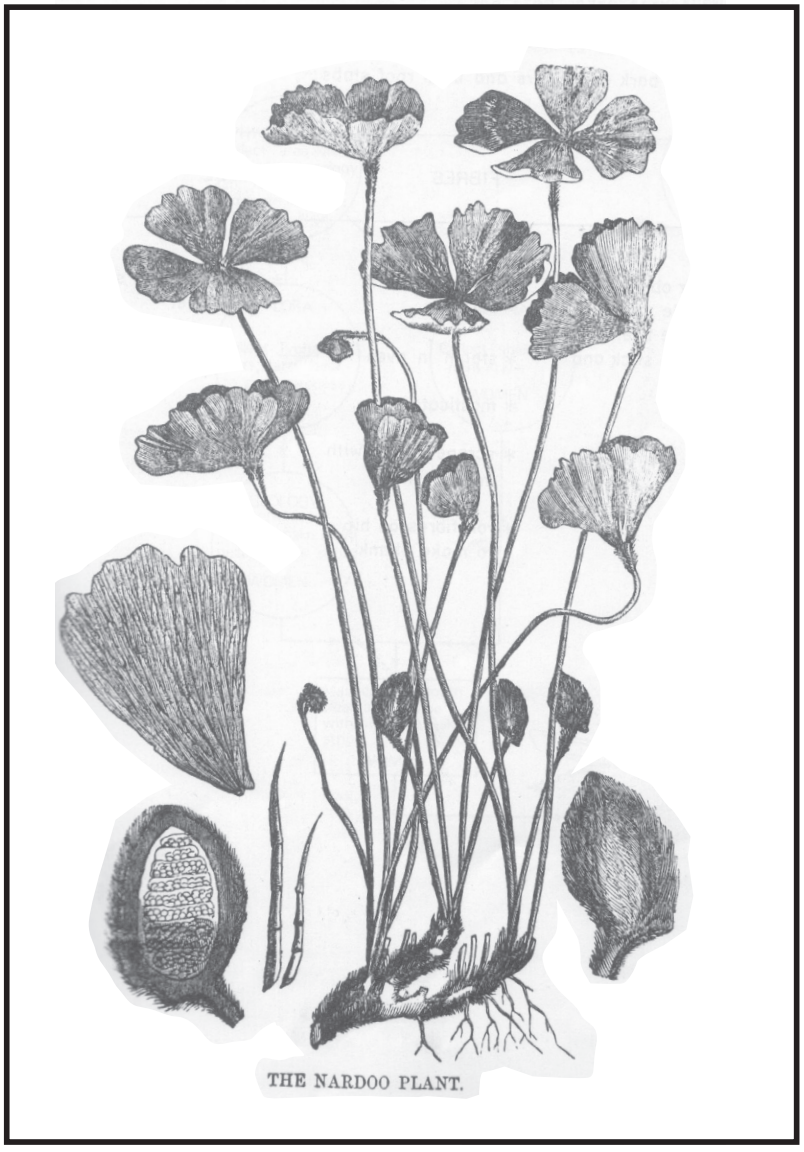
Pre-Contact Aboriginal Heritage Study 2010



Terra Culture
Heritage Consultants

Moreland City Council

Acknowledgement

Acknowledgement of traditional owners

Moreland City Council acknowledges Moreland as being on the traditional lands of the Wurundjeri people. Council pays its respects to the Wurundjeri people and their Elders, past and present.

The Wurundjeri Tribe Land Council, as the Registered Aboriginal Party (RAP) and the Traditional Owners for the whole of the Moreland City Council area, should be the first point of contact for any future enquiries, reports, events or similar that include any Pre-contact Aboriginal information.

Statement of committment

(Taken from the Moreland Reconciliation Policy and Action Plan 2008-2012)

Moreland City Council gives its support to the Australian Declaration Towards Reconciliation 2000 and the National Apology to the Stolen Generations by the Australian Parliament 13 February 2008. It makes the following Statement of Commitment to Indigenous People.

Council recognises

- That Indigenous Australians were the first people of this land.
- That the Wurundjeri are the traditional owners of country now called Moreland.
- The centrality of Indigenous issues to Australian identity.
- That social and cultural dispossession has caused the current disadvantages experienced by Aboriginal and Torres Strait Islander Australians.
- That Indigenous people have lost their land, their children, their health and their lives and regrets these losses.
- The ingenuity, spirit, resilience and continuing contribution of Indigenous people.

Council supports

- The right of Indigenous people to live according to their own values and customs, subject to law.
- The vision as expressed by the Council for Aboriginal Reconciliation of a united Australia which respects this land of ours, values the Aboriginal and Torres Strait Island heritage and provides justice and equality for all.
- Campaigns for Indigenous people's rights, especially to land and native title to land.
- A national Treaty that enshrines the rights of Indigenous Australians.

Council commits itself to

- Build a trusting, collaborative and supportive relationship with Indigenous groups.
- Respect of identified Aboriginal sacred sites and special places.
- Education of itself and others on the strength and unique contribution of contemporary Aboriginal cultures, and of the facts of colonisation.
- Contribute towards the promotion of accurate information on current issues.
- Equity and access for all members of Indigenous communities to culturally sensitive services.

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Forward - Moreland City Council, 2010

In December 2003, the Moreland City Council (MCC) commissioned TerraCulture Pty Ltd to undertake the Moreland Pre-Contact Aboriginal Heritage Study (the Study). A penultimate draft of the Study was provided to Moreland City Council by TerraCulture Pty Ltd in 2005, however the Study was not finalised until 2010.

This foreword clarifies why such a gap exists between the drafting of the Study and its finalisation, and why the finalised Study is different to that specified in the 2003 Project Brief for the Study.

2003 Project Brief for the Pre-Contact Aboriginal Heritage Study

The 2003 Project Brief for the Study (attached in full at Appendix 1) specified that the four main components of this Study were to be:

1. A research component which collates historical information regarding Moreland's Aboriginal archaeological sites;
2. A fieldwork component;
3. Modelling of the distribution and form of Aboriginal archaeological sites for the whole of Moreland; and
4. Recommendations on the preservation of Aboriginal sites, in a form that is suitable for inclusion in the Moreland Planning Scheme.

The overarching mandate of the Study was to identify ways to protect Aboriginal Heritage in instances where it may be threatened by a development proposal. It was intended that the Study would recommend the most appropriate Victorian Planning Provision (VPP) tool to protect sites of significance through the Moreland Planning Scheme.

Introduction of the Aboriginal Heritage Act

In 2005, during Terraculture's preparation of the Study, the Department of Victorian Communities circulated a draft Aboriginal Heritage Bill. This Bill was subsequently proclaimed as the Aboriginal Heritage Act 2006 (The Act). The Act provides for the protection and management of Victoria's Aboriginal Heritage with streamlined processes linked to the Victorian Planning System. The Act and Aboriginal Heritage Regulations 2007 came into effect on 28 May 2007, replacing the Archaeological and Aboriginal Relics Preservation Act 1972 and Part IIA of the Aboriginal and Torres Strait Islander Heritage Protection Act 1984. The Act achieves protection of sites of Aboriginal Heritage in a manner that utilises the VPP's to ensure that development approvals are granted with regard to the requirements of The Act and Aboriginal Heritage Regulations 2007. This impacted on the Moreland Aboriginal Heritage Study objective to recommend ways to protect Aboriginal heritage sites through the Moreland Planning Scheme, as protection through the Planning Scheme is now afforded through the provisions of The Act.

As part of the introduction of The Act, amendments to the Victoria Planning Provisions were made to give effect to and support the operation of The Act. Clause 15.11-2 of the State Planning Policy section of the Moreland Planning Scheme was amended to state:

"Planning and responsible authorities should identify, conserve and protect places of natural or cultural value from inappropriate development. These include: …. Places of Aboriginal cultural heritage significance and historical and archaeological sites…"

and

"Planning and responsible authorities must take account of the requirements of the Aboriginal Heritage Act 2006."

The Act introduced a requirement for a proponent for planning permit to prepare a Cultural Heritage Management Plan (CHMP) if:

- All or part of the activity (buildings/works) is listed as a 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.

The Act establishes that a statutory authorisation (for example, a planning permit) cannot be granted until the Registered Aboriginal Party (RAP) that manages the relevant areas approves of the CHMP. Further, any statutory authorisation granted must be consistent with the approved CHMP. The RAP for the City of Moreland area is the Wurundjeri Tribe Land and Compensation Cultural Heritage Council Inc. who were approved as the RAP by the Aboriginal Heritage Council on 25 August 2008.

Areas of cultural heritage sensitivity are specified in the Aboriginal Heritage Regulations 2007. They include registered cultural heritage places, waterways, ancient lakes, declared Ramsar wetlands, coastal land, coastal rises, the volcanic cones of Western Victoria, caves, lunettes, dunes and sand sheets, and land within a specified distance of these cultural heritage sensitivity areas. All sites of Aboriginal heritage discovered as part of the archaeological investigation done as part of this Study have been included on the Victorian Aboriginal Heritage Register, and are thus subject to the provisions of The Act.

The impact of the introduction of the Aboriginal Heritage Act 2006 on the 2003 brief for the Moreland Pre-Contact Aboriginal Heritage Study

The introduction of The Act provided for the protection and management of Victoria's Aboriginal Heritage with streamlined processes linked to the Victorian Planning System. As such, it has been determined that this Study should not make any recommendations specific to the protection of sites of Aboriginal Cultural Heritage Sensitivity through the Moreland Planning Scheme as this was superseded by The Act and Aboriginal Heritage Regulations coming into affect in May 2007.

The introduction of The Act has resulted in the finalised Study becoming a document different to that which the 2003 Project Brief originally envisaged. The Study is now made up of the following three components:

1. A research component that collates historical information on, or that is relevant to, an understanding of Moreland's Aboriginal archaeological sites;
2. Detail of fieldwork undertaken in 2004 which sampled areas and landforms where Aboriginal archaeological sites would be expected to occur, including results of this archaeological investigation; and
3. Predictive modelling of the distribution and form of Aboriginal archaeological sites for Moreland.

Ultimately, the Study in its final version is a collation of information relating to Aboriginal archaeological studies carried out within Moreland to 2006. Such a collation, not only provides a valuable summary of studies undertaken, but also assists in directing the location and prioritisation for future archaeological studies undertaken within the municipality.

Consultation with the Wurundjeri Tribe Land Council 2010

The RAP for the City of Moreland area is the Wurundjeri Tribe Land and Compensation Cultural Heritage Council Inc. who were approved as the RAP by the Aboriginal Heritage Council on 25 August 2008.
A penultimate draft of this Study was reviewed by the Wurundjeri Tribe Land Council in March 2010. Comments on this Study were provided by the Wurundjeri and incorporated into the final version of the Study.

The Wurundjeri comments were provided on the 17 March 2010 by:

Darren Griffin – Manager Cultural Heritage
Wurundjeri Tribe Land and Compensation Cultural Heritage Council
1st Floor Providence Building, Abbotsford Convent
1 St Hellers Street
Abbotsford, VIC 3067

At Section 5 of this Study a Wurundjeri Statement on the Significance of Moreland's Aboriginal Archaeology has been included. This Statement was provided by the Wurundjeri as part of their review of the draft Study in March 2010.

It is important to reiterate that the Wurundjeri Tribe Land Council, as the Registered Aboriginal Party (RAP) and the Traditional Owners for the whole of the Moreland City Council area, are the first point of contact for any future queries, events, reports or similar that include any Pre-Contact Aboriginal information.

Structure of this Study

Apart from this Foreword and the Conclusion, TerraCulture Pty Ltd drafted this Study between 2003-2005.

Moreland City Council in 2010 altered the body of the Study from that written by TerraCulture in the following ways:

- To undertake minor editing;
- delete mapping and written references that identified sensitive site locations found during the 2004 archaeological investigation;
- alter the Study from what was originally intended to be a Study that made recommendations for protection of places, to its current form as a Reference Document; and
- incorporate comments from the Wurundjeri received in 2010.

The part of the Study drafted by Terraculture Pty Ltd and Moreland City Council in 2005 that made recommendations for protection of Aboriginal Heritage sites through the Moreland Planning Scheme has not been included in this Study, either in the body of the Study or the Appendices. The recommendations are no longer being considered due to the introduction of protection of Aboriginal Heritage through the VPP's and the Act. To include them within this Study, even as an appendix, may result in confusion about the intent of this Study.

Other sections of the Study drafted in 2003-2005, such as the original Moreland City Council Project Brief, detail on the legislative framework as it existed in 2003-2005, and consultation with the Aboriginal Community undertaken during the drafting of the Study in 2003-2006 have been retained as drafted, as appendices to the Study. This is to provide an historical reference point as to the time that the Study was drafted. It was considered necessary to retain these sections as separate appendices as regulations have altered dramatically since the Study was drafted. To include them within the body of the Study may have resulted in confusion as to the current legislative framework.

The passing of time between the original drafting of this Study and its finalisation does not diminish the value of this Study in providing a valuable information source for Council and the Community in relation to Pre-Contact Aboriginal Heritage within the City of Moreland.

SECTION 1:

Introduction

1.1 Introduction to the Study

In 2003, The Moreland City Council (MCC) commissioned TerraCulture Pty Ltd to undertake a study of the Aboriginal archaeological sites within its municipal boundaries. The focus of the Study is the archaeological record created by the traditional Aboriginal inhabitants of the Moreland area until 1835, the year that marked the beginnings of the permanent European settlement of the Port Phillip District.

In 1835 Moreland was part of the traditional lands of Aboriginal people known as the *Woi wurrung*[1] a language group whose territory centred on the Yarra River and its catchment areas. The *Woi wurrung* and their remote ancestors had occupied the southern parts of the Australian mainland for at least 40,000 years[2] BP (Before Present), including the land that was to accommodate the City of Melbourne and its northern suburbs.

During the first thirty-five years of the 19th Century the presence of Europeans in southern Victoria was infrequent and temporary. Around 1806, Bass Strait sealers commenced exploiting the seal colonies along the Victorian coastline and had established seasonal encampments (see Townrow 1997 and refs). In 1802 Port Phillip Bay was visited by explorers John Murray and Mathew Flinders, who mapped the coast and spent limited time on land; there was an aborted convict settlement at Sorrento in 1803 and Hamilton Hume and William Hovell travelled overland to Port Phillip reaching Corio Bay in 1824. William Buckley was the exception to these sporadic visits, having escaped from the punitive settlement at Sorrento to spend the next 32 years living with the *Wada wurrung* peoples at the western end of Port Phillip Bay and the adjoining west coast (see Harcourt 2001).

