary (Palaeozoic) sediments (LCC 1996:22). The elevation of the plain ranges from about 110 to 170 metres above sea level with numerous lakes formed in depressions created by the activity.

The primary landforms within the study region are the Giringurrup and Dunkeld Basalts; alluvial flats; stony rises; swamp and lake deposits (LCC 1996:22)

Volcanic eruptions on the western plains continued until the 7200 years ago (LCC 1996:23). These flows are mainly from the recent epoch, characterised by plains broken and fractured lava, lava domes, valley flows and numerous scoria cones rising 120 to 150m above the plain. The rises are made up of basalts, tuff, scoria and ash.

Dunkeld Basalt – around Dunkeld and west of Penthurst, volcanic activity gave rise to thick valley lava flows extending 38kms, dating to the Quaternary age (Jenkin et al 1988:368). Examples are provided in the basalt of Bald Hill near Macarthur, northwest of the study area.

Similar to the Dunkeld Basalt, the Giringurrup Basalt situated southwards from Mount Rouse towards Port Fairy are stony rises basalt flows which have been slightly modified by weathering and erosion (Jenkin et al 1988:368).

Fresh and brackish swamps and lakes are common in parts of the tablelands and basalt plains. Formed by the damming of former waterways from basalt flows, many of the swamps are elongated west-northwest parallel to the calcarenite ridges. Various Holocene and Quaternary sediments were deposited in these swamps and lakes. The most abundant materials are sand; silt; peat; limestone and gastropods (Jenkin et al 1988).

Alluvial Flats - The Moyne River forms the eastern boundary of the study area. A basalt flow can be found following the Moyne River valley. The Moyne River valley and its outlet

into Belfast Lough contain alluvial flats. The stream alluvium contains sand, gravel and minor swamp deposits.

The most common soils are bleached dark duplex soils, the topsoil being wind-deposited sandy material, over basalt-sourced clays. These soils have a high nutrient value, adequate available moisture and are often seasonally waterlogged.

#### 2.1.1.1 Resources

The most common material in the area would have been quartz, flint and basalt. Flint commonly washed up on beaches to the south and south west of the study area. Scott-Virtue (1982: 35-36) reports that the last large removal of flint nodules from the limestone cliffs of South Australia was approximately 6000 years ago. Basalt can be found in the Moyne River valley and quartz can be found in the rivers of the wider area, such as the Moyne, Hopkins and Merri.

#### 2.1.2 Climate

The climate of the study area has been relatively stable for the last 5000 years with warm dry summers and mild wet winters. Prior to about 10,000 years ago (particularly at the end of the Last Glacial Maxim around 18,000 years ago) conditions were cooler and drier than today, but may have still resulted in relatively abundant resources on which Aboriginal people depended.

The Willatook region is located in a temperate climate with four seasons: summer, autumn, winter and spring. Averages from the Warrnambool Airport, East of Port Fairy provide an indication of the climate in the study area. February is the hottest and driest month with an average maximum temperature of 23.5 degrees Celsius and an average of 34.5 millimetres of rainfall (Bureau of Meteorology 2009). Winter is the coldest and wettest season with an average maximum temperature of 13.0 degrees Celsius and an average rainfall of 108.8 millimetres (Bureau of Meteorology 2009). Annually the region experiences an average maximum temperature of 17.9 degrees Celsius with a minimum of 8.3 degrees Celsius and an average rainfall of 909 millimetres (Bureau of Meteorology 2009).

#### 2.1.3 Flora

The predominant natural vegetation type of the region (west Victorian volcanic plains) was *plains grassy woodlands* with low densities of river red gum trees (*Eucalyptus camaldulensis*) or drooping she-oaks over a ground layer of perennial wallaby (*Austrodanthonia caespitosa*) and spear grasses. Along the streams on these plains, *Riverine grassy woodland complexes* with river red gum (*Eucalyptus camaldulensis*) and tussock grasses occurred in narrow strips (Natural Resources and Environment 1997).



The current study area of the North-South Option supports two ecological vegetation classes as well as introduced vegetation. Stony Knoll Shrubland (EVC 649) occurs on rocky rises throughout the study area, while much of the remaining area comprises of Plains Grassy Wetland (EVC 125). The East-West Option comprises mostly of introduced vegetation, with only one modified ecological vegetation class being supported along Tarrone North Road Reserve. This area contains native flora species including Kangaroo Grass *Themeda triandra* and Pale Flax-lily *Dianella longifolia* (Gilbert, Sofo, and Steer 2009: 7-8).

The plant species found in the grasslands, woodlands, swamps and sand dunes could have been utilised by the Aboriginal people living there. These species included the Kangaroo Grass (*Themeda triandra*), used in the manufacture of fishing nets (Zola and Gott 1992: 58). The wood from River Red Gum (*Eucalyptus camaldulensis*) and other medium sized trees was utilised to fashion a variety of implements, such as clubs and spear throwers. The new shoots and roots of Cumbungi (*Typha* sp.), which can be found along the edges of rivers, were eaten. The seeds, leaves, tubers and flowers of other plants may have also been used.

#### 2.1.4 Fauna

Fauna species present in the Orford region is well documented (Atlas of Victorian Wildlife database 1999). The woodland and grassland with their large variety of species would have been exploited by the Aboriginal clans for their food resources. The area would have been habit for the emu (*Dromaius novaehollandiae*), echidna, quoll (*Dasyurus* sp.) and wombats (*Vombatus irsutus*), as well as numerous species of wallaby, possum, kangaroo (*Macropus* sp.), antechinus and bandicoot. The Moyne River, swamps and wetlands may have been the habit for large numbers of would have been home to migratory sea birds, breeding birds, variety of marine life, reptiles and amphibians, including: frogs, skinks, tiger snakes and copper head snakes (which have recently been observed in the study area) (Land Conservation Council 1976: 287-296).

## 3.0 ABORIGINAL HISTORY

### 3.1 Ethnographic and Contact History

Prior to European settlement, the coastal area between the Glenelg and Hopkins rivers was part of the traditional lands of the Dhauwurd wurrung language group. The Dhauwurd wurrung language group is also known by the name Gunditjmara (Clark 1990: 54). Tindale first used this name, which Clark believes means 'Aborigines belonging to' (in Clark 1995: 25). The Dhauwurd wurrung lands extended between the Glenelg and Hopkins rivers all the way from the coast to the township of Casterton in the north-west, along the Wannon River to Mount Napier, further east to Mustons Creek and ending at the western boundary of the Hopkins River. Within the Dhauwurd wurrung everyone spoke the same language and early observers such as John Green, Inspector of Aboriginal Stations for the Central Board, reported in November 1868 that "they, as a rule, consider themselves all one tribe, so that a person taking the names at Warrnambool from Aborigines would get a number of those that would be got by another at Mortlake" (in Clark 1995: 23). The Dhauwurd wurrung was divided into five sub-dialects: Wullu wurrung; Dhauwurd wurrung; Gai wurrung; Gurngubanud; and Peek wurrung (Clark 1995: 11). In the Orford area, to the east of the Eumeralla River, the Gai wurrung dialect was spoken.

The Dhauwurd wurrung divided their world into two halves, or moieties, called *grugidj* (sulphur-crested cockatoo or long-billed corella) and *gabadj* (red-tailed black cockatoo or Banksian cockatoo) (Clark 1995: 11). Clans and individuals were affiliated with either of these moieties through matrilineal lines. The moieties of each individual governed to whom they were allowed to marry.

Of the Dhauwurd wurrung language group, 59 clans have been identified from historical records (Clark 1990: 55). At the time of contact, two clans are considered to have occupied the Moyne River near the study area. The *Yowen gundidj* clan held the territory around the junction of Back Creek and the Moyne River, while the area immediately to the north, near Willatook, belonged to the *Art gugdidj* clan (Clark: 1990: 54-55).

The Dhauwurd wurrung practiced a generalised hunting and gathering economy focused around coastal and hinterland freshwater river/creek systems. In the summer months (LCC 1996: 25) large numbers of people from the coastal clans would gather in the hinterland to harvest emu, kangaroo and Yam Daisy, which were located up to ten kilometres from the shore. Base camps were often located around swamps that provided easy access to adjacent open forests where diverse species of animals and plants could be exploited. More temporary camps were located in dunes where shellfish, sea birds, seals and fish could be caught. Fire was a useful aid to hunting, providing constant fresh grasses for animals to feed on, clearing pathways and burning dense growth.

Autumn saw these clans move to the grasslands and camp next to rivers and streams to exploit eels and an abundance of fish. Mutton birds were also hunted along the coast, such as at Griffiths Island near Port Fairy. Eels were caught using wooden or stone traps erected along watercourses. Many stone traps are preserved today especially around Lake Condah.

During winter fuel, food and water principally determined where groups camped. Whales were occasionally exploited when stranded on the coast. Robinson's (1977: 62) diaries, dating from the early 1840s, describe the anticipation, by local clans, of whales being stranded at Armstrong Bay, located between Port Fairy and Warrnambool. Robinson was the Chief Protector of Aborigines at the time and spent considerable time with Aboriginal people and wrote about them in his diaries.

In spring, more temporary camps were again sought in the dunes to exploit shellfish, fish and seals, with collection of Yam Daisies and swan's eggs an important spring time activity (Land Conservation Council 1996: 25-27).

### 3.1.1 Contact and conflict

The history of contact between Europeans and Aboriginal people was marked by some of the worst violence reported in Victoria. John Wedge of the Port Philip Association lamented that outrages had been committed at Portland Bay, stating:

"Unless measures are taken to protect the native population, a spirit of hostility will be created against the whites, which in all probability will lead to a state of warfare between the two races" (in Wiltshire 1997: 49).

Coastal Dhauwurd wurrung clans had dealings with Europeans from at least 1810 when sealers and whalers carried out work in the Portland area (Christie 1979: 24). The coastal clans suffered disease and violence at the hands of the Europeans, though their clashes were seasonal, as the sealers and whalers left the region when the winter whaling season finished. Boldrewood (1969) suggests that not only was there violence, but also sexual contact between some whalers and the local Aboriginal population. Kerley (1981: 10) observed that "the use of Aboriginal women by whites for sexual pleasure and to work for them may also have provoked many of the first clashes".

In 1834, with the permanent arrival of whaling operations and the Hentys, Aborigines suffered dispossession from their traditional lands. As the Hentys commenced grazing large flocks of sheep over extensive areas that coincided with the Dhauwurd wurrung traditional lands, violence increased. Edward Henty's journal only includes a few references to local Aboriginal people but these suggest antagonistic encounters. The journal states, for example, that some of the fishery employees at Hentys left work "for the purpose of getting Native women" (Henty 1834 in Land Conservation Council 1996: 33). Despite this, in his reminiscences Richmond Henty (Edward Henty's nephew) recalls

Black Billy, of the Portland tribe, being his companion in “many a wallaby hunt after the kangaroos, wallaby, bandicoot, and opossum in the gum tree forests and ti-tree scrubs, and many a fine eels, black-fish and topawn did we capture in the Surry river and various creeks, near where now stands the old town on Portland” (Henty in Davis n.d.).

Although Edward Henty reported, in October 1838, to Foster Fyans (Geelong Police Magistrate) that the family was on friendly terms with the local Aboriginal population (in Clark 1995: 33) there are, in fact, reports of the deaths of local Aboriginal men at the hands of Henty’s hut keeper, Joseph Bonsor, and a shepherd, William Heath. In 1839 when accusations of mistreatment of the local Aboriginal population were made against the Hentys by an unidentified person, Foster Fyans was sent to Portland to inquire, and although he cleared the Hentys of any wrong doings, he commented “...Every fellow appears the Master and no doubt numerous bad, and improper acts, have been committed and hid from us” (in Bassett 1962: 286). In response, from 1837 at least, the Dhauwurd wurrung used their traditional burning off as a means of driving the Henty family away. On one occasion they burnt the grass all around some shepherds who were shearing sheep (Wiltshire 1975: 17).

The most well known account of early violence was recorded at the Convincing Ground by Edward Henty, who recounted the story to George Augustus Robinson in 1841. The Convincing Ground massacre, located on the coast between Portland and the Surrey River, is believed to have taken place in either 1833 or 1834 and involved the Kilcarer gundij clan. The massacre is reputed to have killed all but two young men of this Kilcarer clan (Clark 1995: 17). Henty stated:

Among the remarkable places on the coast, is the ‘Convincing Ground’, originating in a severe conflict which took place a few years previous between the Aborigines and Whalers on which occasion a large number of the former were slain. The circumstances are that a whale had come on shore and the Natives who feed on the carcass claimed it was their own. The whalers said they would ‘convince them’ and had recourse to firearms. On this spot a fishery is now established (in Clark 1995: 19).

According to Davis (n.d.), who has edited Richmond Henty and other early pioneer’s reminiscences, many incidents between the Dhauwurd wurrung and European settlers occurred south of Mount Eccles. This area was favoured for capturing or spearing cattle, who were stampeded into the swamps. Three local Dhauwurd wurrung men, known as Cold Morning, Jupiter and Cocknose, secretly organised raiding parties and assaults. On one occasion, Cold Morning was heading 150 clansmen who were resisting the recapture of 500 stolen sheep by settlers, but resistance resulted in the deaths of three Dhauwurd wurrung men (Davis n.d.: 44). By the late 1830s these incidents were common enough to cause eighty-two settlers to petition Governor Gipps, in July 21 1838, to declare a ‘black war’ or to form a militia. Gipps responded by saying that there must be no indiscriminate retaliation on the Dhauwurd wurrung.

Deaths and stolen stock increased with time, and by the early 1840s organised groups of Dhauwurd wurrung were fighting a guerilla war against the settlers. A series of dry years between 1837 and 1842 led Aboriginal people into direct competition with squatters for resources, such as water, and the acceleration of conflict is at least partly attributable to the drought. Foster Fyans reported in 1840 after a tour of the Portland district that nearly every station had been attacked by Aboriginal people and the number of stolen sheep and cattle were considered outrageous. Broome (1982) in *Aboriginal Australians* suggested that the clans of south-western Victoria began, in the 1840s, to adapt their traditions to suit a military struggle with the Europeans. Of the Portland Bay clans he mentioned that a number of military leaders had been identified, with the Dhauwurd wurrung at Port Fairy being led by Jupiter, Cocknose and Bradbury. Critchett notes that, in fact, Bradbury, a man from the Goulburn Plains, was not a leader and was shot by local Aboriginal clans in 1845 (Critchett 1990: 101).

From the mid 1840s the Stony Rises, a volcanic landform stretching from Port Fairy to Mount Rouse, were used by the clan members as a base from which they could launch their attacks. These attacks were made famous by Rolf Boldrewood (Tom Browne), a squatter at Squattlesea Mere on the lower Eumeralla River during the 1840s, whose diary accounts describe events on his and surrounding stations. Boldrewood (1969: 50) observed that:

"All of a sudden war broke out. The reasons for this last resource of nations none could tell. The whites only wished to be let alone. They did not treat the black brother unkindly".

However he also wrote "We were all pretty good shots. For one reason or another the gun was rarely a day out of our hands. We were therefore in a position to do battle effectively for our homesteads and means of subsistence if these were assailed" (Boldrewood 1969: 52).

Mount Rouse, which was John Cox's run, was used by the Dhauwurd wurrung as a base, as it has been established as a Protectorate Reserve. Guerilla raids were organised from Mount Rouse from 1842 (after C.W. Siewwright had been installed as the Protector of Aborigines there) by clans around the Stony Rises and Eumeralla River (Arkley 2000; Caldere and Goff 1991). Mostly the raids were against settlers who occupied land that contained traditional meeting places, and which were essential to the continuation of the Dhauwurd wurrung lifestyle (Clark 1995: 12). The properties under attack were west and north-west of Port Fairy and included Yambuk (Critchett 1990: 110). The attacks were so frequent, and presented such significant problems for settlement in Portland, that they became known as 'The Eumeralla War' (Boldrewood 1969: 44-53).

Between 1842 and 1846, when the conflict escalated, Rolf Boldrewood and other squatters requested assistance from the Governor, and the Native Police Corps troopers were sent down to Portland and Port Fairy. The troops tracked and arrested people they suspected as being guilty of murder. During their stationing at Squattlesea Mere,

Boldrewood (1969: 69) wrote "I did not myself accompany the party, nor did I propose to do so at any other time. I took it for granted that blood might be shed". On one of the forays the Native Police claimed to have killed Jupiter, a guerrilla leader, and "a large body of blacks" (Boldrewood 1969: 71).

From April 23 1838 to December 31 1849, 57 Aboriginal people were arrested for various offences including murder, sheep stealing and spearing cattle. Of these, 32 were placed on trial, 23 were found guilty, five were executed, 13 transported and six imprisoned (Davis n.d.: 46). By 1846 the resistance had been broken, and Assistant Protector of Aborigines Siewwright had been suspended from service (Clark 1990: 44). About this time Boldrewood (1969: 72) observed that "After due time they came in and made submission, working peaceably and usefully for the squatters".

It is possible that raids and reprisals between settlers and the Dhauwurd wurrung were carried out in the Yambuk study area. In 1843, for example, the Baxter family took up a run at Yambuk, which included the Yambuk study area. The Baxters arrived after the racial conflict in the early 1840s, but witnessed and participated in the violence that characterised the mid to late 1840s (Critchett 1990: 30). Annie Baxter's diary from those times contains 21 references to Aboriginal violence between March 1845 and April 1847. In the same period she writes of thirteen hunting parties, which were quite separate from activities of the Border Police or Native Police, and which were organised for the purposes of hunting down Aboriginal people (Critchett 1984: 16).

From the 1850s, with their traditional lifestyle destroyed, the Dhauwurd wurrung were forced to form dependent relationships with Europeans. Their population dramatically declined and the incidence of alcoholism and abuse is well documented (see Clark 1990: 44-47). In his reminiscences, Richmond Henty talks about Black Billy, who observed that all his people in the Portland area had died. Henty comments:

"And this man was the last of his tribe, a tribe which numbered in my early days many hundred souls! How rapidly have the blacks died away before the presence of the white man, or shall I write, civilisation in the shape of vice and the rum bottle!" (Henty in Davis n.d.).

### 3.1.2 Missions

Following the disintegration of traditional Aboriginal lifestyles, a new way of life was forced upon many Aboriginal people. In June 1860, a Central Board for the protection of Aboriginal people was established in Warrnambool. The board reported on the activities of the Dhauwurd wurrung, who were mostly employed by settlers for a few months before leaving to wander from place to place, living on kangaroo and possum (Clark 1990: 47). In 1865 the first Aboriginal mission was formed in the Western District at Framlingham in Girai wurrung country, north-east of Warrnambool. The Dhauwurd wurrung people

refused to settle at Framlingham, so another reserve was established at Lake Condah in 1866, where they farmed and learnt to read and write English.

Aside from the Dhauwurd wurrung clans who moved to the Lake Condah mission in the 1860s, other clanspeople were removed to the Framlingham Aboriginal Mission, which was gazetted as a "temporary reservation for the use of Aborigines" (Barwick 1979: 4). At this time the Central Board was not funding the reserve adequately as its scant resources were being invested at Coranderrk Reserve in Healesville and three others in the Wimmera and Gippsland, but in April 1866 the Melbourne Church of England Mission Committee hired a layman to commence mission work at Framlingham, and 66 residents then lived at the mission. The Board and Committee then decided to close Framlingham and relocate all its residents to Lake Condah, however some Girai wurrung and Dhauwurd wurrung refused to stay there and were moved back to Framlingham (Barwick 1979: 5). A list of the clanspeople at Framlingham compiled in November 1889 included people from the Girai wurrung and Dhauwurd wurrung, amongst other clans (Clark 1990: 204). Numerous petitions were signed by clanspeople from Framlingham, Warrnambool and Port Fairy, all of whom wished to settle at the Framlingham Reserve. Between 1869, when the Board reluctantly agreed to fund the mission to the tune of 100 pounds a year, and in the 1880s, the residents subsisted on fish and eels, with scanty rations of sugar, flour and tea (Barwick 1979: 6).

