E6 TRANSPORT CORRIDOR

DESKTOP CULTURAL HERITAGE ASSESSMENT

MARCH 09

A Report to VicRoads

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EXECUTIVE SUMMARY

Background

This report presents the results of a cultural heritage assessment undertaken to determine the cultural heritage values associated with the proposed E6 Transport Corridor. This assessment was commissioned by Vic Roads. The Victorian Transport Plan, announced by the Premier of Victoria on 8 December 2008, identified the 70 km long Outer Metropolitan Ring (OMR) Transport Corridor and the need for planning investigations of the E6 Transport corridor. This corridor will extend from the Western Ring Road at Bundoora to link to the OMR north of Kalkallo. VicRoads is undertaking preliminary studies of a possible transport corridor. One of these is the E6 Transport Corridor. This corridor will link the Western Ring Road at Findon Road to the OMR north of Kalkallo.

The aim of the assessment was to establish through a desktop review if any known Aboriginal and historical places and/or areas with archaeological sensitivity were present within the study area. This assessment considered the implications of identified cultural heritage values for potential future development within the E6 Transport Corridor.

Study Area

The study area is a corridor extending northward from the Melbourne Metropolitan Ring Road to just south of Beveridge. At its southern end the corridor follows a narrow band of currently reserved land south of Findon Road, Epping. North of Findon Road the corridor expands in width and includes freehold rural farming land in Craigieburn, Wollert, Donnybrook and Kalkallo. The majority of the study area falls within the City of Whittlesea with minor areas in the north intersected by the Hume City and Mitchell Shires.

Evaluation Method

This assessment involved a review of previous cultural heritage assessments and a comprehensive search of heritage databases for registered Aboriginal and historical places.

Aboriginal Heritage Values

The desktop assessment determined that 57 registered Aboriginal places occur in the E6 Transport Corridor. The types of places occurring in the E6 Transport Corridor are surface and subsurface stone artefact scatters, scarred trees, and earth features[1]. The

[1] In this report all the identified earth features are exposures of stone artefacts in creek banks.

distribution of Aboriginal places reflects the location of previous assessments and is not a true reflection of the distribution of Aboriginal cultural heritage in the study area.

The study identified creek corridors as having high sensitivity to contain Aboriginal places, while the remainder of the E6 Transport Corridor had low - moderate sensitivity for containing Aboriginal places. Scarred trees and *in situ* Aboriginal cultural material located in creek corridors are place types highlighted as having increased significance.

Historical Archaeological Values

A total of twenty two registered historical places and 20 unregistered but known historical places have been identified within the E6 Transport Corridor. Most of the registered historical places are concentrated around the Wollert area and reflect the early settlement and land use practices in the region from the mid 19th century. Unregistered but known historical sites are focussed around transport routes and previous townships.

No specific areas of known cultural heritage sensitivity have been defined but as yet unrecorded historical places such as stone walls, stone dairy structures and enclosures, domestic dwellings, historical artefact scatters, archaeological deposits and small quarries are predicted to occur throughout the E6 Transport Corridor.

Cultural Heritage Management

A number of recommendations were formulated that consider the management of archaeological values in light of potential future development of the study area.

Management of Aboriginal Cultural Values

The planning of possible road alignment options within the E6 Transport Corridor should consider avoiding known Aboriginal places and areas of particularly high sensitivity (i.e. Merri Creek and Darebin Creek corridors). However, the impact to unknown Aboriginal places can only be established through much more detailed Aboriginal cultural heritage investigations. These should be undertaken once an alignment option/s is known and will require comprehensive field surveys and subsurface testing of locations likely to contain Aboriginal places. This will allow the identification of currently unknown Aboriginal places, including those that might be obscured by vegetation cover or shallow soil deposits, and will assist in the development of appropriate mitigation strategies.

A CHMP will be required for the final chosen alignment. It is anticipated that the CHMP would require a Complex Assessment. It is noted that the Registered Aboriginal Party (RAP) will need to be consulted regarding such investigations and consultation early in the planning stages is recommended.

Management of Historical Archaeological Values

The planning of possible road alignment options within the E6 Transport Corridor should consider avoiding known historical places and areas of potential high sensitivity (i.e. former Woodstock Township and 'Merri Park'). However, the impact to unknown historical places can only be established through much more detailed historical cultural heritage investigations. These should be undertaken once an alignment option/s is known and will in the first instance require a field survey program. The need for subsurface testing will need to be established as part of the field survey component. This will allow the identification of currently unknown historical places and allow the development of appropriate mitigation strategies.

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1.1 BACKGROUND

This report presents the results of a cultural heritage assessment undertaken to determine the cultural heritage values associated with the proposed E6 Transport Corridor. This assessment was commissioned by Vic Roads. The Victorian Transport Plan, announced by the Premier of Victoria on 8 December 2008, identified the 70 km long Outer Metropolitan Ring (OMR) Transport Corridor and the need for planning investigations of the E6 Transport corridor. This corridor will extend from the Western Ring Road at Bundoora to link to the OMR north of Kalkallo. VicRoads is undertaking preliminary studies of a possible transport corridor. One of these is the E6 Transport Corridor. This corridor will link the Western Ring Road at Findon Road to the OMR north of Kalkallo.

The aim of the assessment was to establish through a desktop review if any known Aboriginal and historical places and/or areas with archaeological sensitivity were present within the study area. This assessment considered the implications of identified cultural heritage values for potential future development within the E6 Transport Corridor.

1.2 STUDY AIMS

The primary aims of the study were formulated in discussions with Peter Carter and Garnett Gibbs (Vic Road Project Managers). The aims of the study are:

1. To determine the distribution of previously registered Aboriginal and historical places in the E6 Transport Corridor.
2. To establish the implications which Aboriginal and historical places may have for potential future development, and provide recommendations on appropriate management strategies.

1.3 THE STUDY AREA

The study area is a corridor extending northward from the Melbourne Metropolitan Ring Road to just south of Beveridge (Figure 1). At its southern end the corridor follows a narrow band of currently reserved land south of Findon Road, Epping. North of Findon Road the corridor expands in width and includes freehold rural farming land in Craigieburn, Wollert, Donnybrook and Kalkallo. The majority of the study area falls within the City of Whittlesea with minor areas in the north intersected by the Hume City and Mitchell Shires.

The land is characterised by undulating predominantly cleared pastoral land, with occasional stand of mature red river gums (*E. camaldulensis*). Low density farms and associated residential dwellings occur throughout the freehold land north of Findon Road. Geologically the corridor predominantly comprises low-lying basalt plains and stony rises. Darebin and Merri creeks and smaller Findon and Barber creeks dissect the plains within the E6 Transport Corridor.

1.4 ABORIGINAL CONSULTATION

No consultation was undertaken with Aboriginal stakeholders as part of this assessment.

1.5 GOVERNMENT CONSULTATION

No consultation was undertaken by Ochre Imprints with either Aboriginal Affairs Victoria or Heritage Victoria as part of this assessment.

1.6 LANDFORMS AND UNDERLYING GEOLOGY

The majority of the corridor is located on the eastern margin of a vast basalt sheet flow which forms one of the largest volcanic plains in the world. This plain stretches westward from Melbourne to South Australia (Cochrane et al 1995, 80) and is known as the Newer Volcanics (Vandenberg 2008). The volcanic plains are characterised by relatively thin basalt flows that have formed flat to undulating land containing extinct volcanoes, which are visible as small hills. Stony rises (outcrops of vesicular basalt that rise a few meters above the general level of the surrounding plains) are common. These are formed when molten lava flows solidify on the surface, but continue to run underneath, eventually draining away. These lava tunnels commonly collapse, creating the trough and ridge terrain characteristic of stony rises (Cochrane et al 1995, 82). The Newer Volcanics formation unconformably overlies Palaeozoic sedimentary rocks including siltstones, mudstones and sandstones. Basalt plains soils are characterised by sticky grey and black clays and alluvial deposits. The area receives an annual rainfall of between 500-600 mm (Rowan 1982).

Two parts of the corridor do not occur on basalt plains. These are:

- The northern part of the corridor which comprise dissected uplands. These are low hills with a relative relief of 30-90 m above the surrounding plains composed of sandstone and mudstone, with shallow stony earth soils (DSE - Catchment Information Mapper - accessed 2009).

- Quarry Hills, a small area of low granite hills (<90 m above the plains), located east of Wollert. Yellow duplex soils occur on this landform (DSE - Catchment Information Mapper - accessed 2009).

1.7 IMPLICATIONS

The study area is primarily situated on basalt plains dissected by Merri Creek, Darebin Creek, and their tributaries. The majority of land north of Findon Road is undeveloped rural farmland, while to the south the corridor comprises reserved land currently used as public open space.

The study area is likely to have been regularly visited and occupied by Aboriginal people. The waterways of Merri Creek and Darebin Creek would have provided reliable waterholes and shelter near incised gorges, and are considered likely to have been a focus of Aboriginal occupation. Stony rises, Quarry Hills, and the hills in the north east of the corridor would have offered excellent vantage points and high, dry camping spots for transitional, short term camps. The vast grassland plains would have provided reliable game food such as kangaroo and emu.

The region was one of the earliest settled in Victoria by European squatters and subsequent landholders. The volcanic plains in particular provided rich farming land in close proximity to markets in Melbourne. Small settlements (i.e. Donnybrook, Woodstock, and Wollert) grew to service the district.

Much of the study area retains a rural character, suggesting that many places and features associated with early European settlement and Aboriginal occupation are likely to be present.

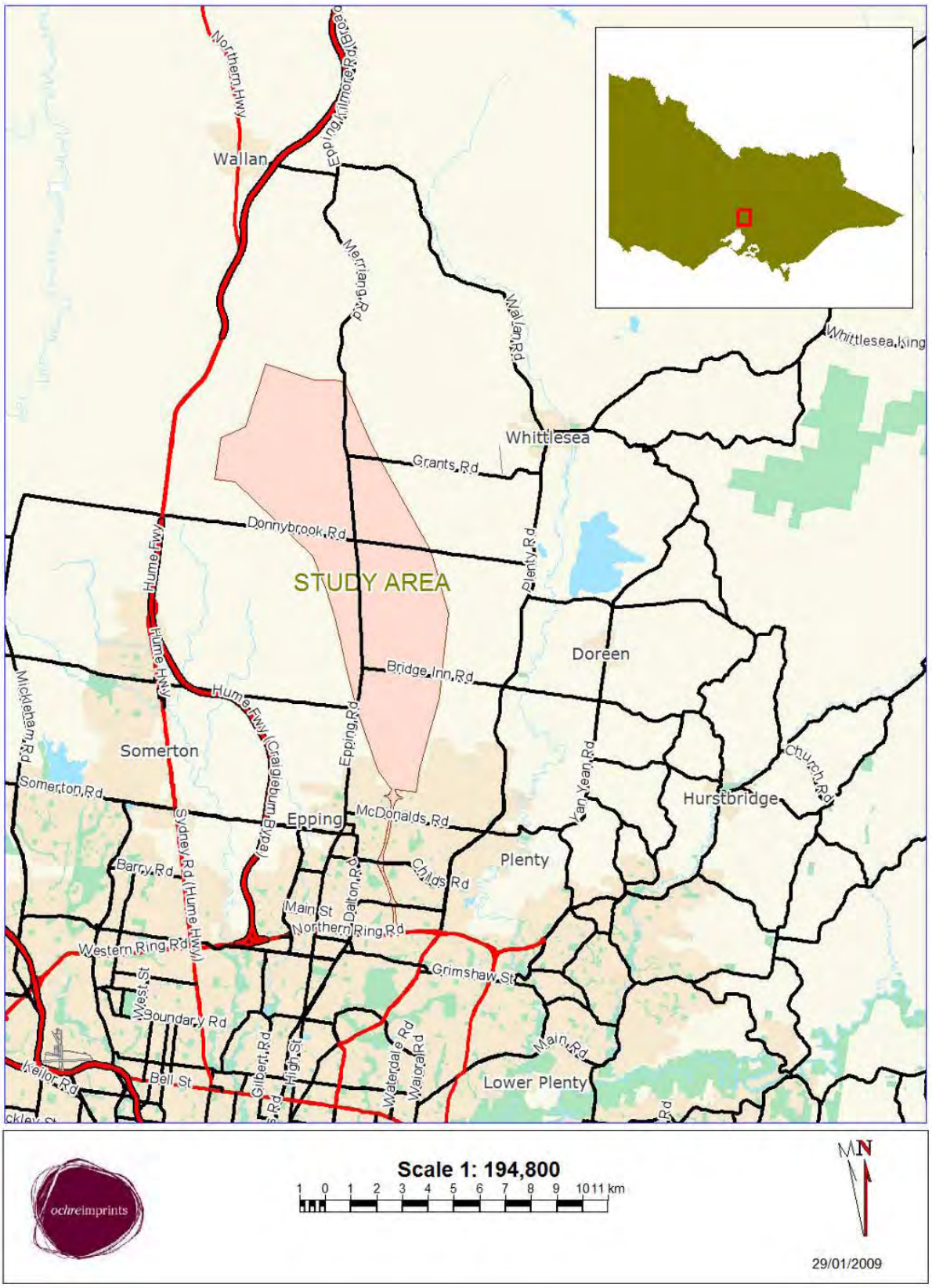

Figure 1: Location of the Study Area.

2 ABORIGINAL CULTURAL HERITAGE ASSESSMENT

2.1 INTRODUCTION

This section presents ethno-historical and archaeological background information relating to the Aboriginal occupation of the study region. Previous regional and localised assessments are discussed followed by a review of registered Aboriginal places in the E6 Transport Corridor. The general significance of Aboriginal places is discussed and a prediction model for Aboriginal places within the study area is presented.

2.2 ETHNOHISTORY

The lives of Aboriginal groups in the wider Melbourne area were severely disrupted by the establishment and expansion of European settlement. As a result little information is available regarding the pre-contact lifestyle of Aboriginal people in the area, especially the study area. A full ethnographic search was outside the scope of this assessment and the following section summarises major synthesis previously undertaken on Aboriginal associations with the wider Melbourne area in the pre-contact and post-contact period (i.e. Clark 1990; Presland 1985; Ellender 1991).

The study area is located within the traditional language boundaries of the *Woi wurrung*, who made up one of the seven Kulin Nation language groups (Clark 1990, Figure 2).

Figure 2: Aboriginal Clans associated with the Study Area (After Clark 1990).