The European Impact

The *Woi wurrung* and their immediate neighbours, the *Bun wurrung* and the *Wada wurrung*, bore the initial impact of permanent European settlement in Victoria. This commenced in 1835 with the founding of Melbourne by John Batman and other members of the Port Phillip Association. Melbourne became the location from which much of southern and central Victoria was colonised.

At this time, following Clark (1999), Melbourne was at the southern end of *Woi wurrung's* traditional lands and historically, a meeting place between the three language groups mentioned above and other groups to the north. Following the observations of William Thomas the location of Melbourne had been an area where Aboriginal people from a wide area had congregated to deal with business between groups.

Permanent European settlement marked the beginnings of devastating and irrevocable changes for the *Woi wurrung*. The usurpation of land by the squatters for grazing alienated the *Woi wurrung* from the source of their traditional lives. There were violent and deadly conflicts with settlers over access to land and women, and death because of alcoholic abuse, malnutrition and introduced diseases. Later stages of colonisation saw the dislocation of families to mission stations and to other parts of the colony. The effect of European colonisation for the *Woi wurrung* was the total loss of long-established ways of life and the almost extinction of a people who had occupied the land as hunters and gatherers for many thousands of years. The effect of this devastation on the *Woi wurrung* people and their culture is to increase the value of archaeological remains in investigating the history of these people.

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1 Australian Institute of Aboriginal Studies (AIAS) recommended spelling.

2 40,000 years is the conventional age for the Aboriginal settlement of the Australian continent.

Moreland's Aboriginal Archaeological Record in 1835

In 1835 the archaeological sites that were scattered across what is presently known as the City of Moreland were the net result of the Aboriginal settlement of the land by countless generations. Collectively, these archaeological sites marked locations where the *Woi wurrung* and their ancestors hunted and gathered food; where they traded in goods and met neighbouring groups; where they interred their dead and where they performed corroborees and other ceremonies. As Moreland's land was cleared of its native vegetation and farmed, these archaeological sites were dispersed and most were destroyed. The development of Moreland's suburbs during the 19th and 20th centuries saw the spread of industry and housing and the attendant diminution of farmland and other open space. The land was built upon or otherwise modified, destroying the ground's natural surface and presumably at times totally removing any associated Aboriginal archaeological material.

Moreland's Aboriginal archaeological sites are finite in number. With regards to the location, form and integrity, these Aboriginal archaeological sites represent the outcome of the following historical events:

a) *The evolution of the local landscapes particularly the age and development of geomorphological features conducive to the preservation of Aboriginal archaeological sites*. Within Moreland these features are the aggrading terraces and floodplains associated with the waterways that can result in the burial and preservation of archaeological material. The Newer Volcanics dominate Moreland's landscape and away from the local drainage lines soil development can be generally poor. Under these circumstances, with little opportunity for burial, archaeological material is likely to have accumulated on the surface of the ground over long time periods but with little or no depth to the deposits. As surface archaeological sites, those on Moreland's volcanic plains would be highly vulnerable to disturbance as a result of European land use.

b) *The traditional lifestyles of the* Woi wurrung *and their ancestors*. This lifestyle includes patterns of seasonal movement and settlement across the Moreland landscape; subsistence activities especially hunting and gathering; and the need to meet social and spiritual obligations. There appears to be no specific ethnohistorical text for Aboriginal people in Moreland during the colonial period. As such, details on how, why and when the *Woi wurrung* lived within the land currently occupied by the Moreland City Council is unknown. As discussed below, Moreland comprises a very small area of the *Woi wurrung's* traditional territory and may have never been of any great import to the families who visited the area. As currently known, Moreland's archaeological sites cannot provide the types of data necessary for detailed reconstructions of the *Woi wurrung's* traditional lifestyles.

c) *The patterns of historical land use particularly with regard to urbanisation, as this is the major cause of the types of ground disturbance that results in the destruction of archaeological sites.* Of Moreland's urban areas, older suburbs such as Brunswick are more likely to retain archaeological deposits simply because 19th and early 20th Century methods of house and road construction were less destruction of the ground's surface. Where there is a correlation between these older areas and landforms which are archaeologically sensitive, there is some chance that archaeological material has survived to the present day and could be uncovered during any redevelopment of these areas.

1.2 Terms and definitions – Aboriginal archaeological site types

Note: see Section 7 of this report for a Glossary of technical terms used in this report.

Aboriginal archaeological site types

On the basis of the available survey data and the sites recorded historically, the following section lists and defines the probable range of Aboriginal archaeological sites in Moreland. A site is defined as the location where physical evidence remains of past Aboriginal occupation. This evidence includes any artificial

alteration to the landscape that is demonstrably Aboriginal in origin.

Stone artefact scatters

These are sometimes referred to as 'lithic scatters' and consist primarily of stone artefacts lying on the surface of the ground. They represent areas where Aboriginal people (in this case the *Woi wurrung* and their ancestors) made, used or repaired stone tools. These tools may have been used to manufacture wooden artefacts such as spears and boomerangs. Stone artefacts are found either lying in their original position after having been discarded or lost (in situ), or in a disturbed position, having been transported to a locality by natural processes or contemporary cultural activities that cause sediments to be moved. Stone artefact scatters found on the surface may be the eroded remnants of more substantial archaeological deposits. According to the former (pre 2004) AAV site cards, stone artefacts found in very low numbers (less than five artefacts in 100 square metres) are sometimes referred to as isolated artefacts.

Scarred Trees

These are trees from which bark has been removed for the purpose of manufacturing artefacts such as canoes, dishes and other items, for the provision of slabs of bark for housing purposes, or for gaining access to the tree canopy. The removal of bark typically leaves a symmetrical scar of variable length and does not necessarily kill the tree. Aboriginal scarring occurs on native trees that are mature (older than 200 years), commonly on River Red Gum, Grey or Black Box, and Stringybarks.

The vast majority of sites in Moreland will be either stone artefact scatters or scarred trees, however, there is a possibility that a range of other site types (defined below) may occur.

Freshwater shell middens

These are deposits of freshwater mussel shell, which represent Aboriginal food remains. As with marine middens, other artefact classes such as stone and bone tools, bone refuse and hearths (represented by ash, charcoal and/or heat stones) may occur in such sites. Moreland's major waterways would once have contained an abundance of traditional Aboriginal foods including freshwater mussels and there was a historically recorded freshwater shellfish midden on Merri Creek near Pentridge. It is probable that some of these sites are buried within the creek banks and will remain unknown pending an erosion episode.

Aboriginal burials

These are sites containing the skeletal remains of Aboriginal people. The skeletal remains may represent a primary or secondary context, where the remains have been transported from a previous interment for reburial. While little is known of the specific practices of the *Woi wurrung*, Aboriginal burials may involve several stages over a period of time, during which the remains are treated in a specific fashion. Aboriginal burials may also include a range of artefacts as 'grave-goods', such as stone, bone and wooden artefacts, clothing and decorative items.

Stone structures

These are sites that are formed by the movement and placement of rocks into arrangements. These arrangements may be for ceremonial purposes (e.g. the Sunbury rings) or for utilitarian practices, such as stone hunting hides.

Quarries

These are the sources of stone that were used in the manufacture of stone artefacts. Moreland is within an area of Melbourne that is characterised by the formation of silcrete, a common stone for the manufacture of stone artefacts, which occurs in small pockets associated with drainage lines.

SECTION 2:

Impact of Moreland's physical and natural characteristics and ethnohistory on Aboriginal archaeological sites.

2.1 Physical and natural background

The following sections provide background information on the setting of Moreland; its political boundaries and its physical and natural characteristics. This information provides a context against which the known Aboriginal archaeological sites and potentially archaeologically sensitive landforms can be identified and mapped. While landform type is often used to predict archaeological site distributions, several points need to be made in relation to the Moreland municipality and these are:

- Moreland is too small an area in terms of its physical size for a 'regional' analysis based on landform alone;
- The presence and distribution of Aboriginal archaeological sites can vary independently of landform type especially in an urban setting where there has been considerable modification to the natural environment;
- Moreland's registered Aboriginal archaeological sites begin to establish some patterns in landform sensitivity. Foremost, these sites should be interpreted as those that have managed to survive local developments since 1835. Their importance for the reconstruction of the past settlement patterns throughout the municipality is problematic, other than demonstrating the use of specific locations by the *Woi wurrung* and their ancestors.

The section begins with descriptions of Moreland's location and existing conditions This is followed by descriptions of the areas geology, which are mainly restricted to the Tertiary period and later relevant formations.

2.2 Location, boundaries and existing conditions

Moreland occupies some 51 square kilometres of Melbourne's northern suburbs and is located about three kilometres north of the Melbourne CBD. The municipality consists of the major suburbs of Brunswick, Brunswick West, Coburg, Coburg North, Pascoe Vale, Pascoe Vale South, Oak Park, Gowanbrae, Hadfield, Fawkner and Glenroy. Historically, both Brunswick and Coburg have developed either side of Sydney Road, which as an extension of the Hume Highway, continues to be an important throughway for vehicle traffic travelling between Melbourne and Sydney.

Municipal boundaries

Moreland's municipal boundaries are Park Street in the south and the Western Ring Road to the north. The northwestern corner follows the Western Ring Road southwest to Melrose Drive and then south to Wakefield Drive. From here it follows Wakefield Drive eastwards to a reserve on the eastern side of Moonee Ponds Creek. South of this point to Park Street in Brunswick, the western boundary follows the course of Moonee Ponds Creek i.e. its eastern bank. Moreland's eastern boundary follows Merri Creek to Carawa Drive and then deviates south along Elizabeth Street to Bell Street. From here the boundary picks up the course of Merri Creek again to May Street in Brunswick East. It follows May Street west to Nicholson Street and then south to Park Street.

These municipal boundaries are based on recent local government amalgamations. The City of Moreland was created in 1994 with the amalgamation of the Cities of Brunswick, Coburg and the southern portion of the City of Broadmeadows.

Urban character

Moreland is highly urbanised. It is largely characterised by medium-density residential housing, much of which was constructed in Brunswick and Coburg over a 50 year period between the 1880s and the 1940s. Other suburbs such as Glenroy and Gowanbrae are much more recent and have generally been developed at lower densities. Other than housing, bituminised roads or other artificial surfaces cover much of the ground severely reducing the likelihood of the presence of Aboriginal archaeological material.

Moreland has relatively few large expanses of open space and, as a percentage, open space comprises about 10%[3]. In area, the greatest of these spaces is the land along side the two largest creeks; the eastern bank of the Moonee Ponds Creek and the western bank of Merri Creek. Away from the creeks, the Northern Golf Club, Northern Memorial Park and the Fawkner Crematorium and Memorial Park, all in the northwest of the municipality, are the largest single open space areas. The vast majority of Moreland's open space has undergone some degree of modification that has affected the surface of the ground, either historically or for more recent uses of this land. There are many open space areas where local native plant species are found but few that retain significant remnant vegetation (Bainbridge et al. 1998). Known by Council as conservation bushland, this vegetation occurs over about 6 hectares in total.

As discussed below, Moreland's suburbs have been built upon basalt plains formed by volcanic eruptions during the Plio-Pleistocene, known as the Newer Volcanics. For Moreland most of this volcanic activity pre-dates Aboriginal colonisation of the Australian continent (circa 40,000 years BP). The volcanic origins of the physical environment underlie Moreland's natural history and the archaeology of the municipality's Aboriginal settlement.

2.3 Paleoenvironments and Moreland's landscape before European settlement

The late Pleistocene and Holocene

The late Pleistocene is the period between approximately 40,000 years BP and 10,000 years BP. It is the final stage of the Last Glaciation, which at its height at circa 18,000 years BP saw the growth of continental ice sheets, a decrease in the mean annual temperature and reduced precipitation (i.e. a colder and more arid climate). The lowering of sea levels saw the Australian mainland joined with New Guinea and Tasmania to form a super continent called Sahul.

At 18,000 years BP a wide plain (the Bassian Plain) connected what is currently the Australian mainland to Tasmania, and the ocean was a considerable distance overland. The land that is currently beneath Port Phillip Bay was at the northern end of this plain. The Yarra River extended southwards across the area and flowing *'…through a deep channel (now The Rip) and down to the lowered coastline…'*(Bird 1999: 124).

As a consequence of the changing climate and physical landscapes, the late Pleistocene is also notable for extensive redistributions of plant and animal species and widespread animal extinctions, particularly large herbivores (megafauna) (elsewhere in south-eastern Australia the height of the Last Glacial Maximum [LGM, Ice Age] saw the expansion of grasslands at the expense of forest). Given its volcanic basis, similar changes to vegetation may have occurred within Moreland (see section 2.4).

The Holocene, between 10,000 years BP and the present, marks the end of the late Pleistocene and sees climatic amelioration and the stabilisation of the sea levels. The final marine transgressions at about 6,000 years ago *'established the modern outlines'* of Port Phillip Bay (Bird 1999: 124).

3. Based on a figure of 548 ha which is the total sum of 250 open space sites greater that 0.5ha in area.

Aboriginal Chronology

By at least 40,000 years BP all parts of the Australian continent (Sahul) had been colonised by Aboriginal people. This colonisation included the southeastern corner of the continent and by extension, areas that currently make up the Moreland municipality. As noted in the Introduction, given this time period, Moreland's Aboriginal archaeology can be assumed to be the product of many generations of Aboriginal people. In Victoria, there are few Aboriginal archaeological sites south of the Great Dividing Range with late Pleistocene dates. Recent archaeological work has uncovered more Pleistocene dated sites around Melbourne such as 18,000 year old dates from hearths at Brimbank Park, Keilor and a 26,000 year old date from a site at Keysborough[4]. There are no radiocarbon dates for archaeological sites in Moreland or adjoining suburbs, and little chance that any of the known sites relate to the earliest periods of Aboriginal settlement in this area – any such sites would either be deeply buried or destroyed.

Without a more detailed chronology and other palaeoenvironmental and archaeological evidence, it is not possible to reconstruct how the *Woi wurrung* and their ancestors adapted to climatic changes during the late Pleistocene and Holocene periods. Certainly, these changes would have affected the demography of Aboriginal groups and the timing, duration and reasons for occupying an area like Moreland. Some aspects of Moreland's landscape may have remained constant, such as the local hydrology and by extension, the importance of major creeks as the principal sources of potable water. Other features like vegetation would have evolved and changed with changes in climate and sea levels.

Undoubtedly many of the traditional aspects of *Woi wurrung* life as recorded in 1835, such as their language boundaries[5], were vastly different during these earlier times. As discussed in later chapters, the investigation of Moreland's archaeological record is one of the few ways of reconstructing these earlier Aboriginal times and for this reason what remains of this record is invaluable.