In 1886, legislation was passed called the *Aborigines Protection Law Amendment Act*, which redefined the definition of Aboriginality, and which effectively dispossessed about half the occupants from reserves and missions – those of half or quarter-caste parentage. Most of these people moved to Little Dunmore, about three kilometres away from the Condah station, and attempted to secure reserve land from Central Board, but were refused. This act was revoked in 1910 and the families were again allowed to receive benefits through stations and missions. By 1918 the reserve had been closed and most of the land revoked from the mission and signed over to the Soldier Settlement Commission (Clark 1990: 52). The mission cemetery and existing buildings were the exception. Around the same time, the Board waged a campaign to abandon Framlingham, but the matter was raised in Parliament. Finally, in 1890, 500 acres of the reserve was set aside for the exclusive use of the original residents (Clark 1990: 204), and in the following decade many of the residents who had been forced out by the *Aborigines Protection Law Amendment Act (1889)* returned. Again, in 1892 the 'half castes' were notified that they had to leave the reserve, and the reserve was divided among four of the residents who were regarded as 'lawful' occupants. Since the resident Framlingham population was again asked to leave, and after fighting to remain, they suffered throughout the 1930s depression. In 1971 the Framlingham Aboriginal community was granted ownership of the 586 acres they held at that time.

Today, the study area lies within the RAP applicant boundaries of the Gunditj Mirring Traditional Owners Corporation and the Framlingham Aboriginal Trust. Under the

*Aboriginal Heritage Act 2006*, there is presently no Registered Aboriginal Party (RAP) for the study area.

### 3.1.3 Aboriginal Oral History of the Study Area

A discussion was held between the cultural heritage advisor for both options and the GMTOAC and Framlingham representatives regarding possible oral history for the study area. The representatives were not aware of any Aboriginal oral history.

## 3.2 Previous Aboriginal Archaeological Investigations

A number of localised archaeological studies have occurred in the vicinity of the study area. These are summarised below.

| Author/Year                | Proximity to activity area | Project   | Sites |
|----------------------------|----------------------------|---|-------|
| Lance (1999a)              |                            | Fenton Creek #1, Mylor #1 Gas Wells Infrastructure Development, South western Victoria: Aboriginal and Non-Aboriginal Heritage Studies                    | -     |
| Lance (1999b)              |                            | Mylor-Fenton Creek Flowline Heritage Monitoring   | 11    |
| McNiven and Russell (1994) |                            | Archaeological survey and impact assessment for a proposed Telecom optical fibre route system in the Condah and Macarthur districts of southwest Victoria | 1     |
| McNiven and Russell (1995) |                            | Assessment of the potential impact on cultural heritage sites of six proposed Telstra optical fibre cable routes in southwest Victoria                    | -     |
| Rhodes (1993)              |                            | Building History of Framlingham   | -     |

**Table 1:** Previous Aboriginal Archaeological Investigation within the study area.

**McNiven and Russell (1994)** conducted archaeological survey and impact assessment for a proposed Telecom optical fibre route system in the Condah and Macarthur districts



of southwest Victoria. The survey recorded one Aboriginal archaeological site of high archaeological and cultural sensitivity (an earthen mound complex, consisting of at least 30 earth mounds). The report recommended that the optical fibre cable route to be re-routed away from the mound complex and restricting the construction to the road reserve. The report recommended that the significance of the identified site would be seriously damaged if the sites were to be disturbed by the construction of the cable route.

**McNiven and Russell (1995)** conducted an assessment of the potential impact on cultural heritage sites of six proposed Telstra optical fibre cable routes in the southwest Victoria (Yambuk, Toolong, Willatook, Toolong, Terang, Panmure, Darlington, Dundonnell, Pura-Pura, Woorndoo and Derrinallum region). The assessment was conducted based on a Stage I predictive study of previously documented Aboriginal sites in the region. The predictive study was complimented with a roadside survey of the six proposed routes. The study recommended that owing to the highly disturbed nature of the proposed routes within road reserves the likelihood of cultural heritage sites to be low. However, the Hopkins River was identified as potentially high sensitivity owing to the routes proximity to known stone walled eel traps used by members of the Framlingham Aboriginal Trust. As a result, the report recommended that a representative of the Trust to be present during work at Hopkins River.

**Lance (1999a)** surveyed an 8 kilometre gas flowline joining Fenton Creek and Mylor wells. No new sites were recorded during the survey owing to low ground surface visibility, however an extensive sandy deposit was identified between Fenton Creek and Leech Creek and considered to be of high Aboriginal archaeological sensitivity. No sub-surface testing was recommended for the construction of the flowline owing to the absence of known Aboriginal archaeological material and sites within the region. However, monitoring of construction was recommended owing to the potential of a sub-surface deposit in the sand band.

**Lance (1999b)** monitored the construction of approximately 8 kilometre gas flowline joining Fenton Creek and Mylor wells. The monitoring involved inspecting the construction trench during and post excavation for artefactual material, exposed artefacts were collected, recorded and analysed. During the monitoring program 11 Aboriginal archaeological sites were recorded including 5 isolated artefact sites and 6 artefact scatters, artefact material included marine chert; high and low grade quartz. No historical sites were identified during the study. No recommendations were made on the sites.

**Rhodes (1993)** conducted a study of the Framlingham Aboriginal Station on behalf of the Framlingham Aboriginal Trust and National Estate. The study provided a condensed history of the buildings at the station, people and/or families, who lived at the station, briefly described the physical condition of the remaining buildings and their location. An archaeological survey was not conducted as part of the report.

### 3.3 Previously Recorded Aboriginal Archaeological Sites

A search of the Victoria Aboriginal Heritage Register was carried out by Kendal Houghton on 28 October 2008 and a subsequent search was made on 9<sup>th</sup> of June 2009 as some time had elapsed between the background search and assessment. There are 7 previously recorded pre-contact Aboriginal archaeological sites within five kilometres of the study area (Figure 3).

| AAV Site Number | Site Name                  | Site type        | Location  |
|-----------------|----------------------------|------------------|---|
| 7321-0029       | Willatook                  | Earth Mound      | Willatook: 1 km north of East-West Option       |
| 7321-0030       | Mauraleigh/<br>Newlyn Park | Earth Mound      | Macarthur: 4.5km west of North-South Option     |
| 7321-0031       | Glen Stirling              | Earth Mound      | Willatook : 1 km north of East-West Option      |
| 7321-0073       | Gows Mound                 | Earth Mound      | Willatook: 2.75km southeast of East-West Option |
| 7321-0127       | Dalgangle 4 and 5          | Artefact Scatter | Warrong: 4.75km south of East-West Option       |
| 7321-0126       | Dalgangle 3                | Artefact Scatter | Warrong: 4.75km south of East-West Option       |
| 7321-0271       | Moyne River Scatter        | Artefact Scatter | Willatook: .5 km east of East-West Option       |

Table 2: Previously recorded Aboriginal archaeological sites within five kilometres of the study area.

### 3.4 Site Prediction Model

The purpose of the following site prediction model is to collate existing information on the regional archaeology in order to target areas which might have archaeological values during the field survey. The site prediction model below was developed prior to the field survey and speculates about what sites types might occur and where they might be found. This model should only be considered predictive, and read in conjunction with the survey results to identify which areas are considered to be of potential archaeological sensitivity.

The study area, based on landform, water sources and potential food and material resources, is considered to have a high archaeological potential for Aboriginal archaeological sites. Although the study area has been subject to some ground disturbance due to farming practices, a number of Aboriginal archaeological sites have been found along the Moyne River; therefore, the likelihood of further Aboriginal sites being undetected so far is significantly high. Subsequent erosion of banks due to flooding

and further environmental changes may have uncovered or perhaps destroyed Aboriginal sites.

Background research has revealed that previously recorded sites within five kilometres of the study area include 4 earthen mounds and 3 artefact scatters. Based on this information, previously unrecorded Aboriginal archaeological sites identified on this survey are expected to consist predominantly of earthen mounds and low density artefact scatters.

Earthen mounds, *myrn-yongs*, are artificially constructed prominences attributed to pre and post-contact Aborigines that, although observed in many areas of Victoria, are found predominantly in extending from the coast, through central Victoria, and north as far as the Lachlan River. Research into the function, age, and distribution of *myrn-yongs* is ongoing. Thus far it has been determined that their location is consistent in proximity to potable water and woodland areas, therefore providing efficient exploitation of resources such as water, firewood, and food, such as hunting and the harvesting of the yam daisy. (Coutts et. al. 1976: 20-21). The mounds also tend to be located in ecological settings where several biotic communities merge, providing for the exploitation of diverse flora and fauna. A range of activities is suggested for these sites by the presence of stone knapping, stone structures, bone tools, and human burials. Thus earthen mounds do not appear to be function specific; however, larger mound sites likely represent seasonal base camps. The activities of food preparation and cooking are clearly connected to these sites (Coutts et. al. 1976: 43). As mentioned above, 4 of the 7 Aboriginal archaeological sites located within 5 kilometres of the study area are earthen mounds. The likelihood of identifying an earthen mound during this survey is therefore high. Such a find would be highly significant to future research.

The identification of artefact scatters is also highly probable during this study. The dominant raw material associated with artefact scatters is likely to be quartz, with less frequent occasions of marine flint and basalt. Sites would most likely occur around Back Creek, former waterways and stony rises present within the study area.

Scarred trees may occur in stands of mature indigenous species, however much of the tree cover was cleared during the 1800s for fuel, building materials or as part of farming practices since settlement of the area.

Areas identified as being of potential archaeological sensitivity for Aboriginal sites in the study area are described below.

| <b>Stony rises</b>        | <b>Volcanic plain – low-lying</b> | <b>Adjacent to watercourses</b> |
|---------------------------|-----------------------------------|---------------------------------|
| Scarred trees             | Scarred trees                     | Scarred Trees                   |
| Surface artefact scatters | Occasional artefact scatters      | Surface artefact scatters       |

| Isolated artefacts | Occasional Isolated artefacts | Isolated artefacts                      |
|--------------------|-------------------------------|---|
| -                  | -                             | Subsurface remains in alluvial terraces |
| -                  | -                             | Possible silcrete quarries              |
| -                  | -                             | Possible burials                        |
|                    |                               | Earthen mounds                          |

**Table 3:** Areas of potential archaeological sensitivity for Aboriginal sites

## 4.0 POST-CONTACT HISTORY

### 4.1 Regional History

#### 4.1.1 Social and Cultural History

The first historic mention of the region is by Lieutenant James Grant in December 1800, when he sailed by Portland Bay in the *Lady Nelson*. In April 1802, French explorer Nicolas Baudin sailed from Cape Otway to Cape Northumberland. When Major Mitchell arrived in Portland in 1836 on his exploration of 'Australia Felix' he was surprised to find so many people living there. Other early explorers included J.M. Darlot who overlanded from the Murray River to Portland in 1837 by following Mitchell's track from the Wimmera, E.J. Eyre who travelled through the region in 1838 and Henry Wade, who surveyed the border between South Australia and Victoria in 1847 (LCC 1996: 30).

##### 4.1.1.1 Sealing and Whaling

In the late 1700s and early 1800s the waters of Bass Strait were renowned for extensive seal colonies and schools of whales (Eslick 1983: 17). Lady Julia Percy Island and Lawrence Rocks began attracting sealers and whalers to the area in the early 1800s, so that by 1802 there were an estimated 200 seamen in Bass Strait (Sayer 1981: 9). Two graves on Lady Julia Percy Island are attributed to early sealers, as they were found by a fisherman in 1842 (Wiltshire 1981: 11, 13).

In Port Fairy whaling also became established in the 1830s. James Wishart visited what later became known as 'Belfast' in the cutter *Fairy* some years earlier. The Mills brothers, John and Charles, established a sealing camp at Griffiths Island. John Griffiths also moved his whaling operation from Portland Bay to the island in 1836 and established himself there permanently the following year (Carroll 1989: 152-153).

By 1836 there were approximately 100 whalers operating out of Portland Bay and Port Fairy. By 1838, at the peak production period, seven whaling stations were operating in Portland alone (Wiltshire 1981: 22). Although the whaling season was variable, determined by the winter arrival of Southern Right Whales in the bays of south-western Victoria, the industry was kept busy year-round employing blacksmiths, coopers, shipwrights and general hands for building and repairing (Learmonth 1983: 50-53). However, by the mid 1830s the major industrial focus had changed from whaling, which had caused whale numbers to rapidly recede, to pastoralism.

#### 4.1.1.2 Settlement

##### Squatters

Long-term European occupation commenced with the movement of the Hentys to Portland Bay in 1834 and the arrival of vanguards of the 'Port Phillip Association' at Port Phillip Bay during the following year. In each case, Van Diemen's Land (Tasmania) was the initial source of livestock and commercially minded Frontiersmen. Settlers moved quickly into the study region from Geelong and across the Murray River, in response to explorer Thomas Mitchell's rapturous descriptions of his discovery of a "veritable 'Australian Felix'" offering extensive grasslands and open savannah landscapes for immediate use by land-hungry graziers (Powell 1996:79).

Many of the first squatters- in the old English sense were young men from Scotland, made possible by the passage of an Act in 1833. Their occupation was legitimized in 1836 with the ascension of a further Act and a payment of 10 pound yearly licence fee. Although the licence did not permit the erection of any buildings, most squatters did erect small temporary buildings for use on the run and to protect their land from other squatters.

##### Settlers

During the mid-1840s, much of the study region was surveyed by the Victorian Government's land Survey Department, shortly after subdivision and sale of the land followed.

Most settlers became graziers and even today the most common land use activity is sheep and cattle grazing. By 1843 the best available natural grasses on the volcanic plains had been taken up and were at least lightly grazed. Labour was quickly in high demand on the large pastoral runs and ex-convicts constituted of a large proportion of the early Western Districts workforce. Women and children were not so welcome in the harsh and crude conditions of early settlement. In many cases the wives, sisters and daughters of the settlers were either left behind in Tasmania or England. During this period Aboriginal women were often mistreated by the squatters and station hands. European women first appeared in the district around 1840.

Makeshift huts were the first buildings erected on a run, as tenure was not secure and many pastoral ventures were purely speculative. Bark huts were common, with bark walls and roof, and a stamped earthen floor. Huts were also built of split stringy bark slabs, and in the study area some sod huts were constructed from blocks of rich black earth, and topped by thatched roofs. Elsewhere pise (rammed earth) huts, or wattle and daub huts, went up and were also covered in thatch (LCC 1996:36-7).

Shortly after the first buildings were erected on runs, other structures began to cluster around the huts of the early head stations. These included kitchen and gardens, a store, stables, men's huts, yards and pens, barn, blacksmith's shop, woolshed and dairy.

With the acquisition of freehold land, principally homesteads were constructed on properties. The new buildings were sturdy and functional, often constructed of brick or local stone (bluestone and other basalts). As with the earlier buildings, these homes were often surrounded by a variety of out buildings. With the introduction of women into the squatting districts, improvements to the interior of early structures quickly followed. As wealth grew in the district, the size and style of homesteads on stations changed. Large homesteads based on English country houses first appeared in district in the 1870s.

In the late 1950s pastoral activity in the district experienced a second boom with following a major government-sponsored Soldier-Settler scheme which resulted in the clearing of 400 square kilometres of the Heytesbury Forest (LCC 1976:14).

## 4.2 Previous Historical Archaeological Investigations

Several historical studies have been conducted in the study area. A summary of these is listed in Table 4 detailed below.

| Author/Year                | Proximity to activity area | Project   | Sites |
|----------------------------|----------------------------|---|-------|
| McNiven and Russell (1994) |                            | Archaeological survey and impact assessment for a proposed Telecom optical fibre route system in the Condah and Macarthur districts of southwest Victoria | 4     |
| McNiven and Russell (1995) |                            | Assessment of the potential impact on cultural heritage sites of six proposed Telstra optical fibre cable routes in southwest Victoria                    | -     |
| Lance (1999a)              |                            | Fenton Creek and Mylor wells  | -     |
| Lance (1999b)              |                            | Fenton Creek and Mylor wells  | -     |

**Table 4:** Previous Historical Archaeological Investigations within the study area.

**McNiven and Russell (1994)** conducted archaeological survey and impact assessment for a proposed Telecom optical fibre route system in the Condah and Macarthur districts of southwest Victoria. The survey recorded four new historical archaeological sites (including two house sites, a dairy and piggery site). The report recommended that the optical fibre cable route to be re-routed or restricted to the road reserve, as the

construction would be seriously damaged if the sites were to be disturbed by the construction of the cable route.

**McNiven and Russell (1995)** conducted an assessment of the potential impact on cultural heritage sites of six proposed Telstra optical fibre cable routes in southwest Victoria (Yambuk, Toolong, Willatook, Toolong, Terang, Panmure, Darlington, Dundonnell, Pura Pura, Woorndoo and Derrinallum region). The assessment was conducted based on a Stage I predictive study of previously documented historical sites in the region. The predictive study was complimented with a roadside survey of the six proposed routes. The study recommended that owing to the highly disturbed nature of the proposed routes within road reserves the likelihood of cultural heritage sites to be low.

**Lance (1999a)** surveyed an 8 kilometre gas pipeline joining Fenton Creek and Mylor wells. No new sites were recorded during the survey owing to low ground surface visibility. No sub-surface testing was recommended for the construction of the flowline, however monitoring of the construction would be undertaken.

**Lance (1999b)** prepared a report on the results of a monitoring program for the construction of approximately 8 kilometre gas flowline joining Fenton Creek and Mylor wells. The monitoring involved inspecting the construction trench during and after excavation for artefactual material, exposed artefacts were collected, recorded and analysed. No historical sites were recorded.

### 4.3 Previously Recorded Historical Archaeological Sites

Two historical sites have been recorded within five kilometres of the present study area on the Heritage Inventory at Heritage Victoria (see Figure 4 and Table 2). Three of these sites were also listed on the Victorian Heritage Register (Table 3).

The majority of archaeological sites recorded in the region relate to farming practices and related structures. Within a five kilometre radius of the current project area, the majority of recorded sites are associated with homesteads and other structural remains of historical significance.

| HV Site Number | Site Name                     | Site Type         | Location from study area           | Location                              |
|----------------|-------------------------------|-------------------|------------------------------------|---------------------------------------|
| H7321-0022     | Moyne River Stone Foundations | Homestead Complex | .5km southeast of East-West Option | Malseeds Road, Willatook, Moyne Shire |
| H7321-0011     | Wynlea H5                     | Farm Fence        | 4km north of North-South Option    | Gapes Road, Tarrone, Mayne Shire      |

Table 5: Historical archaeological sites within 5km of the study area



| Register of the National Estate Number | Site Name          | Site Type | Location  |
|--|--------------------|-----------|---|
| 3785                                   | Turkish Bath House | House     | Dunmore Homestead, Woolsthorpe-Heywood Rd, Broadwater, Victoria |

**Table 6:** Previously recorded sites on the Register of the National Estate within 5km of the study area.

| National Trust of Australia Number | Site Name                  | Site Type | Location  |
|------------------------------------|----------------------------|-----------|---|
| B3007                              | Turkish Bath and Kitchen   | Homestead | Dunmore Homestead, Woolsthorpe-Heywood Rd, Broadwater, Victoria |
| B2946                              | Woolshed-Tarrone Homestead | Homestead | Tarrone, Victoria   |

**Table 7:** Previously recorded sites listed by the National Trust within 5km of the study area.

## 4.4 Site Prediction Model

The study area is known to have been used since the 1840s. Since the 1840s, the area has been grazed by stock, and early shepherd's huts would have been built for those tending them. Therefore, there is potential in the study area for the sub-surface remains of structures dating from the 1840s and any associated features, such as refuse dumps.

Potential sites include:

- Those related to the region's pastoral history. Possible site types for the thinly settled pastoral areas may include cobbled paths, dry stone walls, wind breaks, the remains of outbuildings and agricultural/pastoral structures such as dairies and barns.

## 5.0 LEGISLATION

### 5.1 Statutory Regulations – Aboriginal Sites

The following discussion is a summary of legislation that applies to Aboriginal sites. Please consult Appendix 3 for a comprehensive discussion about relevant regulations.

#### 5.1.1 Victorian Aboriginal Cultural Heritage Legislation

The new *Aboriginal Heritage Act 2006* was proclaimed in May 2007. The new Act replaces both the existing Victorian *Archaeological and Aboriginal Relics Preservation Act* and the Victorian Provisions of the Commonwealth Act. The Aboriginal Heritage Act will be implemented progressively over the next year or so.

The main changes in the proposed legislation involve:

- shifting the power to issue a Consent to Disturb from the Aboriginal community groups to the Minister for Aboriginal Affairs;
- providing an appeal process for decisions by the minister and the proposed Aboriginal Heritage Council;
- requiring cultural heritage assessments in the form of Cultural Heritage Management Plans, for all projects that may have a significant cultural heritage impact;
- substantially increasing penalties for failing to comply with the act; and
- setting up procedures for Aboriginal community consultation including a proposed Aboriginal Heritage Council.