The *Wurundjeri willam* clan (meaning 'white gum tree dwellers') is a well documented clan in proximity to the study area who were associated with the Yarra and Plenty Rivers (Clark 1990, 385). According to Clark (1990, 385) the study area was within Bilibillary's (of the *Wurundjeri willam* clan) area which was bounded by the northern bank of the Yarra, westward from the Darebin Creek to the eastern bank of Saltwater and Jacksons Creek near Sunbury, and extended northward to Mt William.

Alfred Howitt, an ethnohistorian, documented a further three divisions within the *Wurundjeri willam*:

- *The true Wurunjerri, under the headman, Jakka-jakka, occupied the Yarra flats and the upper part of that river to its source, including the northern slopes of the Dandenong Mountains, thence by Gardiner's Creek to the Yarra River, and by it to the Darebin Creek.*
- *The Kurnsje-berreing, in two subdivisions: (a) under the headman Billi-billeri, lived at and had the custody of the aboriginal stone quarry near Lancefield [Mt William], occupied the site of Melbourne and the country up the eastern side of the Saltwater River and its western branch to Mount Macedon, also the western half of the country lying between the Saltwater and Plenty Rivers; (b) under the headman Bebe-jan, the country on the Darebin Creek, and on the Yarra River thence to about Warrandyte, and also the watershed of the Plenty River and Diamond Creek.*
- *The Boi-berrit, under their headman Bungerim, lived on the western side of the Saltwater River, with their headquarters about Sunbury, and the western end of Mount Macedon. (Howitt 1904, 71-2).*

Harrison (1923), who resided at Yan Yean (10 km north east of the study area) during the period c. 1837-1844, provides some information on Aboriginal people living in the Plenty River area. His description of 'diet, housing and clothing' reveals aspects of subsistence strategies.

> *Aboriginal diet: chiefly of fish (caught by spearing) also: iguana, possum, kangaroo, grubs (from roots of wattle trees) and the bulb-like roots of yams and murnongs…*
>
> *Housing 'nuamas' – strips of bark or long branches of trees, supported at an angle against a fallen log of a tree, away from the weather side…*
>
> *Clothing: (in winter) opossum skins joined together by the sinews of kangaroos and other animals… Men carried spears, boomerangs; women, yam sticks…*

(Harrison 1923, 20)

This account indicates that Aboriginal people utilised the resource-rich regions of the Plenty River, with local plants and animals used for a wide variety of purposes. Some references suggest that Ryder's Swamp (now the Yan Yean Reservoir) was favoured for Aboriginal occupation, and that this area was used for eel hunting and ceremonial activities (Ellender 1991, 19; Garryowen 1888, 561).

The tributaries of the Plenty River such as Darebin Creek were likely to have been frequented during wetter months when regular rainfalls would have filled the tributaries.

The development of the township of Melbourne resulted in the loss of traditional lands and resources, the spread of disease, social breakdown and removal of both groups and individuals to reserves and mission stations. Aboriginal people from other clans and language groups were attracted to Melbourne for a variety of reasons, making it difficult to identify and document the ethno-history and post-contact history of specific Aboriginal clan groups after the period of initial settlement.

Through the influence of the Government, Missionary Societies and the new 'landowners', the number of Aboriginal people in the area dwindled as a result of high mortality rates and forced movement out of the township. Complaints from settlers who wanted to exclude Aboriginal people from their newly acquired land[2], and move them further into the 'bush' and requests by Aboriginal people themselves for a 'station' of their own, led to the establishment of an Aboriginal reserve known as Coranderrk, near Healesville in 1863. The majority of *Woi wurrung* people lived at Coranderrk from 1863 to the early 1900s when the introduction of the *Aborigines Act* 1909 requiring all 'half castes' to leave Mission Stations resulted in Aboriginal people moving back to Melbourne, attracted by work opportunities (Rhodes et al 1999, 88-89).

2.3 PREVIOUS CULTURAL HERITAGE ASSESSMENTS

2.3.1 Introduction

The study region as been subject to many Aboriginal cultural heritage assessments due to housing and water infrastructure developments around Epping, Wollert and Quarry Hill. A large number of localised assessments have been undertaken within, or are intersected by, the E6 study area. Most of these occur around the Wollert area with only a small number of assessments undertaken in the northern part of the study area. No

[2] The Shultz farm (HO41) within the study area was constructed to mitigate Aboriginal attack by spear or ball, with adzed timbers placed vertically between the exterior weatherboards and the internal lining (Payne 1975, 90).

assessments have examined the narrow corridor south of McDonald Road other than one narrow linear assessment that crossed the corridor south of Childs Road. The central/north area of the study area remains relatively unexamined by previous cultural heritage assessments. These localised assessments are summarized in Section 2.3.3.

Three broader regional assessments have been undertaken (Ellender 1991, 1994, 1997) that are relevant to this study. A regional assessment of the Plenty River (Ellender 1991) includes a small part of Darebin Creek in the study area near Quarry Hill. A further four kilometre section the Darebin Creek corridor was assessed by Ellender (1994) and the Merri Creek from Hernes Swamp in the north at Beveridge to its confluence with the Yarra River in the south was surveyed by Ellender (1997). These three assessments are discussed in Section 2.3.2.

2.3.2 Regional Cultural Heritage Assessments

The Plenty Valley Corridor Ellender (1991)

Ellender carried out a broad assessment of Aboriginal cultural heritage focussed on the Plenty River. The assessment included a systematic survey that sampled 84 km² of the 184 km² study area. Ellender recorded 70 Aboriginal places spread across five distinct landscape units within the Plenty Valley: basalt plains, sedimentary landscapes, hills & uplands, alluvial floodplains and gorge.

The Aboriginal places identified comprised surface artefact scatters (n49), scarred trees (n20) and a possible grave (VAHR 7922-0152) near Woodstock (1.3 km east of the study area). Ellender found that basalt plains had a comparatively low density of stone artefacts, compared with densities on the floodplains. Silcrete was the most favoured of the raw materials used for stone artefact manufacture in the Plenty Valley, although on the basalt plains chert and quartz were the dominant stone artefact raw material types (1991, 39). A denticulate[3] tool, not identified anywhere else within the study area, was identified near Donnybrook Road (VAHR 7922-0143) a few kilometres east of the study area. Within the E6 study area Ellender identified only one Aboriginal place (VAHR 7922-0155) on the Darebin Creek near Bridge Inn Road.

Ellender suggested that the lower stone artefact densities on the basalt plains may indicate that they were less attractive locations than creek corridors because of their generally poor drainage. Ellender did note that the bark of the many Red River Gums

[3] A type of stone tool with retouched edges to form a sharp cutting implement.

present on the plains may have been a valuable resource as the bark was used by Aboriginal people to manufacture a range of objects (1991, 52).

Ellender concluded that the uplands to the south and west of Whittlesea were used as easy lines of movement through the Plenty River Valley. Quarry Hill, a granodorite intrusion was considered to have potentially been utilised by Aboriginal people as a source of raw stone material (1991, 50). The basalt plains may have attracted Aboriginal people on foraging trips and within this context, areas with running water may have provided good campsites (1991, 52). Ellender (1991, 53) hypothesised that people occupied the sedimentary landscape in the long term and made sporadic or seasonal trips for different resources to other landscape units.

Mernda Urban Development Area (Ellender 1994).

Ellender's (1994) investigation encompassed 4,284 ha of land defined as the Mernda Urban Development Area (MUDA). Most of this area extends to the east of the current study area however a significant portion of the E6 Transport Corridor south of Mason Road to O'Herns Road is included in the MUDA study area. This included a significant length of Darebin Creek. Ellender divided and analysed the distribution of Aboriginal places in the MUDA activity area according to five landscape units: red gum woodland, quarry and granite hills, sedimentary geology, and riverine strip.

Ellender surveyed Darebin Creek (riverine strip landscape unit) from O'Herns Road to Mason Road. Isolated stone artefacts (n21) were the most common place type occurring within the riverine strip; they are followed in frequency by stone artefact scatters/exposures in creek banks (n12), and one scarred tree. Stone artefacts were occasionally noted at depths of 300 mm in the creek bank exposures but most frequently occurred in surface exposures. The largest Aboriginal place (7922-0366) on the Darebin Creek contained 31 stone artefacts (1994, 39). No Aboriginal places were identified on the flat floodplain section of Darebin Creek between Masons Land and 750 m upstream of Bridge Inn Road. South of Bridge Inn Road the ground surface visibility was poor and only a single isolated stone artefact was noted (1994, 33).

Ellender established that the riverine strip contained the highest number of Aboriginal places of the four landscape units. She suggested that along Darebin Creek the numerous isolated stone artefact exposures and stone artefact scatters represent a more or less continuous occurrence of Aboriginal cultural material (1994, 32) extending northward from Harvest Home Road to Bridge Inn Road, a distance of approximately 4 km. A higher occurrence of Aboriginal places on the eastern bank of the Darebin Creek was noted; a phenomenon that Ellender (1994, 33) suggests may reflect winter

occupation when the creek was full and the north west aspect of the eastern bank provided more sunshine and a more gentle gradient.

An analysis of the stone artefact assemblage from the study area highlighted a preference for stone artefact manufacture from silcrete, although quartz and quartzite were also present (1994, 38). Also present in small quantities was a fine grained black basalt (usually crafted into small, finely retouched artefacts) and crystal quartz. Ellender suggests the latter may be derived from Quarry Hill (1994, 38). Sixty seven percent of the Aboriginal places recorded contained cores and formal tools were identified in 60% of places (1994, 40).

The Aboriginal Cultural Heritage of the Merri Merri Creek (Ellender 1997)

Ellender conducted a survey of 36 sq km of the Merri Creek from Hernes Swamp at Beveridge to its confluence with the Yarra River in the south. The E6 corridor intersects a very small part of Ellender's study area in the north near the Merri Creek headwaters.

Ellender sampled grasslands, creek margins and hills. Thirty five new Aboriginal places were identified for the entire study area, consisting of 17 scatters of stone artefacts, 15 scarred trees and 3 isolated stone artefact scatters. All but one of the 35 Aboriginal places identified were within 20 m of a water source. Nine places comprising two artefact scatters and seven scarred trees were identified in the small section of the Merri Creek headwater that is intersected by the E6 Transport Corridor.

All the stone artefact scatters recorded in Ellender's survey were small (approximately 10 stone artefacts per place) with often widely dispersed artefacts. These were interpreted as representing a group's brief stop where some activity was carried on before moving on. The dispersal of artefacts was argued to be the result of later European activity such as stock trampling, loss of vegetation and erosion (1997, 40).

The stone artefact raw materials were predominantly quartz and silcrete, and rarely was one type found without the other. Basalt was uncommon as was chert, quartzite and glass. At the time of writing no source for silcrete had been identified in the Merri Creek Valley. The basalt artefacts were dark grey, black and of a fine grained texture. Ellender notes that given the ubiquity of basalt in the region it is surprising that it was not used more frequently for tool making. She posits that perhaps acquiring the necessary fined grained variety was difficult (1997, 42).

2.3.3 Localised Cultural Heritage Assessments

The following table summarises localised Aboriginal cultural heritage assessments undertaken within, or intersected by part of the E6 study area. Most of these

assessments comprise small area surveys and some subsurface testing. Two controlled excavations have been undertaken in the study area (Freslov 2006; Feldman, Howell-Meurs & Mathews 2008).

Study Authors	Location of Assessment	Components of Assessment	Landforms Assessed.	Aboriginal Place Types Identified	Cultural Heritage Identified (VAHR No.)	Significance of the Cultural Heritage Identified (as per report)	Predicted Areas of Sensitivity (as per report)
Nicholson (1999)	110 Epping Road, Epping including Findon and Darebin Creeks	Desktop, survey.	Creek corridor and grasslands.	Nil	Nil	NA	High sensitivity - 50 m either side of Findon Creek. Moderate - plains east of Findon Creek.
A. Light (2002)	110 Epping Road, Epping.	Subsurface testing.	Creek corridor and grasslands.	Nil	Nil	NA	Low sensitivity throughout the study area.
Marshall & Webb (2003)	Epping North-east of Bindts Road -15 km pipeline route, Quarry Hill.	Desktop, survey.	Grassland, upper hill slopes, creek crossings.	Isolated stone artefact.	7922-0729: Isolated red silcrete flake in a disturbed context.	Low Significance	High sensitivity - high points between Darebin Creek and Quarry Hills.
Freslov & Xiberras (2003)	Quarry Hill	Desktop, survey.	Grassland, upper hill slopes, creek corridor.	Isolated stone artefact.	7922-0777: Isolated stone artefact (silcrete core).	Low Significance	High sensitivity - flat sheltered basin on upper slopes and Darebin Creek corridor. Low sensitivity - northern and eastern slopes of Quarry Hill, Bindts Road and Sackville St.
Freslov (2004)	Quarry Hill	Desktop, survey, subsurface testing.	Plain, creek corridors, upper hill slopes.	Stone artefact scatter	7922-0729: A large surface stone scatter that is 45 m in length, in the Darebin Creek corridor, comprising 25 silcrete stone artefacts.	Moderate Significance	High sensitivity - upper slopes of Quarry Hill, Darebin Creek crossing at Bindts Road, Darebin Creek corridor at Harvest Home Road. Moderate sensitivity - Darebin Creek crossing, Maserati Drive and Porsche Court.

Study Authors	Location of Assessment	Components of Assessment	Landforms Assessed.	Aboriginal Place Types Identified	Cultural Heritage Identified (VAHR No.)	Significance of the Cultural Heritage Identified (as per report)	Predicted Areas of Sensitivity (as per report)
Freslov ,Chandler, Marsh & Nicholson (2006)	Quarry Hill/Darebin Creek	Salvage excavation of 7922-0729.	Creek corridor	Subsurface stone artefacts.	7922-0729: The excavations identified five silcrete stone artefacts confined to upper terrace of alluvial sediment.	Moderate Significance	High sensitivity - Darebin Creek.
Griffin (2004)	Findon and Darebin Creek	Monitoring of ten geotechnical holes.	Creek corridor and grasslands	Nil	Nil	NA	High sensitivity - areas adjacent to waterways.
Orr & Ford (2006)	Bridge Inn Road	Desktop, survey.	Grasslands	Scarred tree.	7922-0969	Low Significance	Low to moderate sensitivity – entire area within study area is rated as having moderate sensitivity.
Murphy & Dugay (2007)	Lot 220 Epping Road, Wollert.	Desktop, survey.	Grasslands, stony rises	Nil	Nil	NA	Moderate sensitivity - stony rises for low density subsurface stone artefacts.
Archaeological Survey of Lockerbie Estate Biosis (2006)	Kalkallo	Desktop, survey.	Creek corridor.	Stone artefact scatter.	7822-2025,2026. Stone artefact scatters of silcrete and quartz flakes in close proximity to Merri Creek.	NA	Report not located. Information from place cards only.
Patterson (2003)	Yan Yean Pipe Track	Desktop, survey.	Creek corridor	Scarred tree, stone artefact scatter.	7922- 0754: Large stone artefact scatter on the Darebin Creek floodplain south of Mckimmies Road. 450 x 50 m comprising cores, formal tools backed blade and waste flakes of silcrete, quartz and basalt. 7922-0753 - scarred tree has 18 toe holds and is estimated to be 500-700 yrs old. Note that these Aboriginal places are	Medium Significance 7922- 0754. Low Significance 7922-0753	High sensitivity - Darebin Creek corridor.