2.4 Physical and natural characteristics

The Melbourne Warp and Newer Volcanics

The Newer Volcanics that dominate Moreland's Tertiary geology form an extensive plain that slopes gently towards Melbourne and the Port Phillip Bay Sunkland. This sunkland is a *'fault bounded depression'* defined by the Rowsley Fault to the west, the Selwyn Fault to the east and the Melbourne Warp to the north. The Melbourne Warp *'is a broad gentle northwest-southeast flexure… that has served repeatedly as a hinge structure separating predominantly land areas to the north east from the generally subsiding sedimentary basins to the southwest'* (Kenly 1967: 31; Bird 1999: 124-128, Figure 78). The land that comprises Moreland is located to the north of the Melbourne Warp and unlike locations closer to the current shoreline of Port Phillip Bay, was not affected directly by late Pleistocene marine transgressions (see Kenly 1967: 32). This has implications for the age of the land surfaces on which Aboriginal archaeological sites may be found.

The Newer Volcanics is the term given to the volcanic formations resulting from activity during the Plio-Pleistocene, between 2 million and 800,000 years ago. Moreland's volcanic plain is part of more extensive plains that cover much of western Victoria south of the divide and west of the Yarra River. For the Melbourne area, Kenly (1967) and others have divided the Newer Volcanics into two phases; the Greensborough Phase and the Werribee Plains Phase. Moreland samples the Werribee plains phase, which has been described by Spencer Jones in the following manner:

4 Advised by Darren Griffin, Manager – Cultural Heritage, Wurundjeri Tribe Land & Compensation Cultural Heritage Council Incorporated, via email 17 March 2010.

5 Language boundaries are boundaries that define prescribed areas where a single language or dialect is spoken.

The extensive basalt lava flows which form the relatively flat areas to the north and west of Melbourne belong to the younger or Werribee Plains Phase of the Newer Volcanic Suite in Victoria. The basalt lavas and pyroclastics of this phase are comparatively young in terms of geological time; this fact being deduced from the present physiographic expression of the rocks, their thin soil cover and the evidence that they overlie Quaternary alluvial and estuarine sediments.

Sections through the basalts in quarries and other excavations indicate that many separate flows took place, some separated by considerable intervals of time. Hanks (1955) concludes that the eruptions from the volcanic centres north of Melbourne were spasmodic and took place over a long period of time.

North and northwest of the City basalt flows were extruded over a dissected land surface eroded in basalts of the Greensborough phase, Tertiary sediments, Older Volcanic basalts and the Silurian bedrock. The basalt flows partially filled the ancestral valleys of the Yarra River from near the present site of Alphington to where Spencer Street Bridge crosses the river. The basalts did not completely blanket the old topography with the result that low hills such as Clifton Hill, Northcote Hill and Royal Park protrude through the flows as Silurian bedrock inliers.

The alluvial gravels, sands and clays which had been deposited in the old valleys were covered by the basalt lavas and these sediments have been exposed in quarrying operations…The maximum thicknesses of basalt are found where the old stream valleys have been filled by the lavas. A thickness of 190 feet has been proved in the Albion Quarry Company's quarry, Victoria street East Brunswick (Spencer Jones 1967: 61).

Neilson described the flows of these volcanic eruptions as 'tongue-like' and the resultant plains as 'youthful'. He notes that the basalt originates from cones or eruption points to the north and northwest (e.g. Mount Brand) and that this basalt flowed down the 'ancestral valleys of streams such as Merri Creek and Darebin Creek' (Neilson 1967:15).

Minor geological formations the Brighton Group and Silurian Mudstones

After the Newer Volcanics, the sands and gravels belonging to the Brighton Group (Sandringham Sands) are the next most common geology. This group consists of *'poorly bedded sands, soft sandstones and gravels'* that are Lower Pliocene and older. In the northern suburbs these sands are *'largely obscured by the Newer Volcanic basalts'* (Kenley 1967: 37). Brighton sands outcrop in the northern half of Moreland along Moonee Ponds Creek and in Fawkner.

The oldest geological deposits in Moreland are Silurian mudstones. These occur at the junction of Edgars and Merri creeks and south of Pentridge.

Quaternary (late Pleistocene and Holocene) deposits

Some of the most notable Quaternary deposits in the Melbourne area are those associated with the two largest waterways; the Yarra River and its delta and the Maribyrnong River and its remarkable terraces. Moreland does not sample either river and although its most recent geology is relatively minor in its extent, these deposits are perhaps the most relevant to Aboriginal archaeological heritage. They occur as fluvial deposits in the valleys of the Moonee Ponds Creek and Merri Creek as noted by Neilson and Jenkin (1967: 48) and by extension, other minor creeks such as Edgars, Merlynston and Westbreen. Along these creeks, fluvial deposits also occur in two forms: 1) as terraces of alluvium and 2) as flood plain deposits adjacent to shallow channels. Terraces and floodplains are aggrading environments conducive to the accumulation and preservation of organic remains and of Aboriginal archaeological material generally. In the Merri Creek valley for example, clay overlying the Newer Volcanics has yielded bones of extinct marsupials.

Other geologically recent sediments in the Moreland area are wind blown (aeolian) in origin and overlay the surface of the Newer Volcanics as *'a thin blanket of red coloured fine sandy clay'*.

Geomorphology – major landforms and features.

The basalt plains that dominate Moreland's landscape are not uniformly flat. They vary in their elevation with the escarpments and valleys formed by the local drainage lines and other features such as stony rises and ephemeral lakes or soaks.

- Stony Rises occur in a number of forms but generically comprise loosely consolidated rocks and boulders elevated above the surrounding plain.
- Ephemeral lakes and soaks occur at low points on the plains often adjacent to the stony rises. In many areas, these temporary water sources were accentuated and developed into dams for stock and irrigation.

Soil development on the Werribee volcanic plains is generally poor. Screes of basaltic stone and larger basalt floaters lie close to the surface. Soil depth varies according to the degree of basalt weathering and is greatest on worn surfaces. However, a typical profile sees a relatively thin veneer of black-brown or red soil overlaying clay and rock at shallow depths.

Named creeks and other drainage lines

Moreland has two major creeks, the above mentioned Moonee Ponds and Merri creeks, and several smaller (shorter and narrower) named creeks and unnamed drainage lines. Following the gradient of the volcanic plains, these creeks generally flow from the north to the south. From a geological perspective the creek valleys are young in age. At the same time these valleys can be deep, with near vertical sides forming high escarpments and bluffs can be prominent. As noted by Wigney (ed), the basalt has *'… restricted widening of the creek valleys, producing well defined deep and steep sided valleys, shallow rock rapids and gorges and cliffs…The shape of the valley is often steeper on one side with a narrow flood plain on the other'* (Wigney ed 1994: 10).

Within Moreland, while most of the creeks have been modified by human action, they are perhaps the most sensitive geomorphological features for Aboriginal archaeological sites and are described in the following section.

Moonee Ponds Creek

Moonee Ponds Creek commences at Greenvale and flows southeast through Westmeadows before crossing the Western Ring Road at Gowanbrae. From here and for the remainder of its length through Moreland it flows in a south – south-east direction. The creek's valley is generally broad and at Pascoe Vale, the Tullamarine Freeway and then City Link have been built in its valley. These roads closely parallel the current alignment of its channel. Through Moreland, the later sections of creek's channel and banks have been concreted and the adjacent land heavily landscaped. These works were part of the construction of the Tullamarine Freeway and have been recently augmented with the widening of the road for the City Link project. Photographs taken before its concrete encasement south of Dawson Street show a deeply incised channel with rapids and steep banks.

Merri Creek

Merri Creek is some 50 kilometres long and commences in the Great Dividing Range near Kinglake National Park and the township of Wallan. The creek flows southwards through Merriang, Donnybrook and Craigieburn where it is joined by a number of smaller tributaries. It is dammed at Coburg's Lake Reserve on Murray Road. North of this reserve its course through Moreland is best described as meandering, with its reaches becoming longer and straighter south of Bell Street. Merri Creek has rapids along its course and prominent cliffing.

As noted by Neilson (1967: 15-16) Merri Creek flows:

> *'across the basalt which came down (its) ancestral valleys, while in contrast, the Yarra River has become marginal to the basalt. Merri Creek has rapids along its course and east of Pentridge, follows the boundary between the basalt on the west and the tertiary sands on the east. At this locality the resistant basalt forms a steep bank, while the sands make a gently sloping opposing bank.'*

Merlynston, Campbellfield, Westbreen and Edgars Creeks

Merlynston Creek rises at the rear of the Ford Motor Company near Upfield Station at Coolaroo and flows south through Broadmeadows to the Western Ring Road and the Northern Memorial Park. A much smaller creek, Campbellfield Creek, also flows through the northwest corner of this park to the Melbourne Water retaining basin and then south to meet Merlynston Creek in the Fawkner Crematorium and Memorial Park.

Westbreen Creek is a minor drainage line between Boundary Road (south of the Northern Golf Club) and Gaffney Street in Pascoe Vale.

On the western side of Moreland, Edgar's Creek is a long narrow drainage line that commences at Epping North and drains into Merri Creek east of Pentridge. This creek has been dammed at Edwards Lake Park in Reservoir.

2.5 Morelands Native Vegetation

That Moreland retains few significant tracts of remnant vegetation was noted above. Wigney ed (1994) has described the other major vegetation communities for the northern suburbs. These communities and their characteristic plants are listed below.

1. **Volcanic Plains Grassland**: dominated by Kangaroo Grass (*Themeda triandra*) – flat or sloping basalt derived soils with widely spaced River Red Gum (*Eucalyptus camaldulensis*) and Drooping Sheoak (*Allocasuarina verticillata*);
2. **Danthonia (Wallaby Grass) Grassland**: (historic modification of the above);
3. **Stony Knoll Grassland**: basalt ridges or rises – dominated by Kangaroo Grass (*Themeda triandra*) and Hedge Wattle (*Acacia paradoxa*) on better drained soils;
4. **Escarpment Shrubland**: rocky basalt escarpments – Lightwood (*Acacia implexa*);
5. **Floodplain Grassland**: creek terraces floodplains – low-lying basalt plains with poor drainage – grasses and River Red Gum (*E. camaldulensis*);
6. **Riparian Scrub**: silty deposits, heavy clays and basalt rocky platforms – Woolly Tea Tree (*Leptospermum lanigerum*);
7. **Drainage Line Complex**: seasonal drainage lines and swampy depressions – River Red Gum (*E. camaldulensis*), Slender Speedwell (*Veronica gracilis*), Common Spike Rush (*Elecharis acuta*);
8. **Grey Box Woodland**: Silurian Clays and Mudstones, Tertiary Sands and Quaternary Alluvial deposits – Grey Box (*E. macrocarpa*);
9. **Grassy Wetland**: grey silty basalt clays – a variety of water plants;
10. **Instream aquatic herbfield**: within watercourses;
11. **Drooping Sheoak Woodland**: top of basalt hills, eruption points;
12. **Red Gum Grassy Woodland**: Tertiary sands and gravels – River Red Gum (*E. camaldulensis*), Yellow Box (*E. meliodora*) and Kangaroo Grass (*Themeda triandra*);
13. **Box Stringy bark woodland:** sedimentary foothills – Long leafed Box (*E. goniocalyx*)
14. **Yellow Gum Woodland**: least fertile and driest sites, slopes and ridges of Silurian siltstones.

Some of these vegetation communities may not have extended into Moreland; others no longer have any representation within the municipality due to the effects of European colonisation. Within Moreland the former distribution of these communities is also unknown. However, given the extensive nature of the volcanic plains, *Themeda* grasslands were probably common prior to European settlement.

Bainbridge et al.'s (1998) assessment of Moreland's remnant vegetation listed nine of the above communities as having some degree of representation and presents details of locations. As well as providing an indication of Moreland's pre-contact vegetation, these sites are important to the modelling of the municipality's Aboriginal archaeology, as they indicate minimal or no disturbance to the ground and the possibility of in situ cultural deposits.

Table 1 below correlates vegetation communities with the nine remnant vegetation sites, landform and underlying geology.

Table 1: A basic correlation between Moreland's vegetation communities with the nine remnant vegetation sites, landform type and underlying geology.

Age	Geology	Landform Type	Vegetation	(Remnant Moreland site)
Holocene to Recent 10,000 years ago to present	Recent alluvium; overlying basalts	Floodplains and terraces	Riparian Scrub	Merri Creek, Lorne Street
Plio-Pleistocene 2 million to 800,000 years ago	Newer Volcanics; Werribee Formation; Aeolian Sands	Volcanic Plain	Volcanic Plains Grassland Themeda spp.	Merri Creek Grassland Jukes Road
Plio-Pleistocene 2 million to 800,000 years ago	Newer Volcanics; Werribee Formation; Aeolian Sands	Volcanic Plain	*Danthonia* grassland	Gowanbrae Estate
Plio-Pleistocene 2 million to 800,000 years ago	Newer Volcanics	Escarpments and Bluffs, Volcanic Plain	Basalt Escarpment shrubland	Merri Creek Escarpments at Moomba Park, Lorne Street and Marlborough Street
Plio-Pleistocene 2 million to 800,000 years ago	Newer Volcanics	Volcanic Plain, silty deposits, heavy clays and basalt rocky platforms	Drainage Line Complex	Opposite Norfolk Court on Newlands Road, Northern Memorial Park
Silurian Ca. 400 million years	Sands and gravels; Alluvium	Escarpments and Bluffs	Silurian Escarpment shrubland	Escarpments at Moonee Ponds Creek, Union Street and Mitchell Parade; and Edgars Creek at Kodak
Silurian to Recent Ca. 400 million years ago to recent	Silurian clays and mudstones; Tertiary sands; Quaternary alluvial deposits	Floodplains	Grey Box Woodland	West of Merri Creek, Northern Golf Course, Northern Memorial Park
Silurian to Recent Ca. 400 million years ago to recent	Tertiary sands and gravels	Floodplains	Red Gum Grassy Woodland	Northern Golf Course, Northern Memorial Park

Following Moreland's underlying geology and basic landforms it is apparent that grasslands dominated much of the area prior to European colonisation. As well as geology, the distribution of other vegetation communities is likely to have varied according to a wide range of factors including the local hydrology, aspect and elevation.

Remnant vegetation is usually a good indicator of the degree of ground disturbance and in turn a measure of the likelihood of in situ Aboriginal archaeological deposits; at least in shallow contexts. It is also a good indicator of the range of plant species available for use by the local Aboriginal groups during precontact times.