Aboriginal Affairs Victoria has indicated that there will be a transitional period in which the new legislation will be introduced, while guidelines and regulations are prepared, Registered Aboriginal Parties are determined and the Aboriginal Heritage Council is established.

### 5.2 Statutory Regulations – Historic Sites

The following discussion is a summary of the legislation that applies to historical archaeological sites. For a comprehensive discussion about the statutory regulations that affect the heritage places identified and recorded during this survey please see Appendix 3.

The Victorian *Heritage Act 1995* details the statutory requirements for protecting historic buildings and gardens, historic places and objects, historical archaeological sites, and

historic shipwrecks. The Act is administered by Heritage Victoria, Department of Sustainability and Environment.

#### The Victorian Heritage Register

The Victorian Heritage Register was established under Section 18 of the *Heritage Act 1995*. Heritage places on the Heritage Register are assessed as having State-level cultural heritage significance.

A permit may be required for particular works or activities associated with a registered place or object. Permit applications must be submitted to the Executive Director who will consider the application and decide on the matter. Should the applicant or owner object to the decision of the Executive Director, an appeal can be made to the Heritage Council.

#### The Heritage Inventory

The Heritage Inventory was established under Section 120 of the *Heritage Act 1995*. The Heritage Inventory includes historical archaeological sites, places and relics in Victoria older than 50 years, regardless of their level of cultural heritage significance.

Consent is required for any works or activities, including excavation, associated with an archaeological site. Under the Heritage Act it is an offence to damage or disturb relics and archaeological sites, whether or not they are on the Heritage Inventory, without obtaining permission from the Executive Director.

General queries about Consent and Permit applications can be made to the Permits Coordinator of Heritage Victoria. Consultation about the Heritage Inventory and historical archaeological sites should be conducted with an archaeology officer at Heritage Victoria. The contact details are:

Heritage Victoria  
Level 22  
Nauru House  
80 Collins Street  
MELBOURNE VIC 3000

Ph: (03) 9655 6519  
Fax: (03) 9655 9720

Consultation and discussion with Heritage Victoria should begin well before lodging an application for a Consent or Permit to disturb or destroy a historical archaeological site.

## 6.0 ABORIGINAL ARCHAEOLOGICAL SURVEY

### 6.1 Methods

The survey strategy follows an approach developed by Bird (1992) and focuses on understanding the connection between pre-contact Aboriginal societies and their environment, reconstructing past land-use patterns and identifying areas of archaeological potential. It allows predictions to be made about the potential location of archaeological material based on cultural factors identified during background research of ethnohistorical accounts, community consultation and previous archaeological investigations, as well as local environmental factors such as geology, geomorphology and hydrology. Predictive modelling identifies how these factors can determine what sites are likely to be present and where and how they are preserved in the study area. Systematic field survey is then used to test and refine the predictive model.

Before the field survey was conducted the Victorian Aboriginal Heritage Register (VAHR) was searched to assess whether any sites had previously been recorded in the study area and to generate a site prediction model. Seven sites (including 4 earthen mounds and 3) have been previously recorded within five kilometres of the study area.

The survey was conducted by Andrew Orr, Tamarind Meara and Danielle Gorke (Biosis Research); Lindsay Saunders, Eloise Saunders, Tim Church, Simone Sailor, Tom Day, Leon Walker, Candina Kanda and Melissa Lovitt (Gunditj Mirring Traditional Owners Corporation) Travis Harradine and Jason Clark (Framlingham Aboriginal Trust) between 25 – 29 May, 2009. The survey was undertaken in overcast conditions with intermittent rain.

The survey team systematically surveyed the investigation corridor of both Alignment Options (North-South and East-West) to determine whether there was any evidence of Aboriginal cultural material on the existing ground surface, or areas of potential for Aboriginal archaeological sites. The survey team walked the alignment in transects, with the field team walking approximately 10 metres apart, in order to maximise the amount of ground that could be effectively surveyed. The field investigation focused on areas around waterways and stony rises, particularly Back Creek, and those that provided the best ground surface visibility, including fence lines, around the bases of trees, gates and stock troughs, cattle pads, exposed banks of creeks and dams. Mature indigenous trees were examined for evidence of cultural scarring. The presence of caves and rock-shelters was sought, however none have been found within the Activity Area.

The field investigation involved a ground survey of the study area with a focus on areas Details of field conditions, ground surface visibility, vegetation cover, ground disturbances, landforms and areas of sensitivity were recorded during the ground survey. A DGPS was

used to record areas of cultural sensitivity and a digital camera was used to provide a photographic record of the general field conditions and areas of sensitivity was taken.

### 6.1.1 Constraints to the Survey

#### 6.1.1.1 Ground Surface Visibility

There are a number of factors that hinder the identification of Aboriginal archaeological sites. One of these is ground surface visibility. The study area contained poor ground surface visibility. Although the 80% of the vegetation was low in height, it was thick in cover. Generally, ground surface visibility ranged between 0 to 5 % which equates to the percentage of bare ground that can be seen (Plate 2).

#### 6.1.1.2 Disturbance

Disturbance in an area can also influence whether or not sites are found. Disturbance can remove sites completely or uncover them. Disturbance in the study area included drainage modifications, dams, vehicle tracks, building and fence construction, flooding and farming practices such as ploughing (Plate 4).

## 6.2 Archaeological Survey – Results

### 6.2.1 Aboriginal Archaeological Sites - Pipeline North-South Option

No new Aboriginal archaeological sites were recorded during the survey.

There are however, two Aboriginal sites recorded within the boundary area of the study (Figure 3). These include:

#### **VAHR 7321-0271**

This surface artefact scatter contains both stone artefact fragments and utilised cores. The site boundary is an area 100 metres by 10 metres. The artefacts recorded included worked cores, unspecified chipped stone artefacts and fine grained chipped stone flakes made from quartz. Located on the lowland floodplain associated with the Moyne River, the site was in poor condition owing to water erosion when it was recorded.

#### **VAHR 7321-0029**

Located near the Moyne River, a prominent circular earth mound which contains burnt clay and charcoal, measures 4 metres by 2 metres, located in a ploughed paddock, the site was in poor condition owing to extensive ploughing.

## 6.2.2 Areas of Potential Aboriginal Archaeological Sensitivity – North-South Option

Within the study area several areas of high and moderate Aboriginal archaeological sensitivity have been identified (Figure 5a-5g).

The areas of higher ground, such as the stony rises (Plate 13) may also contain Aboriginal sites as during wetter seasons this would have been the drier parts of the hinterland (Plate 12). The higher ground would have been utilised as drier areas to camp, for short periods of time, overlooking the low lying areas and are considered to be of moderate sensitivity.

## 6.2.3 Aboriginal Archaeological Sites - Pipeline East-West Option

No new Aboriginal archaeological sites were recorded during the survey of the East-West Option. To date there are no Aboriginal archaeological sites recorded within the study area. However, sub-surface material may be present in areas of Aboriginal archaeological sensitivity.

## 6.2.4 Areas of Potential Aboriginal Archaeological Sensitivity – East-West Option

Several areas of high and moderate Aboriginal archaeological sensitivity were identified within the East-West Option study area (Figure 5g-5k).

High Aboriginal archaeological sensitivity can be found within 200 metres of Back Creek and on the higher ground overlooking the low lying areas (Plate 7). These areas have a high potential for Aboriginal sites. All of the previously recorded sites in close proximity to the study area are located close to ephemeral waterways and the Moyne River and its associated tributaries.

High Aboriginal archaeological sensitivity can be found within 100 metres of the ephemeral creek line (Figure 5g) and on the prominent ridge lines of higher ground overlooking old waterways and floodplains (Figures 5g, 5h, 5i, Plates 1 and 3). These areas have a high potential for Aboriginal sites. All of the previously recorded sites in close proximity to the study area are located close to ephemeral waterways and watercourses. The areas of higher ground, such as the stony rises may also contain Aboriginal sites as during wetter seasons this would have been the drier parts of the hinterland. The higher ground would have been utilised as drier areas to camp, for short periods of time, overlooking the low lying areas.

The areas of moderate sensitivity are the low lying areas more than 100 metres away from the ephemeral waterways, as well as the small stony rises. These areas have a lower possibility of containing sites than the areas of high Aboriginal sensitivity, but still may contain sites.

## 6.3 Archaeological Survey – Interpretation and Discussion

The study area is comprised of undulating pastureland and provides a number of rises, particularly next to the water sources, that would have been a suitable place for Aboriginal people to have hunted and camped. The possibility that Aboriginal archaeological material may be present in these areas is high; particularly quartz as it was recorded at several points along the alignment within the study area.

The lack of sites recorded during this surface survey may be attributable to a combination of the following:

- Poor visibility: The majority of the study area was covered in grass used from pasture.
- Previous Disturbance: Many parts of the study area had been previously disturbed by farming practices: ploughing; drainage lines; dams; vehicle track construction, overgrazing/poor land management and utilities construction.

These activities have the potential to disturb Aboriginal archaeological sites located on or near the ground surface. There is the potential for *in situ* archaeological material at depths greater than this. The actual depth of *in situ* artefacts in these areas cannot be determined with sub-surface testing. The presence of artefact sites in the areas mentioned above is considered moderate and would be of cultural value to the local Aboriginal communities as well as scientifically valuable in the study of stone tool-making and use of the landscape in this region, for which little prior assessment has been undertaken.

The archaeological record reveals that the majority of Aboriginal archaeological sites have been recorded close to fresh water sources and stony rises. For this reason a minimum of 200 metres either side of Back Creek and several ephemeral creek lines, as well as the upper, lower, mid and crest of rises in the current study area have been identified as potentially sensitive for Aboriginal archaeological sites (Figure 5a-5k). These have been identified as potentially sensitive due to the presence of potable water and associated resources. Also high ground is typically preferred by Aboriginal people for hunting, camping and carrying out activities to avoid the dampness of low lying ground.

### 6.3.1 Aboriginal Cultural Significance

Although no new Aboriginal archaeological sites were identified during the study, the Framlingham Aboriginal Trust and Gunditj Mirring Traditional Owners representatives requested that sub-surface testing to be conducted in areas of high sensitivity which may be impacted by the proposed activity, in particular 100m from ephemeral waterways, the crossing of Back Creek as well as the prominent stony rises.

## 7.0 HISTORICAL ARCHAEOLOGICAL SURVEY

The project required that historical archaeological sites be recorded and located, and any areas of potential sensitivity be recorded within the study area. The *Heritage Act 1995* protects all historical archaeological sites in Victoria older than 50 years. A wide range of archaeological site types are protected by this Act, including below-ground features (such as building foundations, wells and artefacts) and above-ground features (such as the standing remains of buildings, machinery, fence posts and exotic vegetation). These may be single sites or complexes made up several related parts. The survey methodology aims to locate archaeological features in the study area.

### 7.1 Background Research

Before the field survey was conducted, the Heritage Victoria Inventory (HVI) and Register (HVR) were searched to assess whether any sites had previously been recorded in the study area and to allow a site prediction model to be formulated (section 3.4.2). The registers of the National Trust and Australian Heritage Commission were also checked. The results of these searches are listed in Section 3.3.2 (Tables 5, 6 and 7).

### 7.2 Archaeological Survey – Methods

Archaeological surveys for historical sites are carried out simultaneously with those for aboriginal archaeological sites, and therefore the methodology is largely the same (Section 4.1). The field team completed a pedestrian survey of the North-South and East-West Option study areas. Dams, structures, stockpiled stones, drain and fence lines, wind breaks, and areas of exposed soil were examined for evidence of surface or sub-surface historical archaeological sites.

Any sites found were recorded using a hand held differential global positioning system (DGPS), the site contents were documented, photographed and analysed, and any cultural material was left at the site.

### 7.3 Archaeological Survey – Results

No new historical archaeological sites or areas of potential archaeological sensitivity were recorded within the investigation corridors for North-South and East-West Options during the survey. However, one area of potential local interest, a dry stone wall, was identified in the near vicinity of the proposed Gas-fired Power station site (Figure 5b).

#### Dry Stone Wall

North of the Gas-fired Power Station site, approximately 10 metres outside of the 800 metre survey area, a dry stone wall was recorded. Dry stone walling emerged in the mid-



1800s in areas where a proliferation of stone in the geological landscape necessitated a clearing of the land and functionally provided an economic means of fencing. The walls are representative of both the natural and cultural history of the region. Although, the walls are not of high historical archaeological significance they are considered to be of local historical significance and may date back to the mid 1800s (Black and Miller 1992).

### 7.3.1 Areas of Potential Archaeological Sensitivity

No areas of historical cultural sensitivity were recorded during this survey within the study area. However one area of potential local historic interest was identified immediately outside of the study area (see Figure 5b). Disturbance to the site should be avoided.

### 7.3.2 Areas of potential local interest

Although no historical archaeological sites were recorded during the survey, based on the previously recorded sites within the study area there is a potential for historical archaeological sites within the study area (see Figure 5b).

## 7.4 Archaeological Survey – Interpretation and Discussion

The areas of potential local interest identified during the survey reflect that the study area was evidently attractive for natural resource exploitation and settlement, as it offered a well watered location, rich in mineral and natural resources and provided a fertile environment for grazing stock.

The lack of sites found during this surface survey is most likely a combination of the following reasons:

- Poor visibility: The majority of the study area was covered in grass used from pasture.
- Previous Disturbance: Much of the ground in study area has been previously disturbed by utility lines running alongside it, the creation of drainage lines, vehicle tracks and farming practices.

These activities have the potential to disturb European archaeological sites located on or near the ground surface. There is the potential for *in situ* archaeological material at depths greater than this. The presence of artefact sites in the areas mentioned above is considered high and would be of cultural value to the local history of the region, which to date, has had little previous studies.

## SUMMARY OF ISSUES

The following section will summarise the main issues arising from a review of previous archaeological investigations and previously recorded archaeological sites within the study area.

### 7.5 Introduction

Cultural heritage places provide us with evidence of past human activity. Heritage places may be confined to a small area, or represented by a complex of features, including a cultural landscape. The nature of human activity is that the places used in the past are affected by the actions of the present, particularly urban expansion and agricultural processes. This means cultural heritage places are a diminishing resource.

Cultural heritage places are valuable, not only for the scientific records of the past they provide, but also for their social significance. Many Aboriginal places, for example, have a special significance to Aboriginal communities as places where traditional life has continued and places that may have sacred or symbolic significance.

Many heritage places may also be outstanding examples of artistic and creative achievement. Heritage places are valuable to Australians – and the rest of the world – as they not only provide a link with a culturally rich past, but they can contribute to recreational and community life.

Heritage places may also have economic potential (Pearson and Sullivan 1995: 15). These values should, where possible, be protected and handed on to future generations. We all have some degree of social, spiritual, ethical – and legal – obligation to see that this happens.

### 7.6 Aboriginal Sites

#### 7.6.1 Pipeline and GFPS North-South Option

It is likely that the proposed Tarrone Gas-fired Power Station site and Gas Pipeline North-South Option may impact on Aboriginal archaeological sites. Areas of greatest sensitivity in the investigation corridor in relation to the proposed Power Station site and Pipe Alignment will be the prominent stony rises (marked on Figures 5a-5g). Potential impacts can be mitigated by either aligning the pipeline to cross the waterways in areas that have already been disturbed or in areas of low sensitivity.

## 7.6.2 Pipeline and GFPS East-West Option

It is likely that the proposed Tarrone Gas-fired power station site and gas pipeline East-West Option may impact on Aboriginal archaeological sites. The area that will be most sensitive in the planning of the proposed Gas-fired power station site and Pipe Alignment will be the crossing of Back Creek and prominent stony rises overlooking old waterways and ephemeral creek lines (Figures 5g, 5h, 5i). Potential impacts on sub-surface Aboriginal archaeological sites can be mitigated by avoiding prominent stony rises where possible.

## 7.7 Non-Aboriginal Archaeological Sites

### 7.7.1 Potential Impacts Pipeline North-South and East-West Options

The proposed Tarrone Gas-fired Power Station and the North-South and East-West Gas Pipeline Options may impact on sub-surface historical archaeological sites in the study area through soil disturbance and the movement of vehicles.

## 7.8 Management Recommendations

The most effective form of heritage management is to attempt to avoid impact on heritage places during the initial planning stages. Hence, where practicable, the responsible authority should endeavour to avoid impacting on known heritage places. The following recommendations indicate legislative requirements and ways in which best cultural heritage practice may be maintained. These recommendations were devised in consultation with the representatives of the GMTOAC and the Framlingham Aboriginal Trust.

### Recommendation 1

Under s.46 of the *Aboriginal Heritage Act 2006* and Aboriginal Heritage Regulations 2007 s.6, a Cultural Heritage Management Plan (CHMP) is required if any activity that is considered high impact occurs within any part of the activity area that is regarded culturally sensitive. The background research and survey for this project identified areas of Aboriginal cultural sensitivity within the study area (Figures 5a-5k). Identified areas of sensitivity within the North-South and East-West Options include: prominent stony rises; 200m either side of the crossing at Back Creek (specifically East-West Option); 100m from ephemeral creek lines and crest of ridges overlooking floodplains. A Cultural Heritage Management Plan is **mandatory** for the entirety of any future construction works in the study area according to the Aboriginal Heritage Regulations 2007–

The construction of a building or the construction or carrying out of works on land is a high impact activity if the construction of the buildings or the construction or carrying out of the works would result

in significant ground disturbance; and is for or associated with the use of the land for a linear project that is the construction of a pipeline with a length exceeding 500 metres, and or, land used to generate electricity - Division 5, s.43 (1) (a)(b) (xxiii and xxvi).

Furthermore, according to s.49, a CHMP is mandatory if an Environmental Effects Statement is required for the project.

A CHMP would require a complex assessment (sub-surface testing) of the identified areas of sensitivity within the proposed activity area, constituting the north-south pipeline construction easement of 25 metres or the east-west pipeline construction easement of 25 metres to Poynton Road and the proposed gas fired power station site at Riordans Road. It should be noted that any CHMP required for either of the proposed options would not require additional standard assessment as the present cultural heritage assessment would be incorporated into any submitted plan. After completion of additional complex assessment recommendations would be made for management of any sites found. The CHMP would then be lodged with the relevant RAP or the Secretary, DPCD, for assessment.

## **Recommendation 2**

If Aboriginal archaeological sites are identified during works, they must cease immediately and a qualified archaeologist must be contacted to record and assess the site.

Prior to the recommencement of works in the vicinity of recorded cultural heritage sites, an application for a Cultural Heritage Permit will need to be submitted to the relevant Registered Aboriginal Party/Parties for the study area (RAP/s). If there is no RAP/s established in the study area at the time the permit is applied for, it will be processed by the AAV Cultural Heritage Secretary. The application can take up to 30 days to be processed, and will incur a cost of \$506.90.

## **Recommendation 3**

It is possible, although highly unlikely, that human remains are located within the study area and may be disturbed during works. In this instance, all work in the area must cease and the Police or State Coroner's Office must be immediately notified. The State Coroners Office can be contacted on (03) 9684 4444. If there are reasonable grounds to suspect that the human remains are Aboriginal, then Aboriginal Affairs Victoria must also be notified on 1300 888 544. For detailed information about the procedure to be followed please see Appendix 3.

## Historical Sites

### Recommendation 4

Although no historical sites were recorded during the survey, sub-surface sites may be impacted upon by the proposed works. In accordance with the *Victorian Heritage Act* 1995, if any previously unrecorded historical archaeological sites are uncovered during the proposed activities, works must stop immediately in the vicinity, the discovery reported to Heritage Victoria and a qualified archaeologist need to be engaged to appropriately record the sites.

### Recommendation 5

In the event of a historical place being identified during the proposed construction the proponent of the development would be required to obtain consent to disturb or destroy the site from Heritage Victoria.