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					not within the E6 Transport Corridor.		
Bell (2005)	Quarry Hills/Darebin Creek	Desktop, survey.	Upper and lower hill slopes, creek corridor, grasslands.	Nil	Nil	NA	High sensitivity - Darebin Creek corridor. Moderate sensitivity - east of Darebin Creek, south of Masons Lane, and gully north of Gordons Road.
Chamberlain & Marshall et al (2004)	Wollert.	Desktop, survey.	Plains, woodlands, grasslands, stony rises and creek corridors.	Isolated stone artefacts, scarred tree.	7922-0790 to 7922-0798: comprising eight isolated silcrete stone artefacts identified on stony rises, one quartzite stone artefact identified beside Findon Creek, and a scar tree identified on the basalt plain near Epping Road. .	Low Significance	High sensitivity - Findon Creek corridor, basalt stony rises. Moderate sensitivity - waterways and floodplains of Findon Creek and its tributaries, stands of red gum. Low sensitivity - volcanic plains.
Cusack & Freslov, (2001)	307 km corridor from the Murray Valley Highway to Craigieburn.	Desktop, survey, monitoring.	Woodland, grassland and floodplain.	Isolated stone artefacts.	7822-0783: an isolated stone artefact located 200 m from Merri Creek.	Moderate Significance	High sensitivity - creek corridors. Cultural heritage places may be preserved *in situ* along creek terraces.
Patterson, Paynter & Bell (2003).	Donnybrook.	Desktop, survey.	Grassland and wetland.	Isolated stone artefacts.	7822-1440 & 7822-1441: two isolated stone artefact occurrences.	Low Significance	Low sensitivity throughout - any artefacts are likely to be in disturbed contexts and consist of isolated artefacts.

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Turnbull & Schell (2008)	Wollert/Findon Creek.	Desktop, survey, subsurface testing.	Creek corridors and stony rises.	Stone artefact scatters and isolated stone artefacts.	Nine stone artefact scatters (7922-1032 to 1040). Most of these are located on stony rises. Isolated stone artefacts occur on the alluvial plains adjacent to Findon Creek. Stone artefact raw materials comprise silcrete, quartz, and small amounts of tachylyte.	Moderate Significance - 7922-1038. Low Significance - remaining places.	Moderate to High sensitivity - stony rises adjacent to Findon Creek.
Kaskadanis (2007)	Wollert/Darebin Creek.	Desktop, survey.	Creek corridors and stony rises.	Stone artefact scatter.	Large stone artefact scatter (7922-0790) on a stony rise within 200 m of Darebin Creek. The majority (98%) of the stone artefacts were of a similar brownish-red, fine grained silcrete and no retouched pieces were identified. The place was interpreted to be the result of a single knapping event (2007, 20-21).	High Significance	High sensitivity - stony rises.
Nicholson, Birch & Walther (2008)	Lehmans Road Epping.	Desktop, survey, subsurface testing.	Plains and stony rises.	Scarred tree.	7922-0798: Scarred tree previously identified (Chamberlain & Marshall et al 2004) on property. No other Aboriginal places were identified during the subsurface testing, which focused on stony rises.	Moderate Significance	Low

Study Authors	Location of Assessment	Components of Assessment	Landforms Assessed.	Aboriginal Place Types Identified	Cultural Heritage Identified (VAHR No.)	Significance of the Cultural Heritage Identified (as per report)	Predicted Areas of Sensitivity (as per report)
Murphy & Amorosi (2008)	Barbers Creek, Eden Park.	Desktop, survey.	Creek corridor.	Stone artefact scatter.	Ten Aboriginal stone artefact scatters (7923-0153, 0978, 7922-0890 to 0897). Four are located within the E6 Transport Corridor (7922-0890-0893).	Low Significance.	Prior to the ground surface survey the study area had been identified in previous assessments as having cultural heritage sensitivity 50 m either side of Barbers Creek. The cultural heritage sensitivity was refined to a 50 m buffer around each recorded cultural heritage place with the remainder of the area considered likely to contain a background deposit occurrence of <3 stone artefacts per m^3.
Feldman, Howell-Meurs & Mathews (2008)	Donnybrook- 7 km of rail line.	Desktop, survey, subsurface testing and controlled excavation.	Plains and stony rises.	Stone artefact scatter.	Ten Aboriginal places (7822-1179,1175, 0783, 1174, 1173, 2217, 2218, 7823-0189, 0076 & 0075) comprising isolated or stone artefact scatters in disturbed contexts. One Aboriginal place - 7823-0189 (outside the E6 Transport Corridor) may contain stone artefacts in subsurface deposits, though these stone artefacts are unlikely to be *in situ*. This scatter is relatively dense and located on a stony rise. Subsurface testing program identified three Aboriginal places (7822-2217, 2218 & 7823-0189). These were stone artefacts not considered to be i*n situ*.	Low Significance	Moderate sensitivity - water courses and stony rises. It is probable that additional, significant components to 7822-0189 exist on comparable, less disturbed landforms on adjoining private land, where the stony rise extends to the east.

Table 1: Localised assessments relevant to the Study Area.

2.4 REGISTERED ABORIGINAL PLACE DISTRIBUTION

The Victorian Aboriginal Heritage Register (VAHR) was searched for Aboriginal places both within and surrounding the E6 Transport Corridor (see Figure 3). Figures 4 and 5 present closer detail for those Aboriginal places strictly within the E6 Corridor. Note there are no registered Aboriginal places within the E6 Corridor south of McDonalds Road.

A total of 57 Aboriginal places were identified in the E6 Transport Corridor (see Table 2 and Appendix 1 - Gazetteer). A survey of place types represented in the study area is provided in Table 2.

PLACE TYPE	Total
Artefact Scatter	39
Earth Feature	9
Multiple Feature	1
Scarred Tree	8
Grand Total	57

Table 2: Summary of Aboriginal place types in the Study Area.

The majority of Aboriginal places in the study area are isolated stone artefacts or small stone artefact scatters. The nine earth features registered in the study area comprise exposures of stone artefacts in the banks of the Darebin and Merri Creeks. Eight scarred trees occur in the study area, primarily near Merri Creek. One multiple feature comprising a piece of mussel shell and a small number of stone artefacts is located on a stony rise adjacent to Findon Creek.

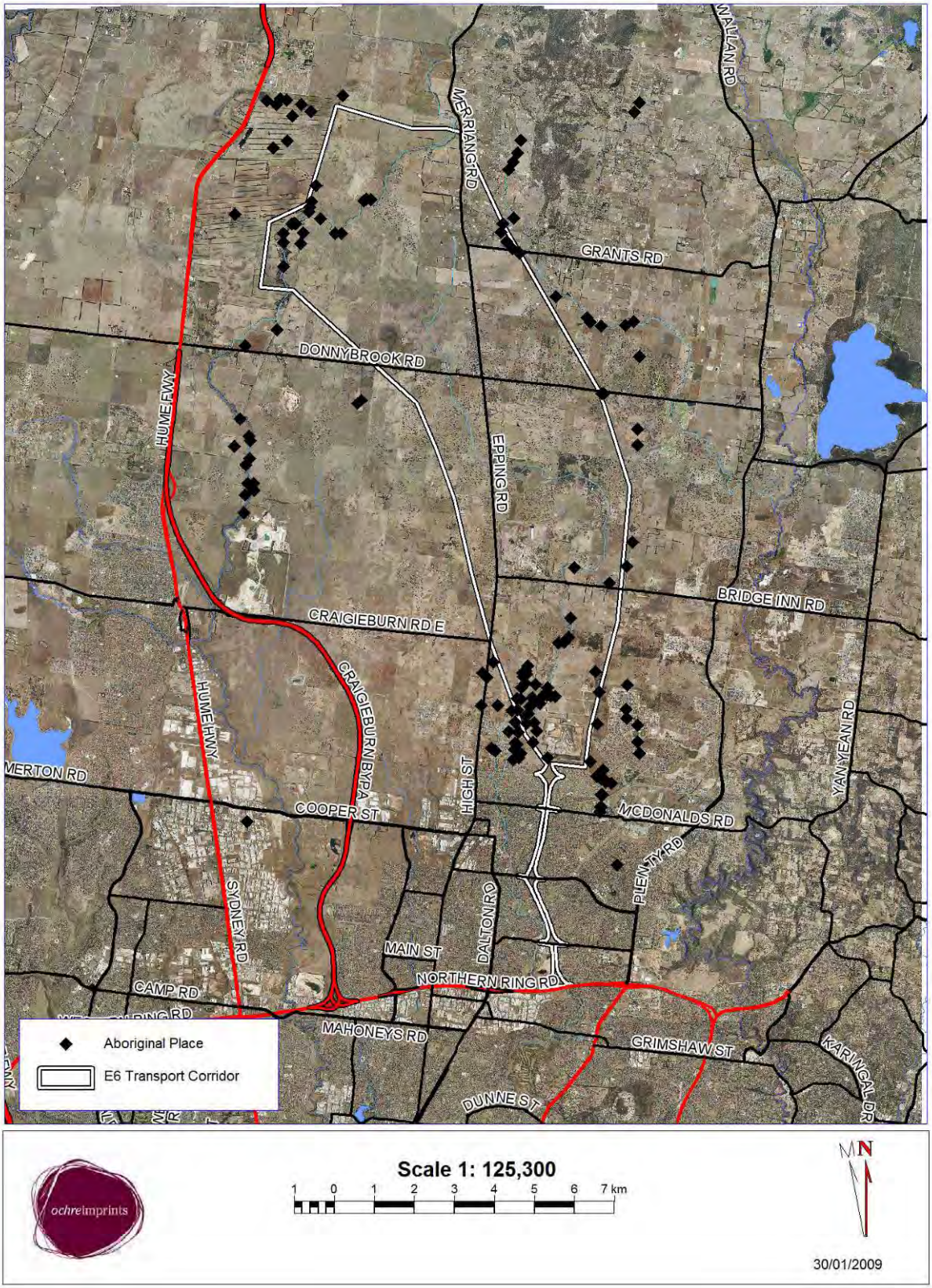

Figure 3: Aboriginal Places in and around the Study Area.

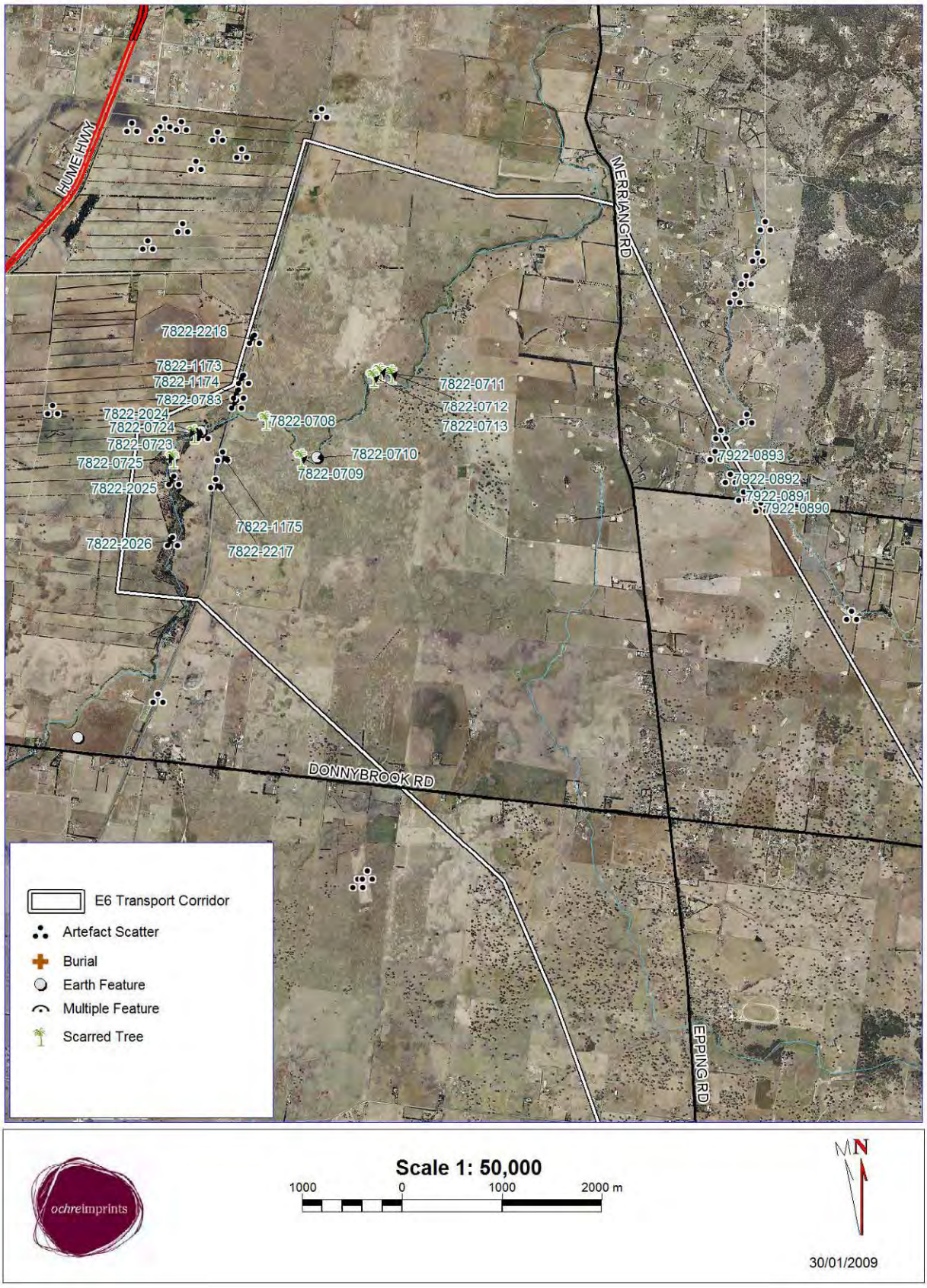

Figure 4: Location of registered Aboriginal places in the northern portion of the Study Area.