2.6 Summary and implications of the physical and natural background

- Most of Moreland's geological landscape was formed by volcanic activity, which pre-dates Aboriginal settlement of the area. This landscape is characterised by a broad plain that has a minor gradient and slopes towards Melbourne and Port Phillip Bay. Several drainage lines, the largest being Moonee Ponds and Merri Creeks dissect this plain, flowing north to south towards the Port Phillip Sunkland.
- Moreland's distance from the Port Phillip Bay sunkland indicates that the area's land surface was not directly affected by climatic changes during the late Pleistocene. This would suggest that the land surfaces on which Aboriginal archaeological sites may be found, particularly on the volcanic plains, would generally be older than these sites. The exceptions to this will be recent alluvial formations associated with the major waterways.
- The potential of Moreland's landforms to contain Aboriginal archaeological sites is a product of Aboriginal settlement patterns (timing, duration and reasons for occupying the land) and these are largely unknown. As for many other areas in Victoria south of the Great Dividing Range, it is not unreasonable to assume that the antiquity of Aboriginal settlement is at least 40,000 years BP. At the same time, there are no radiocarbon dates for archaeological sites in Moreland or adjoining suburbs, and little chance that any of the known sites relate to the earliest periods of Aboriginal settlement in this area – any such sites would be buried or possibly destroyed.
- The formation and preservation of the archaeological record also depends on various factors including European land use history, the depositional environment in terms of whether it is aggrading or degrading and the age and condition of the underlying rock.
- Because of its urban nature and paucity of open space, Moreland is typical of other municipalities close to Melbourne, where it can be assumed that the vast majority of Aboriginal archaeological sites have been destroyed. In turn, there are few opportunities to discover the remnants of archaeological sites that have survived due to the urban nature of the local environment. Under these circumstances, and where the natural surface of the ground has been obliterated or is mostly obscured, systematic archaeological survey is not feasible. The discovery of new Aboriginal archaeological sites will be accidental and occur during developments involving the excavation of the ground. There are no practical means of planning for such archaeological discoveries.
- Like other urban landscapes, the sensitivity of Moreland's Aboriginal archaeological landforms is likely to be highly correlated to land use history and remnant vegetation. Moreland has few substantial tracts of remnant vegetation. Generally, land adjacent to creeks or other sources of potable water where the ground has suffered minimal disturbance have the greatest potential to retain in situ Aboriginal archaeological material.

2.7 Late Pleistocene Aboriginal settlement

The late Pleistocene Aboriginal settlement of southeast Australia (including Tasmania) is known through the archaeology of a number of disparate sites none of which occur within or near the Moreland area. Typically (and excluding those sites in south-west Tasmania) these early dates derive from deposits with meagre quantities of archaeological material and little in the way of organic remains. As such, reconstructions of past Aboriginal life ways during this period are problematic. Suffice to say the radiocarbon dates from these sites demonstrate an Aboriginal presence in Victoria (and by extension the northern suburbs of Melbourne) by at least 40,000 years BP. Again by extension, these late Pleistocene Aboriginal people represent the ancestors of the *Woi wurrung* as they were recorded in the early 19th Century. They were contemporary with the large late Pleistocene animals collectively known as megafauna and were witness to broad climatic and physiographic changes caused by the Last Glacial Maximum (Ice Age).

2.8 Ethnohistorical Background: *The Woi wurrung*

Europeans made first written observations on the Aboriginal people of the Port Phillip District from 1802, when explorers began to chart the entrance to Port Phillip Bay. While Melbourne was one of the locations from where much of southern Victoria was colonised, much of the written and illustrated text on the Aboriginal people of the area during the colonial period is limited to the observations of a few observers. Most of the text relates to 1835 onwards when there was a permanent European presence in the Port Phillip District and as such its value as a record of *traditional* Aboriginal life is debatable. Because Melbourne was settled by Europeans so intensively and at an early time relative to some other areas, the changes that had been wrought on the Aboriginal population by the time that ethnographic observations were made, makes such observations even less reliable than in other, less populated areas.

The primary sources of this ethnohistory have been collated by Clark (1990) in his reconstruction of traditional language boundaries in western Victoria. These sources include journal entries and government correspondence produced by explorers such as Matthew Flinders and Charles Grimes, as well as settlers and missionaries, particularly G.A. Robinson, the Chief Aboriginal Protector. As noted above, in 1835 Moreland was part of the traditional lands of Aboriginal people known as the *Woi wurrung*, a language group whose territory centred on the Yarra River and its catchment areas.

The following section presents a brief summary of historical information on the *Woi wurrung* with a focus on their social structures. The summary is based on secondary references only; research on the earliest primary references being beyond the scope of this project. While the brief for this Study is limited to pre-contact sites and places, a brief note on the fate of the *Woi wurrung* after 1835 is warranted

Woi wurrung *linguistic and social organisation*

The *Woi wurrung* language group was part of a broader language area known as the East Kulin Language area, which covered central Victoria from the east side of Port Phillip Bay north to the Murray River (Clark 1990: 363, 364, Table 20).

The *Woi wurrung* was divided into at least four clans. Clark defines the clan as the *'land owning, land renewing and land-sustaining unit of Aboriginal society'*. These clans were patrilineal and organised into moieties belonging to either the *Waa* (crow) or *Bunjil* (eaglehawk) moiety – marriage partners were required to belong to different moieties (Clark 1990:4). Similarly, Barwick defines the term as *'a named localised patrilineal descent group ... whose members had an historical, religious and genealogical identity'* (Barwick 1984:106). She notes that *'Clan territories were defined by ritual and economic responsibilities. Clan names were distinguished by the suffixes -balluk or -bulluck meaning a number of people and –(w)illam…meaning dwelling place'* (Barwick 1984:106). Barwick continues her discussion on clan organisation noting that:

> *'Clan lands were exploited by residential groups (now termed bands) whose membership*

changed over time as nuclear families formed, aged and were replaced, and over the course of each year because the families and individuals instilled to make use of a specific clan estate were sometimes together (and) sometimes dispersed' (Barwick 1984: 106).

Whilst the composition of a clan was fluid during an individual's lifetime, *'clan membership was fixed at birth as these were inherited from a person's father and retained … until death'* (Barwick 1984: 106).

The Woi wurrung clans

Of the four *Woi wurrung* clans and following Clark (1990), the *Wurundjeri balug* were the clan whose estate (territory) included the land that comprises the Moreland municipality. The *Wurundjeri balug* were divided into two patrilines: the *Wurundjeri willam* and the *Bulug willam* – groups who were based around the Yarra River, Western Port Bay and their catchments.

The *Wurundjeri willam* were in turn divided into a number of smaller groups, perhaps bands. A *Wurundjeri willam* group known in historical times as Billibellary's Mob belonged to a territory that included the area 'W. of Darebin Creek to E. bank of Saltwater (Maribyrnong) River and Jackson's Creek, N to near Mt. William quarry'. As such, at the time of European colonisation, Billibellary's (Jika Jika) Mob appears to have been the band that included the Moreland area within its territorial lands (see Clark 1990: 385-386).

Hunting and gathering by the Woi wurrung

Like all other Aboriginal groups in Victoria, the *Woi wurrung* were hunters and gatherers. As mentioned above, it is likely that *Woi wurrung* patterns of settlement were based on seasonal rounds following the changing availability of plant and animal resources.

Moreland's grasslands, woodlands and creeks are likely to have supported a range of native fauna. As is the case with most of Aboriginal Victoria, which of these animals and plants were used by the *Woi wurrung* and in what ways is unknown. It is known that the *Woi wurrung* used spears to hunt and that hunters would hide behind vegetation or construct hides of stone. Nets were also used where animals would be chased into them. Certain foods are common to several historical accounts, including: the tuber Daisy Yam (*Microseris scapigera* or *Murnong* of which Moonee Ponds Creek was a noted source; Bull-rush roots which were collected from waterways and roasted; eels, which were a seasonal food caught in stone weirs and long fibre nets; kangaroos and other macropods birds and their eggs. The fur of Brushtail possums was used to manufacture cloaks of which there are only two surviving examples.

Presland has presented a popular account of *Woi wurrung (Wurundjeri)* subsistence – a campsite on the Yarra River during autumn. Although speculative and drawing on a number of historical images outside of the Moreland area, his reconstruction considers the logistics of hunting and gathering including the getting of specific plants and animals and is worth noting:

At a number of places around the region there are traps set in rivers and streams at points where the flow of water is restricted. Funnel shaped fishing pots take the fish as they fish with the stream…The men catch fish at night. They stand in canoes in the river and hold lighted brands near the water's surface. The fish are attracted to the light and are more easily speared. Fish spears are often tipped with a bone point (Presland 1994: 72-88; see Frankel 1995 for a more detailed discussion on fish traps, their function and typology).

In contrast the collection and use of plant resources is recounted as women's work.

While the men have gone about their fishing and hunting, the women have set about

collecting vegetable foods…Autumn is the time of year when the greatest numbers of perennials are available and there is a wide variety of plant foods. Around the swamps and marshes the young shoots and roots of bulrush can be collected and eaten. There are also the fruit and seeds of various aquatic plants and roots of water ribbons…The women can also collect rushes, which they make into items of jewellery…

The Woi wurrung in Moreland

Unlike other municipalities such as Dandenong and Banyule, and with the possible exception of the location of the signing of Batman's treaty, there appears to be no specific ethnohistorical text of Aboriginal people in the Moreland area during the early years of European settlement (however, there appears to be no research on early historical text specifically relating to Aboriginal people in Moreland). This apparent lack of historical observation is probably due to Moreland's close proximity to Melbourne and the relative swiftness of European settlement, but is a situation that may change with further research and the uncovering of additional archival text.

The Woi wurrung Post 1835

The European settlement of Melbourne and adjacent land began in earnest with John Batman's 'treaty' with several *Woi wurrung Ngurungaeta* (spokespersons) in 1835. The signing of the treaty occurred on the 6th of June while Batman was with an exploration party. The treaty had several purposes including the purchase of some one million hectares of land from the *Woi wurrung* and adjacent Aboriginal peoples, which eventually (April 1836) forced the British Government to approve the fledging settlement. During the following decade there was a flood of immigrants from Sydney and, following in the footsteps of John Batman, John Pascoe Fawkner and other members of the Port Phillip Association, from Tasmania.

In 1839 William Thomas was appointed the Assistant Aboriginal Protector and he lived with the *Woi wurrung* and *Bunarong* peoples. Unfortunately most of his observations refer to Aboriginal groups at locations outside of the Moreland area. In 1840 and on the general location of Melbourne he recorded,

By what I can learn, long ere the settlement was formed the spot where Melbourne stands and the flat on which we are now camped was the regular rendezvous for the tribes known as Waworangs, Boonurongs, Barrabools, Niluguons, Goulbourns twice a year or as often as circumstances and emergencies required to settle their grievances, revenge deaths etc.

The Aboriginal Protectorate of Port Phillip whose purpose was to protect the *Woi wurrung* and other Aboriginal groups was considered a failure and abolished after a decade in 1849. Presland noted that *'by the late 1830's and increasingly in the following decades (Aboriginals) were seen as a nuisance and a disturbing influence in the streets of Melbourne. Thomas spent a great deal of time attempting to draw (them) away from the settlement to little effect. Alcoholism was common …and in the absence of traditional food they resorted to begging'*. He continues... *'in the twenty seven years following the foundation of Melbourne, the number of Woiwuurng and Bunurong was reduced from 207 to 28'*. As well as alcoholism and malnutrition, Presland lists the lack of immunity to disease such as dysentery and venereal disease and a *'drastic reduction in the birth rate'* as the primary reasons for the demographic decline (Presland 1994: 99, 104).

Several mission settlements and stations were established and abandoned during the quarter decade after 1835 including at South Yarra (1837) and Narree Warren (1840). Coranderrk at Healesville was established in 1863 and was the mission where the remaining *Woi wurrung* and other Aborigines from the Port Phillip district were sent. It survived into the 20th century and was the refuge for Barak (*Ngurungaeta*) and other *Woi wurrung* from whom the present day *Wurundjeri* are descendants.

2.9 Summary and implications of the ethnohistorical background

- In 1835 Moreland was part of the traditional lands of Aboriginal people known as the *Woi wurrung*, a language group whose territory centred on the Yarra River and its catchment areas. The *Woi wurrung* were divided into a number of smaller groups (clans and bands) and at contact Moreland was probably part of an area inhabited by *Billibellary's Mob*, a band or family belonging to the *Wurundjeri willam* clan.
- With regard to past settlement by the *Woi wurrung* and their ancestors, Moreland's current municipal boundaries are arbitrary. The municipality represents a small area within *Woi wurrung's* former territory, as this was recorded circa 1835, and probably not large enough to have encompassed the entirety of any one clan's estate.
- There is little ethnohistorical information on the traditional *Woi wurrung*. Further, there appears to be no specific ethnohistorical text for the Moreland area during the early years of European settlement. Elsewhere in metropolitan Melbourne historical text points to specific sites and places (eg Bolin Swamp) that were important to the *Woi wurrung* and other Aboriginal groups at contact. In the absence of such text and as mentioned, Moreland's Aboriginal archaeology attains considerable scientific and cultural significance as a source of information about past Aboriginal use of the landscape.

2.10 The historical development of Coburg and Brunswick

The City of Moreland is a highly urbanised area characterised by medium-density residential housing. As such, its history of land use since 1835 provides an indication of the likelihood of Aboriginal archaeological sites and the following section summarises this history. It has also been noted that the present City of Moreland was created in 1994 with the amalgamation of the Cities of Brunswick, Coburg and the southern portion of the City of Broadmeadows. From a historical perspective, these municipalities developed separately and have been examined separately in the following section, which is condensed from the works of Nicholson (1994), Broome (1987), Johnston (1994) and Lemon (1982).

Historical introduction

Although the colonial government disallowed Batman's 'treaty', contending that the land belonged to the British Crown, there being no prior owners, European settlement for agricultural and pastoral purposes was probably unstoppable. Recognising this, the Governor of New South Wales formalised the settlement by setting up a seat of government, appointing William Lonsdale as the police magistrate and commencing land sales.

Until the discovery of gold in the 1850s, the Port Phillip District was predominantly an agricultural and pastoral area. Settlers arrived either across Bass Strait from Van Diemen's Land or overland from Sydney. Those coming overland from Sydney followed Mitchell's 1836 route to the Goulburn River and then the route marked by Stapylton in 1838 that ran through present day Wallan and on to Melbourne (Payne 1981:11-12), along the road laid out by Hoddle, the government surveyor, in 1837, which later became known as Sydney Road (Broome 1987). Land sales for the Coburg and Brunswick areas were first held in 1839.