## 7.9 Report Lodgement

This report has been distributed to:

- URS Australia Pty Ltd (1 copy & CD)
- Aboriginal Affairs Victoria (1 copy & CD)
- Heritage Victoria (1 copy and CD)
- Gunditj Mirring Traditional Owners Aboriginal Corporation (1 copy)
- Framlingham Aboriginal Trust (1 copy)

## 7.10 Independent Review of Reports

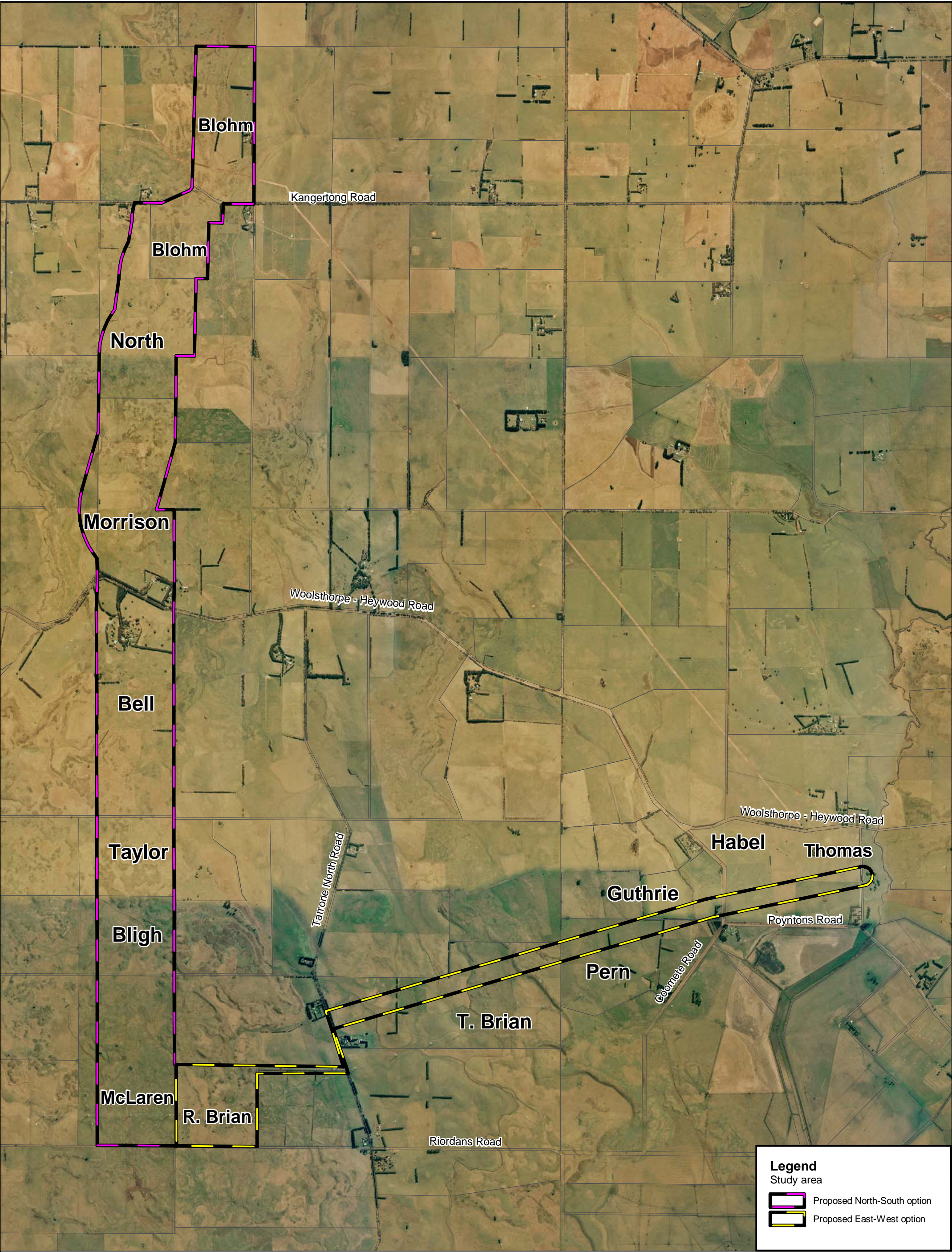
Archaeological reports and the management recommendations contained therein will be independently reviewed by the Heritage Services Branch of Aboriginal Affairs Victoria, the relevant Aboriginal community and Heritage Victoria.

Although the findings of a consultant's report will be taken into consideration, recommendations in relation to managing a heritage place should not be taken to imply automatic approval of those actions by Aboriginal Affairs Victoria, the Aboriginal community or Heritage Victoria.

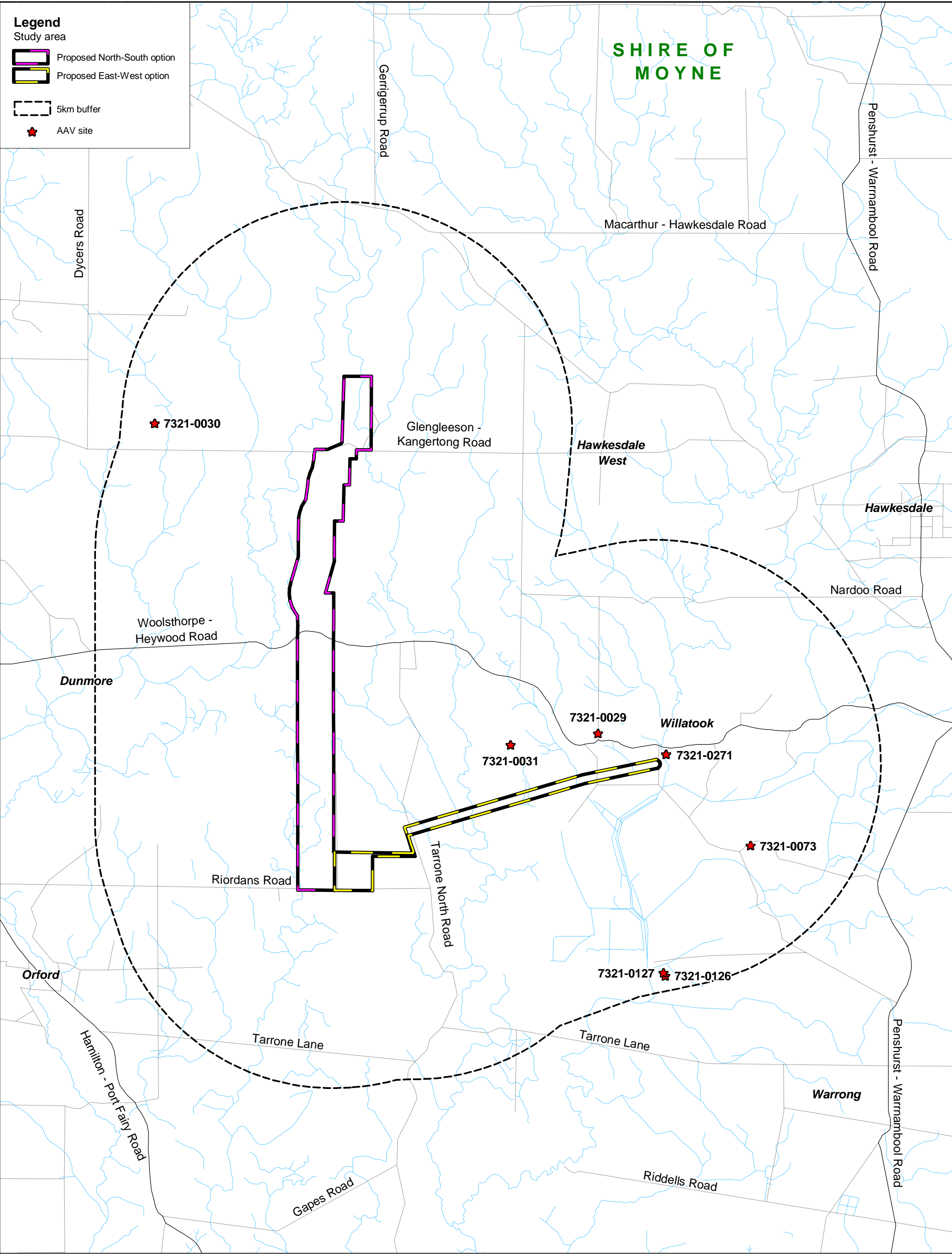
# FIGURES







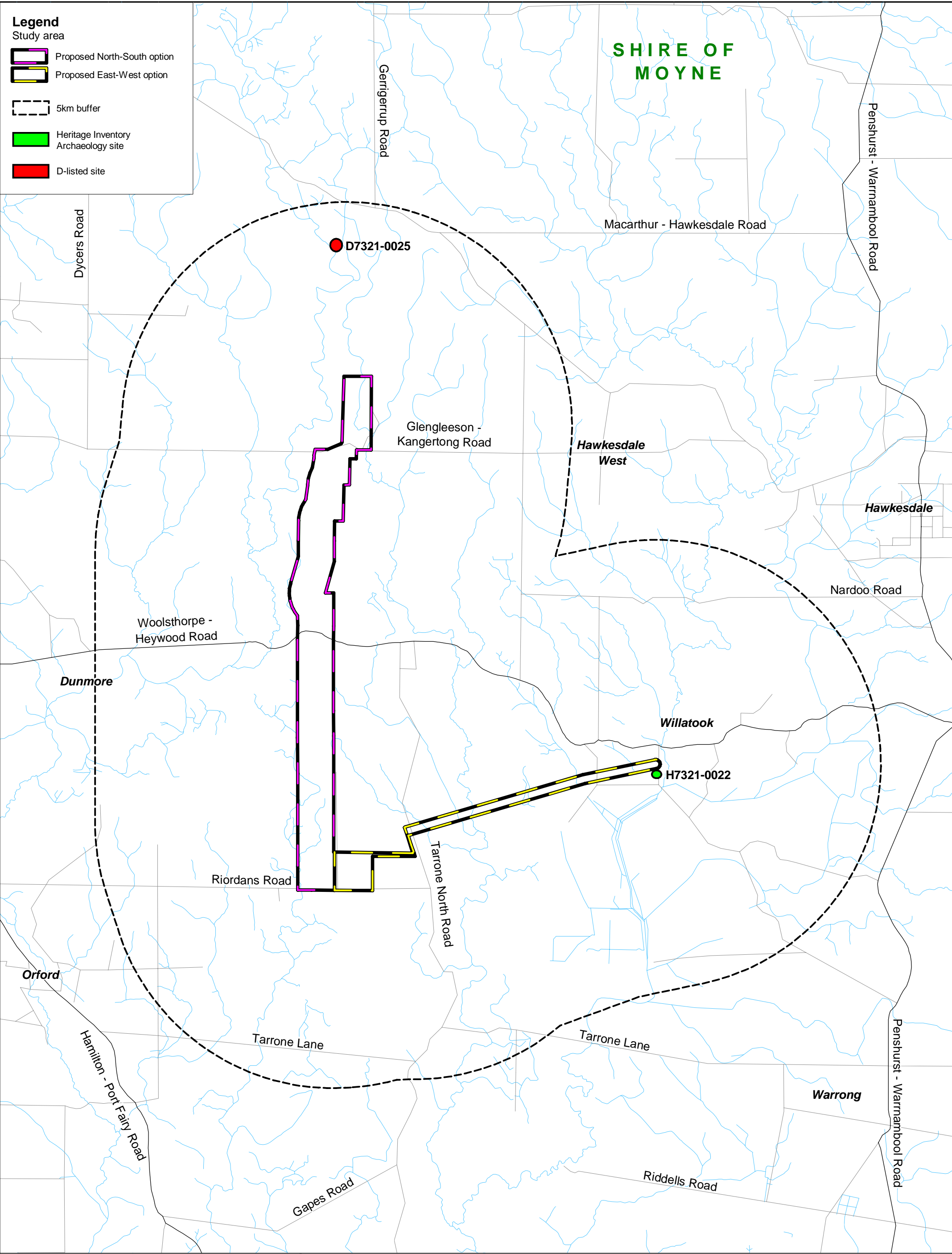







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|---|--|---------------|---|--|--|
| <br><b>Biosis Research Pty. Ltd.</b><br>38 Bertie Street<br>(PO Box 489)<br>Port Melbourne<br>VICTORIA 3207 | Offices also in:<br>Sydney, Ballarat,<br>Wollongong, Queanbeyan,<br>& Wangaratta |               | <b>Figure 3: Previously recorded AAV sites within 5km of the study area</b> |  |  |
|   | DATE: 11 September 2009  |               | Scale: 0 0.75 1.50 2.25 3.00 3.75 kilometres                                |  |  |
|   | Checked by: BKS  | Drawn by: PJY | File number: 7857   |  |  |
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& Wangaratta


Figure 4: Previously recorded Heritage Victoria sites within 5km of the study area

|   |               |                   |
|---|---------------|-------------------|
| DATE: 11 September 2009                               |               |                   |
| Checked by: BKS                                       | Drawn by: PJY | File number: 7857 |
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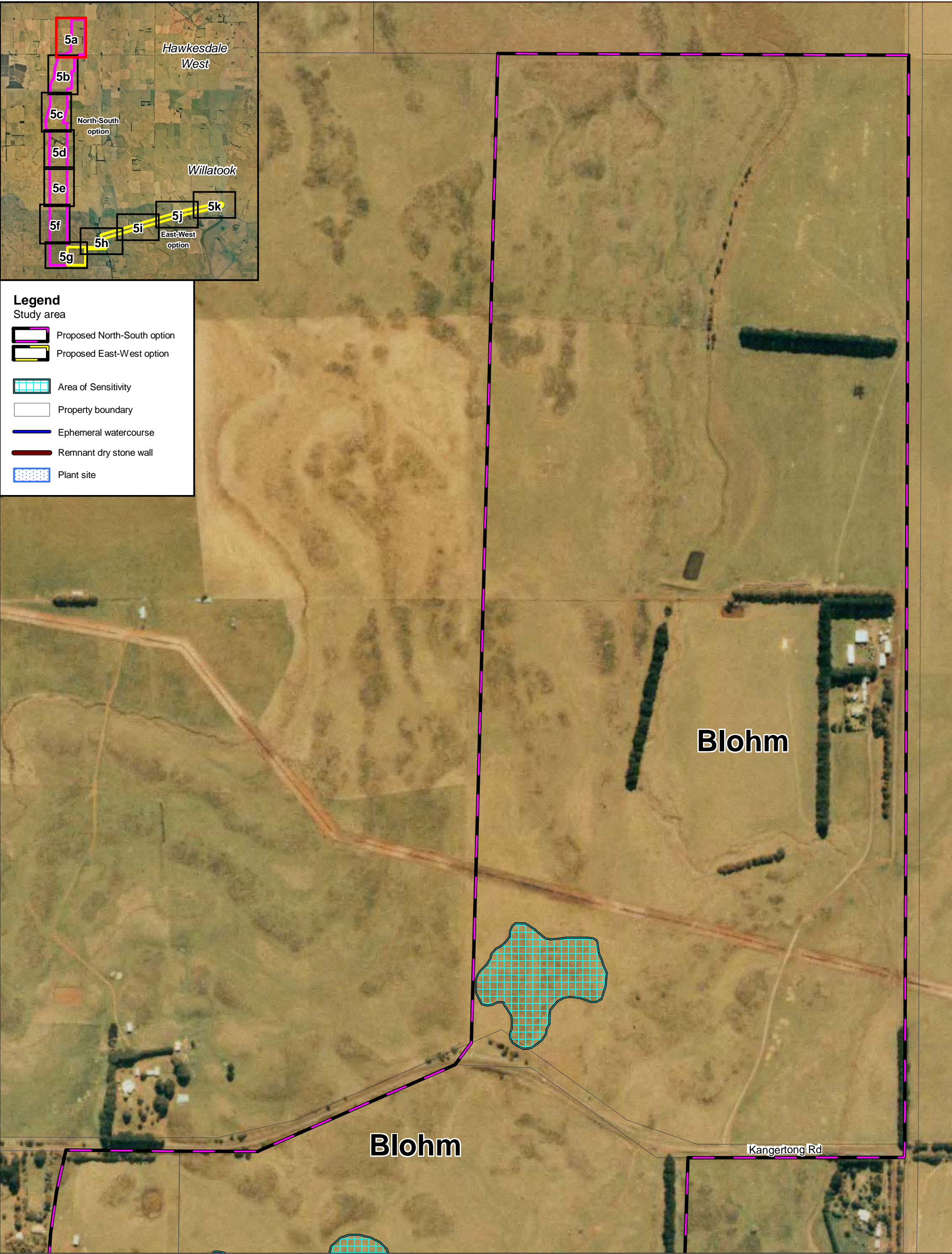
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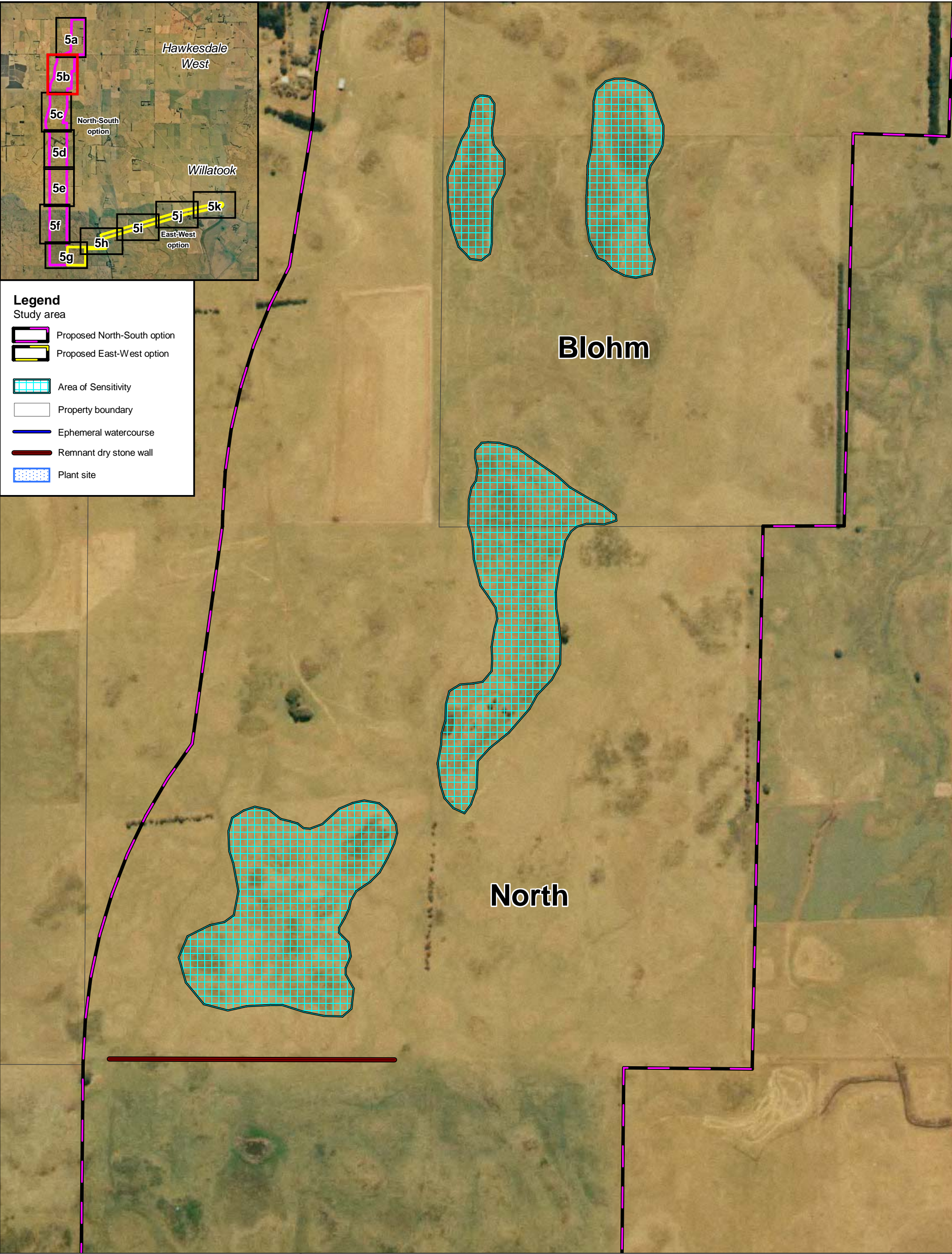
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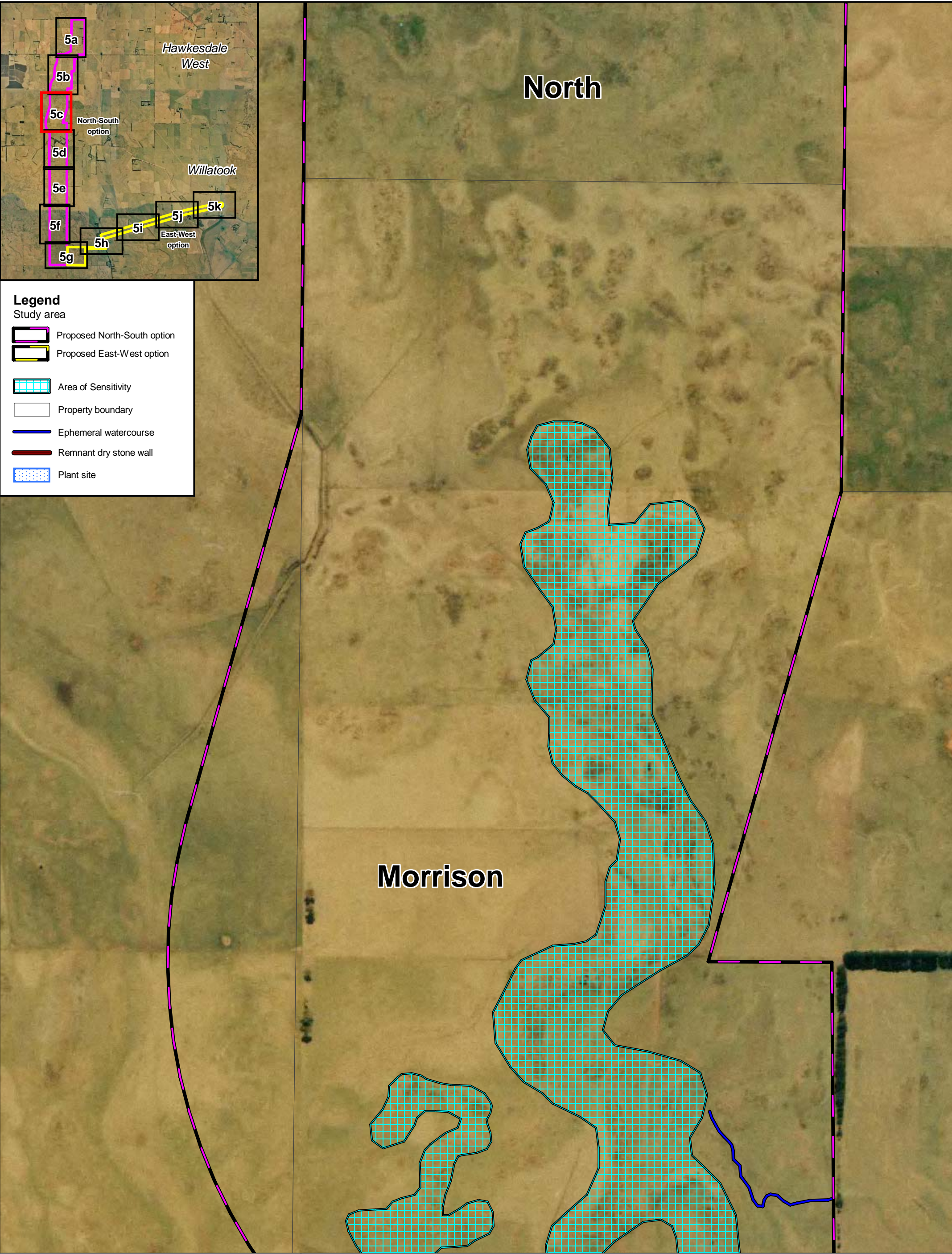