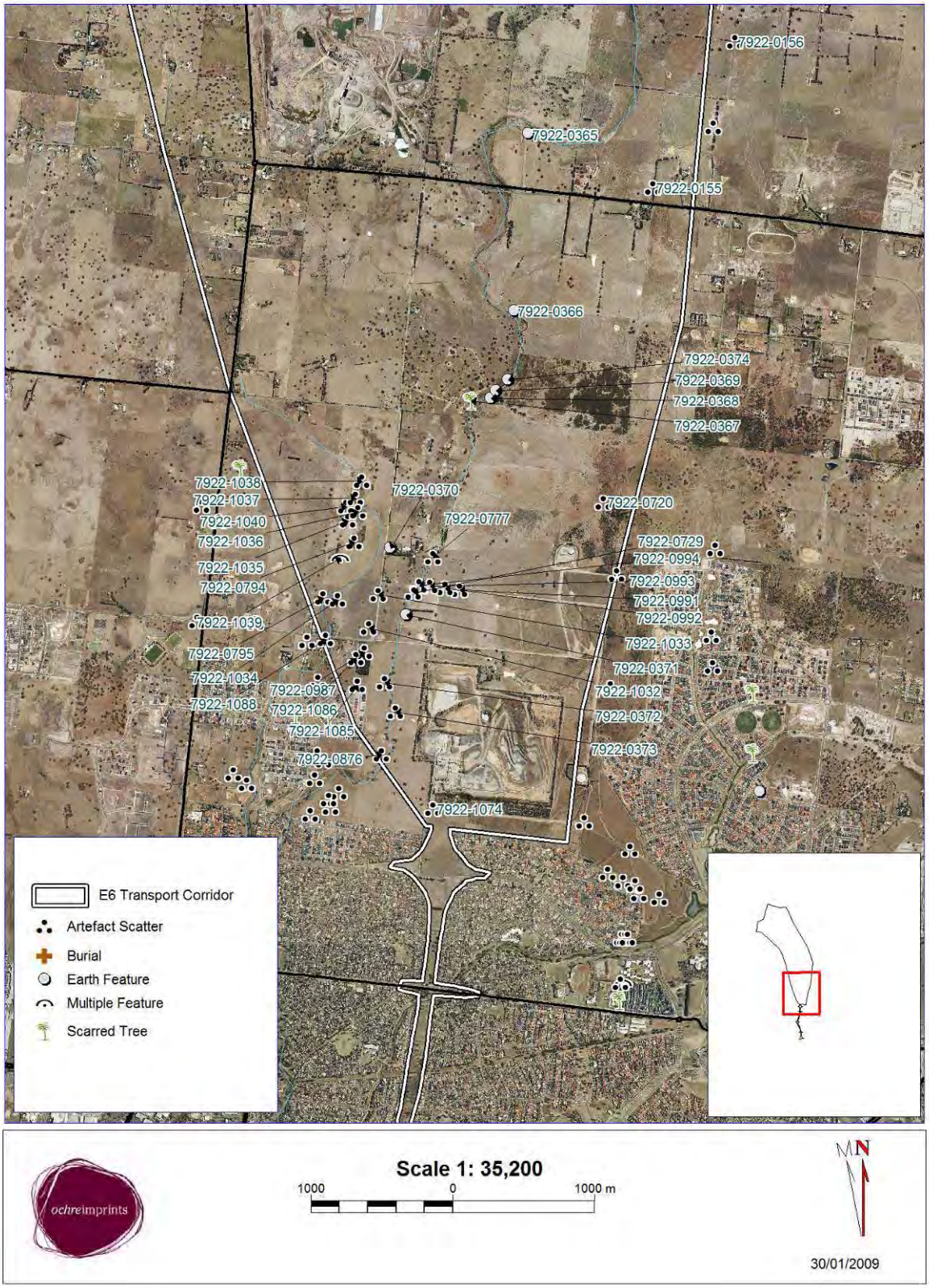

Figure 5: Location of registered Aboriginal places in the southern portion of the Study Area.

2.5 SIGNIFICANCE OF ABORIGINAL PLACES

An important aspect of cultural heritage assessments is the evaluation of significance - both of the project area and any identified places. Assessments of significance are central to the formation of effective management strategies. The significance of Aboriginal places in Victoria is often assessed using the principals of the Burra Charter (Burra Charter 2000).

The Burra Charter sets out criteria for significance assessments. Based on the International Charter for the Conservation and Restoration of Monuments and Sites (ICOMOS), the charter has been an accepted code of practice in heritage management in Australia since 1988. The Burra Charter defines cultural heritage significance as meaning the aesthetic, historic, scientific or social value of a place to society. These terms are not mutually exclusive as a place may be defined as belong to more than one of these categories (Burra Charter 2000, 12). The four criteria used in the Burra Charter to define significance are listed below:

Aesthetic Value	Consideration of the form, scale, texture, colour and material of the physical material (fabric) of the place.
Historic Value	The place's association with an historic figure, event, phase or activity.
Scientific Value	The scientific or research value of a place, depending upon the place's/data rarity, quality or representativeness and the degree to which the place may contribute information.
Social Value	The qualities for which a place has become a focus of spiritual, political, national or other cultural sentiment to a group

The cultural heritage significance of the entire study area is beyond the scope of this assessment. However some broad statements regarding the significance of Aboriginal cultural heritage values are provided here to provide an indication of the likely significance of Aboriginal cultural heritage values:

- All Aboriginal places have social values for Aboriginal people. Visible evidence of Aboriginal culture such as scarred trees are particularly valued by Aboriginal people for their tangible and readily interpreted link with past Aboriginal culture and identity. Scarred trees may also have strong aesthetic values for Aboriginal people. It is noted that eight scarred trees occur within the E6 Transport Corridor.

- Many Aboriginal places are archaeological places, such as diffuse stone artefact scatters which occur on the surface or cultural material in subsurface deposits. These places have scientific values for the way in which they can be interpreted to understand past Aboriginal activities. Particularly high scientific values are placed on *in situ* cultural material, as these can provide valuable information regarding Aboriginal behaviour over time or difference in the spatial use of a location.
- The registered Aboriginal places identified in this assessment have been assessed for scientific values in previous reports and the vast majority of these places are of low to moderate scientific significance. The following Aboriginal places in the study area have been noted to have high scientific values:
    - VAHR 7922-0729: A large, potentially partly *in situ*, surface and subsurface stone artefact scatter on Darebin Creek.
    - VAHR 7922-0987: Large potentially *in situ* stone artefact scatter on a stony rise within 200 m of Darebin Creek. The place was interpreted to be the result of a single knapping event.
    - The identification of Aboriginal places VAHR 7922-0729 and VAHR 7922-0987 in potentially *in situ* deposits in association with Darebin Creek highlight the potential for further scientifically significant Aboriginal places to occur within this corridor.

2.6 NATURE AND CHARACTER OF ABORIGINAL PLACES - PREDICTION MODEL

One purpose of the background research is to assist in recognising areas with potential Aboriginal cultural heritage values.

Aboriginal places frequently consist of buried deposits of cultural material which are not visible on the ground surface due to a range of factors (cf. sedimentation, vegetation cover etc.). It is usually not possible to identify all Aboriginal cultural material within a given area due to these factors, or because the size of the study area is too large to fully survey. Most heritage impact assessments rely on predictive modelling to define areas of Aboriginal archaeological sensitivity.

An area of Aboriginal archaeological sensitivity potentially contains Aboriginal cultural material. Areas of archaeological sensitivity are rated from low to high, depending on the likelihood of the presence of places and their predicted significance. A combination of factors influence the end rating, primarily: the distribution of registered Aboriginal places and the types of places represented including site type and content, the types of

landforms present and the level of disturbance by land use and other practices. The rating used to evaluate the archaeological sensitivity of the study area in this report was originally proposed in Schell (2006, 24). The conditions that *generally* apply for each rating level are described below, though it is stressed that other factors may come into play depending on the individual area[4].

Low Sensitivity: No registered Aboriginal places are present. Landforms in the study area are not known to be associated with Aboriginal places in the wider region and/or are extensively modified (i.e. tree clearing, cut & fill etc).

Moderate Sensitivity: Registered Aboriginal places or registered Aboriginal places of low significance only are present. Landforms in the study area are known to be associated with Aboriginal places in the wider region and these have been partially modified (i.e. tree clearing, ploughing etc).

High Sensitivity: Aboriginal places of moderate – high significance are present. Landforms that contain Aboriginal places occur more extensively in the study area. Landforms are intact or only partially modified with limited disturbance by tree clearing etc.

The distribution of previously registered Aboriginal places and background research has been used to formulate a general prediction model regarding the distribution of Aboriginal places. This is presented in Table 3.

LANDFORM	SENSITIVITY	POTENTIAL PLACES
Stony Rise	Moderate to High	Low to high density stone artefact scatters.
Plains	Low - Moderate	Scarred trees, isolated stone artefacts, and low to high density stone artefact scatters.
Creek Corridor	High	Scarred trees, isolated stone artefacts low density stone artefact scatters, including exposures in banks and *in situ* cultural material.
Lower Hill Slopes	Moderate	Stone artefact scatters.
Upper Hill Slopes	Moderate	Stone artefact scatters.

Table 3: Archaeological sensitivity of landforms in the Study Area.

[4] For instance, an area may contain registered Aboriginal scarred tree sites, but the potential for any other sites to occur in the area may be non-existent due to the absence of further mature trees.

2.7 CONCLUSION

Regional and localised assessments for Aboriginal cultural heritage focussed on two principal areas within the E6 study area; Wollert and Donnybrook areas. No assessments have examined the narrow corridor south of McDonald Road other than one narrow linear assessment that crossed the corridor south of Childs Road. The central area of the study area also remains relatively unassessed by previous cultural heritage assessments. Most of the cultural heritage assessments have been confined local surveys. Two controlled excavations have been undertaken. As a result, the findings of this desktop assessment has relied on incomplete data - namely large areas of the E6 Transport Corridor have not been subject to cultural heritage assessments and most of the previous cultural heritage assessments have been limited to visual inspections of small areas.

The desktop assessment determined that 57 registered Aboriginal places occur in the E6 Transport Corridor. Types of places are surface and subsurface stone artefact scatters, scarred trees, and earth features[5]. The distribution of Aboriginal places reflects the location of previous assessments and is not a true reflection of the distribution of Aboriginal cultural heritage in the study area.

This study presents a broad prediction model identifying creek corridors as having high sensitivity to contain Aboriginal places, while the remainder of the E6 Transport Corridor has low - moderate sensitivity for containing Aboriginal places. Scarred trees and *in situ* Aboriginal cultural material located in creek corridors are place types highlighted as having increased significance.

[5] In this report all the identified earth features are exposures of stone artefacts in creek banks.

3 HISTORICAL ARCHAEOLOGICAL ASSESSMENT

3.1 INTRODUCTION

This section presents background historical information for the study area. The results of previous historical assessments and details of previously registered historical places are presented. This is followed by a review of the significance of registered historical places and the sensitivity of the study area.

3.2 HISTORICAL OVERVIEW

The following background information draws heavily from Gould's (1990) summaries of the history of the Epping, Wollert, Woodstock and Donnybrook/Kalkallo regions. The background historical information builds a picture of land use in the area and is used to develop predictions regarding the types of historical places that may be present. Land use history also assists in understanding potential impacts to the historical place record.

Lalor, Thomastown and Epping developed from small settled areas into densely occupied Melbourne suburbs. The first land sales in the Epping area took place in 1838, with most of the land offered purchased by Sydney speculators. During the early 1840s, tenant farmers settled in the area, then known as Darebin Creek. It was not until 1853, when a village reserve was surveyed, that the name Epping was chosen. Epping's early residents made good use of the volcanic bluestone that abounds. Many old bluestone public buildings are still in use today, notably St. Peters Catholic Church (1867), Presbyterian Church (1867), St. John's Church of England (1869), Shire Offices (1871) and Primary School (1874). Several private bluestone residences also remain. The 1920s brought electricity and reticulated water to Epping. Post Second World War development, particularly since 1970, has seen Epping change from an agricultural village to a rapidly expanding Melbourne suburb. Traces of the earliest settlement can still be found despite dense development i.e. Westgarthtown (in Thomastown), to the immediate west of the study area.

Wollert, an Aboriginal word for "where possums abound", takes its name from the land parish in which it is partially situated. From 1836 until the early 1850s, sheep raising was the main European activity. In 1853, much of the land was subdivided into smaller farm lots, and necessary access roads laid out. The first school, established by the Church of England, commenced in 1852. A bluestone state school replaced it in 1877. The timber Methodist Church was erected in 1878 to replace an earlier one built in 1859. From the late 1850s to 1960s, dairying was the mainstay of Wollert's economy. Large quantities of milk and butter were produced for the nearby Melbourne market. Ernst Schultz, who

resided at Wollert, on Lehmans Road, achieved considerable fame during the 1880s and 1890s with his butters regularly winning prizes at both the Whittlesea and Royal Melbourne Shows. Cr. Thomas Bodycoat's dairy farm, located west of Epping Road, Wollert, was described in 1905 as being "planned and equipped in the most up-to-date fashion" and "one of the showplaces of its kind in the State". Later the Hehr brothers dominated the Clydesdale horse sections of the Whittlesea Show, and also exhibited successfully at the Royal Melbourne Show. Their farm holding located on Epping Road, Wollert, still remains. Many of the structures associated with these farms are extant and well preserved. During the late 1940s, several large Wollert properties were purchased by the Soldier Settlement Commission. They were then subdivided and allocated to eligible ex-servicemen. In recent years, dairying has ceased to be the primary land use, with grazing and quarrying more common.