The development of Brunswick

The area that was to become the town of Brunswick, proclaimed in 1888, comprises the area between Moonee Ponds Creek and Merri Creek with Moreland Road to the north and Brunswick Road to the south. It was originally divided (1839) into 20 sections ranging in size from 89 acres to 315 acres, mainly with either 10 or 20 chain frontages to Sydney Road and running back to the creeks. Several buyers bought two sections, there being 15 original purchasers.

Many of the original purchasers were speculators and investors who did not live on their newly acquired land but either resold it or leased sections of it. Development began to occur along Sydney Road with the construction of shops for sale or lease in the 1840s. The initial land boom was slowed by the depression of 1842 but the discovery of gold in 1851 and advent of the gold rush to the fields of Ballarat and Bendigo saw a large increase in people traveling through Brunswick and an increased demand for sites along Sydney Road.

Brunswick subdivisions

Although there were early subdivisions, especially along Sydney Road, some large estates remained within Brunswick for several years. Much of Brunswick was used for farming and associated industries between the 1850s and 1880s. Cattle grazing, dairy farming, with attached piggeries and market gardening were common. Associated with these were bacon curing plants and tanneries. The construction of the railway to the city in 1884 and the opening of the cable tram along Sydney Road in 1887 made the area attractive for subdivision, both for housing and for industry as it made fast and efficient access to the city possible. Major heavy industries established within Brunswick included potteries, bluestone quarries and brick making. The depression of the 1890s led to movements to settle unemployed workers on land and the Brunswick Land Purchase Act 1900 saw sections of Brunswick divided into allotments of one to two acres. This subdivision was continued under the Closer Settlement Scheme until 1906.

Although some open land still remained, locked up as potential quarry sites for the potteries and brick manufacturers, most of the remaining open space was subdivided during the period up until the Second World War. This period saw the construction of war service estates, Housing Commission development to abolish slums as well as large private subdivisions. After the war, large allotments were being redeveloped for the construction of flats.

Much of the early subdivisions were carried out by private enterprise and no provision was made for parks or open space. Most of the parks within Brunswick are built over the sites of quarry holes, the two exceptions being Brunswick Park established in 1908 and Warr Park established in 1910 (see Johnston 1994).

The development of Coburg

Initial land sales within what was to become the City of Coburg were first held in August 1839. The northern section, between present-day Bell Street and Boundary Road, consisting of five sections plus an area set aside for a village was the first to be sold followed by the sale of a further six sections to the south in October the same year, with prices double or treble per acre of the earlier sale. By November, one of the northern sections had already been subdivided into twenty-four allotments of 25 acres each. By the early 1850s six of the original eleven sections had been subdivided into areas that ranged from five acres to half the original size. All these areas were under some form of cultivation by early 1840s.

An influx of 10,000 immigrants to the colony in 1840 created a demand for land and housing as well as a market for food. Allotments in the vicinity of Sydney Road and the village reserve (later to become Pentridge Prison and the Coburg cemetery) ranging from one to twenty-five acres were on offer and the newly surveyed Sydney Road was described as *'enclosed on both sides by numerous estates and bordered by little villas and farms'* (Arden's Directory of 1840 cited in Broome 1987). By 1845 farms along the Moonee Ponds Creek and Merri Creek were producing about half the colony's wheat, barley and oats, with further production of vegetables and vineyards. The poor condition of the road to Melbourne restricted the sale of fresh produce to a degree.

The discovery of gold in 1851 initially led to a drop in the population of the Coburg area as people went off to the fields to make their fortunes. However the arrival of 600,000 immigrants during the 1850s increased the demand for land, housing and food and this was reflected by the further subdivision of land, mainly along Sydney Road. Pentridge prison was located within the village reserve in 1850, with the outer wall

being built between 1859 and 1866, enclosing 140 acres of which 10 acres was returned to the Council as parkland in 1924. Prisoners from the stockade were used to improve the condition of Sydney Road and warders made up the largest percentage of the ratepayers when the shire was formed in 1875.

Two main industries other than the prison dominated employment in the Shire in 1875, with 17% of the remaining ratepayers listed as quarrymen, working in the 41 quarries within the shire, and 18% as farmers or market gardeners. Most of the farmers occupied farms between 10 and 50 acres in size, with the market gardeners clustered along Merri Creek.

The poor condition of the main access road to Melbourne remained a problem into the 1880s, with travel time to the city being 45 minutes by horse bus. The building of the rail line from Melbourne in 1884 and the construction of the cable tram to Moreland Road in 1886 to connect to the horse tram to Gaffney Street triggered a boom in population within the Shire. From a figure of around 1,500 at the time of the inception of the shire, the population grew rapidly to over 4,000 in the late 1880s. Most of the development occurred in the vicinity of Sydney Road and in the southern portion of the Shire. Businesses along Sydney Road expanded with the boom in population, but the Shire was hit during the 1890s depression with many of the subdivisions created during the boom lying empty and neglected.

By the turn of the century most of the 1260 homes within the Shire were clustered along Sydney Road. Farming remained an industry within the Shire, with 37 farmers still operating in 1910. These farmers were generally occupying farms of between 10 and 40 acres in extent.

The replacement of the horse drawn tram along Sydney Road by an electric tram in 1916 led to an increase in land sales and subdivisions in the northern part of the shire. The allotments created outstripped demand for several years, with there being 8,534 vacant allotments within half a mile of the train/tram in 1920 and a further 24,000 allotments vacant in the rest of the Shire.

The electrification of the rail line in 1920, the influx of immigrants into Victoria after the war as well as the construction of war service homes for returned soldiers, led to a further boom in the Coburg area in the mid 1920s. Fast efficient rail services made the industrialisation of the area more feasible and homes were needed to house the workers. During this period reserves were also rapidly increased. From five acres of reserves in 1910, the amount of land reserved increased to 120 acres by the end of the 1920s. This area included ten acres along Merri Creek returned to the Council from Pentridge prison as well as the Council reserving a strip one chain wide along the western side of the Merri Creek.

The 1930s depression slowed development of housing but the Council employed many of the unemployed in sustenance works, landscaping reserves and constructing road gutters and footpaths. The end of the Second World War and the subsequent increase in European immigration led to a rapid building boom. By the mid 1950s all the remaining paddocks within the city had been subdivided and built on with few empty allotments remaining. In 1978 only 114 building allotments and 40 industrial sites were still vacant.

The construction of the Tullamarine Freeway in 1966 to service the new airport led to the loss of part of Morris Reserve and the conversion of large sections of the Moonee Ponds Creek into a concrete drain.

South of Broadmeadows

The section of the old City of Broadmeadows that was included in the new City of Moreland when it was created in 1994 includes the section between Moonee Ponds Creek and Merri Creek from Boundary Road to the Western Ring Road.

Land sales were held here slightly earlier than in those parts of the City of Moreland to the south. The first auction was held in September 1838 and four of the six sections that are at least partly within the Study area were sold. The remaining sections were sold in 1848 and 1850. These sections tended to be larger in size than those further south, ranging from 640 acres to 1174 acres.

The attitude of the European landowners to the land is reflected in the conditions of the lease made when John Pascoe Fawkner leased one of his sections of land further south to his father. The lessee *'… shall and will fell cut down grub up and otherwise destroy and remove all the native indigenous trees wood scrub and underwood whatsoever growing or to grow upon the said land or any part thereof…'* (cited in Lemon 1982: 17).

The end of the land boom in 1842 saw a virtual cessation of subdivisions within the area until 1850 when John Pascoe Fawkner purchased the last remaining section of 640 acres and subdivided this into small farms of between 5-20 acres each.

The gold rush appears to have had little effect on use of land within this part of what is now Moreland, farming continuing on small to large farms so that by 1859 about one quarter of all farmland with the parish of Will Will Rook was under crop. The poor seasons of the early 1860s saw many small farmers leave the land and by the 1870s most of the remaining farmers had turned to livestock production.

The late 1880s saw the return of a short-lived land boom that saw speculators returning to the area and further subdivisions. 1887 saw the sale of lots within the township of Glenroy and by 1891, 40 houses had been constructed. The depression of the 1890s again brought an end to subdivisions within the area and what little unemployment relief work that was carried out by the Shire was mainly on the roads.

In 1903, 280 acres of land were purchased for the cemetery site at Fawkner and a new wave of subdivisions mainly for agricultural purposes began. The Northern Golf Club acquired land for their course in 1912, opening the first nine holes at the end of that year.

The First World War saw the opening of the military camp just north of the Study area and a slowing of land sales within the area. Further subdivisions took place within the Glenroy area but sales were slow during the war years. Most of the smaller properties within the Shire were south of Camp Road and therefore within the Study area, but many were not built on until after the Second World War.

The construction of the electricity line from the coalfields of Gippsland to the terminal station at Yarraville saw the reservation of a wide easement along the route. Part of this easement runs to the west of Moonee Ponds Creek, beside the Western Ring Road in the north west corner of the City of Moreland. The power lines were completed in 1923.

The 1930s depression and the war years saw little change to land use within the general area. After the war, further subdivisions took place at Oak Park and Hadfield, with many of the allotments now being built upon. The Housing Commission built several houses south of Fawkner in 1949 but the big drive to construct a 'model city' in the 1950s concentrated on that area north of what is now Moreland City. Photographs taken in the mid 1950s show much open land still within the Study area, though most of that has now been built upon.

2.11 Implications of Moreland's development on Aboriginal archaeological sites

- By the early 1840s much of the area encompassed by the Moreland municipality had been cleared of its native vegetation and was under some type of cultivation. The land adjacent to the Moonee Ponds and Merri creeks was producing considerable quantities of produce for Melbourne's' booming population. In Brunswick and Coburg the 1860s and 70s saw the introduction of industries such as quarrying and brick making. Residential and commercial development focused on Sydney Road, which was the main overland access between Melbourne and Sydney.
- The general history of the Moreland municipality is one of increasing residential development and the diminution of open space. The timing of residential development has varied among the three main suburbs with much of Broadmeadows remaining as rural land until the mid 1940s. All of Brunswick and most of Coburg were subdivided by 1950.

- Land adjacent to both Moonee Ponds and Merri creeks was used extensively for quarrying and for market gardening and with the exception of a few areas, has been heavily modified. In particular, much of Moonee Ponds Creek through the old cities of Brunswick and Coburg had been destroyed by the modifications when the Tullamarine Freeway was constructed.
- With regards to Parklands, many within the Brunswick area are located on filled quarries, the exceptions being Brunswick Park and Warr Park, established in 1908 and 1910 respectively. Coburg reserved a strip of land one chain (22 yards) wide along the western bank of the Merri Creek during 1910-1930. Ten acres of land from Pentridge was returned as parkland in 1924. Some reserves were set aside within new estates in Broadmeadows in the 1920s and land has been reserved along the banks of the creeks, although there is no information when this occurred.
- The other main open spaces within the city are the Fawkner Crematorium and Memorial Park, established in 1903; the Northern Memorial Park, established (after 1982) and the Northern Golf Club established in 1912. There was until recently a large area at Pentridge that was still open space but this is now the site of housing construction.
- Table 2 on page 25 presents a summary of the land use histories of Brunswick, Coburg and southern Broadmeadows according to year and event. It is clear that all parts of the Moreland municipality have undergone some degree of development, which has modified the ground's surface and impacted on any Aboriginal archaeological material contained therein. This commenced with the clearing of the land for agricultural purposes following the first sales in 1836 and possibly continues with recent residential developments adjacent to creeks and other archaeologically sensitive landforms. Exceptions to this are small areas of land (and many of these along Merri Creek) which retain remnant vegetation, and by implication, where there has been relatively little disturbance to the ground.

The implications of this history of land use for the preservation of Aboriginal archaeological sites are:

- Most of the Aboriginal archaeological sites present in the Moreland area at the time of European settlement have probably been destroyed. These sites are likely to have included scarred trees, interments, shell middens, stone artefact scatters, eel and fish traps, stone arrangements and other ceremonial sites.
- Most of the archaeological sites that survived to the present day will occur in disturbed contexts in the form of stone artefacts scatters. By the early 1840's most of Coburg was subject to some form of cultivation. The density of these scatters is likely to increase with decreasing distance to water.
- The exception to the above would be deeply buried sites (without a surface expression and below the plough zone) that occur in subsurface contexts. Buried sites are likely to occur in alluvial or fluvial deposits and would only be exposed due to a localised erosion event.

Table 2: Summary of the land use histories of Brunswick, Coburg and southern Broadmeadows

Decade	Area affected	Specific years for suburbs or areas (if known)	Historical Events, Land uses and Developments in the Moreland Area
1830-1839	All of Moreland	1835 1838-1839	• Batman's Treaty • First land sales • First subdivisions of land
1840-1849	Brunswick All of Moreland Coburg Broadmeadows	1840 1842 early 1840s 1845 1842	• Shops along Sydney Road • End of land boom • Most under some form of cultivation • Farms along the 2 creeks producing half the colony's cereal crops • Cessation of subdivisions
1850-1859	Brunswick All of Moreland Coburg Broadmeadows	 1851 1850 by 1859	• Farming, brickmaking and quarrying • Discovery of gold • Pentridge established • One quarter of Will Will Rook parish under crop
1860-1869	Brunswick Coburg Broadmeadows		• Farming, brickmaking and quarrying • Quarrying, farming and prison main occupations • Outer wall of Pentridge built • Poor seasons and most farmers turned to livestock rather than cropping
1870-1879	Brunswick Coburg Broadmeadows		• Farming, brickmaking and quarrying • Quarrying, farming and prison main occupations • Livestock production
1880-1889	Brunswick Coburg Broadmeadows	1884 1887 late 1880s 1887	• Rail • Tramway constructed • Population boom due to easier access • Further sub-divisions – sale of lots in Glenroy
1890-1899	All of Moreland Coburg Broadmeadows	 1891	• Depression • Sub-divisions idle and empty • 40 houses had been constructed in Glenroy • Depression brought end to subdivisions
1900-1909	Brunswick Coburg Broadmeadows	1900 1908 1903	• Brunswick Land Purchase Act • Brunswick Park established • Most houses located along Sydney Road • Cemetery site purchased • Agricultural subdivisions
1910-1919	Brunswick All of Moreland Coburg Broadmeadows	1910 1914-18 1910 1916 1912	• Warr Park established • World War I • 37 farmers still operating (10-40 acres) • Horse drawn tram replaced by electric tram along Sydney Road led to increase in land sales in northern part of shire • Northern Golf Club established

Decade	Area affected	Specific years for suburbs or areas (if known)	Historical Events, Land uses and Developments in the Moreland Area
1920-1929	Brunswick Coburg Broadmeadows	 1920 1920s 1923	• Further subdivisions • War service homes • Electrification of rail • Industrialisation • Reserves increased from 5-120 acres including land returned from Pentridge • SEC electricity transmission line from Gippsland completed
1930-1939	Brunswick All of Moreland Coburg Broadmeadows		• Housing Commission • Depression • Sustenance works on roads and reserves • Little change in land use
1940-1949	All of Moreland Brunswick Broadmeadows	1939-45 1945-49 1946 on	• World War II • Redevelopment of larger allotments • Oak Park and Hadfield established and built
1950-1959	Brunswick Coburg Broadmeadows		• Few vacant allotments • All land subdivided • Few empty allotments • Photos show much open land still within Study area
1960-1969	Coburg	1966	• Tullamarine Freeway • Loss of Morris Reserve • Moonee Ponds Creek concreted
1970-1979	Coburg	1978	• 114 building sites and 40 industrial sites vacant
1980-present	All of Moreland		• Mostly built on other than parks / cemeteries and golf course

SECTION 3:

Review of previous archaeological surveys in and around Moreland

The importance of previous Aboriginal archaeological investigations for the development of a model of site distribution for the Moreland municipality cannot be overstated. Archaeological site types and their distributions are the data upon which the archaeological sensitivity of landforms is determined. The following section reviews and assesses the quality of previous Aboriginal archaeological surveys in Moreland.