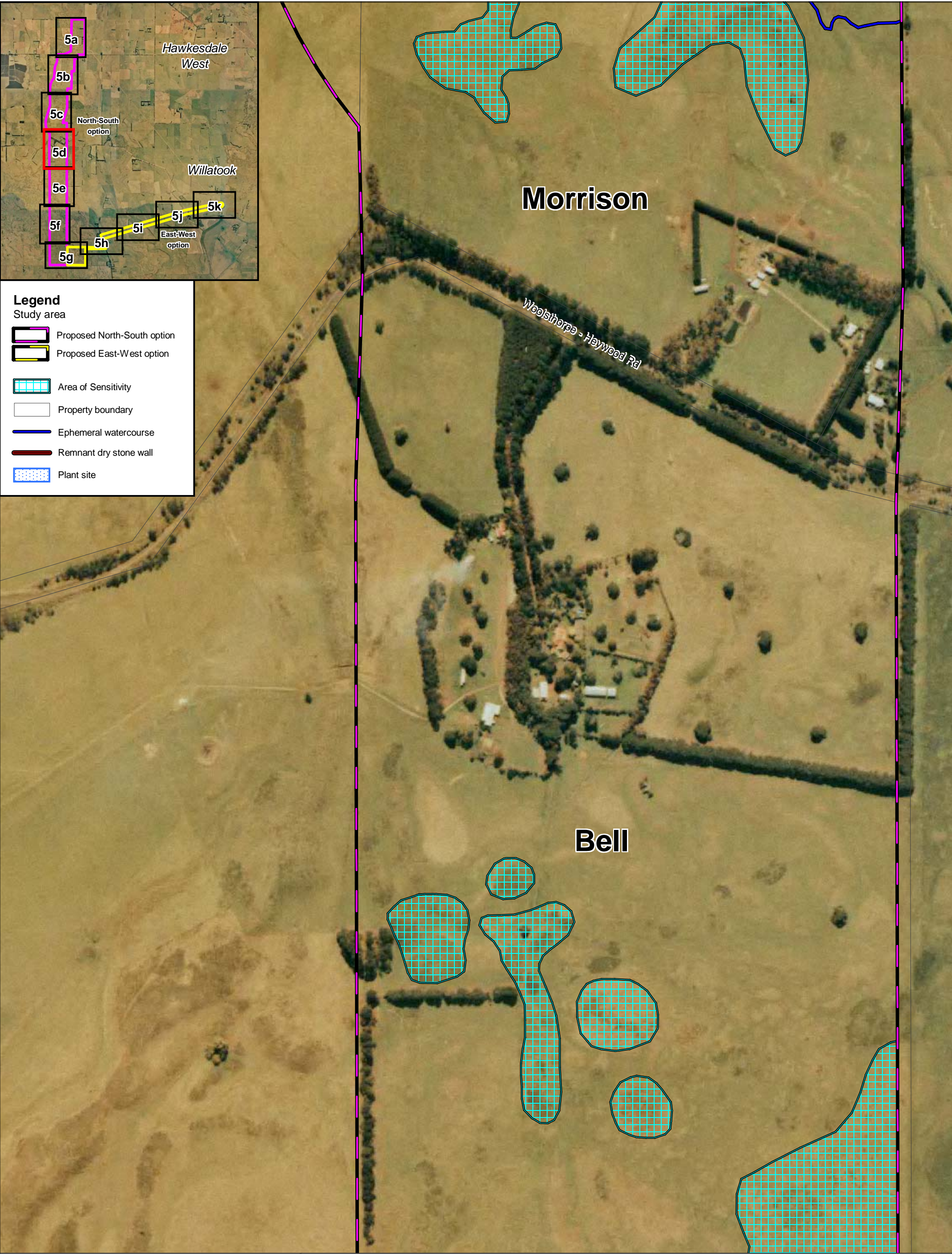




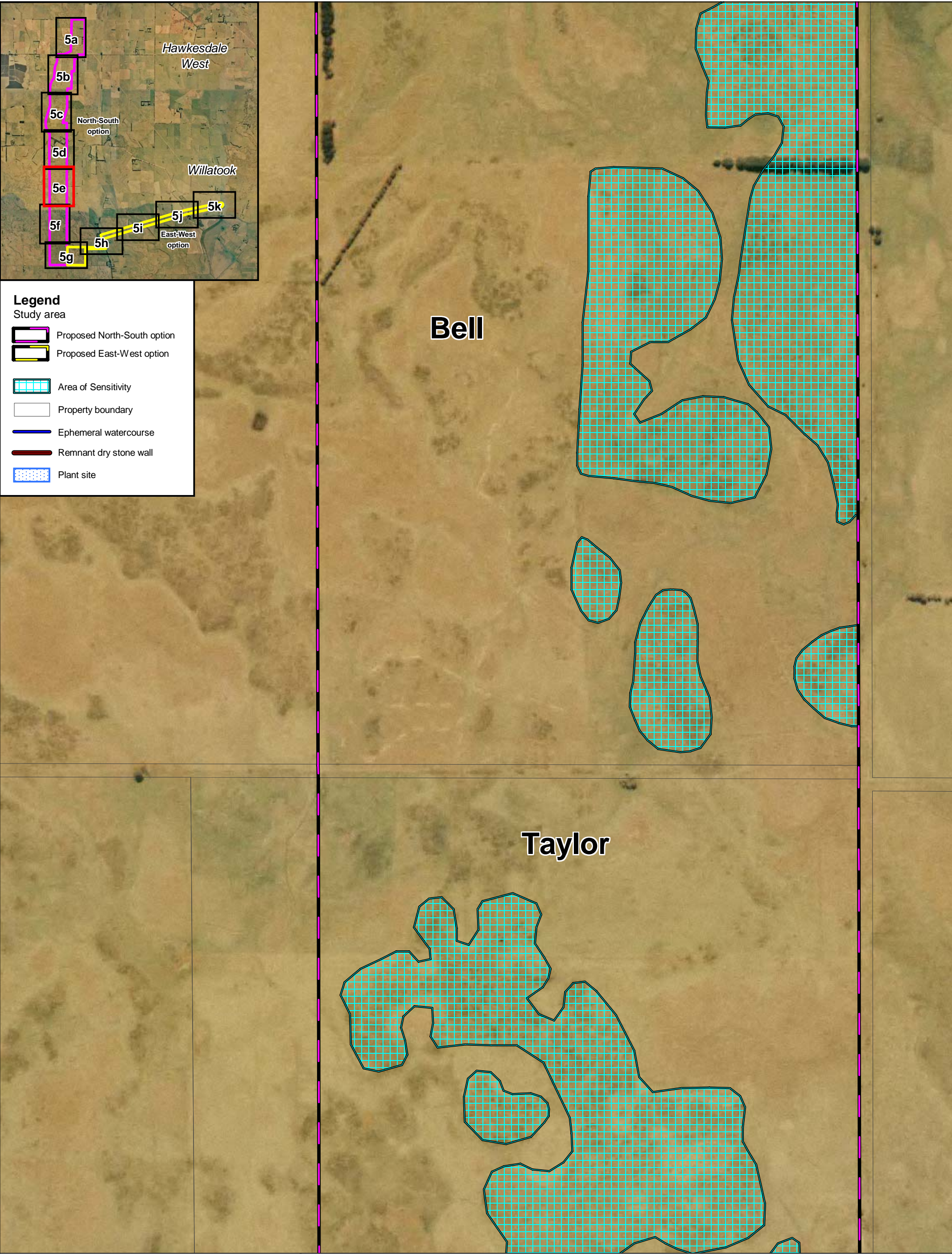








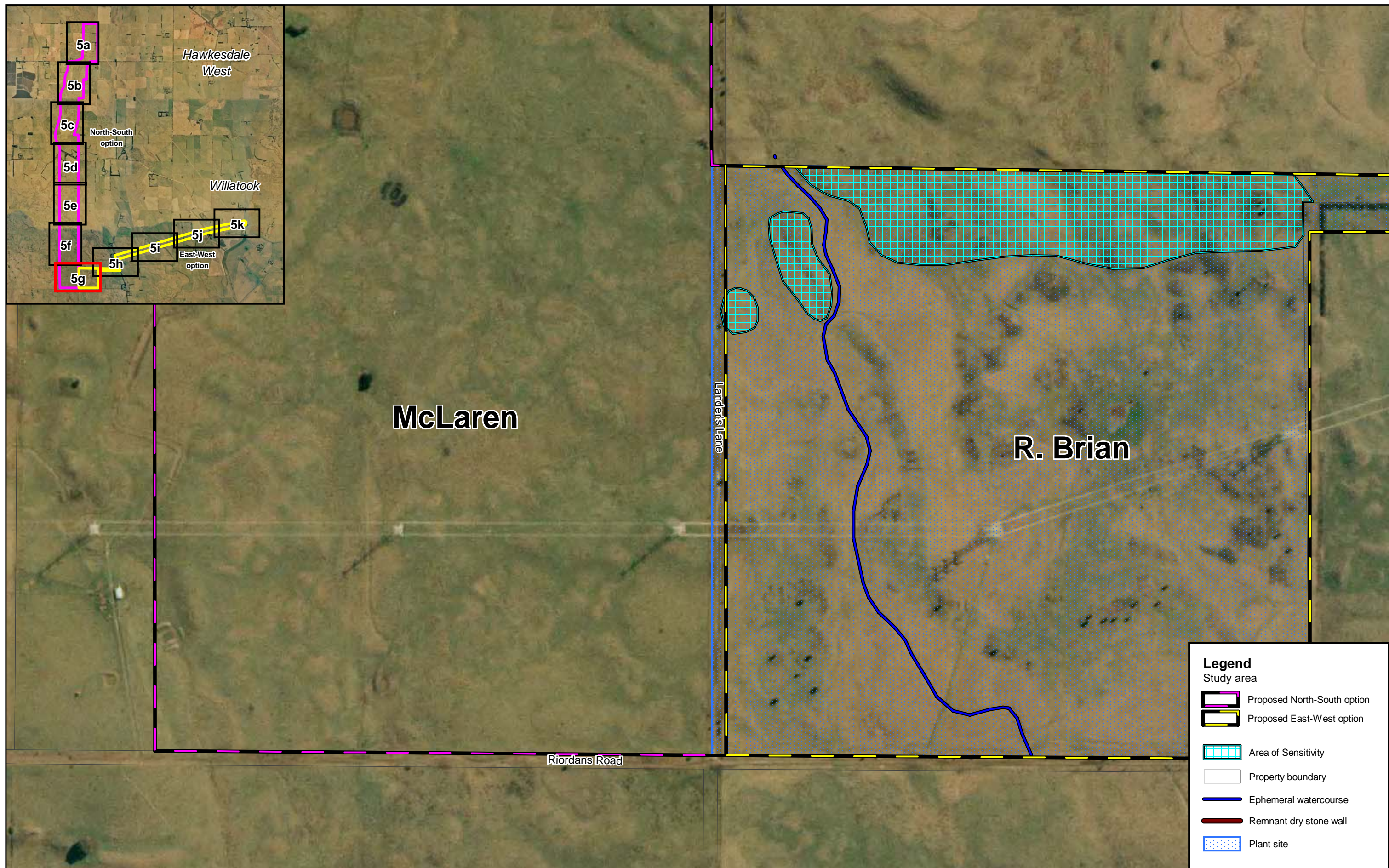












Biosis Research Pty. Ltd.  
38 Bertie Street  
(PO Box 489)  
Port Melbourne  
VICTORIA 3207

Figure 5g: Areas of Aboriginal Cultural Sensitivity within the study area

DATE: 11 September 2009

Checked by: BKS

Drawn by: PJY

File number: 7857

Location: P:\MRG 7800s\7857\Mapping\7857 Figure 5.wor

Scale:

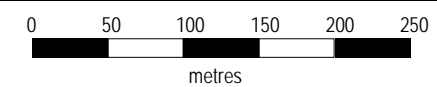


Figure 5g: Areas of Aboriginal Cultural Sensitivity within the study area





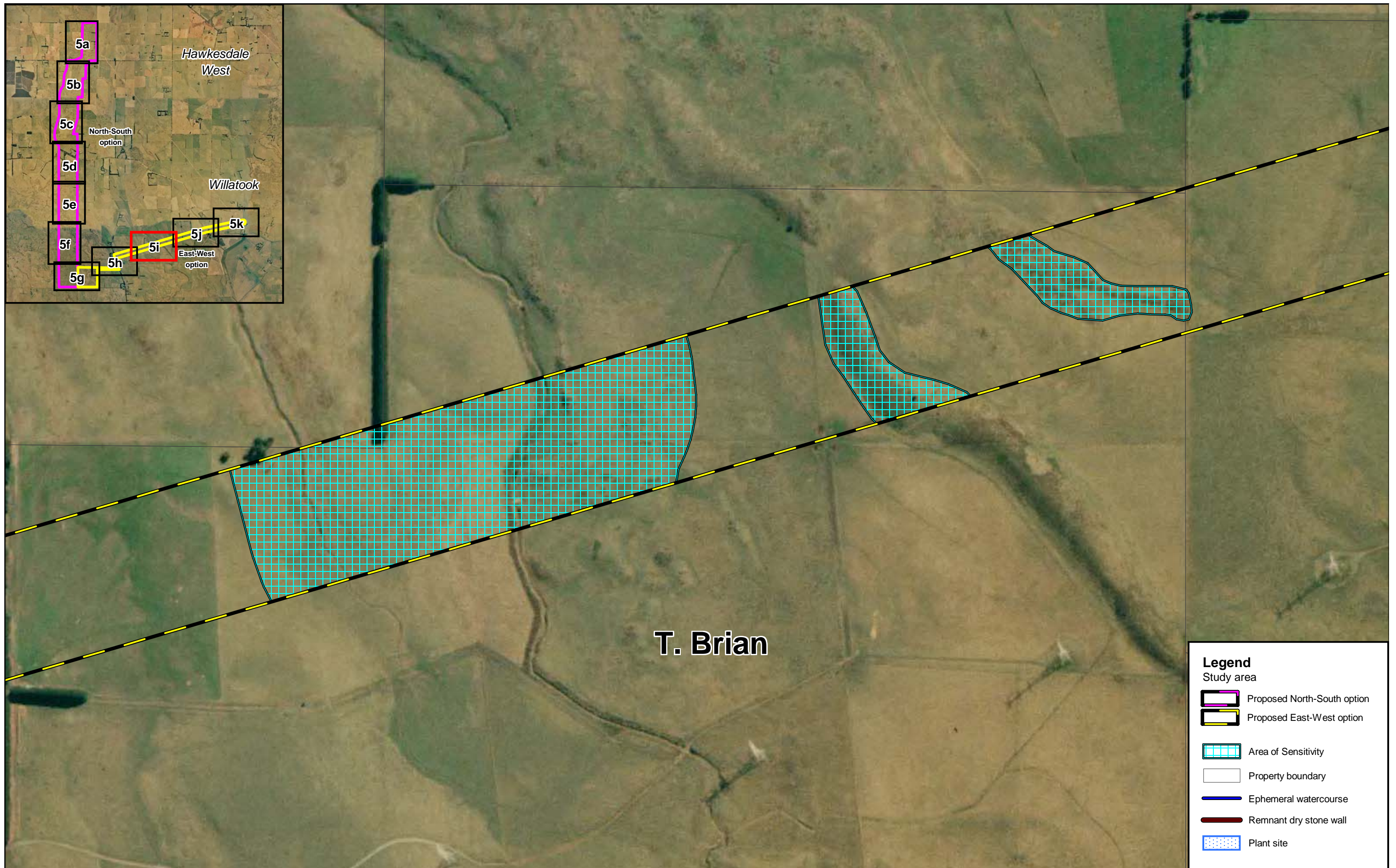


**Legend**

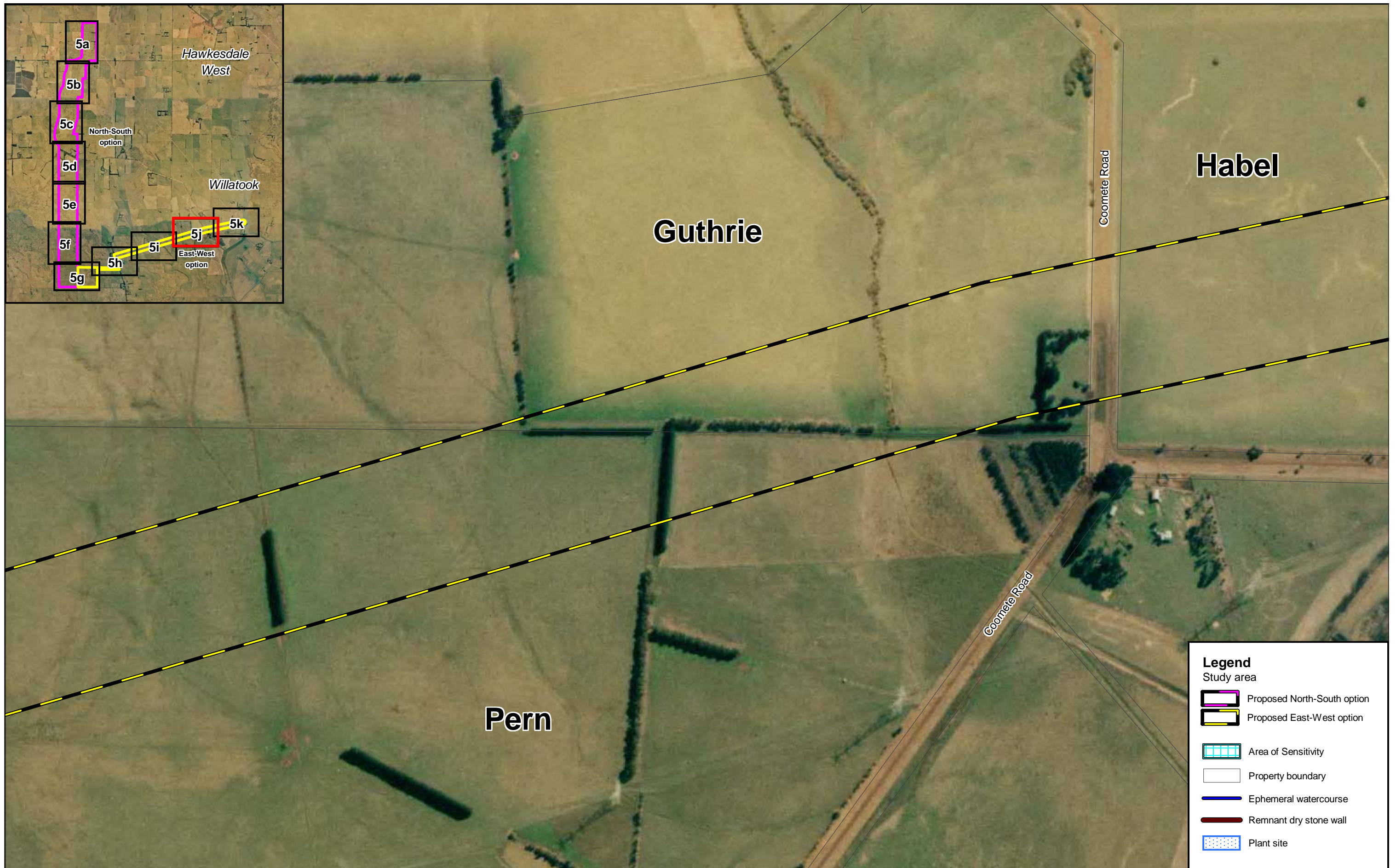
Study area

- Proposed North-South option
- Proposed East-West option
- Area of Sensitivity
- Property boundary
- Ephemeral watercourse
- Remnant dry stone wall
- Plant site