Woodstock means "a clearing in the wood". The name was first used as early as 1841 by John Hunter Patterson, who occupied the area as part of his Green Hills Estate. Patterson, from Van Diemen's Land, arrived in Port Phillip in December 1836. He immediately settled at Woodstock, with six cargoes of sheep. A school began in 1853 in a slab hut with an earthen floor. In 1855 Patrick Whitty opened the two storey bluestone Sir Henry Barkly Hotel on the south west corner of the crossroads of Epping and Donnybrook Road. In 1858 John Whitty opened a two storeyed bluestone post office and store on the south east corner, opposite the hotel. The population of Woodstock peaked at 700 in 1863, but then declined as farms became larger and mechanisation increased. Unfortunately, the old hotel at Woodstock was demolished in 1948, followed by the post office in 1968. In 1968 grassfires also destroyed the Catholic Church and Mechanics Institute. Just north of Woodstock, on the headwaters of the Merri Creek, the small village at Merriang developed in 1850, although now largely abandoned it once boasted a post office, store, hotel and school. From 1858 to 1885 it also served as the terminus for the Epping Road coach service to Melbourne.

The first name for the area now known as **Donnybrook/Kalkallo** was Rocky Water Holes. This name reflected the stony nature of the land through which Merri Creek and Kalkallo Creek flow. That name remained in use until 1852 when the township reserve located at the intersection of Donnybrook Road and the railway intersection was surveyed and renamed Donnybrook. In 1849 the Argus described Rocky Water Holes in some detail, providing insight into the character of the township at that time. The paper reported that the township *"seems to be going ahead like wildfire. The number of small but flourishing farmers, dairymen etc, also large sheep and cattle runs contiguous to the neighbourhood has induced several spirited and respectable tradesmen to try their luck*

Mr. Wilson the late respected corn farmer of Melbourne has a fine store here and has also been instrumental in causing a very pleasant change in the much frequented inn ... Two first rate inns, a post office, watchhouse etc. are in course of erection, also a flourmill...The traffic is very great, no less than 98 drays loaded with wool touched at this place last week". A major factor in the development of the township was its location to the main road linking Melbourne to Sydney. This is reflected in the later establishment of a coaching depot and the operation of up to 17 accommodation houses. On 26 October 1874, Donnybrook's name was changed by proclamation to Kalkallo, after the land parish in which the town is situated. Kalkallo is believed to be an Aboriginal word for tall trees, which are said to have once fringed the creeks. Today, the former township of Donnybrook, located on the Hume Highway bears the name Kalkallo, with only the area near the railway line referred to as Donnybrook. Railway infrastructure, hotel buildings and several large farm complexes still remain close to the old township.

3.3 PREVIOUS ARCHAEOLOGICAL ASSESSMENTS

3.3.1 Introduction

This section focuses on a presentation and discussion of the results of previous historical cultural heritage assessments that have been undertaken in the study area. Many localised heritage and archaeological studies have been carried out in conjunction with Aboriginal cultural heritage assessments, particularly around Wollert and Quarry Hills, as a result of urban expansion and water management projects. The Shire of Whittlesea has been covered by several broad historical heritage studies (Gould 1990; Hicks 1988, Weaver 1991). The Mitchell and Hume Shires also commissioned heritage studies however as these largely occur outside the E6 Transport Corridor these assessments are not discussed. The most relevant reports for the study area are discussed briefly below.

3.3.2 Regional Cultural Heritage Assessments

Whittlesea Heritage Study (Gould 1990)

This study was carried out for the City of Whittlesea with the aim of building on a previous desktop review (Hicks 1988). The assessment involved a comprehensive archaeological field survey to identify places of heritage significance including individual buildings, places and areas of historical significance within the City of Whittlesea.

The survey was undertaken using 1974 and 1976 Crown Survey maps, which indicate the location of extant buildings. The survey procedure involved locating each building noted on the Crown Survey map on the ground, and determining its significance. During

this course of locating buildings; landscapes, individual trees, cultural landscapes and heritage areas were also documented.

The study resulted in the identification of hundreds of historical places in the City of Whittlesea relating to a wide range of historical themes. Thirty[6] historic places identified by Gould occur within the E6 Transport Corridor and are indicated in Figure 6. Most of the places identified in the E6 Transport Corridor are rural farm dwellings and associated structures such as dry stone walls however other types of historical places identified include community buildings such as a church, school, dance hall and a bluestone bridge. Gould also notes a number of potential archaeological places at the former township of Woodstock (intersection of Merriang Road and Donnybrook Road) and at 'Merri Park' on the Merriang Epping Road south of Glenbounie Road. According to Gould (1991, 161 & 174 of 541) a number of locations require further archaeological investigation. These are: the site of the first Woodstock post office, hotel and church, graves and "Merri Park" grave remains.

Of the 30 identified historical places located in the E6 Transport Corridor 10 have been included in Heritage Overlays and several of these have also been registered on the Heritage Inventory. It is noted that 20 historical places noted by Gould are not registered on any heritage database and are pending a full assessment[7]. Figure 6 and Table 4 provides information regarding the status and location of the historical places identified by Gould in the E6 study area.

[6] Two of these places (13.07 & 1.19) fall outside the E6 Transport Corridor, however subsequent Heritage Overlays surrounding these properties intersect the E6 Transport Corridor boundary and they are therefore included in this count.

[7] These places are soon to be assessed by the City of Whittlesea for inclusion on the Heritage Overlay (pers. com Darren Jackson – City of Whittlesea).

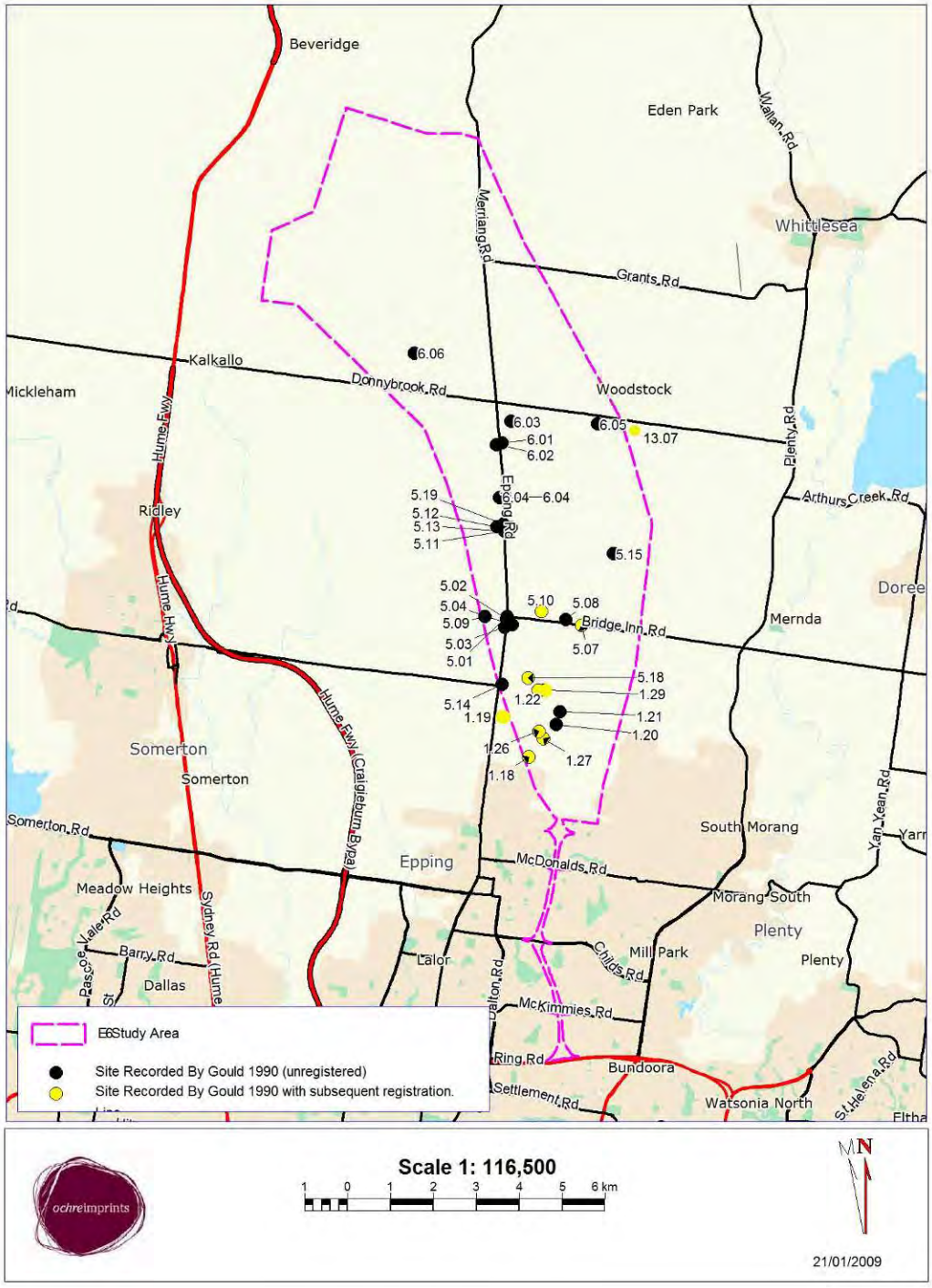

Figure 6: Historical places identified by Gould (1990).

PLACE NUMBER (AFTER GOULD 1990)	PLACE NAME (AFTER GOULD)	REGISTRATION
1.19	Hehrs Pine Park Farm	HO40, H7922-0297 (Note The actual farm buildings listed as 1.19 are not within the E6 boundary however E6 boundary intersects the farm property which has HO and HI registration..
1.22	Dry Stone Wall	HO41
1.29	Unmacks Farm	HO41
1.18	House and Out Buildings	HO79, H7922-0304
1.26	Dry Stone Wall	HO79,H7922-0304
1.27	Dry Stone Wall	HO79,H7922-0304
5.07	Darebin Creek Monier Bridge	HO38, H7922-0082
5.10	Schultz Farm Buildings	HO39
5.18	Schultz Farm	HO41
13.07	Fenwick Stud	HO44 (Note The actual farm buildings listed as 13.07 are not within the E6 boundary however E6 boundary intersects the farm property which has HO registration)

Key: H - Heritage Inventory Registration, HO – Heritage Overlay.

Table 4: Registered historical places identified by Gould (1990).

Gould's study identified the elaborate dry stone walls throughout the region, particularly along Harvest Home Road as being a regionally significant cultural feature (1991, 527 of 541). Gould considered that the dry stone walls forms a part of a cultural landscape in the area that is somewhat unusual in Victoria. "The walling is unusual for its intensive extent, in combination with the rectilinear form and the large number of small farms, so that the landscape produced is more European than other Victorian landscapes".

3.3.3 Localised Cultural Heritage Assessments

Many localised historical assessments have been undertaken in the region in conjunction with Aboriginal cultural heritage assessments. The following table summarises the assessments that have been undertaken within, or are partly intersected by the E6 Transport Corridor.

REPORT AUTHORS	LOCATION OF ASSESSMENT	COMPONENTS OF ASSESSMENT	HISTORICAL PLACE TYPES IDENTIFIED	CULTURAL HERITAGE IDENTIFIED	SIGNIFICANCE (AS PER REPORT)	PREDICTED AREAS OF SENSITIVITY (AS PER REPORT)
Chamberlain, Marshall, Myers, Nicholls & Patterson (2004).	Epping North.	Desktop, survey.	Mid-late 19th century, surface, non-urban, pastoral, domestic.	H7922-0297-300, D7922-0301, D7922-0302, H7922-0303-305 H7922-0308. Buildings and structures associated with farming.	Medium to high significance - H7922-0297-300, D7922-0301, D7922-0302, H7922-0303-305 H7922-0308. Places H7922-0297, 0304, 0305 have the potential for demonstrating rarity and uniqueness and demonstrating social and cultural associations to the local region.	The landscape comprising the study area remains in similar condition to the historical landscape and is considered to have regional significance.
Weaver 1991	Plenty Valley Corridor	Desktop, survey.	19th and 20th century, urban, surface, non-urban, pastoral, domestic.	76 Historical places – Note only three are within the E6 Transport Corridor, H7922-0082, 7922-0054, 7922-0063.	H7922-0082 - medium 7922-0054 - low to medium. 7922-0063 - medium	Not reported.
Patterson, Paynter & Bell, (2003).	Donnybrook.	Desktop, survey.	Mid-late 19th century, surface, non-urban, pastoral, domestic.	D 7822-0367to 0368. Dry stone walls associated with farming.	D 7822-0367to 0368 are of local significance.	Not reported.
Freslov, (2004).	Quarry Hill, Epping.	Desktop, survey, excavation.	Mid-late 19th century, surface, non-urban.	Minor scatter of European artefacts that was not registered as a site.	Very Low.	Low sensitivity throughout study area.

REPORT AUTHORS	LOCATION OF ASSESSMENT	COMPONENTS OF ASSESSMENT	HISTORICAL PLACE TYPES IDENTIFIED	CULTURAL HERITAGE IDENTIFIED	SIGNIFICANCE (AS PER REPORT)	PREDICTED AREAS OF SENSITIVITY (AS PER REPORT)
Matthews, Ford, Fiddian & Griffin (2005).	North-South Corridor, Melbourne-Albury passing lane.	Desktop, survey.	Mid-late 19th century, non-urban, pastoral, domestic.	H7822-0192, H7822-0195, H78220197. Dry stone walls associated with farming.	Not reported.	Low sensitivity throughout study area.
Patterson, (2004).	Yan Yean Pipetrack.	Desktop, survey, excavation.	Mid-late 19th century, subsurface, non-urban, water infrastructure.	H7922-0203 - Yan Yean water supply bridge. HO 03 - Bluestone bridge over Darebin Creek.	H7922-0203 and HO 03 have local significance.	There is potential for discovery of new places within the study area, particularly in proximity to previously registered places.
Bell (2005).	Quarry Hills and Darebin Creek.	Desktop, survey.	Mid-late 19th century, surface, non-urban, pastoral, transport, domestic.	D7922-0266, 0314, 0315, 0316, 0317. Dry stone walls and one quarry.	Local significance - D7922-0266, 0314, 0315, 0316, 0317.	Not reported.
Murphy & Dugay-Grist (2007).	Epping Road, Wollert.	Desktop, survey.	Mid-late 19th century, surface, non-urban, pastoral, domestic.	D7922-0302 a dry stone wall, D7922-0081 - bluestone building, H7922-0314 - bluestone foundations and a row of historic trees.	Medium to high significance - D7922-0081. H7922-Local - D7922-0302, 0134	Not reported.