3.1 Report Reviews

Previous Aboriginal archaeological assessments within and bordering the City of Moreland include several regional studies incorporating areas outside the city, particularly along Merri and Moonee Ponds creeks. These studies present details on the occurrence of Aboriginal archaeological sites within Moreland, but other than site locations, are generally broad in scope and have limited value for planning purposes. Investigations within the municipal boundaries have typically been development-specific; a high percentage of which have been conducted within a limited area; specifically the areas near the junction of Merri and Edgars creeks near Newlands Road. These previous investigations are listed in **Table 3** (below) and mapped on Map 1 – Location of Previous Aboriginal Archaeological Surveys in Moreland.

Table 3 - Previous investigations and surveys conducted within the municipal boundary

Author	Year	Title
Presland	1983	An archaeological survey of the Melbourne Metropolitan Area
Hall	1989	Merri Creeks Parkland. Aboriginal and Historical heritage Survey
Weaver	1991	Moonee Ponds Creek Concept Plan
Johnston and Ellender	1993	Merri Creek Concept Plan
Webb	1995	The Identification and Documentation of Silcrete Quarries
Marshall	1996	An archaeological survey of the Merri Creek Bicycle/Pedestrian Pathway: Newlands Road to Edgars Creek
Debney	1997	An archaeological survey of a proposed pedestrian /bicycle path, Lake Reserve, North Coburg.
Cekalovic	1999	Archaeological survey of the proposed Merri Creek shared pathway, Coburg.
Rymer	1997	Coburg Prisons Complex and former Newlands High School archaeological survey.
Sciusco	1997	North western sewer project Moonee Ponds tributary sewer connection
Stocks and Lane	1997	An archaeological survey and subsurface investigation of Edgars Creek from the Kodak Bridge to Merri Creek
Canning	2003	Merri Creek Sewerage Alignment
Vines	2003	An archaeological assessment of land adjacent to Newlands Road Coburg, Victoria

3.2 Regional Surveys

Presland's Overview of Metropolitan Melbourne

Presland's Study of the archaeology of the Melbourne area was based on the survey of five separate landscape units across the metropolitan area. These units were selected according to geology, topography, vegetation and hydrology (Presland 1983: 4). The City of Moreland falls within Presland's Landscape Unit 2, incorporating undulating plain north of the Yarra and west of the Plenty Rivers. Presland commented on the watercourses within this unit;

> *'That part of the unit on the northern side of the Yarra includes the courses of a number of important tributaries of the Yarra [...] Moonee Ponds Creek was a noted source of Murnong (Microseris scapigera) in the early days of settlement (Smyth 1878: 1: 209) and a recent Study of the Merri Creek listed the occurrence of 101 indigenous plants (P.I.R.G. 1975: 120-21), many of which were food sources' (Presland 1983: 8).*

Small sections of each of the landscape units were surveyed. The aims of the field survey were to identify those parts of the Study area which have a high archaeological potential and to identify areas and record sites which were under threat due to impending development (for further detail refer to Presland 1983:41). While none of Presland's survey areas fell within the City of Moreland (with Kororoit Creek being the major focus of Presland's Unit 2 survey), he discussed the Moonee Ponds and Merri creeks in detail;

> *'On the evidence of documentary research, Moonee Ponds Creek was an important stream too in pre-European Port Phillip [...] Its value as an archaeological unit is greatly diminished however, by the wholesale changes wrought in the major part of its length [...] Other streams which flow through this unit, including the Merri Creek, Darebin Creek and Plenty River have adjacent areas which are substantially unaltered' (Presland 1983: 89).*

Presland's above referenced 'Aboriginal Melbourne' (1994) refers in similar detail to the Moonee Ponds and Merri creeks, noting the importance of the creeks as sources of plant and animal foods. More importantly though, he notes the original recording of a freshwater mussel midden on the Merri Creek at Coburg in the 1930s. This site was originally referred to by Hanks (1933) in the Victorian Naturalist;

> *'On the banks of the Merri Creek, in the suburb of Coburg, are the remnants of an encampment of the aborigines - so far as I know, the only one recognizable in the district. It is located on the western bank of a deep pool, about midway between Gaffney Street and the well-known basalt tables behind Pentridge Stockade.*
>
> *In a small excavation can be seen a very small midden of freshwater mussel shells (Hyridella Australis). I collected, from round about, a variety of small chippings and a few worked tools, some of which are of flint, but in the majority of cases they are of local stone and include quartz, quartzite, jasper, ironstone, and indurated mudstone, and a few bone scraps. There probably are basalt chippings, but these were not collected on account of the stockade wall, which is of basalt, crossing the spot. There is no doubt that the main portion of the camp was situated on a small outlier of Silurian rock, just inside Pentridge wall' (Hanks 1933: 34).*

Hall's Survey of Merri Creek Parklands

Hall (1989) completed an Aboriginal and historical archaeological survey of the Merri Creek Parklands that aimed to identify the archaeological resources of the Merri Creek. The Study was commissioned by the Merri Creek Bicentennial Committee, who were proposing to develop a corridor of open space in association with the municipalities of Collingwood, Fitzroy, Northcote, Brunswick, Coburg, Preston, Broadmeadows and Whittlesea. The Merri Creek Parklands aimed to link established areas of parkland and to develop additional recreation areas along the creek. The specific aims of the survey were as follows:

- To carry out a survey of archaeological sites within the Merri Creek Parklands;
- to document and interpret sites in terms of the region's history and previous archaeological work;
- to assess the scientific and cultural significance of recorded sites; and
- to provide recommendations on the management and protection of recorded sites and for their interpretation to the public (Hall 1989: 2).

The survey area covered approximately 30 kilometres on both sides of the creek, but Hall noted that due to varying ground surface visibility, only around 17% of this 30 kilometres was effectively surveyed. 21 stone artefact scatters, 32 isolated stone artefacts and five scarred trees were located along the creek. Of these sites, two artefact scatters were located at the junction of Edgars and Merri creeks and another three at the Junction of Merri and Central). These sites were all poorly preserved and rated as being of medium significance (Hall 1989 Volume 2: 6).

In this Study, Hall also provided maps showing the extent of fill and landscaping along the banks of the Merri Creek. These show that the banks of the creek through the vast majority of its course through the City of Moreland had undergone at least minor works, whereby the original surface of the ground had been destroyed. Extensive areas along the creek within the municipality had also undergone major works or consisted of fill.

Weaver's survey along Moonee Ponds Creek

A survey for Aboriginal and historic sites as part of the Moonee Ponds Creek Concept plan was undertaken by Weaver and McKenzie during April and May 1991. The survey was commissioned by the Board of Works, acting for the Moonee Ponds Creek Association and included public and other adjacent land along the Moonee Ponds Creek between the Yarra River and the southern boundary of Gellibrand Hill Park, passing along the western boundary of the City of Moreland (Weaver 1991). 31 Aboriginal archaeological sites and 13 historic archaeological sites were recorded. The Aboriginal archaeological sites consisted of stone artefact scatters,isolated artefact sites, and a single scarred tree (Weaver 1991). The artefact scatters were generally made on silcrete. Weaver notes that 21 of the sites were found in one general locality in Westmeadows, just outside the City of Moreland. This was seen to be the result of minimal development, and Weaver suggested that the general lack of sites along the remainder of the creek including that within Moreland *'...is a reflection of the density with which residential, industrial and transport development has occurred along the creek course'*(Weaver 1991).

Johnston and Ellender 's Survey along Merri Creek

The Merri Creek Concept Plan aimed to provide direction for development of the linear parkland along the creek and the cultural heritage component was prepared by Johnston and Ellender (1993). The aims of the investigation were:

- Prepare an updated database of Aboriginal and European heritage places located along or close to the Merri Creek based on previous studies and other sources.
- Identify the further work required to provide a more complete understanding of the heritage of the Merri Creek and make recommendations on the conduct of that work.
- Evaluate the current protection and management strategies for identified heritage places on the Merri Creek, and recommend improvements.
- Identify areas that may contain evidence of either Aboriginal and historic land uses and activities, and recommend planning procedures to reduce the risk of damage to unrecorded sites.
- Identify opportunities for the use and interpretation of places (Johnston and Ellender 1993: 2).

Specific localities were targeted during the Aboriginal archaeological survey including terraces, locations containing remnant vegetation and where development was likely (Johnston and Ellender 1993: 14). At the time of the Study in 1993 there were 27 known (registered) Aboriginal archaeological sites on the Merri Creek and only one new Aboriginal archaeological site was discovered during the survey. Recommendations were made in regards to Aboriginal archaeological sites along sections of Merri Creek. These included site-specific recommendations and recommendations for areas of archaeological sensitivity (see Johnston and Ellender 1993). More general recommendations relating to the management of Merri Creek's archaeological sites included:

- Planning scheme amendments to protect sites and areas of archaeological sensitivity;
- prevention of soil erosion within the creek valley to help preserve identified sites and archaeologically sensitive areas;
- the prevention of vehicle and horse access to areas identified as having high archeologically sensitivity; and
- further archaeological survey work.

Aboriginal Silcrete Quarries Webb 1995

In 1995, Webb carried out an investigation into Victoria's silcrete quarries – silcrete being a stone type from which artefacts were often fashioned. Suitable criteria for their identification and recording were devised and applied to the quarry sites already recorded. This in turn provided a basis for adjusting AAV's site register listings and assessing the sites for possible nomination to the Register of the National Estate. The surveys resulted in the recording of substantially more silcrete quarry sites than previously known (Webb 1995: 10).

At the beginning of the project 38 sites were listed as silcrete quarries on the AAV Heritage Services Branch site register, some of which were rejected (Webb 1995: 27). Eventually 57 sites were identified as possible silcrete quarries, 38 of these in the Melbourne Metropolitan area. Three quarry sites were confirmed as silcrete quarries on the Moonee Ponds Creek, all occurring on or close to the creek bank. These were located outside of the Moreland Study area.

3.3 Local surveys

Most of the local surveys within the Moreland municipality have been located along Merri Creek.

The Merri Creek Bicycle and Pedestrian Path – Marshall 1996 and Debney 1997

Commissioned by the Moreland City Council, Marshall reported on the archaeological survey of a 430 metre extension to the Merri Creek bicycle and pedestrian path along the northern bank of Merri Creek between Newlands Road and Edgars Creek. The entirety of the extension was surveyed but no Aboriginal archaeological material was located. Marshall attributed this to the long history of intensive European development to the creek and suggested that any Aboriginal sites that may have been present had been destroyed by these previous developments.

Not long afterwards, Debney reported on a similar survey of a proposed extension to the path of 600 metres from Carr Street to Ida Road. Again, no Aboriginal archaeological sites were recorded as a result of this survey. Ground surface visibility was poor and limited to an eroded footpath along the west and patches on hill slopes and exposures beneath trees.

Cekalovic 1999

Cekalovic conducted a survey of a 1.3 kilometre section of proposed pathway along the western bank of the Merri Creek, from Ida Street in Coburg to Queens Parade in Fawkner. The entirety of the proposed

route was surveyed but no Aboriginal archaeological material was located. Cekalovic concluded that this was the result of a high degree of disturbance in the area and noted that while other studies indicated that the slopes overlooking the creek may generally contain artefacts, the slopes in the Study area were mostly composed of fill.

Coburg Prisons Complex and former Newlands High School site – Rymer 1997

Rymer was commissioned by the Department of Treasury and Finance, Victorian Government Property Group (VGPG), to carry out an archaeological investigation for the proposed redevelopment of the Coburg Prisons Complex and former Newlands High School site (1997: I). The VGPG were investigating redevelopment options for the site, including land uses for residential, commercial and industrial activities.

The investigation encompassed four separate areas of Aboriginal heritage; the Ronald Bull Mural, the potential for Aboriginal archaeological sites on the grounds of the prison and former school, the involvement of the Native Police with the original Pentridge Stockade in 1850-1851 and the possibility of Aboriginal burials occurring in the prison cemetery. AAV appointed a specialist to advise on the Ronald Bull Mural.

No Aboriginal archaeological sites were recorded during the fieldwork, and there was no evidence of the original Pentridge Stockade. Research also indicated that there were no Aboriginal burials in the prison cemetery. Rymer concluded that the proposed development would not impact upon any pre-contact Aboriginal archaeological sites and it was recommended that no further investigation on such sites was required.

North western Sewer – Sciusco 1997

In 1997 Sciusco was commissioned by Streamline Australia to undertake an archaeological investigation for the North Western Sewer Project – Moonee Ponds Tributary Connection Works. The proposed works consisted of two major shafts and 440 metres of tunnel work approximately 14 metres below the ground surface. No Aboriginal archaeological sites were recorded during the survey. Ground surface visibility was poor and the Study area had been significantly altered since European settlement.

Edgars Creek – Stocks and Lane 1997

Melbourne Water commissioned Stocks and Lane to undertake an archaeological survey along a 700 metre section of Edgars Creek, Coburg and a program of monitoring and subsurface testing at the location of an Aboriginal stone artefact scatter. Melbourne Water were planning to carry out erosion control work in the area, hence the need for an archaeological assessment. A single artefact scatter had previously been recorded within the area and two isolated artefacts had been noted but not registered. Seven isolated artefacts were recorded during the survey.