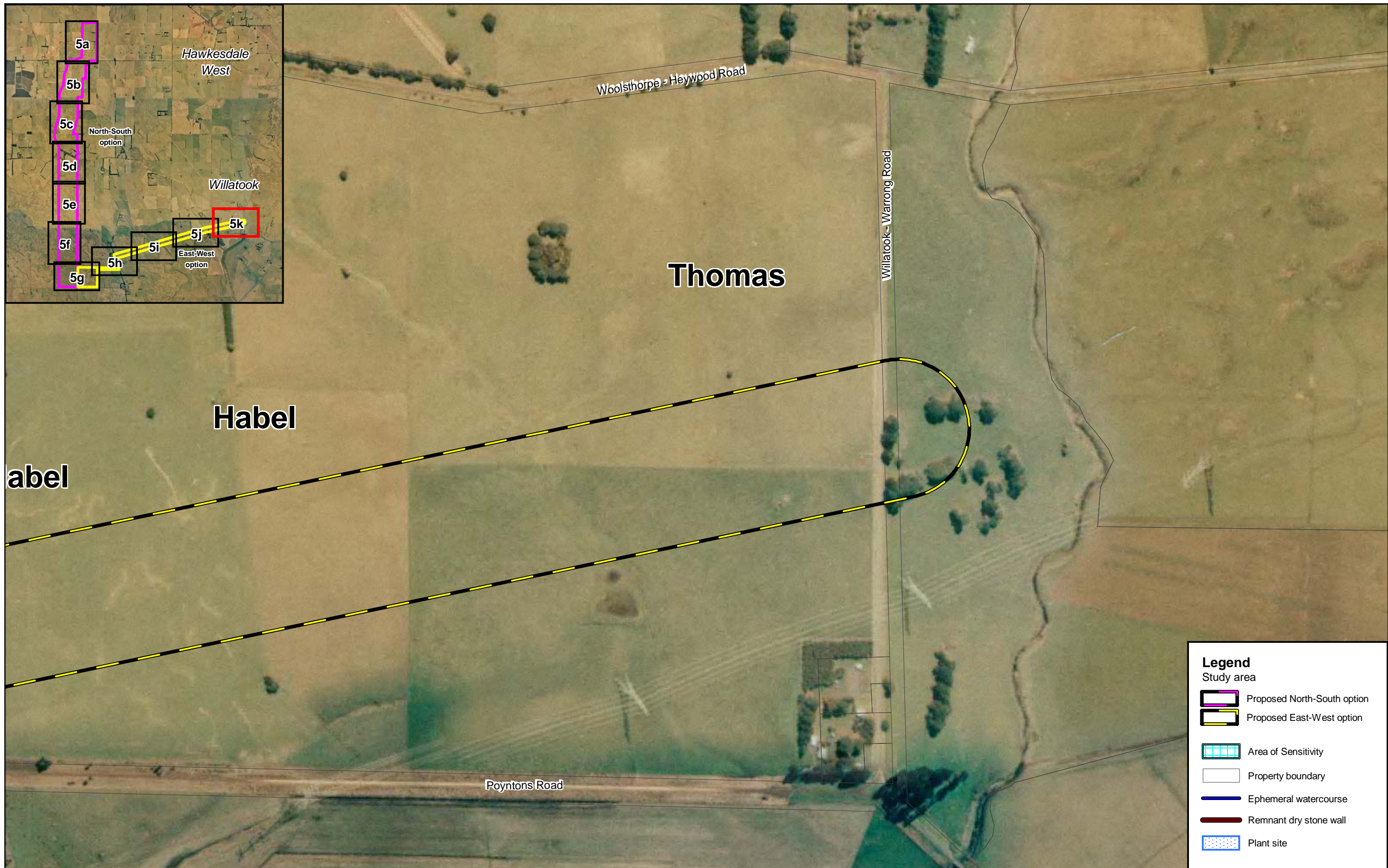














# PLATES



Plate 1: Prominent stony rise overlooking floodplain – East-West Option



Plate 2: Ground surface vegetation and surface volcanic rocks – East-West Option



Plate 3: Prominent stony rise overlooking floodplain and dam – East-West Option



Plate 4: Evidence of ploughing – East-West Option



Plate 5: Evidence of ploughing – East-West Option



Plate 6: Clearing of rocks in paddocks to form modified stone mounds – East-West Option





Plate 7: Back Creek waterway – East-West Option



Plate 8: Scarred volcanic rock – North-South Option



Plate 9: Remanent stone wall – Alignment North-South Option



Plate 10: Volcanic basalt gate post – North-South Option



Plate 11: Remanent stone wall with rise – North-South Option



Plate 12: Stony rise – North-South Option



Plate 13: Prominent rise overlooking low lying wetland – North-South Option

# APPENDICES

# **Appendix 1**

## **A1. Notifications and Permits**





## Notice of Intention to carry out an Archaeological Survey

### 1. Details of notifier

Name .....  
 Postal address.....  
 Telephone (Business Hours) ..... Postcode .....  
 Facsimile .....  
 Commissioning agent .....

### 2. Survey location

Notice is given that the above-named person intends to undertake a survey of historical archaeological sites in the area delineated on the attached map, described as: (If more space is required, attach additional material)

The survey area is located on the following 1:100,000 map sheet/s:

| Map no | Map name |
|--------|----------|
| .....  | .....    |
| .....  | .....    |
| .....  | .....    |
| .....  | .....    |

### 3. Dates of survey

It is intended that the survey will be conducted between the following dates: From ..... to .....  
 Signature ..... Date / /

#### Assistance

If you require assistance to complete this form, please telephone (03) 9637 9475. This form should be lodged by post or fax with Heritage Victoria, Level 7, 8 Nicholson St, East Melbourne 3002. Fax: (03) 9637 9503



Ref: PL-HE/01/0008 13

22 June, 2009

Matt Schlitz  
Biosis Research  
PO Box 489  
Port Melbourne  
VIC 3207

PO Box 2392  
Melbourne 3001  
Level 4  
55 Collins Street  
Melbourne 3000  
Telephone (03) 8644 8800  
Facsimile (03) 8644 8811  
[www.heritage.vic.gov.au](http://www.heritage.vic.gov.au)

Dear Matt

**RE: PROPOSED SURVEY**

**3587 INVESTIGATION PIPELINE CORRIDOR FOR PROPOSED  
TARRONE GAS-FIRED POWER STATION**

Thank you for forwarding the completed Notice of Intent to Carry Out an Archaeological Survey form advising of your intent to conduct a historical archaeological survey at the above site. Please quote the project number listed above in all following correspondence that relates to this survey.

Section 131 of the *Heritage Act* 1995 requires that copies of all documentation resulting from a survey or investigation must be lodged with Heritage Victoria for reference and archival purposes. Comprehensive documentation provides the basis for future management of Victoria's historical archaeological resource.

The recently released technical guide, *Guidelines for Conducting Historical Archaeological Surveys* provides details on the statutory processes and required documentation in conducting a survey, completing a Heritage Inventory Site Card and producing a final report. Any incomplete, inaccurate or illegible documentation will be returned for appropriate completion.

As detailed in the technical guide, a report must be submitted even if no new historical archaeological sites have been located during the course of the survey or desktop study.

Should you have any queries or require any further assistance please call Brandi Bugh, Heritage Victoria Archaeologist, on (03) 8644 8901.

Yours sincerely

**RAY TONKIN**  
**EXECUTIVE DIRECTOR**



21 July 2009

Tamarind Meara  
Biosis Research Pty Ltd  
PO Box 789  
Port Melbourne  
VIC 3207

PO Box 2392  
Melbourne 3001  
Level 4  
55 Collins Street  
Melbourne 3000  
Telephone (03) 8644 8800  
Facsimile (03) 8644 8811

Dear Tamarind

**RE: REPORT RECEIVED**

Thank you for forwarding the completed report. The information has been processed and the following report number and title has been allocated:

**3587 TARRONE GASE-FIRED POWER STATION & GAS PIPELINE  
HERITAGE ASSESSMENT**

It is intended that on an annual basis, an electronic copy of all received reports for the calendar year will be sent to each consultancy. Hard copies will also be available for viewing through Heritage Victoria or the Infralib Library.

This office will contact you if there are any queries or concerns once the reports have been reviewed.

For any further information please contact me on 03 8644 8901 or [brandi.bugh@dpcd.vic.gov.au](mailto:brandi.bugh@dpcd.vic.gov.au).

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Brandi Bugh', with a long horizontal line extending to the right.

Brandi Bugh  
Heritage Victoria

*Any personal information about you or a third party in your correspondence will be collected, held, managed, used, disclosed or transferred in accordance with the provisions of the Information Privacy Act 2000 (Vic) and applicable laws. Enquiries about access to information about you held by the Department should be directed to the Privacy Officer, Department of Planning and Community Development, PO Box 2392, Melbourne, VIC 3001.*

*Notwithstanding the above, please note that information provided to enable the administration of the Heritage Act 1995 may be disclosed to persons with an interest in the heritage place or object particularly, and information provided as part of a permit application may be made available on-line where the application has been publicly advertised under section 68 of the Heritage Act 1995*



# Appendix 2

## A2. Assessment of Heritage Significance

### A2.1 Introduction

Assessing the significance of a cultural heritage place is undertaken to make decisions about the best way to protect and manage that particular heritage place. The category and significance of a heritage place will also determine if it is to be given statutory protection. The statutory issues that affect heritage places are discussed in detail in Appendix 2.

Places that are assessed as having National heritage significance can be added to the Commonwealth Register of the National Estate, those of State significance to the Victorian Heritage Register. Aboriginal Affairs Victoria maintains a register of known Aboriginal sites, and Heritage Victoria lists all known historical archaeological sites on the Victorian Heritage Inventory. A heritage place can also be protected under a planning scheme administered by local government. The National Trust maintains a list of significant heritage places, and local historical societies and Aboriginal communities will often have substantial knowledge about local heritage places.

Assessment of the significance of a heritage place can be complex and include a range of heritage values. The cultural heritage values of a site or place are broadly defined in the Burra Charter – the set of guidelines on cultural heritage management and practice prepared by Australia ICOMOS (International Council on Monuments and Sites) – as the ‘aesthetic, historic, scientific or social values for past, present or future generations’ (Marquis-Kyle and Walker 1992: 21). Various government agencies, including the Australian Heritage Commission and Heritage Victoria, have developed formal criteria for assessing heritage significance. These have been included at the end of this appendix and used in this report as applicable. Many Aboriginal sites also have significance to a specific Aboriginal community – this is discussed in a separate section below.

The primary criterion used to assess archaeological sites is *scientific* significance. This is based on the capacity of archaeological relics and sites to provide us with historical, cultural or social information. The following evaluation will assess the scientific significance of the archaeological sites recorded during this project. The **scientific significance assessment** methodology outlined below is based on scores for research potential (divided into site contents and site condition) and for representativeness. This system is refined and derived from Bowdler (1981) and Sullivan and Bowdler (1984).

### A2.2 Criteria for significance assessment – archaeological sites

- i) Scientific significance assessment: historical archaeological sites and Aboriginal artefact scatters and isolated artefacts

Scientific significance is assessed by examining the *research potential* and *representativeness* of archaeological sites.

**Research potential** is assessed by examining *site contents* and *site condition*. Site contents refers to all cultural materials and organic remains associated with human activity at a site. Site contents also refers to the site structure – the size of the site, the patterning of cultural materials within the site, the presence of any stratified deposits and the rarity of particular artefact types. As the site contents criterion is not applicable to scarred trees, the assessment of scarred trees is outlined separately below. Site condition refers to the degree of disturbance to the contents of a site at the time it was recorded.

The *site contents* ratings used for archaeological sites are:

- 0 No cultural material remaining.

- 1 Site contains a small number (e.g. 0–10 artefacts) or limited range of cultural materials with no evident stratification.
- 2 Site contains:
  - (a) a larger number, but limited range of cultural materials; and/or
  - (b) some intact stratified deposit remains; and/or
  - (c) rare or unusual example(s) of a particular artefact type.
- 3 Site contains:
  - (a) a large number and diverse range of cultural materials; and/or
  - (b) largely intact stratified deposit; and/or
  - (c) surface spatial patterning of cultural materials that still reflect the way in which the cultural materials were deposited.

The *site condition* ratings used for archaeological sites are:

- 0 Site destroyed.
- 1 Site in a deteriorated condition with a high degree of disturbance; some cultural materials remaining.
- 2 Site in a fair to good condition, but with some disturbance.
- 3 Site in an excellent condition with little or no disturbance. For surface artefact scatters this may mean that the spatial patterning of cultural materials still reflects the way in which the cultural materials were laid down.

**Representativeness** refers to the regional distribution of a particular site type. Representativeness is assessed by whether the site is *common*, *occasional*, or *rare* in a given region. Assessments of representativeness are subjectively biased by current knowledge of the distribution and number of archaeological sites in a region. This varies from place to place depending on the extent of archaeological research. Consequently, a site that is assigned low significance values for contents and condition, but a high significance value for representativeness, can only be regarded as significant in terms of knowledge of the regional archaeology. Any such site should be subject to re-assessment as more archaeological research is undertaken.

Assessment of representativeness also takes into account the contents and condition of a site. For example, in any region there may only be a limited number of sites of any type that have suffered minimal disturbance. Such sites would therefore be given a high significance rating for representativeness, although they may occur commonly within the region.

The *representativeness* ratings used for archaeological sites are:

- 1 common occurrence
- 2 occasional occurrence
- 3 rare occurrence

**Overall scientific significance** ratings for sites, based on a cumulative score for site contents, site integrity and representativeness are:

- 1-3 low scientific significance
- 4-6 moderate scientific significance
- 7-9 high scientific significance

ii) Scientific significance assessment: scarred trees

The scientific significance assessment for scarred trees varies from the significance assessment outlined above because a scarred tree has no site contents rating (a tree either is, or is not, a scarred tree). Although scarred trees are a site type usually associated with traditional Aboriginal cultural activity, there are examples of scarred trees associated with non-Aboriginal activity (survey blazes for example).

The *site condition* ratings used for scarred trees are:

- 1 poorly preserved tree scar
- 2 partly preserved tree scar
- 3 well preserved example of a scarred tree

Representativeness refers to the regional distribution of scarred trees. Representativeness is assessed on whether the site is common, occasional or rare in a given region. Representativeness should take into account the type and condition of the scar(s)/tree (the tree will be in: good health, poor health, dying, dead-standing, dead-on ground or destroyed) and the tree species involved.

The *representativeness* ratings used for scarred trees are:

- 1 common occurrence
- 2 occasional occurrence
- 3 rare occurrence

**Overall scientific significance** ratings for scarred tree sites based on a cumulative score for site condition and representativeness are:

- 1-2 low scientific significance
- 3-4 moderate scientific significance
- 4-6 high scientific significance

### A2.3 Aboriginal Cultural Significance

Aboriginal sites and areas of land for which a local Aboriginal community has custodianship usually have a special significance for Australian Aboriginal people.

Australian Aborigines have a very ancient and distinct traditional culture, which is very much alive. At the same time, in Australian society today they constitute a visibly oppressed and disadvantaged minority. These two elements give their heritage and history a special significance, ...Aboriginal places may be important to Aboriginal people in a number of ways.

In southern Australia the vast majority of sites are prehistoric [rather than 'sacred' or historic]. They relate to evidence of Aboriginal occupation of the continent over 60,000 years, but they have no specific traditional significance to any particular group. They are usually as unknown to Aborigines as to others until located and identified by archaeological survey or other research.

(Pearson and Sullivan 1995: 159, 162)

All pre-contact (pre-European settlement) sites that are located in the study area are considered to be of cultural significance to the Wurundjeri. The sites are evidence of past Aboriginal occupation and use of the area, and are the main source of information about the Aboriginal past. The consultants cannot comment directly on such cultural significance – comment can only be made by the Aboriginal community. In addition, any recorded (and unrecorded) pre-contact sites are of cultural significance because they are rare or, at least, uncommon site-types. In particular, many sites in the greater Melbourne region have been destroyed as a result of land clearance and land-use practices in the historic period.

### A2.4 Non-Aboriginal sites – Cultural Heritage Significance

Heritage Victoria is the State Government body responsible for protecting non-Aboriginal heritage places in Victoria, including gardens, buildings, shipwrecks and historical archaeological sites. Heritage Victoria administers the *Heritage Act 1995*, and has provided formal criteria for the assessment of cultural heritage significance. The application of these criteria will determine if a heritage place meets the threshold to be considered for addition to the Victorian Heritage Register.

Although most historical archaeological sites will have application to Criterion C, which addresses scientific value (discussed in detail above), several of the other criteria may still be applicable. On the basis of these criteria, heritage places are generally accorded a significance ranking of State, Local or none. Historical archaeological sites, as with other heritage places, can be considered for addition to the Victorian Heritage Register if they are considered to have State significance. It should be noted, however, that *all* historical archaeological sites are included on the Victorian Heritage Inventory and are accorded statutory protection, irrespective of their level of significance.

*(Criteria adopted by the Heritage Council on 6 March 1997 pursuant to Sections 8(c) and 8(2) of the Heritage Act 1995):*

- CRITERION A.** The historical importance, association with or relationship to Victoria's history of the place or object.
- CRITERION B.** The importance of a place or object in demonstrating rarity or uniqueness.
- CRITERION C.** The place or object's potential to educate, illustrate or provide further scientific investigation in relation to Victoria's cultural heritage.
- CRITERION D.** The importance of a place or object in exhibiting the principal characteristics or the representative nature of a place or object as part of a class or type of places or objects.
- CRITERION E.** The importance of the place or object in exhibiting good design or aesthetic characteristics and/or in exhibiting a richness, diversity or unusual integration of features.
- CRITERION F.** The importance of the place or object in demonstrating or being associated with scientific or technical innovations or achievements.
- CRITERION G.** The importance of the place or object in demonstrating social or cultural associations.