REPORT AUTHORS	LOCATION OF ASSESSMENT	COMPONENTS OF ASSESSMENT	HISTORICAL PLACE TYPES IDENTIFIED	CULTURAL HERITAGE IDENTIFIED	SIGNIFICANCE (AS PER REPORT)	PREDICTED AREAS OF SENSITIVITY (AS PER REPORT)
Turnbull & Schell (2008)	Harvest Home Road, Wollert	Desktop, survey.	Mid-late 19th century, surface, non-urban, pastoral, domestic.	H7922-0304, bluestone house, outbuildings, quarry and stone walls.	Moderate significance - H7922-0304, (Dairy and house structures) Some features within this complex have low significance i.e. stone walls and quarries.	The areas surrounding the built structures are considered sensitive for archaeological material.

Table 5: Summary of regional historical assessments in the E6 Transport Corridor.

3.4 REGISTERED HISTORICAL PLACE DISTRIBUTION

The following databases were examined for previously registered historical places:

- The Victorian Heritage Inventory (HI).
- The Victorian Heritage Register (VHR).
- The Australian Heritage Database which includes the
    - Commonwealth Heritage List (CHL)
    - National Heritage List (NHL)
    - Register of the National Estate (RNE)
- National Trust Database (NT)
- Planning Scheme Heritage Overlays (HO).

A total of 22 registered historical places were identified in the E6 Transport Corridor. A general overview of the distribution of registered historical places is provided in Figure 7. More detailed maps indicating locations and extents are provided in Appendix 3.

Table 6 presents a list of the registered historical places located within the E6 Transport Corridor. It provides the name, registration number and brief description of each place. The current known status of each place and any additional relevant information is included. Many historical places that have been documented in the E6 Transport Corridor have been identified as part of cultural heritage impact studies associated with planned development. As a result it is possible that may of the historical places in Table 6 may have been destroyed or impacted by subsequent development.

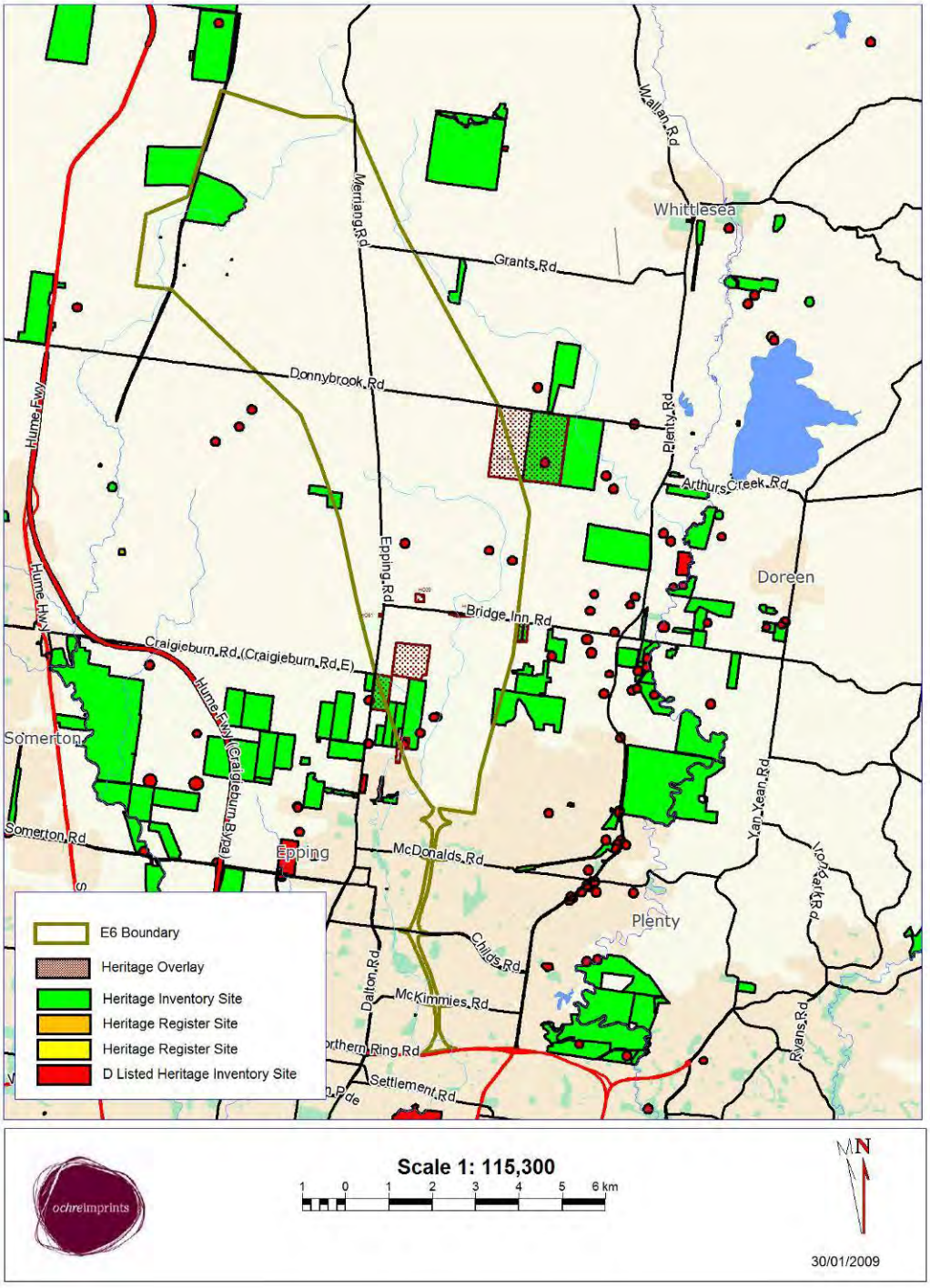

Figure 7: Overview of the registered historical places within the Study Area.

REGISTRATION No.	PLACE NAME	PLACE DESCRIPTION	OTHER INFORMATION
H7822-0192	Donnybrook Quarry 1 - Dry Stone Wall	700 m of dry stone wall in good condition	
H7822-0193	Donnybrook Quarry 2 - Dry Stone Wall	Approximately 30 m of dry stone wall bordering part of southern and eastern perimeter of property.	
H7822-0194	Donnybrook Quarry 3 - Structure	Triangular bluestone structure (43 x 8 x 12 m) interpreted as a corral-type enclosure for penning animals.	
H7822-0195	Donnybrook Quarry 4 - Dry Stone Wall	Small section of dry stone wall.	
H7822-0196	Donnybrook Quarry 5 - Dry Stone Wall	Small section of dry stone wall in poor condition.	Unknown whether housing development has impacted place.
H7822-0870	Quarry H2	Bluestone quarry located on the west side of Merri Creek, with late 19th century domestic artefact scatter.	Unknown whether housing development has impacted place.
H7922-0205	Epping Road Bridge	Modified bluestone bridge, capped with concrete, crossing the Darebin Creek on Epping Road.	Extant.
H7922-0304, HO79, D7922-0081	Bluestone House, O/B, Quarry, (referred to as) 30 Harvest Home Road, and Harvest Home 1	Bluestone cottage, outbuildings, 3 small quarries and extensive dry stone walls.	Extant.
H7922-0450	239 Bodycoats Road	Remains of weatherboard dwelling, stone walls and out buildings c. 1860-1870.	
D7922-0047	Mernda 12, Masons Lane Quarry	Basalt quarry c. 30 m long in fair condition.	
D7922-0266	Bindts Drystone Wall 1	Dry stone wall extending for approximately 1 km along Bindts Road in poor condition.	Extant.
D7922-0314	Quarry Hills Dry Stone Wall 1	Dry stone wall approximately 500 m in length in poor condition.	
D7922-0315	Quarry Hills Dry Stone Wall 2	Dry stone wall approximately 700 m in length in poor condition.	

REGISTRATION No.	PLACE NAME	PLACE DESCRIPTION	OTHER INFORMATION
D7922-0316	Quarry Hills Dry Stone Wall 3	Dry stone wall approximately 600 m in length in poor condition.	
D7922-0317	Quarry Hills - Basalt Quarry Site	Basalt quarry used for local homes.	
HO39	Shultz Farm 'Ivy Bank'	Bluestone and weatherboard house, bluestone barn, paving, drystone walled milking shed (paved), mud and lathed barn, cypress windrow, pines, bluestone walled dam.	
HO40, H7922-0297	Herhs Pine Park Farm	House, all outbuildings including milking shed, dairy machinery shed, shearing shed, loose box, stables; extensive drystone walls, mature Pinus sp., and peppercorns, bluestone paving between buildings.	Extant.
HO51	Wollert Primary School	Bluestone school building.	Extant.
HO41	Schultz Farm 'Pine Grove Farm'	Bluestone dairy & milking sheds, weatherboard residence. Bluestone stable and bluestone underground tank.	
HO38, NT B6074, H7922-0082	Darebin Creek Monier Bridge, (referred to as) Bridge Inn Road Bridge, or Wollert 1, Bluestone Bridge	Large two lane bluestone bridge spanning Darebin Creek on Bridge Inn Road c. 1898. Built by Harrison, Baker, Monash and Anderson.	Extant.
HO44	Fenwick Stud	Farm complex comprising bluestone residence (3 structures), bluestone road, diary, freestanding dairy, sheep plunge dip, well, sheds, cool room, significant trees.	HO boundary is intersected by the E6 Transport Corridor however no historic structures are known to exist in this portion.
H7922-0054	Sep 6 Hunters Road Dairy	Bluestone oblong building, no longer in use. Walls about 2 m high with corrugated iron roof.	HI site boundary is intersected by the E6 Transport Corridor however no historic structures are known to exist in this portion.

Table 6: Historical places recorded within the Study Area.

Of the 22 registered historical places:

- Three historical places have multiple registrations. These are:
    1. (HO38/NT B6074/H7922-0082) a bridge over Darebin Creek in Wollert listed on the Heritage Overlay, National Trust and Heritage Inventory;
    2. (HO79/H7922-0304/D7792-0081) a bluestone cottage, stone walls and quarries at 30 Harvest Home Road listed on the Heritage Overlay and Heritage Inventory.
    3. (HO40/H7922-0297) Herhs Pine Park Farm listed on the Heritage Overlay and Heritage Inventory
- Eighteen historical places are listed on the Heritage Inventory. Of these, 7 places are 'D' listed.
- Seven historical places are listed on Heritage Overlay, all of these occur within the City of Whittlesea.
- Only one historical place is listed in the National Trust database, being the bridge over Darebin Creek (NT B6074).
- Two (HO40 & HO44) Heritage Overlay and five Heritage Inventory (H7922-0054, 0540, 0460, 0305, 0297) place boundaries are intersected by the study area boundary, the remaining places fall entirely within the corridor boundary.

No historical places were identified on the VHR, CHL, NHL or the RNE within the E6 Transport Corridor. In addition to the above registered places the Whittlesea Heritage Study (Gould 1990) lists 20 unregistered historic places within the E6 study area (previously indicated in Figure 6), and two potential archaeological areas south of Merriang and at Woodstock. This brings the total number of known historical places within the E6 Transport Corridor to 42[8].

The vast majority of historical places in the study area are associated with rural land use practices and range from stone walls to extensive farming complexes dating from the mid to late 19th century.

[8] It is noted that the probable birth place of Ned Kelly is in the vicinity of Beveridge approximately 3-4 km to the north of the study area (refer to http://www.ironicon.com.au/nativened.htm). Further investigation of this place is required to determine its likely location in relation to the study area.

3.5 SIGNIFICANCE OF HISTORICAL PLACES

An important aspect of a historical assessment concerns the evaluation of significance - both of the project area and any identified place. Assessments of significance are central to the formation of effective management strategies. The significance of historical places in Victoria is often assessed using the principals of the Burra Charter (Burra Charter 2000) and guidelines provided by Heritage Victoria (2008).

The Burra Charter sets out criteria for significance assessments. Based on the International Charter for the Conservation and Restoration of Monuments and Sites (ICOMOS), the charter has been an accepted code of practice in heritage management in Australia since 1988. The Burra Charter defines cultural heritage significance as meaning the aesthetic, historic, scientific or social value of a place to society. These terms are not mutually exclusive as a place may be defined as belong to more than one of these categories (Burra Charter 2000:12). The four criteria used in the Burra Charter to define significance are listed below:

Aesthetic Value	Consideration of the form, scale, texture, colour and material of the physical material (fabric) of the place.
Historic Value	The place's association with an historic figure, event, phase or activity.
Scientific Value	The scientific or research value of a place, depending upon the place's/data rarity, quality or representativeness and the degree to which the place may contribute information
Social Value	The qualities for which a place has become a focus of spiritual, political, national or other cultural sentiment to a group

Drawing on the above criteria, the *Victorian Heritage Act* 1995 defines eight criteria against which the cultural heritage significance of a place in Victoria can be assessed.

- CRITERION A: The historical importance, association 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 Heritage;
- CRITERION D: The importance of a place or object in exhibiting the principle 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 technological innovations or achievements.
- CRITERION G: The importance of the place or object in demonstrating social or cultural associations;
- CRITERION H: Any other matter which the Heritage Council considers relevant to the determination of cultural heritage significance.

Individual places in Victoria are assessed against this criterion and the level of statutory protection is determined by the type of registration recommended for the historical place. As the historical places in the E6 Transport Corridor have not been subject to a field assessment a detailed significance assessment can not be undertaken using either the Burra Charter or the *Victorian Heritage Act* 1995 criteria. In order to provide an indication of the significance of the registered historical places, significance ratings were formulated on the basis of the current registration details. Table 7 outlines the significance ratings method while Table 8 provides the results for registered historical places.

PLACE REGISTRATION TYPE	PREFIX	LEVEL OF STATUTORY GOVERNMENT PROTECTION	SIGNIFICANCE RATING
National Trust	NT	NA	Local
Heritage Overlay	HO	Local	Local
Heritage Inventory	H & 1:100,00 map No.	State	Local
Heritage Register	H	State	State
Register of the National Estate	RNE	NA	Variable (Local, State, National)
National Heritage List	NHL	Commonwealth	National
Commonwealth Heritage Lists	CHL	Commonwealth	National

Table 7: Method of determining historical significance ratings based on place registration.