Merri Creek – Canning 2003

Canning reported on the survey of nine specific locations along both banks of Merri Creek between Carr Street and just south of Bell Street in Coburg. Each of the nine survey locations encompassed 625 square metres, and each location was within 50 metres of the Merri Creek course. Although visibility at each location was considered to be excellent, no new Aboriginal archaeological material was located. Canning pointed out that although the banks of the Merri Creek had been heavily disturbed during the post-contact period, the potential for discovering archaeological material was still high, and recommended monitoring of ground disturbance at the nine locations.

Newlands Road – Vines 2003

In June 2003, Vines conducted an archaeological survey of land adjacent to Newlands Road, Coburg. No Aboriginal archaeological sites were located during the survey and most of the Study area had been highly disturbed as a result of quarrying, rubbish dumping and filling.

3.4 Implications of previous archaeological investigations

- Most of the previous archaeological investigations within the Moreland municipality have occurred on land adjacent to one or another of the major creeks.
- Regardless of the multiple investigations along the banks of Merri and Moonee Ponds creeks, the only known Aboriginal archaeological site on either of these creeks within the municipality is the historically recorded freshwater mussel midden near the former Pentridge. All archaeologists have attributed the apparent absence of archaeological material to previous developments along the creeks. Given the relatively high density of Aboriginal archaeological sites along both waterways to the north of the municipality, this interpretation is probably valid.
- Many of the Aboriginal archaeological sites within Moreland occur within 200 metres of local waterways. A significant number of sites are concentrated around the confluence of Merri and Edgars Creeks, whilst others are found nearby to Campbellfield and Merlynston creeks.
- Although few in number, the distribution of Aboriginal archaeological sites demonstrates the importance of existing waterways and by extension, former waterways.

SECTION 4:

Archaeological field survey undertaken in 2004

A minor component of this Study was a field survey of prescribed areas within the Moreland municipality. It was well beyond the scope of this investigation to systematically assess all open space areas. Rather, it was intended to sample areas that had not been previously assessed, and to test the distribution pattern indicating that most Aboriginal archaeological sites would occur close to permanent waterways.

Factors that determine the outcome of an archaeological survey include survey conditions (e.g. weather) and ground visibility. Ideally, potentially archaeologically sensitive areas should be revisited over a period of time in order to fully assess the presence of Aboriginal archaeological material. This is rarely possible. Combined with the unknown occurrence of buried archaeological deposits, this means that for most landforms, a definitive list of Aboriginal sites is not practicable.

The following section presents details on this survey, how and when it was conducted, the personnel, constraints and results. Map 2 - Archaeological Field Survey Locations (2004) shows the locations of this archaeological field survey.

The survey was conducted in 2004, and all below findings and methodologies accord with standards requirements as applicable at the time of the Survey.

4.1 Survey methodology

The field survey was conducted in five separate locations:

1. Fawkner Memorial Park.
2. Northern Memorial Park.
3. Parkland and land under development around Moonee Ponds Creek in Gowanbrae.
4. K. W. Joyce Reserve.
5. Northern Golf Course.
6. Newlands Road.

All of these locations are within the northwestern corner of the municipality and as discussed in previous sections; the Fawkner Memorial Park and the Northern Golf Course have been established for a considerable period of time; since 1903 and 1912 respectively. These areas were chosen for the following reasons;

- They were well away Merri and Moonee Ponds Creeks, where most of the previous field assessments had been conducted;
- they contained possible remnant vegetation; and
- collectively they present some of the few larger open spaces within the municipality.

As a general rule, for each of the six locations the survey strategy was an opportunistic one, in that areas of adequate ground surface visibility were targeted. The places that were investigated at each location are discussed below.

Aboriginal Affairs Victoria (AAV)

Prior to the fieldwork reported below and in accordance with Section 22 of the Archaeological and

Aboriginal Relics Preservation Act 1972, AAV was notified of the survey via a Schedule 2 survey notification.

Personnel and methods

Mathew Chamberlain and Claire Nicholls from TerraCulture Pty Ltd conducted the survey over three days. The Wurundjeri were represented by Mark Wandin.

Any archaeological sites or features were recorded according to AAV and HV minimum standards. Information sufficient for the proper completion of AAV and HV site cards was also collected. The following was noted:

- Approximate area surveyed on the day;
- landforms present and their predicted sensitivity for buried archaeological deposits;
- type of vegetation;
- the location and type of ground visibility and exposure;
- the survey of each of the six areas described below was conducted on foot. The survey targeted;
    - locations where the ground was visible and which in turn presented an opportunity to discover archaeological material particularly artefact scatters and any associated deposits; and
    - remnant trees which may display Aboriginal scarring.

4.2 Survey results

Fawkner Memorial Park

The survey of the Fawkner Memorial Park concentrated on the banks and land adjacent to Merlynston Creek and Campbellfield Creek, both of which flow roughly north-south through the park. These are both very narrow waterways and for the large part within the cemetery are surrounded by manicured lawn, cemetery plots and sealed roads and driveways. Several sections of both creeks have also had the banks lined with stone, brick or cement. Nevertheless, in the western and southwestern parts of the cemetery, the banks of Merlynston Creek displayed good ground surface visibility, and appear in several sections to have undergone less modification.

Two stone artefact sites were located on the immediate banks of the creek in this area. One of these sites was located on the western side of Merlynston Creek and consisted of two silcrete flakes, both made on grey silcrete. The other site was located approximately 300 metres to the north east of Fawkner Cemetery 1, also adjacent to Merlynston Creek. This site also comprised two silcrete stone artefacts, both flakes. Both sites were found on ground surface exposures on the eroding banks of the creek.

Northern Memorial Park

Four scarred trees had previously been recorded in this Park. Again the focus of the survey within the Northern Memorial Park was on the banks of Merlynston Creek, which flows roughly northwest to southeast as well as several large areas which had been graded in preparation for the planting of lawn.

The banks of Merlynston Creek have been more heavily landscaped than those in the Memorial Park, with planted tree and flower beds running right down to the creek line and several sections of the creek, particularly at the western side of the property, also lined with stone and brick. Visibility along the creek in most areas was very poor. In contrast, the graded areas presented 100% surface visibility over large areas, as did several areas where ground had been exposed due to erosion.

Despite these good survey conditions no Aboriginal archaeological material was located within the Northern Memorial Park during the survey.

K.W. Joyce Reserve

The K.W. Joyce reserve is dominated by a narrow valley around Westbreen Creek. This area is also substantially modified, with planted stands of trees and garden beds surrounding the narrow creek and up the sides of the relatively steep valley. Visibility throughout the reserve was poor with the exception of one area on the flanks of a steep section of the valley (part of which may have been excavated), which has clearly been heavily used by bicycle riders and considerable ground exposure has been caused as a result.

One Aboriginal archaeological site, a stone artefact scatter, was discovered during the survey.

Gowanbrae

The survey area at Gowanbrae was the flat landscaped land (Fran Street Reserve) rising to steep ridges on the eastern side of Moonee Ponds Creek, and land under development on the escarpment on the western side of Moonee Ponds Creek. On the western side of the creek ground surface visibility was varied, with good visibility on areas cleared for roads and housing construction. Large areas of ground exposure caused by vehicles and machinery on the ridges and hill flanks also provided good ground surface visibility. Landscaping, housing and road construction have heavily disturbed sections of the hill slopes and ridges. Large piles of fill and rubble dumped across the ridges have also caused considerable disturbance and hill flanks and some sections of the survey area could not be accessed due to construction work being carried out. On the eastern side of the creek visibility was generally poor due to grass cover throughout the Fran Street Reserve and the surrounding ridges.

No Aboriginal archaeological material was located within this survey area.

Northern Golf Course

The survey of the Northern Golf Course concentrated on the heavily modified Westbreen Creek which runs through the golf course. Naturally the golf course is landscaped terrain with bunkers, greens, ponds, and gardens throughout. A car park and club house are situated in the northern section. Vehicle and pedestrian tracks also cross the survey area.

The banks of Westbreen Creek have been heavily landscaped and the ground's surface has been concealed in some sections, with woven matting to prevent erosion. Sections of the channel have been dammed to create artificial ponds and bunkers. Ground surface visibility was generally poor and limited to vehicle and pedestrian tracks and patches of erosion around bunkers and ponds. Large remnant gum trees are densely scattered throughout the golf course and these were inspected for Aboriginal scarring.

Two trees exhibited possible Aboriginal scarring, however it was later determined that only one of these was Aboriginal in origin. While the scar is well preserved, the tree itself is dead and in poor condition. Aboriginal scarring on dead trees is not uncommon. Under circumstances where the tree is not actively conserved, through branch trimming, capping of the trunk and the like, the tree will eventually fall over.

Newlands Road

The survey area at Newlands Road consisted of the open space adjacent to the Kodak factory between the factory buildings and Merri Creek. This area was covered in grass and presented no surface visibility.

4.3 Discussion of survey results

The land adjacent to Merlynston Creek has previously yielded several Aboriginal archaeological sites both within the City of Moreland and outside; whereas the archaeological potential of Westbreen Creek had yet to be demonstrated. The presence of the scarred tree and the stone artefact scatter in association with this creek, in what are quite heavily modified landscapes, also reveals the survivability of these particular sites.

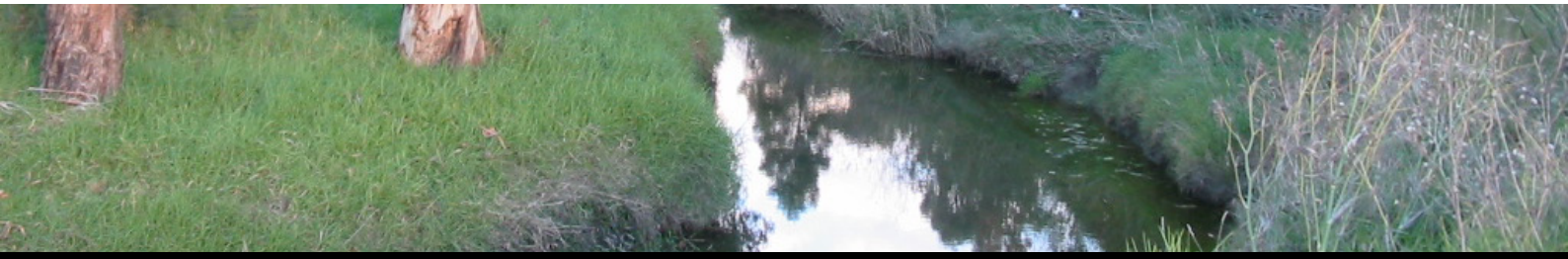
Ranking of surveyed areas

The surveyed areas are ranked below in terms of the demonstrated occurrence of archaeological sites and also the potential for as yet undiscovered sites.

1. Northern Golf Course – given the presence of one scarred tree and considering the limited time frame of the survey, further assessment could not be conducted of the numerous trees and a small, less disturbed section of Westbreen Creek along the western boundary of the Golf Course.
2. Fawkner Memorial Park – some small sections of Merlynston Creek appear less modified than surrounds and given the sites located here, have some potential for additional sites.
3. K. W. Joyce Reserve – Although substantially modified and with stands of planted vegetation, the presence of the stone artefact site here indicates potential for additional material from this site and some potential for additional sites.
4. Northern Memorial Park – heavily disturbed by lawn planting and landscaping, but the presence of Merlynston Creek gives some low potential, due to the presence of previously registered sites on this waterway nearby.
5. Gowanbrae area along Moonee Ponds Creek – heavily disturbed by current residential development and no sites located during this survey or nearby.
6. Newlands Road - This area was covered in grass and presented no surface visibility.

Summary of field results

- Four new archaeological sites were discovered during the 2004 survey discussed above. These sites were stone artefact scatters and a single scarred tree.
- At the completion of this survey in 2004 the total count of known (registered) Aboriginal archaeological sites in the Moreland municipality was 20, the majority of these sites consisting of Aboriginal stone artefacts.
- The location of the Aboriginal archaeological sites recorded during the survey follows the pattern of previously registered site distributions, with all of the newly recorded sites in close proximity to local waterways; in this case Merlynston and Westbreen creeks. Given the lack of previous field assessment away from Moreland's waterways, this pattern is due in part to a bias in survey coverage. On the other hand, due to the city's urban nature there are few survey opportunities away from these waterways.
- This survey (and previous surveys) have demonstrated that any reserve or open space within 100 meters of a watercourse within the Moreland municipality has the potential to contain Aboriginal archaeological material.



SECTION 5:

Moreland's Aboriginal archaeology

5.1 The significance of Moreland's Aboriginal archaeology

The significance of Aboriginal archaeological sites can be formally assessed against the values defined in the Australia ICOMOS Charter for Places of Cultural Significance or against criteria presented by the Register of the National Estate. However, these criteria and values tend to assess sites as individual entities and without regard to their context.

It is a fact that the vast majority of physical evidence for the former use of the Moreland area by the *Woi wurrung* is archaeological in nature. This archaeology, combined with what survives of their traditional material culture in the form of wooden artefacts, clothing and decoration, has become a significant alternative source to conventional historical text.

As previously discussed, the vast majority of Aboriginal archaeological sites within the Moreland municipality can be assumed to have been destroyed. Collectively, the known Aboriginal archaeological sites and areas of potential archaeological sensitivity in Moreland are significant for the following reasons:

- These archaeological sites are the only remaining examples of pre-contact Aboriginal land use for a large area of Melbourne's northern suburbs.
- These archaeological sites provide a direct material link between Moreland's Aboriginal past and its present community, including the descendants of the *Woi wurrung* language groups (currently represented by the Wurundjeri Tribe Land Council).
- In some areas these sites are associated with remnant landscapes, which include intact landforms and native vegetation, which may provide further information on Moreland's Aboriginal past.
- These sites provide a source of scientific data that allows for the reconstruction of the *Woi wurrung's* lifeways prior to European settlement.
- These sites provide a means of educating the general public on the cultural history of the *Woi wurrung* as a group of Melbourne's indigenous people and indeed on the early history of European settlement and the development of contemporary political and social values.

Wurundjeri Statement [6]

Section 4 of the Victorian Aboriginal Heritage Act 2006 includes archaeological, anthropological and contemporary values in its definition of cultural heritage significance. When considering the overall Aboriginal cultural heritage significance of pre-contact Aboriginal sites/places in Victoria, it should also include the significance of that site/place in accordance with Aboriginal tradition. It should be noted that Aboriginal tradition is not static and unchanging from a distant 'authentic' past. Tradition is also the handing down of beliefs and stories from one generation to the next, but does not mean that 'significance in accordance with Aboriginal tradition' requires an immutable value from 'time immemorial.' For example, a scatter of discarded waste flakes from a one-off utilitarian task may acquire 'significance in accordance with Aboriginal tradition' with the passage of time and change. Indeed, as has been noted by other archaeologists in other states of Australia, that the act of handling stone artefacts through the archaeological excavation and sieving process by Aboriginal peoples reconnects those peoples with their

6 This Wurundjeri Statement was provided by Darren Griffin, Manager – Cultural Heritage, Wurundjeri Tribe Land & Compensation Cultural Heritage Council Incorporated, 17 March 2010 and has been included in this Study without editing by the Study authors.

past and therefore creates a new cultural significance with those artefacts.