## Appendix 3

### A3. Statutory Regulations

#### A3.1 Aboriginal Sites

- i) Victorian Aboriginal cultural heritage legislation

##### A3.1.1 The New Victorian Aboriginal Heritage Act 2006

In 2006 the Victorian Aboriginal Heritage Act 2006 was introduced, and was enacted on the 28th May 2007. This new Act replaced Part IIA of the Commonwealth Aboriginal and Torres Strait Islander Heritage Protection Act 1984 and the State Archaeological and Aboriginal Relics Preservation Act 1972. From this date Aboriginal cultural heritage in Victoria is protected through the Aboriginal Heritage Act 2006 and the Aboriginal Heritage Regulations 2007.

The key features of the Act are as follows:

- Establishment of an Aboriginal Heritage Council (AHC) which advises the Minister for Aboriginal Affairs on cultural heritage;
- Establishment of Registered Aboriginal Parties (RAPs) that are involved in heritage management at a local level;
- Requirements for Cultural Heritage Management Plans (CHMPs), for all projects that may have a significant cultural heritage impact to be completed by Cultural Heritage Advisors (archaeologists and other heritage specialists);
- The issue of Cultural Heritage Permits (CHPs) for activities that are likely to impact or harm an Aboriginal heritage site, in those cases where a CHMP is not required. Permits are issued by the Secretary for the Department for Victorian Communities (DVC);
- Declarations may be made under the Act by the Minister, to protect and preserve important Aboriginal cultural heritage places;
- Penalties for failing to comply with the Act are substantially increased;
- Stop Orders can be issued by Inspectors or the Minister, in order to stop any activity that endangers or harms an Aboriginal site; and

The Act establishes the Victorian Aboriginal Heritage Register which holds details on all recorded Aboriginal heritage sites in the State.

Those sections of the Act relevant to clients seeking approvals are discussed below.

##### A3.1.2 Cultural Heritage Management Plans

Under s.46 of the new Act, a Cultural Heritage Management Plan is required for an activity if:

- all or part of the activity is a 'high impact activity'; that causes 'significant ground disturbance'; and
- all or part of the activity area is an area of 'cultural heritage sensitivity', which has not already been subject to significant ground disturbance.

A CHMP may also be directed by the Minister, and is required if an activity is to be the subject of an Environment Effects Statement (EES).

The terms 'high impact activity', 'significant ground disturbance' and 'cultural heritage sensitivity' are all defined in the Aboriginal Heritage Regulations 2007 (see [www.legislation.vic.gov.au](http://www.legislation.vic.gov.au)). The regulations also define what activities are exempt from needing a CHMP.

A Cultural Heritage Management Plan is a written report containing the results of the archaeological assessment and recommendations for measures to be taken before, during and after an activity to manage and protect Aboriginal cultural heritage in the area.

Preparation of a Cultural Heritage Management Plan involves a Cultural Heritage Advisor (an archaeologist or other heritage specialist) working with Aboriginal community representatives and RAPs to identify and assess cultural heritage values in relation to a proposed development or activity.

There are a prescribed series of stages involved in the development of a CHMP, where there is likely to be an impact on a previously identified cultural heritage site, or the study area is located in an area of cultural heritage sensitivity. Typically these involve a desktop assessment, standard assessment and complex assessment. A desktop assessment involves accessing and reviewing available information to determine if any recorded cultural heritage sites exist or if unrecorded sites are likely to occur. If it is possible that sites might be present in the study area, a standard assessment then follows with the completion of a field survey. Then finally, if it is necessary to identify the nature, extent and significance of any cultural material present in the study area, a complex assessment is conducted. This will involve controlled excavation of the study area.

A CHMP must be complete and consistently written in accordance with AAV Guidelines, and will be formally assessed by either the relevant RAPs or the Secretary for the DVC (Department for Victorian Communities).

#### A3.1.3 Process

When preparing a CHMP it is necessary for the project sponsor (the proponent i.e. the developer) to first submit a 'notice of intent to prepare a management plan' as prescribed in s.54 of the Act. This formally starts the CHMP process and is a document that must be appended to a management plan submitted for evaluation. A suggested format of this notice can be found on the AAV website at [http://www1.dvc.vic.gov.au/aav/heritage/forms\\_fees\\_penalties](http://www1.dvc.vic.gov.au/aav/heritage/forms_fees_penalties) and under 'Useful Administrative Forms'.

The necessary notification must be submitted to:

The Deputy Director, AAV  
Mr Ian Hamm  
Deputy Director  
Aboriginal Affairs Victoria  
GPO 2392  
MELBOURNE VIC 3001

All relevant RAPs;

All owners and occupiers of any land covered by the CHMP.

RAPs have 14 days from receipt of the notice to respond as to whether they will assess the CHMP and specify if and how they wish to consult with the proponent and be involved in the heritage assessment. When notified by a RAP of their intended involvement in assessing a CHMP, the proponent is required to make all attempts to involve the RAP in consultation regarding the development of the CHMP and in the field assessment.

RAPs may elect not to assess a CHMP, or if they fail to respond within 14 days of receipt of notice, in such cases the proponent must notify the Secretary, who is then required to assess it.

Following completion of a CHMP the proponent seeks approval from:

Any RAPs who gave notice of intention to assess it; or

The Secretary where there is no relevant RAP, the RAP elects not to assess the CHMP or does not respond within 14 days of the notice of intention sent by the proponent.

Where applicable, the RAPs/Secretary has 30 days after receiving the application to evaluate the CHMP and respond to the proponent in writing of their decision to approve or refuse the CHMP.

When a CHMP has been approved, it must be lodged with the Secretary, and copies of each notice of decision must accompany the document.

Importantly, under s.52 of the Act, the decision-making authorities such as government agencies and local government will not be able to issue statutory approval for a work authority, licence or planning permit for certain activities unless an approved CHMP has first been received.

#### **A3.1.4 Registered Aboriginal Parties (RAPs)**

Under the Act there is a system of Registered Aboriginal Parties (RAPs). Local Aboriginal organisations can apply to become RAPs, including Native Title parties and traditional owner groups. The RAPs are involved in assessing all relevant CHMPs, Cultural Heritage Permits and are generally involved in heritage management at a local level.

In cases where there are no RAP registered for a given area, consultation about the CHMP should be made with the local Aboriginal community as represented by the Victorian component of the Commonwealth Act. If there is more than one RAP involved in the area for which a CHMP is being developed then all have equal rights.

If a CHMP is produced, the relevant RAP must consider a notice of intention to prepare a Plan, and advise in writing within 14 days of the notification as to whether the RAP intends to evaluate the Plan. If the RAP chooses to assess the Plan, it must consult with the sponsor on the cultural heritage assessment, recommendations, and may participate in the conduct of the assessment. A decision must be made by the RAP on the approval or refusal of the Plan within 30 days of receiving the Plan. If the Plan is refused the proponent has the right to appeal at VCAT, though the first avenue of appeal will typically be the AHC.

RAPs can charge fees for the evaluation of management plans, which are prescribed under the Act. The RAPs may also charge fees to consult with proponents and to participate in field assessments.

#### **A3.1.5 Cultural Heritage Permits**

In those cases where a CHMP is not required but an activity is still likely to impact or harm an Aboriginal heritage site, a Cultural Heritage Permit may be required. A Permit cannot be granted for an activity that requires a CHMP.

Permits are required for the purposes of uncovering or discovering Aboriginal cultural heritage, or where there is likely to be an impact on a cultural heritage site.

Permits are lodged with the Secretary for the Department for Victorian Communities (DVC), who forwards them to the relevant RAP. RAPs have 30 days to advise in writing if they agree or refuse to grant the Permit. Permits are granted by the Secretary for the Department of Victorian Communities (DVC). RAPs may object to the issue of a permit on the basis of registered criteria under the Act, in which case the Secretary of the

DVC must refuse to grant a permit if the objection was raised during the 30 day consideration period. There is an avenue for review of refusals through VCAT. RAPs can attach any reasonable conditions to the issue of a Permit, as can the Secretary.

Any CHP applications must be forwarded to:

Secretary for Victorian Communities  
Department for Victorian Communities  
Aboriginal Affairs Victoria  
GPO 2392  
MELBOURNE VIC 3001

### A3.1.6 Dispute Resolution

The Act includes processes for dispute resolution including review of certain decisions through the Victorian Civil and Administrative Claims Tribunal (VCAT). If, for example, a decision is made by an RAP to refuse a CHMP then the decision may be appealed by the proponent.

Where more than one RAP is involved in the assessment of a CHMP and disagrees about the evaluation, the Act establishes a process for resolution through the AHC.

### A3.1.7 Native Title Act 1993

The Commonwealth Native Title Act establishes the principles and mechanisms for the preservation of Native Title for Aboriginal people.

Under Subdivision P of the Act, *Right to negotiate*, native title claimants can negotiate about some proposed developments over land and waters (known as 'Future Acts') if they have the right to negotiate. Claimants gain the right to negotiate if their native title claimant application satisfies the registration test conditions.

The right to negotiate applies over some proposed developments or activities that may affect native title. These are known as future acts under the Native Title Act 1993. Native title claimants only have the right to negotiate over certain types of future acts, such as mining. Activities such as exploration and prospecting on the land do not usually attract the right to negotiate.

The right to negotiate is not a right to stop projects going ahead — it is a right to have a say about how the development takes place. In some situations, the right to negotiate does not apply. In these circumstances, claimants may have the right to be notified, to be consulted, to object and to be heard by an independent umpire.

The right to negotiate is triggered when a government issues a notice to say that it intends to allow certain things to happen on land, such as granting a mining lease. This notice is called a 'section 29 notice'.

People who claim to hold native title in the area, but have not yet made a native title claimant application, have three months from the date given in the section 29 notice to file a claim if they want to have a say about the proposed development. To get the right to negotiate, the claim must be registered within a month after that.

If the right to negotiate applies, the government, the developer and the registered native title parties must negotiate 'in good faith' about the effect of the proposed development on the registered native title rights and interests of the claimants.

The parties can ask the National Native Title Tribunal to mediate during the negotiations.

If the negotiations do not result in an agreement the parties can ask the Tribunal (no sooner than six months after the notification date) to decide whether or not the future act should go ahead, or on what conditions it should go ahead.



The National Native Title Tribunal administers the future act processes under the Commonwealth legislation. The Tribunal's role includes mediating between parties, conducting inquiries and making decisions (called 'future act determinations') where parties can't reach agreements.

When the Tribunal receives a future act determination application, it must conduct an inquiry (an arbitration) in order to determine whether the future act can be done and if so whether any conditions should be imposed.

A member of the Tribunal (or a panel of three members) will be appointed to conduct the inquiry, and will initially hold a preliminary conference and set directions for the parties to provide submissions and evidence. Members who have mediated a particular matter are not usually appointed as inquiry members. Inquiry members conduct hearings, receive submissions and evidence from the parties and take into account matters set out in section 39 of the Native Title Act such as:

- the effect of the future act on the enjoyment by the native title party of their registered native title rights and interests; their way of life, culture and traditions; the development of their social, cultural and economic structures; their freedom of access to the land and freedom to conduct ceremonies and other cultural activities; and the effect of the future act on any area or site of particular (special) significance to the native title party;
- the interests, proposals, opinions or wishes of the native title party;
- the economic or other significance of the future act;
- the public interest; and
- the presence of any existing non-native title rights and interests and use of the land by other persons (for instance, pastoralists).
- 

## A3.2 Non-Aboriginal Sites

### A3.2.1 Victorian cultural heritage legislation

The Heritage Act 1995 details statutory responsibilities for historic buildings and gardens, historic places and objects, historical archaeological sites, and historic shipwrecks. These responsibilities are set out in Part 1 of the Act, which states that one of the main purposes of the Act is to: 'provide for the protection and conservation of places and objects of cultural heritage significance and the registration of such places and objects'. The Act is administered by Heritage Victoria, part of the Department of Sustainability and Environment. The Act establishes the Heritage Council, a ten-member, independent statutory authority. The Heritage Council determines which heritage places are included on the Victorian Heritage Register and acts as an appeal body.

- The Victorian Heritage Register

The Victorian Heritage Register was established pursuant to Section 18 of the *Heritage Act 1995*. Heritage places included on the Heritage Register are places assessed as having cultural heritage significance at a State level. For a place to be added to the Victorian Heritage Register a nomination must be made to the Executive Director. The Executive Director will review nominations and make recommendations to the Heritage Council for inclusion on the Victorian Heritage Register. All recommendations are advertised in a relevant newspaper and the owners or any party with a substantial interest in the heritage place or object can make a submission to the Heritage Council.

A permit may be required for particular works or activities in relation to a registered place or object. Permit applications must be submitted to the Executive Director who will consider the application and determine the matter. Should the applicant or owner object to the decision of the Executive Director, an appeal can be made to the Heritage Council.

- The Heritage Inventory

The Heritage Inventory was established pursuant to Section 120 of the *Heritage Act 1995*. The Heritage Inventory includes historical archaeological sites, places and relics in Victoria, providing they are older than 50 years, and regardless of their level of cultural heritage significance.

A Consent will be required for particular works or activities, including excavation, in relation to an archaeological site. Under the Heritage Act it is an offence to damage or disturb relics and archaeological sites, whether or not they have been included on the Heritage Inventory, without obtaining the appropriate permission from the Executive Director.

### A3.2.2 Consents and Permits

Depending on whether a place/site is listed on the Heritage Register or the Heritage Inventory, any proposed works will require the submission of an application for either a *Permit* (Heritage Register) or a *Consent* (Heritage Inventory). If an archaeological site has been added to the Heritage Register, this will take precedence: a Permit will be required, but not a Consent. In summary:

- A Permit is required if the site is on the Heritage Register. The assessment of the Permit application will be guided by its heritage status as a site of State significance.
- A Consent is required if the site is on the Heritage Inventory (and not on the Heritage Register). The assessment of the Consent application will be guided by the significance and integrity of the site.

Applications for Consents or Permits should be accompanied by a cheque for the prescribed fee. The cheque should be payable to the **Heritage Council**. The fees payable for particular classes of work are advised in Schedule 3 (Permits) or Schedule 5 (Consents) of *Heritage (General) Regulations 1996 (Statutory Rule No. 85/1996)*. The application should be made on the appropriate form and sent to:

Mr Ray Tonkin  
Executive Director  
Heritage Victoria  
Level 7  
8 Nicholson Street  
EAST MELBOURNE VIC 3002

General queries relating to either Consent or Permit applications can be directed to:

Permits Co-ordinator  
Heritage Victoria  
Level 7  
8 Nicholson Street  
EAST MELBOURNE VIC 3002  
Ph: (03) 9637 9475  
Fax: (03) 9637 9503

Consultation relating to the Heritage Inventory and to historical archaeological sites should be conducted with Heritage Victoria archaeology officers, contact details as above.

Consultation and discussion with Heritage Victoria should be initiated well before lodging an application for a Consent or Permit to disturb or destroy a historical archaeological site.

- *Planning and Environment Act 1987*

The Victorian Planning and Environment Act provides local governments with the power to implement heritage controls over significant buildings or places. Heritage and conservation areas and heritage places – both Aboriginal and non-Aboriginal – can be identified and listed on a particular local planning scheme (usually through inclusion in the Heritage Overlay), and protected as places of heritage significance. A planning permit may be required from the local council if a place is subject to a heritage overlay control or is individually listed

in the planning scheme. It is advisable to check with the relevant local council to determine if any additional permits are required.

- *Environment Effects Act 1978 and Amendment Act 1994*

The Victorian Environment Effects Act may have relevance with certain projects as it requires some development proposals to be assessed for their possible impact on the environment. The definition of environment includes the cultural heritage of the project area.

### **A3.2.3 Commonwealth legislation**

- *Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)*

The Commonwealth Australian Heritage Commission Act was recently repealed and in its place amendments to the EPBC Act and the provision of an Australian Heritage Council have also been made in new legislation.

Under the EPBC Act Amendments (No 88, 2003) two mechanisms have been created for protection of heritage places of Commonwealth or National significance. Initially places in Commonwealth ownership may be placed on the Commonwealth list with similar protection measures as under the previous AHC act. In addition the National list provides protection to places of cultural significance to Australia. By law, no one can take any action that has, will have, or is likely to have, a significant impact on any places of national heritage value, without approval. Such actions must be referred to the Australian Government Minister for the Environment and Heritage.

## Appendix 4

### A4. Advice about the Discovery of Human Remains

If suspected human remains are discovered during any excavation or development work, the steps outlined below should be followed.

1. Legal requirements

The *Coroner's Act 1985* requires anyone who discovers the remains of a 'person whose identity is unknown' to report the discovery directly to the State Coroner's Office or to the Victoria Police. A person who fails to report the discovery of such remains is liable to a \$10,000 fine. The Coroner's Act does not differentiate between treatment of Aboriginal and non-Aboriginal remains. The majority of burials found during development work are, therefore, likely to be subject to this reporting requirement.

In addition, Section 17 of the *Aboriginal Heritage Act 2006* requires anyone who discovers suspected Aboriginal remains in Victoria to report the discovery to the Secretary to the Department. The Director, Aboriginal Affairs Victoria, holds delegated authority to receive and investigate such reports.

It should be noted that the *Aboriginal Heritage Act 2006* is subordinate to the *Coroner's Act 1985* regarding the discovery of human remains. Therefore, the location at which the remains are found should be first treated as a possible crime scene, and the developer and/or contractor should not make any assumptions about the age or ethnicity of the burial.

Victoria Police Standing Orders require that an archaeologist from the Heritage Services Branch, Aboriginal Affairs Victoria, should be in attendance when suspected Aboriginal remains have been reported (Police Headquarters and the State Coroner's Office hold after-hours contact numbers for Heritage Services Branch staff). Where it is believed the remains are Aboriginal, the Police will usually invite representatives of the local Aboriginal community to be present when the remains are assessed. This is because Aboriginal people usually have particular concerns about the treatment of Aboriginal burials and associated materials.

2. Aboriginal Affairs Victoria - suggested procedure to be followed if suspected human remains are discovered

- If suspected human remains are discovered during development, work in the area must cease and the Police or State Coroner's Office must be informed of the discovery without delay. The State Coroner's Office can be contacted at any time on ph: (03) 9684 4444.
- If there are reasonable grounds to suspect the remains are Aboriginal, the discovery should also be reported to Aboriginal Affairs Victoria on ph: (03) 9637 8000. Aboriginal Affairs Victoria will ensure that the local Aboriginal community is informed about the circumstances of the discovery.
- Do not touch or otherwise interfere with the remains, other than to safeguard them from further disturbance.

4. Do not contact the media.

# GLOSSARY AND REFERENCES

# GLOSSARY

**Absolute Dating:** A dating method that determines an object's exact age, as opposed to its relative age; includes such techniques as dendrochronology and radiocarbon dating.

**Adaptation:** Adaptation means modifying a place to suit proposed compatible uses (Australia ICOMOS Burra Charter Article 1.9).

**Adze:** A woodworking tool which as its working edge perpendicular to the long axis of the haft.

**Alluvial Terrace:** a platform created from deposits of alluvial material along river banks.

**Alternate Flaking:** Flakes removed from different surfaces alternately by blows on the same edge.

**Amorphous:** Non-crystalline, without definite structural parts.

**Angle Of Applied Force:** The angle at which the force of flaking is applied to a rock.

**Archaeological site types:** The archaeological site types encountered in Australia can be divided into three main groups:

- **Historical archaeological site:** an archaeological site formed since the non-Aboriginal settlement that contains physical evidence of past human activity (for example a structure, landscape or artefact scatter).
- **Aboriginal historical archaeological site (or contact site):** a site with a historical context such as an Aboriginal mission station or provisioning point, or a site that shows evidence of Aboriginal use of non-traditional Aboriginal materials and ideas (for example: artefact scatter sites that have artefacts made from glass, metal or ceramics).
- **Aboriginal prehistoric archaeological site:** a site that contains physical evidence of past Aboriginal activity, formed or used by Aboriginal people either before, or not long after, European settlement. These sites are commonly grouped as follows (further definition of each is contained in the glossary list):

- |                     |                |            |
|---------------------|----------------|------------|
| ➤ Artefact scatter  | ➤ Structures   | ➤ Rock art |
| ➤ Burial            | ➤ Mound        | ➤ Rockwell |
| ➤ Scarred Tree      | ➤ Quarry       |            |
| ➤ Hearth            | ➤ Rock shelter |            |
| ➤ Isolated artefact | ➤ Shell midden |            |

**Angular fragment:** a piece of stone that is blocky or angular, not flake-like.

**Anisotropic:** Not having the same properties in all directions; e.g. rocks with preferred planes of cleavage.

**Anvil:** A portable flat stone, used as a base for working stone. Anvils frequently have a small circular depression in the centre where cores were held while being struck. An anvil is often a multi-functional tool also used as a grindstone and hammerstone.