PLACE REGISTRATION	PLACE NAME	LEVEL OF SIGNIFICANCE BASED ON REGISTRATION
H7822-0192	Donnybrook Quarry 1 - Dry Stone Wall	Local
H7822-0193	Donnybrook Quarry 2 - Dry Stone Wall	Local

PLACE REGISTRATION	PLACE NAME	LEVEL OF SIGNIFICANCE BASED ON REGISTRATION
H7822-0194	Donnybrook Quarry 3 - Structure	Local
H7822-0195	Donnybrook Quarry 4 - Dry Stone Wall	Local
H7822-0196	Donnybrook Quarry 5 - Dry Stone Wall	Local
H7822-0870	Quarry H2	Local
H7922-0205	Epping Road Bridge	Local
H7922-0304, D7922-0081, HO79	Bluestone House, O/B, Quarry,	Local
H7922-0450	239 Bodycoats Road	Local
D7922-0047	Mernda 12, Masons Lane Quarry	Local
D7922-0266	Bindts Drystone Wall 1	Local
D7922-0314	Quarry Hills Dry Stone Wall 1	Local
D7922-0315	Quarry Hills Dry Stone Wall 2	Local
D7922-0316	Quarry Hills Dry Stone Wall 3	Local
D7922-0317	Quarry Hills - Basalt Quarry Site	Local
HO39	Shultz Farm 'Ivy Bank'	Local
HO40, H7922-0297	Herhs Pine Park Farm	Local
HO51	Wollert Primary School	Local
HO41	Schultz Farm 'Pine Grove Farm'	Local
HO38, NT B6074, H7922-0082	Darebin Creek Monier Bridge	Local
HO44	Fenwick Stud	Local
H7922-0054	Sep 6 Hunters Road Dairy	Local

Table 8: Significance of registered historical places.

3.6 NATURE AND CHARACTER OF HISTORICAL PLACES - PREDICTION MODEL

The historical research clearly indicates the predominance of land use practices associated with dairying and small scale cultivation of crops since the 1840s in the study area. The registered and unregistered historical places reflect these land use practices and are associated with the early settlement and farming of the area.

While it is unlikely, given the previous assessments in the study area, that any significant unregistered historical places will be identified in future, there is potential for less significant unregistered historical places relating to farming and settlement to occur within the E6 Transport Corridor. The type of places expected to occur include stone walls, stone structures, historical artefact scatters, and basalt quarries[9]. Archaeological deposits may occur at the former township of Woodstock where once stood the post office, Henry Barkly Hotel, church and "Merri Park" grave remains. If these are determined to present they may be considered to have increased significance values.

3.7 CONCLUSION

A total of 22 registered historical places and 20 unregistered but known historical places have been identified within the E6 Transport Corridor. All of the historical places occurring in the E6 Transport Corridor are of local significance. Most of the registered historical places are concentrated around the Wollert area and reflect the early settlement and land use practices in the region from the mid 19th century. Unregistered but known historical sites are focussed around transport routes and previous townships.

No specific areas of known cultural heritage sensitivity have been defined but as yet unrecorded historical places such as stone walls, stone dairy structures and enclosures, domestic dwellings, historical artefact scatters, archaeological deposits and small quarries are predicted to occur throughout the E6 Transport Corridor.

[9] The possible location of the birthplace of Ned Kelly in proximity to the study area highlights the potential for historical places within intangible values to also occur in the study area.

4 CULTURAL HERITAGE MANAGEMENT

4.1 INTRODUCTION

This report concludes with a brief review of the potential risks to historical and Aboriginal cultural heritage values by a future road infrastructure project within the E6 Transport Corridor, a summary of the legislative implications of this assessment, and recommendations to mitigate risks to cultural heritage values.

4.2 IMPACT OF POTENTIAL DEVELOPMENT ON CULTURAL HERITAGE VALUES

Historical and Aboriginal cultural heritage places are sensitive to disturbance by a range of factors, particularly ground disturbing works. Any infrastructure or other works programs which involve disturbance to surface and subsurface deposits have the potential to impact on Aboriginal and historical places.

The impact of a future road infrastructure project in the E6 Transport Corridor is briefly summarised below in relation to the results of this assessment:

Aboriginal Places: Proposed works within the corridor have potential to impact known Aboriginal places. A total of 57 Aboriginal places have been identified to occur in the E6 Transport Corridor. These represent a range of place types predominantly surface stone artefact scatters and scarred trees. Cultural material exposed in creek banks are also represented.

Areas of Aboriginal Sensitivity: This assessment has highlighted the potential for as yet unknown Aboriginal places to occur in all landforms in the E6 Transport Corridor, with the Darebin and Merri Creek corridors considered to have high potential to contain unknown Aboriginal places. Proposed works within the corridor have a particularly high risk of impacting unknown Aboriginal places.

Historical Places: Proposed works within the corridor have potential to impact known historical places. A total of 22 registered historical places and 20 known but unregistered historical places occur in the E6 Transport Corridor. These include stone walls, rural farming structures (dairy, domestic dwelling) and bridges.

Areas of Historical Sensitivity: This assessment has highlighted the potential for as yet unknown historical places to occur in all landforms in the E6 Transport Corridor. In particular the northern portion of the corridor was considered as having a higher potential to contain unknown historical places due to the relatively few historical assessments that have examined this area. Merriang Township was also highlighted as locations with

archaeological potential. As a result, there is potential for proposed works within the E6 Transport Corridor to impact unknown historical places.

4.3 CULTURAL HERITAGE LEGISLATION

4.3.1 General Legislative Information

Legislation protecting both Aboriginal and historical places is briefly reviewed here.

4.3.2 Legislation Protecting Aboriginal Places

The *Aboriginal Heritage Act* 2006 provides blanket protection for Aboriginal cultural heritage places. This means that Aboriginal places are protected from *harm* and it is illegal to carry out an activity that can disturb places without the appropriate authorities under the Act (and it's associated Aboriginal Heritage Regulations 2007). There are two principal mechanisms under the Act that remove the risk of illegal harm to Aboriginal places, viz.:

- Cultural Heritage Management Plan (CHMP)
- Cultural Heritage Permit (CHP)

These are briefly discussed below.

A **Cultural Heritage Management Plan** (hereafter CHMP) is a report recommending measures to be taken to protect Aboriginal cultural heritage affected by the development or use of land. It must include recommendations for measures to be taken before, during and after a relevant activity. The underlying philosophy of the CHMP is to minimise harm to Aboriginal places, however it is the document through which provisions can be made to legally harm Aboriginal places. A CHMP must be endorsed by a Registered Aboriginal Party (RAP) or where no party exists for the area, the Secretary of the Department of Planning and Community Development.[10]

A CHMP usually involves a staged investigation of the posed risk by a proposed activity to Aboriginal cultural places. The Act and associated Regulations set out the requirements for different levels of investigation:

- Desktop Assessment
- Standard Assessment (Field Survey)

[10] The Department of Planning and Community Development replaced the Department of Victorian Communities, as referred to in the Aboriginal Heritage Act 2006, in August 2007. It should also be noted that Aboriginal Affairs Victoria carries out the day-to-day administrative functions on behalf of the Secretary.

- Complex Assessment (Subsurface Testing; Controlled Excavation; Salvage)

The CHMP provisions of the Act are designed to trigger a heritage assessment in quite specific conditions. These are specified in the Act as follows:

- If all or part of the activity is a listed high impact activity

and

- All or part of the activity area is an area of cultural heritage sensitivity - which has not been subject to significant ground disturbance.

A **Cultural Heritage Permit** (hereafter CHP) is issued by the Secretary of the Department of Planning and Community Development to "carry out activity likely to harm cultural heritage". A CHP application is made to the Secretary of the Department of Planning and Community Development and where a Registered Aboriginal Party exists for the area, must be supported by that organisation before it can be issued.

A CHP is sought for those instances where there is a known Aboriginal place that will be impacted by an activity. The permit outlines the measures that must be taken in order to disturb that place lawfully.

Other key features of the *Aboriginal Heritage Act* 2006 are:

- The Victorian Aboriginal Heritage Council who provide a state-wide voice for Aboriginal people and to advise the Minister for Aboriginal Affairs on issues relating to the management of cultural heritage.
- A system of Registered Aboriginal Parties (RAPs) – with RAPs approved by the Victorian Aboriginal Heritage Council – who are involved in cultural heritage decision making processes, and in particular Aboriginal Cultural Heritage Management Plans (CHMPs).
- Aboriginal Cultural Heritage Agreements (ACHAs) that support the development of partnerships around the protection and management of Aboriginal cultural heritage.
- Provisions relating to enforcement including: cultural heritage audits, protection declarations and stop orders, inspection arrangements and penalties. Maximum penalties are likely to be more that $180,000 for an individual or more than $1 million for a company.

4.3.3 Legislation Protecting Historical Places

Historical places are protected by State and Commonwealth legislation. It is an offence to impact on historical places, whether previously registered or not, without obtaining approval from the relevant statutory authority. The legislative framework is briefly summarised below:

- **Places comprising historical archaeological components** in Victoria are primarily protected under the terms of the *Heritage Act* 1995.

  Any works impacting upon a place listed on the Victorian Heritage Inventory must apply to Heritage Victoria for CONSENT to do so prior to works proceeding. Any works impacting on a place registered on the Heritage Register must apply to Heritage Victoria for PERMIT to disturb. Places registered with a 'D' listing do not require any further action prior to disturbance.

- The Australian Heritage Council maintains the **Register of the National Estate,** a listing of places, considered to be of national or greater significance under the *Australian Heritage Council Act* 2003. The *Environment Protection and Biodiversity Conservation Act* 1999 *Environment and Heritage Legislation Amendment Act* (No1) 2003 provide controls regarding the actions of individuals and the Commonwealth in relation to places on the **Register of the National Estate** as well as the recently created **National Heritage List** and the **Commonwealth Heritage List**.

- Local Government Planning Schemes include a **Heritage Overlay** of places within a specific local government area. Places listed solely on the Heritage Overlay are generally of local rather than State or National significance. Works undertaken that will affect places listed need to progress through a planning permit process in consultation with the local government authority.

4.4 MANAGEMENT RECOMMENDATIONS

A number of recommendations were formulated that consider the management of cultural heritage values in light of future road infrastructure development within the E6 Transport Corridor.

Management of Aboriginal Cultural Heritage Values

The planning of possible road alignment options within the E6 Transport Corridor should consider avoiding known Aboriginal places and areas of particularly high sensitivity (i.e. Merri Creek and Darebin Creek corridors). However, the impact to unknown Aboriginal places can only be established through much more detailed Aboriginal cultural heritage investigations. These should be undertaken once an alignment option/s is known and will

require both field surveys and subsurface testing components of locations likely to contain Aboriginal places. This will allow the identification of currently unknown Aboriginal places, including those that might be obscured by vegetation cover or shallow soil deposits and will assist in the development of appropriate mitigation strategies.

A CHMP will be required for the final chosen alignment. It is anticipated that the CHMP would require a Complex Assessment. It is noted that the RAP will need to be consulted regarding such investigations and consultation early in the planning stages is recommended.

Management of Historical Cultural Heritage Values

The planning of possible road alignment options within the E6 Transport Corridor should consider avoiding known historical places and areas of potential high sensitivity (i.e. former Woodstock Township and 'Merri Park'). However, the impact to unknown historical places can only be established through much more detailed historical cultural heritage investigations. These should be undertaken once an alignment option/s is known and will in the first instance require a field survey program. The need for subsurface testing will need to be established as part of the field survey component. This will allow the identification of currently unknown historical places allow the development of appropriate mitigation strategies.

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APPENDIX 1: GAZETTEER OF ABORIGINAL PLACES

VAHR NUMBER	EASTING MGA 55	NORTHING MGA 55	PLACE TYPE
7822-2024	321368	5846219	Artefact Scatter
7822-2025	321072	5845763	Artefact Scatter
7822-2026	321062	5845152	Artefact Scatter
7822-2217	321494	5845726	Artefact Scatter
7822-2218	321882	5847177	Artefact Scatter
7922-0890	326954	5845491	Artefact Scatter
7922-0891	326778	5845599	Artefact Scatter
7922-0892	326650	5845777	Artefact Scatter
7922-0893	326493	5846011	Artefact Scatter
7822-0708	321993	5846359	Scarred Tree
7822-0709	322352	5845982	Scarred Tree
7822-0710	322512	5845981	Earth Feature
7822-0711	323137	5846845	Scarred Tree
7822-0712	323250	5846826	Scarred Tree
7822-0713	323072	5846795	Scarred Tree
7822-0723	321344	5846244	Earth Feature
7822-0724	321279	5846224	Scarred Tree
7822-0725	321069	5845978	Scarred Tree
7822-0783	321700	5846524	Artefact Scatter
7822-1173	321774	5846776	Artefact Scatter
7822-1174	321724	5846633	Artefact Scatter
7822-1175	321562	5846004	Artefact Scatter
7922-0155	329212	5837234	Artefact Scatter
7922-0720	328862	5835019	Artefact Scatter
7922-0729	327522	5834388	Artefact Scatter
7922-0777	327664	5834635	Artefact Scatter
7922-0794	327109	5834740	Artefact Scatter
7922-0795	326890	5834355	Artefact Scatter
7922-0876	327300	5833254	Artefact Scatter
7922-0987	327179	5833973	Artefact Scatter
7922-0991	327851	5834407	Artefact Scatter
7922-0992	327748	5834419	Artefact Scatter
7922-0993	327639	5834434	Artefact Scatter
7922-0994	327562	5834439	Artefact Scatter
7922-1032	327212	5834144	Artefact Scatter
7922-1033	327279	5834375	Artefact Scatter
7922-1034	326990	5834339	Artefact Scatter
7922-1035	327063	5834894	Artefact Scatter
7922-1036	327135	5834957	Artefact Scatter
7922-1037	327116	5835049	Artefact Scatter
7922-1038	327163	5835174	Artefact Scatter
7922-1039	327008	5834629	Multiple Feature

7922-1040	327048	5834992	Artefact Scatter
7922-1074	327662	5832870	Artefact Scatter
7922-1085	327129	5833740	Artefact Scatter
7922-1086	327121	5833929	Artefact Scatter
7922-1088	326907	5834063	Artefact Scatter
7922-0365	328332	5837615	Earth Feature
7922-0366	328234	5836369	Earth Feature
7922-0367	327931	5835738	Scarred Tree
7922-0368	328069	5835758	Earth Feature
7922-0369	328104	5835810	Earth Feature
7922-0370	327364	5834703	Earth Feature
7922-0371	327474	5834234	Earth Feature
7922-0372	327324	5833758	Artefact Scatter
7922-0373	327396	5833552	Artefact Scatter
7922-0374	328188	5835886	Earth Feature
Total			57

APPENDIX 2: ADVICE ABOUT THE DISCOVERY OF HUMAN REMAINS

Aboriginal Affairs Victoria suggested summary for inclusion in consultancy reports, taken from AAV August 2007 'Guide to preparing Aboriginal Cultural Heritage Management Plans'.

If any suspected human remains are found during any activity, works must cease. The Victoria Police and the State Coroner's Office should be notified immediately. If there are reasonable grounds to believe that the remains are Aboriginal, the Department of Sustainability and Environment's Emergency Coordination Centre must be contacted immediately on 1300 888 544. This advice has been developed further and is described in the following 5 step contingency plan. Any such discovery at the activity area must follow these steps.

1. Discovery:

- If suspected human remains are discovered, all activity in the vicinity must stop to ensure minimal damage is caused to the remains; and,
- The remains must be left in place, and protected from harm or damage.

2. Notification:

- Once suspected human skeletal remains have been found, the Coroners Office and the Victoria Police must be notified immediately;
- If there is reasonable grounds to believe that the remains could be Aboriginal the DSE Emergency Co-ordination Centre must be immediately notified on 1300 888 544; and,
- All details of the location and nature of the human remains must be provided to the relevant authorities.
- If it is confirmed by these authorities that the discovered remains are Aboriginal skeletal remains, the person responsible for the activity must report the existence of the human remains to the Secretary, DVC in accordance with s.17 of the Act.

3. Impact Mitigation or Salvage:

- The Secretary, after taking reasonable steps to consult with any Aboriginal person or body with an interest in the Aboriginal human remains, will determine the appropriate course of action as required by s.18(2)(b) of the Act.
- An appropriate impact mitigation or salvage strategy as determined by the Secretary must be implemented (This will depend on the circumstances in which the remains were found, the number of burials found and the type of burials and the outcome of consultation with any Aboriginal person or body);

- Note: In consultation with any relevant RAP, a sponsor may consider incorporating a contingency plan to reserve an appropriate area for reburial of any recovered human remains that may be discovered during the activity. This may assist the Secretary in determining an appropriate course of action.

4. Curation and further analysis:

- The treatment of salvaged Aboriginal human remains must be in accordance with the direction of the Secretary.

5. Reburial:

- Any reburial site(s) must be fully documented by an experienced and qualified archaeologist, clearly marked and all details provided to AAV;
- Appropriate management measures must be implemented to ensure that the remains are not disturbed in the future.

APPENDIX 3: LOCATION AND EXTENT OF HISTORICAL PLACES WITHIN THE E6 TRANSPORT CORRIDOR (FIGURES 8, 9 &10).

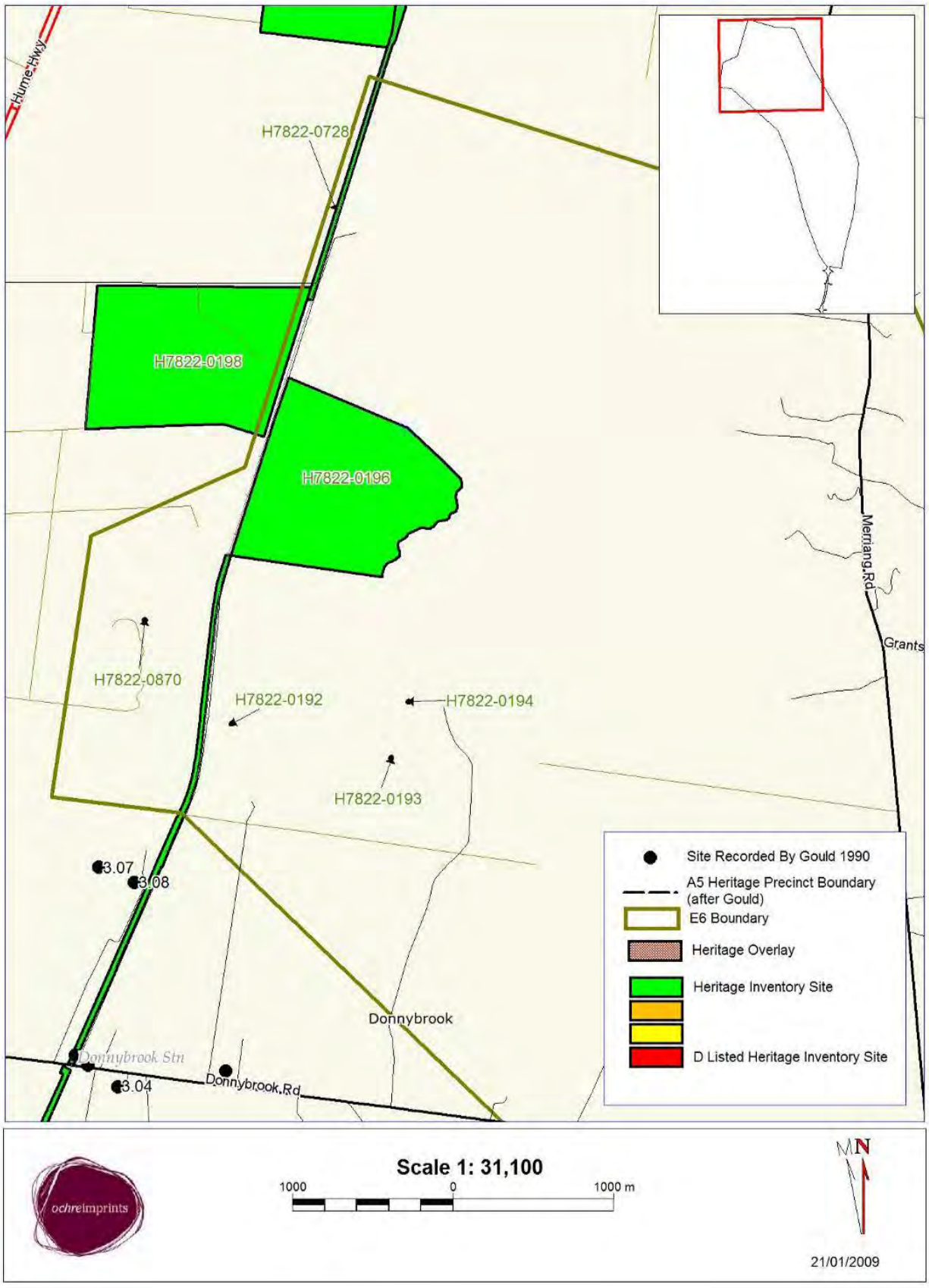

Figure 8: Historical Places in the Northern Part of the Study Area.

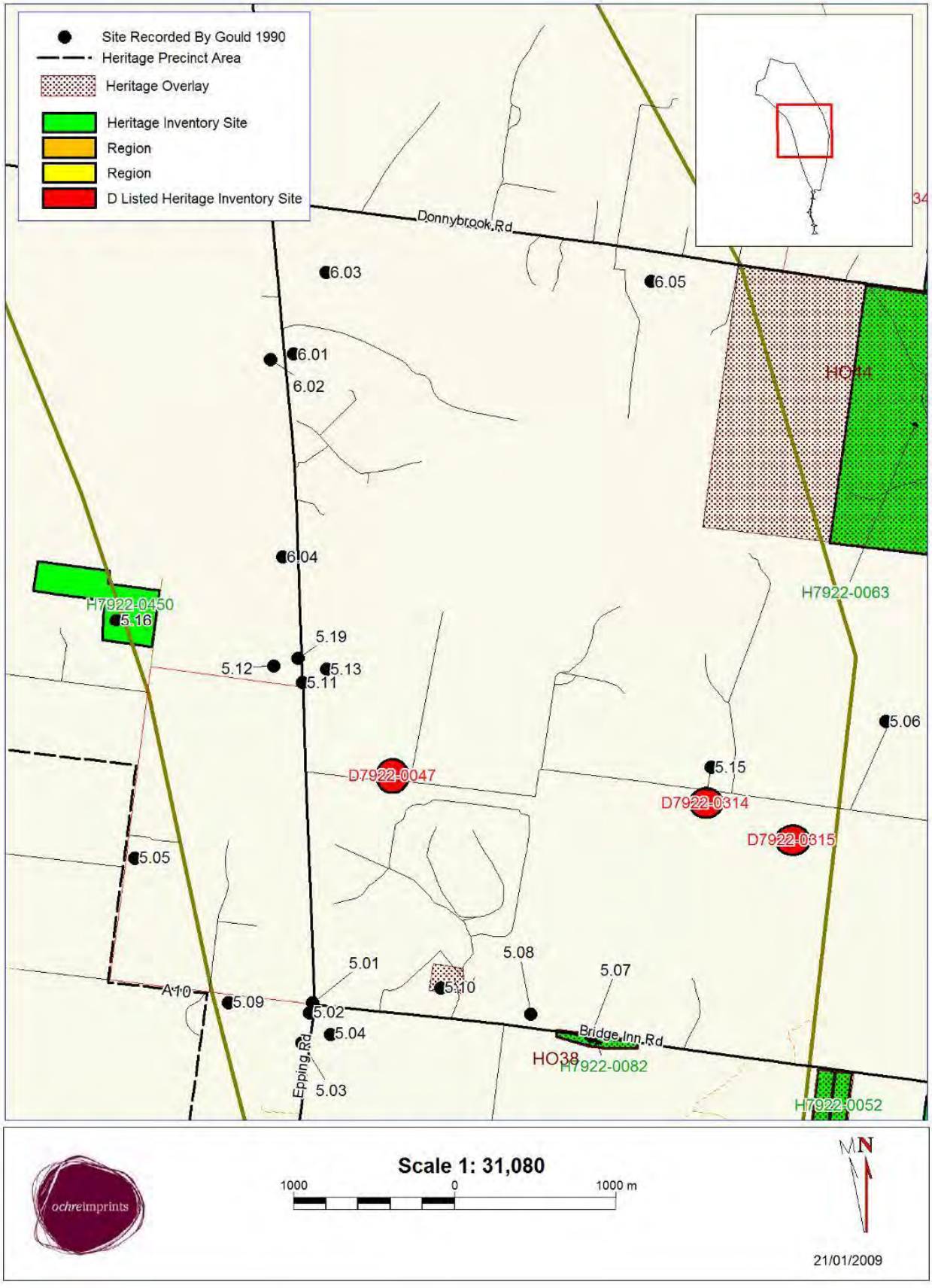

Figure 9: Historical Places in the Central Part of the Study Area.

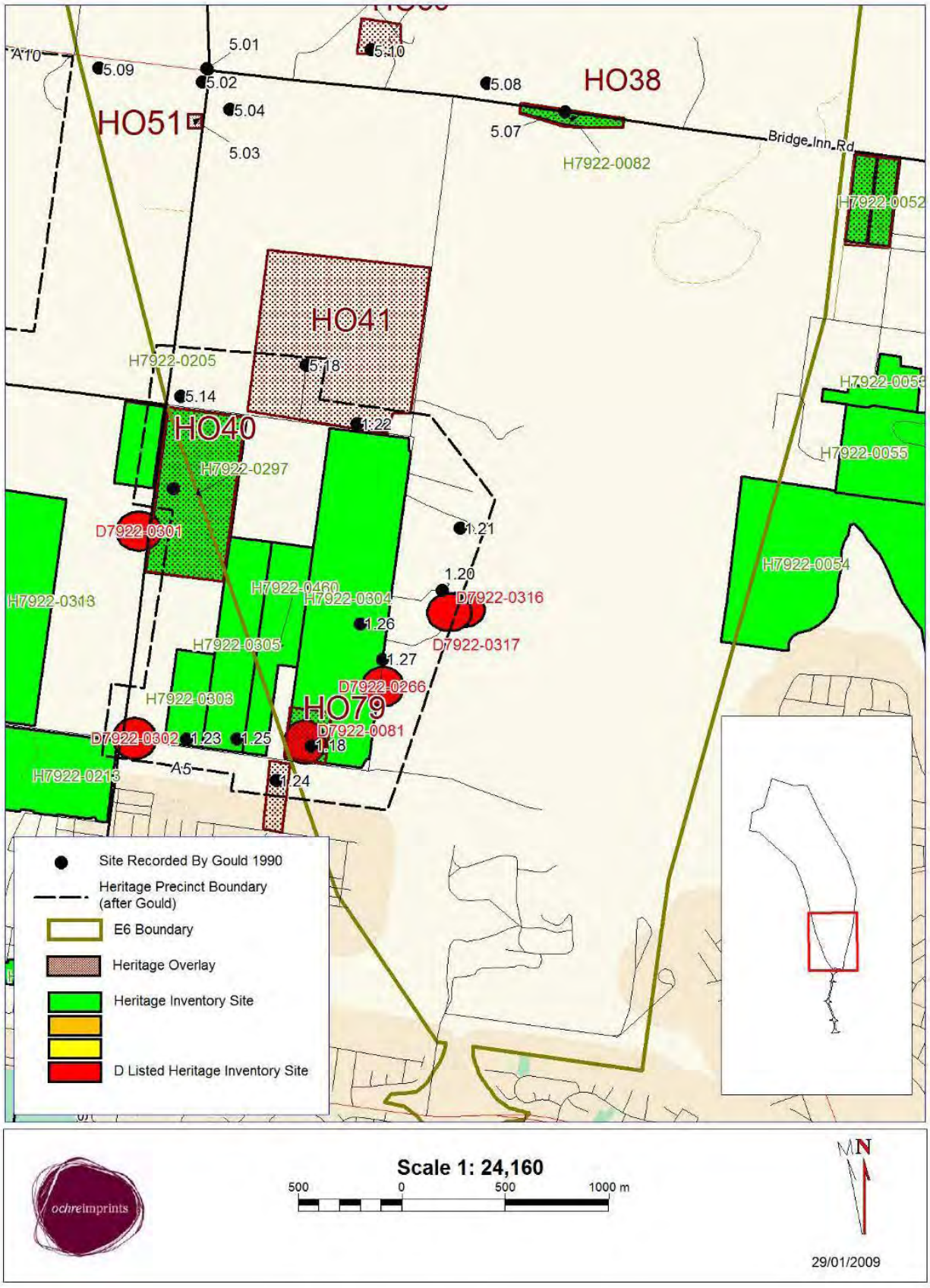

Figure 10: Historical Places in the Southern Part of the Study Area.