**Anvil Technique:** A procedure in which an artefact is struck against a stationary object with sufficient force to produce a fracture. Also called 'block-on-block'.

**Applied Force:** The force exerted upon a core or retouched flake.

**Archaeological Context:** Cultural residues no longer used by humans.

**Archaeology:** The science of studying material evidence to find out about human cultures of the past.

**Artefact:** Any object that was made, used, and/or transported by humans that provides information about human behaviour in the past. Examples include things like pottery, stone tools, bones with cut marks, coins, etc.

**Artefact scatter:** a surface scatter of cultural material. Aboriginal artefact scatters are defined as being the occurrence of five or more items of cultural material within an area of about 100 sq. metres. Artefact scatters are often the only physical remains of places where people have lived, camped, prepared and eaten meals, and worked.

**Australian Height Datum:** The datum used to determine elevations in Australia. The AHD is based on mean sea level being zero elevation.

**Baseline:** A surveyed line usually several kilometres long. Surveys refer to the baseline for coordination and correlation. The baseline accumulates distances throughout a triangulation network, extending to other baselines, providing further integrated control.

**Bearing:** An angle measured clockwise from a north line of 0° to a given surveyed line.

**Burial site:** usually a sub-surface pit containing human remains and sometimes associated artefacts.

**Burra Charter:** The Burra Charter provides guidance for the conservation and management of places of cultural significance Australia. It sets a standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance, including owners, managers and

custodians. The most recent version of the Burra Charter was adopted by Australia ICOMOS (the Australian National Committee of ICOMOS) on 26 November 1999.

**Cadastral:** A Latin term from 'cadastre' referring to a registry of lands. Cadastral surveying is the process of determining and defining land ownership and boundaries. A *cadastral map* depicts land parcels and associated nomenclature.

**Chert:** 1. Mineral: A cryptocrystalline variety of quartz composed of interlocking grains generally not discernible under the microscope. 2. Rock: A siliceous sedimentary rock composed of micro-organisms or precipitated silica grains, which occurs as nodules, lenses or layers in limestone and shale.

**Classification:** Arrangement of artefacts, species, etc., into categories.

**Community:** All people, including those with special interests such as owners, managers, architects, builders, developers, local and state government, technical heritage experts (Heritage Victoria).

**Compatible use:** A use that respects the cultural significance of a place. Such a use involves no, or minimal, impact on cultural significance, (Australia ICOMOS Burra Charter Article 1.11)

**Cone:** Shorthand term for Hertzian cone crack, a cone shaped fracture plane extending from a circular ringcrack as a result of loading from a blunt indenter

**Conservation:** 1. The scientific process of cleaning--and often repairing and/or restoring—an artefact in order to **preserve** it for further study and/or display. 2. All the



processes of looking after a place so as to retain its cultural significance, (Australia ICOMOS Burra Charter Article 1.4).

**Context:** The complete environment in which an **artefact** is found, including its exact location, its surroundings (soil, water, etc.), and its relationship to other artefacts.

**Contours:** Lines joining points of equal height as shown on a topographic map. Contour lines that are relatively close together depict an area of steep terrain on the earth's surface.

**Crown land:** Crown land, technically belonging to the reigning sovereign, is a class of public land, provided for the enjoyment and benefit of the people.

**Cultural significance:** Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations (Australia ICOMOS Burra Charter Article 1.2).

**Cultural Materials:** The products of human behaviour, such as stone artefacts or food debris.

**Dating:** Figuring out the age of things; determining dates.

**Datum:** A mathematical representation that best fits the shape of the earth. Accurate mapping and coordinate systems must be based on a datum. A new datum known as the [Geocentric Datum of Australia \(GDA\)](#) was introduced in 2000 to bring Australia in line with the rest of the world's coordinate systems. GDA is also totally compatible with satellite based navigation systems, for example [Global Positioning Systems \(GPS\)](#). The previous datum used in Australia was known as the Australian Geodetic Datum (AGD). However, this was restricted because

it was defined to best fit the shape of the earth in the Australian region only. The change in datums had a major consequence to all coordinates. Both latitudes/longitudes and eastings/northings were shifted by approximately 200 metres in a north-easterly direction.

**Debitage:** Cores and unretouched flakes.

**Elevation:** The height above mean sea level.

**Evidence:** Data proving a point or contributing to a solution.

**Excavate/Excavation:** The process of methodically uncovering and searching for remains of the past by digging.

**Excavation Report:** Once a dig has finished the archaeologist writes a report outlining the reasons, aims, methods used and findings from the excavation as well as some conclusions they may have drawn from interpreting the artefacts.

**Features:** A feature is something that a human made in the past that has not been or cannot be moved. Good examples of this would be a house floor or a hearth (fire pit). When archaeologists are excavating, they often come across features.

**Field Notes:** A notebook that archaeologists keep with details of where they have been digging and what they have found. The goal of every archaeological excavation is to document the work so well that anyone could accurately reproduce the site using only the field notes and site maps.

**Flake:** 1. Any piece of stone fractured from a larger mass by the application of an external force. 2. The piece of stone struck off a core. It has a series of characteristics showing that it has been struck off.

**Flaking:** The process of fracturing stone by the application of an external force.

**Formal tool:** an artefact that has been shaped by flaking, including retouch, or grinding to a predetermined form for use as a tool. Formal tools include scrapers, backed pieces and axes.

**GDA94:** The geodetic coordinate of latitude and longitude generated using [GDA as the datum](#) as at 1 January 1994.

**Generalised reduction sequence:** A description of the set of knapping behaviours common to, and characteristic of, a number of Reduction Sequences in one assemblage or region.

**Geocentric datum:** A datum which has its origin at the Earth's centre of mass. This datum can therefore be used anywhere on the planet and be compatible with the same datum anywhere else on the planet.

**Geographical coordinates:** A point on a map given as latitude and longitude readings. The values are given as degrees, minutes and seconds.

**Geographic Information Systems:** GIS is the spatial capture of themed data layers and the storing, analysing and displaying of the geographically referenced information. A GIS also includes the procedures, software, hardware, operating personnel and spatial data associated with the system.

**Geometric microlith:** a small tool that has been fashioned from breaking apart a microblade. The piece is then retouched or backed and a small tool formed.

**Global Positioning System:** GPS is a satellite based navigation system originally developed by the United State's Department

of Defence. A GPS receiver calculates a position by measuring distances to four or more satellites of a possible 24. These orbit the Earth at all times.

**Grain:** A description of the size of particles or crystals in rocks or sand. Coarse grained rocks have particles or crystals which are large (1mm or more), and fine grained rocks have particles which are small (0.1mm or less).

**Grid:** The division of an archaeological site into small squares that denote different areas of excavation, making it easier to measure and document the site.

**Grid coordinates:** A point on a map given as an easting and northing reading. The values are given in metres.

**Grinding:** The abrasion of an artefact, accomplished by rubbing it with an abrasive stone and/or grit.

**Grindstone:** 1. Any artefact which has been ground. 2. The abrasive stone used to abrade another artefact or to processes food. Upper (handstone) and lower (basal) stones used to grind plants for food and medicine and/or ochre for painting. A handstone sometimes doubles as a hammerstone and/or anvil.

**Hammerstone:** a piece of stone, often a creek/river pebble/cobble, which has been used to detach flakes from a core by percussion. During flaking, the edges of the hammerstone become 'bruised' or crushed by impact with the core.

**Hearth:** usually a sub-surface feature found eroding from a river or creek bank or a sand dune – it indicates a place where Aboriginal people cooked food. The remains of hearth are usually identifiable by the presence of

charcoal and sometimes clay balls (like brick fragments) and hearth stones. Remains of burnt bone or shell are sometimes preserved with a hearth.

**Heritage:** The word 'heritage' is commonly used to refer to our cultural inheritance from the past that is the evidence of human activity from Aboriginal peoples through successive periods of later migration, up to the present day. Heritage can be used to cover natural environment as well, for example the Natural Heritage Charter. Cultural heritage can be defined as those things and places associated with human activity. The definition is very broad, and includes both Indigenous and historic values, places and objects, and associated values, traditions, knowledge and cultures.

**Heritage Place:** A place that has aesthetic, historic, scientific or social values for past, present or future generations – 'this definition encompasses all cultural places with any *potential* present or future value as defined above.' Heritage place can be subdivided into Aboriginal place and historical place, for the purposes of this document.

**Historic place:** a place that has some significance or noted association in history.

**Hunter-gatherer:** A member of a society who gains their subsistence in the wild on food obtained by hunting and foraging.

**ICOMOS (International Council on Monuments and Sites):** ICOMOS is a non-government professional organisation closely linked to UNESCO, with national committees in some 100 countries with the headquarters in France. ICOMOS promotes expertise in the conservation of cultural heritage. It was formed in 1965, and has a responsibility to advise UNESCO in the assessment of sites

proposed for the World Heritage List. Australia ICOMOS was formed in 1976. Its fifteen member executive committee is responsible for carrying out national programs and participating in decisions of ICOMOS.

**Inclusion:** An impurity or foreign body in the stone that reduces the homogeneity of the rock.

**Indirect Percussion:** Punch technique.

**Interpretation:** The process of explaining the meaning or use of an artefact.

**Isolated artefact:** the occurrence of less than five items of cultural material within an area of about 100 sq. metres. It/they can be evidence of a short-lived (or one-off) activity location, the result of an artefact being lost or discarded during travel, or evidence of an artefact scatter that is otherwise obscured by poor ground visibility.

**Knapper:** A human who creates stone artefacts by striking rocks and causing them to fracture.

**Knapping Floor:** The debris left on one spot and resulting from the reduction of one block of raw material. A *knapping location* is a site comprised of one or more knapping floors.

**Koori:** Koori is an Aboriginal term used to describe Indigenous people from Victoria and southern New South Wales.

**Latitude:** The angular distance along a meridian measured from the Equator, either north or south.

**Layer:** The layer is the level in which archaeologists dig. All excavation sites have different numbers of layers. Archaeologists try to work out when they are moving to a new layer by cultural or man-made clues like

floors, but sometimes they will go by changes in soil colour or soil type.

**Length:** The distance from the platform to the termination of a flake or flake scar. Also Percussion Length.

**Longitude:** The angular distance measured from a reference meridian, Greenwich, either east or west.

**Magnetic Dating:** A method of dating that compares the magnetism in an object with changes in the earth's magnetic field over time. This method is used on baked clay and mud.

**Magnetic north:** The direction from a point on the earth's surface to the north magnetic pole. The difference between magnetic north and true north is referred to as magnetic declination.

**Maintenance:** The process of keeping an artefact in a particular state or condition. An edge which is being used is maintained by flaking off blunted portions. A core is maintained by keeping its characteristics within the limits required for certain types of flaking.

**Manufacture:** The process of making an artefact.

**Map scale:** The relationship between a distance on a map and the corresponding distance on the earth's surface.

**Margin:** Edge between the ventral and dorsal surfaces of a flake.

**Maritime heritage:** Maritime heritage is often thought to be restricted to shipwrecks, however the term applies to places and objects related to industries such as sealing

and whaling and also includes structures such as jetties and piers, and ports infrastructure.

**Mark:** An object, for example an imprinted metal disc, used to designate a survey point. It is usually associated with terms such as reference mark, azimuth mark or bench mark.

**Material culture:** A term that refers to the physical objects created by a culture. This could include the buildings, tools and other artefacts created by the members of a society.

**Metes and bounds:** The oldest known form of describing the perimeter of a parcel of land. The method of describing the boundary of a parcel of land in which the bearing and length of each successive line is given. Lines may also be described as following some apparent line, for example the bank of a stream.

**MGA94:** The Universal Transverse Mercator coordinates of eastings, northings, and zones generated from GDA94 are called Map Grid of Australia 1994 coordinates.

**Moiety:** a moiety is a half. Tribes were composed of two moieties (halves) and each clan belonged to one of the moieties.

**Mound:** these sites, often appearing as raised areas of darker soil, are found most commonly in the volcanic plains of western Victoria or on higher ground near bodies of water. The majority were probably formed by a slow build-up of debris resulting from earth-oven cooking: although some may have been formed by the collapse of sod or turf structures. It has also been suggested some were deliberately constructed as hut foundations.

**Morphology:** The topographical characteristics of the exterior of an artefact.

**Mosaic:** A number of continuous aerial photographs overlapped and joined together by way of 'best fit' to form a single non-rectified image.

**Noxious weeds:** plants that have been proclaimed under the Victorian *Catchment and Land protection Act 1994*. They include four types of: state prohibited, regionally prohibited, regionally controlled and restricted. Noxious weeds are species that seriously threaten or potentially threaten agricultural production.

**Object:** An object means a moveable article, artefact or relic, and may include furniture, ornaments, cutlery, glass, crockery, works of art, honour boards, jewellery, and vehicles. Groups of objects are commonly referred to as a collection if there is a shared theme that links the objects.

**Obstrusiveness:** how visible a site is within a particular landscape. Some site types are more conspicuous than others. A surface stone artefact scatter is generally not obtrusive, but a scarred tree will be.

**Overlays:** The Victorian Planning Provisions establish a number of different Overlays to show the type of use and development allowed in a municipality. Heritage Overlays will list places of defensible cultural heritage significance.

**Peg:** Used to mark survey corners on smaller portions or acreage. The size of the peg was determined by the 'Rules and Directions for the Guidance of Surveyors' editions. These referred to various land acts of the time from the 1860s onwards.

**Place:** Place means a site, area, land, landscape, building or other works, group of buildings or other works, and may include

components, contents, spaces and views. (Australia ICOMOS Burra Charter Article 1.1)

**Planning scheme:** The legal instrument that sets out the provisions for land use, development, and protection in Victoria. Every municipality in Victoria has a planning scheme.

**Pre-contact:** before contact with non-Aboriginal people.

**Post-contact:** after contact with non-Aboriginal people.

**Preserve:** To keep safe and protect from injury, harm, or destruction; to keep alive, intact, or free from decay; to save from decomposition.

**Provenance:** The location of an **artefact** or feature both vertically and horizontally in the site. Archaeologists record the provenance of **artefacts** and **features** in their **field books** and on the artefact bag. Provenance is important because it gives archaeologists the history and context of an object, i.e., exactly where it was found on the site.

**Quarry:** A place where humans obtained stone or ochre for artefact manufacture. A place where stone or ochre is exposed and has been extracted by Aboriginal people. The rock types most commonly quarried for artefact manufacture in Victoria include silcrete, quartz, quartzite, chert and fine-grained volcanics such as greenstone.

**Quartz:** A form of silica.

**Quartzite:** A sandstone in which the quartz sand grains are completely cemented together by secondary quartz deposited from solution.

**Radiocarbon Dating:** Also called carbon dating and C-14 dating. It is used to work out the approximate age of an artefact by measuring the amount of carbon 14 it contains. This dating technique is not perfect. It can only be used on organic remains (typically wood or charcoal). Also radiocarbon is only accurate to  $\pm 50$  years, and cannot accurately date objects more than 50,000 years old.

**Relative Dating:** A general method of dating objects, which uses their relation to other objects. For example, artefacts found in lower layer are typically older than artefacts in higher layer.

**Relic:** Deposit, object or material evidence of human past.

**Reserves:** The word 'reserve' derives from the fact that the land is reserved for a particular public use. Crown land retained in public ownership, but not reserved is termed unreserved Crown land.

**Run:** A large area of land in which squatters could pasture their stock without a lot of fencing necessary. Employed shepherds looked after various areas of the runs. Runs became consolidated pastoral holdings. Many of the runs were about 25 sq miles in area and later became parishes.

**Sand:** Quartz grains with only a small content of other materials. Grain size 2.00 mm to 0.05 mm.

**Sandstone:** A sedimentary rock composed of sand, and with only a small amount of other material, which has been consolidated by argillaceous or calcareous bonding of grains.

**Scar:** The feature left on an artefact by the removal of a flake. Includes negative bulb, negative ringcrack and negative termination.

**Scarred tree:** scars on trees may be the result of removal of strips of bark by Aborigines e.g. for the manufacture of utensils, canoes or for shelter; or resulting from small notches chopped into the bark to provide hand and toe holds for hunting possums and koalas. Some scars may be the result of non-Aboriginal activity, such as surveyors' marks.

**SCDB:** The Survey Control Database is a computerised record of the State's geodetic survey control data. Surveyors place and connect to these survey control points. The geodetic network provides a spatial reference framework for all surveys.

**Screen:** A screen is used by an archaeologist to sift excavated soil in search of small artefacts like nails, ceramic fragments, and organic material like seeds, shell, and bone.

**Selection:** Runs were subdivided into selections for farming, agriculture and grazing homesteads. After a period of yearly rental payments, the selector could often obtain freehold ownership.

**Shell midden:** a surface scatter and/or deposit comprised mainly of shell, sometimes containing stone artefacts, charcoal, bone and manuports. These site types are normally found in association with coastlines, rivers, creeks and swamps – wherever coastal, riverine or estuarine shellfish resources were accessed and exploited.

**Significance:** Significance is a term used to describe an item's heritage value. Values might include natural, Indigenous, aesthetic, historic, scientific or social importance.

**Silica:** Silicon dioxide.

**Silcrete:** A silicified sediment.

**Siliceous:** Having high silica content.

**Site:** An area designated for archaeological exploration by excavation and/or survey usually due to the presence of a concentration of cultural material.

**Spatial information:** Data that has a geographical reference to a location on the earth's surface. This includes latitude and longitude co-ordinates, street address and lot number on plan.

**Stoneworking:** The manufacture of stone artefacts.

**Stratification:** Over time, debris and soil accumulate in layers (strata). Colour, texture, and contents may change with each layer. Archaeologists try to explain how each layer was added--if it occurred naturally, deliberately (garbage), or from the collapse of structures--and they record it in detailed drawings so others can follow. *Stratigraphy* refers to the interpretation of the layers in archaeological deposits. Usually, the artefacts found on top are the youngest (most recent), while those on the bottom are the oldest.

**Structures (Aboriginal):** can refer to a number of different site types, grouped here only because of their relative rarity and their status as built structures. Most structures tend to be made of locally available rock, such as rock arrangements (ceremonial and domestic), fishtraps, dams and cairns, or of earth, such as mounds or some fishtraps.

**Surface Site:** A site where artefacts are found on the ground surface.

**Survey post:** Posts used on corners of large rural size blocks of land or town section corners. They were sharpened to a point, buried in the ground and exposed approximately 3'6" out of the ground.

**Sustainability:** Sustainability is the ability to maintain the qualities that are valued in the built and natural environment. Sustainability can be measured in terms of economic, environmental and social factors.

**Systemic Context:** Cultural materials operating within an ongoing behavioural system.

**Systems:** A term used to describe the computers, data storage devices and associated hardware, and software and information delivery services that support business functions.

**Taphonomy:** The study of the depositional and preservational processes which produce archaeological or palaeontological material.

**Technique:** A particular combination of circumstances involved in making stone artefacts. Includes the ways of applying force, moving the body and the objects used.

**Tool:** Any object that is used.

**Topographic map:** A detailed representation of cultural, hydrographic relief and vegetation features. These are depicted on a map on a designated projection and at a designated scale.

**Transect:** A fixed path along which one records archaeological remains.

**True north:** The direction to the Earth's geographic North Pole.

**Unit:** Archaeologists lay out a grid over a site to divide it into units, which may vary in size,

and then figure out which units will be dug. Archaeologists dig one unit at a time. Keeping track of specific measurements between artefacts and features gives archaeologists the ability to draw an overall map looking down on the site (called a floor plan), to get the bigger picture of the site.

**Use:** The performance of a stone artefact in an activity involving non-stone objects.

**Value:** A term used to describe the heritage qualities of an object or place. See also Significance.

**Visibility:** the degree to which the surface of the ground can be seen. This may be influenced by natural processes such as wind erosion or the character of the native vegetation, and by land-use practices, such as ploughing or grading. Visibility is generally expressed in terms of the percentage of the ground surface visible for an observer on foot.

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