Aboriginal sites/places and areas of land under the custodianship of the Wurundjeri have a special significance for the Wurundjeri people. All pre-contact sites/places in the Moreland City Council Area are considered to have cultural significance to the Wurundjeri. These sites/places are all evidence of past Aboriginal occupation and use of the area, and are now the main source of information about the Aboriginal past in Victoria. Cultural significance is not merely measured by the artefacts themselves, but incorporates the natural and landscape values of the region that the sites/places are located within. Recorded (and unrecorded) pre-contact sites/places also have cultural significance because they are rare or, at least, uncommon site-types. In particular, many sites in the greater Melbourne area have been destroyed by land clearance and land use practices in the historic period that continue to this day. As a result, all Aboriginal sites/places in the greater Melbourne region are a diminishing resource and the Wurundjeri feel strongly that these should all be protected as much as is practicable.

Comment on the cultural values and significance of these sites/places can only be made by the Aboriginal community. Specific details about cultural significance should be dealt with on a case-by-case basis with the Aboriginal community. The statement below is a general statement of cultural significance that the Wurundjeri Council have provided for the Moreland City Council Area.

> *For Aboriginal people, there are many different kinds of cultural values associated with the landscapes that were once lived in by their ancestors. These include the tangible values normally recorded during archaeological investigations, such as artefact scatters and scarred trees. These places are physical reminders of the cultural lives of the Wurundjeri ancestors and a special connection therefore exists between those places and contemporary Wurundjeri people. This special connection underpins the high significance of these places. Once they are destroyed, the connection is largely destroyed.*
>
> *There are other values that the Wurundjeri people connect to in landscapes such as those in the Moreland City Council Area. The natural values, such as rivers, creeks and remnant vegetation, are all integral to the cultural landscape in which Wurundjeri ancestors hunted and gathered and in which they lived their lives for many thousands of years. These landscape characteristics are therefore significant in accordance with Aboriginal tradition. Best practice heritage management, in terms of avoidance of harm to cultural heritage and where harm cannot be avoided, proper management of the disturbance of those values, is integral in the management of these significant cultural places.*

5.2 Modelling of archaeological sites distributions for Moreland

The sensitivity of Moreland's Aboriginal archaeological landforms is likely to be highly correlated to land use history and remnant vegetation.

- Most Aboriginal archaeological material will occur within 100m of all drainage lines and other sources of potable water. This material will decrease in density with increasing distance from creek channels. Unless there has been bulk removal of surface sediments, such material is likely to occur in residential or other urban areas but is likely to remain undetected due to a lack of visible ground and survey opportunity. Such material is likely to survive beneath fill.
- The location of Aboriginal archaeological sites recorded during this and previous surveys implies that there is potential to locate additional archaeological sites in any public open space located nearby to an existing or former waterway. Exceptions to this are open spaces created with the reinstatement of former quarries or whose surfaces are similarly artificial. This includes much of the open space in the Brunswick area.

- Following the history of Moreland's urban development, areas to the north of the municipality (Fawkner) are more likely to retain Aboriginal archaeological sites than areas to the south.
- Along the creek valleys, terraces, the immediate banks and particularly bluffs are likely to contain Aboriginal archaeological material.
- In situ Aboriginal archaeological sites will occur infrequently and will only be represented as buried deposits (Moreland's surface Aboriginal archaeological sites having either been destroyed or dispersed). Moreland's few tracts of remnant vegetation, especially where this has survived since 1835, are likely to contain significant and previously undisturbed archaeological deposits in both surface and subsurface contexts, especially where this vegetation is close.
- Stone artefact sites will be the most common Aboriginal archaeological site type within the municipality and these will occur as low density scatters. These scatters may contain formal and informal stone tools made on a range of stone types but mostly silcrete, quartzite and quartz. These sites will most often occur in eroding contexts formed because of recent ground disturbance or the removal of vegetation.
- Remnant trees, that are older than 250-300 years, particularly River Red Gums and Grey Box will display cultural scarring. These trees will occur both as living trees and as dead stags.
- Quarry sites are most likely to occur as exposures of silcrete and other silicious rocks in the sides of creek valleys. As with artefact scatters, quarries are likely to be exposed because of recent ground disturbance and the removal of vegetation.

Image of a Scarred Tree

SECTION 6:

Conclusion (Moreland City Council, 2010)

The Pre-Contact Aboriginal Heritage Study (2010) sits alongside the Moreland Post-Contact Aboriginal Heritage Study (2006) to provide Council and the Community with a link to its Aboriginal past and present. Aboriginal archaeological sites provide a direct material link between Moreland's Aboriginal past and its present community. The Moreland City Council is committed to the continued preservation and respect of Aboriginal sacred sites and special places. This Study provides detail on previous archaeological investigations undertaken within the City of Moreland until 2004, and discusses the implications of these studies on future archaeological investigations.

Detail contained in this study pertaining to the history of development within Moreland provide a valuable context to past and future archaeological investigations of Pre-Contact Aboriginal Heritage. The summary of all archaeological investigations undertaken within and in the vicinity of Moreland up to 2004 provides an invaluable information source for Council and future land users.

The Aboriginal Heritage Act 2006 and *The Aboriginal Heritage Regulations 2007* provide for the protection and management of Victoria's Aboriginal heritage with streamlined processes linked to the Victorian Planning System. The legislation provides protection for all Aboriginal places, objects and human remains regardless of their inclusion on the Victorian Aboriginal Heritage Register or whether they are located on public or private land.

Detail on locations of Registered Aboriginal Places existing in Moreland can be obtained from the Victorian Aboriginal Heritage Register (VAHR), managed by Aboriginal Affairs Victoria. The details of the Registered Aboriginal Places can also be obtained from the Wurundjeri Tribe Land Council who has a copy of the VAHR for their Registered Aboriginal Party area. Access to information on these sites can be granted by the Wurundjeri Elders for certain projects and purposes. These places are most appropriately accessed via the VAHR, rather than being identified in this Study, as the location of these sites is culturally sensitive information. The VAHR holds the details of all known Aboriginal cultural heritage places and objects within Victoria, including their location and a detailed description. All places identified as part of the Archaeological investigation undertaken in 2004 as part of this Study are listed on the VAHR.

It is important to reiterate that (apart from the preface and conclusion) this Study was drafted between 2003-2005 and the research, conclusions and main components of community consultation were undertaken at this time. A copy of the penultimate draft of this Study was provided in 2010 to Aboriginal Affairs Victoria, The Victorian Aboriginal Heritage Council and The Wurundjeri Tribe Land and Compensation Cultural Heritage Council Inc. for their information, and to provide the opportunity for these groups to input into the final version of the Study. Comments received from the Wurundjeri in March 2010 have been included in the Study.

The passing of time between the original drafting of this Study and its finalisation does not diminish the value of this Study in providing a valuable information source for Council and the Community in relation to Pre-Contact Aboriginal Heritage within the City of Moreland.

The Wurundjeri Tribe Land Council, as the Registered Aboriginal Party (RAP) and the Traditional Owners for the whole of the Moreland City Council area, should be the first point of contact for any future queries, events, reports etc that include any Pre-Contact Aboriginal information.

SECTION 7:

Glossary of Terms & Bibliography

Glossary of Terms

The following glossary presents definitions for words and terms that may have been used in the preceding TerraCulture report. Archaeological site types or specific stone artefact types that have counterparts elsewhere in the world are usually defined according to their known or inferred use in Aboriginal Australia. The definitions of some terms are based on common usage or convention rather than literal meaning. Italicised words within any definition have also been separately defined.

Term	Definition
Aboriginal	Referring to indigenous people and their descendants who occupied Australia at the time of European colonisation.
Aboriginal Archaeology	The scientific Study of the material remains of past indigenous peoples. Aboriginal archaeology covers both the pre-contact (also known as prehistoric) and the post-contact period.
Aboriginal Archaeological Site	A location with material evidence of past activity by indigenous people. Activities such as the manufacture and use of stone artefacts have a recognisable archaeological signature. Other activities will have little or no material consequences and are regarded as being archaeologically invisible.
Aboriginal Archaeological Site Types	Aboriginal archaeological sites can be classified into generic types according to their context, fabric and probable function. Aboriginal Affairs Victoria currently recognises some 10-site types including stone artefact scatters, shell middens and scarred trees.
Aboriginal Artefact Scatter	A collection of Aboriginal artefacts usually distributed across the surface of the ground. Stone artefacts are a common component and can be found in association with organic remains, shell, ochre and charcoal. Artefact scatters are the material remains of past Aboriginal use of a location and are generally referable to technological and economic behaviour. They are also called surface scatters.
Aboriginal Burial	Aboriginal interment consisting of human skeletal remains. Aboriginal burials occur in a wide range of forms and physical contexts and may be found with grave goods.
Aboriginal Historic Place	Aboriginal historic places are the locations of events, places or place names that were recorded in historical documents or in oral tradition during the post-contact period. Unlike Aboriginal archaeological sites, Aboriginal historic places do not necessarily retain any physical evidence of any former structures, activities or specific events.
Anvil	A flat stone used as a platform in the manufacture of stone artefacts (bi-polar flaking) or in the processing of foods, ochre and other materials. With bipolar flaking the core is rested on the anvil and struck with a hammer stone creating a flake. Use leaves small circular depressions (pitting) on the anvil surface usually towards the centre. Anvil stones are often recovered as broken halves; the break being across the centre line of the stone where there has been most wear.

Archaeology	Conventionally, the scientific Study of the material remains of past human activity.
Artefact	Any object created or modified by humans.
Artefact Scatter	A collection of artefacts usually distributed across the surface of the ground.
Assemblage	Archaeological term used to described a collection of artefacts associated by a particular place or time and assumed to have been generated by a single group of people. An assemblage can be made from different artefact types.
Axe Blank	A stone that has been shaped through the removal of flakes but not yet sharpened.
Axe Grinding Groove	Oval shaped indentations in stony outcrops that are the result of grinding during the manufacturing and sharpening of ground edge axes. These indentations are usually but not exclusively formed in sandstone outcrops and can occur singly or in multiples. Axe-grinding grooves are typically found close to water, which appears to have been used to maintain the sandstone's abrasiveness.
Backed Blade	A stone blade that has been retouched along one of its lateral margins to prepare the edge for hafting.
Basalt	Igneous volcanic rock that can be used to make stone artefacts. Basalt is common in western Victoria where there has been recent volcanic activity.
Before Present (BP)	Reffering to years before present, which for radiocarbon dating is arbitarily fixed at 1950.
Bi-polar Flaking	The process of manufacturing stone artefacts through the use of a hammer and anvil. A core is struck with a hammerstone while resting on an anvil, detaching angular flakes that display bruising or crushing at either end.
Blade	A flake that is at least twice as long as it is wide.
Bulb of Percussion	A rounded protrusion on the interior surface of a flake caused when the core is struck with the hammerstone. The bulb is located below the striking platform and allows the identification of the orientation of the flake. The bulb of percussion is often considered the best evidence for a human agency in the manufacture of a stone flake.
Bulbar Scar	A small scar or removal of stone on the bulb of percussion.
Ceramics	Generic term used to describe historical artefacts that are made from ceramic material.
Chert	A hard fine-grained sedimentary rock high in silica and commonly used in the manufacture of stone artefacts.
Civic	A term used to describe historic structures or material culture relating to past government or public activity e.g. town hall, public parks or gardens.
Classification	The ordering of archaeological material according to age, type, fabric or other criteria.
Coastal Flint	Geologically, flint is a type of chert. A coastal form is found in limestone reefs along the Victorian and South Australian coastlines and is often detached as nodules on the roots of kelp and subsequently washed up on beaches. The appearance of the flint varies but is often fine grained with larger white intrusions and a thick outer cortex or crust and is blue to cream in colour. Coastal flint is often the dominant rock type in stone artefact sites on or near the Victorian coast.

Contact Site	General term used to describe an Aboriginal archaeological site that shows the use of European (non-indigenous) materials such as artefacts made with glass, metal or ceramic. Contact sites are usually considered to be the result of activities performed at or before the time of permanent European settlement.
Context	Refers to the place of artefacts or archaeological features with regards to time and space.
Core	A piece of stone from which other stone artefacts are made. In freehand flaking the core would be struck with a hammerstone removing flakes and other fragments of stone often referred to as debitage.
Core Tool	A core displaying signs of use.
Core Tool and Scraper Tradition	Aboriginal stone artefacts belonging to the core tool and scraper tradition include core tools, large steep edged scrapers, round flat scrapers and notched implements. These assemblages are believed to pre-date the Small Tool Tradition.
Cortext	The weathered external surface of a stone. Cortex often identifies the origins and original form of flaked stone, e.g. river pebbles.
Cultural Heritage	The consequences of humanity including its relationship with the natural environment that are ascribed significance and considered to be worth preserving.
Debitage	Fragments of stone that are generated during the manufacture and maintenance of stone artefacts. These fragments may or may not display the typical characteristics of flaked stone.
Deposit	A term used to describe buried archaeological material.
Desktop Study	Investigation of the known or potential cultural heritage values according to the landform type, historical records and other archival material and the results of previous archaeological investigations.
Domestic Assemblage	A collection of historical artefacts generated by or associated directly with past household activity e.g. ceramic plates, bottles and cutlery, food refuse.
Dry Stone Wall	A wall that has been constructed using stone without any binding material. Dry stone walls take on many different forms and vary according to stone type and function. In western Victoria they are assembled with basalt stones collected from the surface of paddocks.
Excavation	The systematic removal of archaeological deposits using archaeological techniques.
Fabric	A synonym for original material.
Feature	A notable formation or structure (conventionally immovable) discovered during excavation.
Fish trap	A structure made from stone, wood or reeds intended to guide fish or eels into a confined space to be collected or speared. Often constructed perpendicular to the main channel of a creek or river, or in the intertidal zone of estuaries, bays and oceans.
Flake	A piece of stone detached by percussion or pressure from a core. The flake will usually display characteristic features such as a platform and bulb of percussion. The core will display a negative flake scar. These features assist in distinguishing between stone that has been altered through human agency and that which has been naturally shaped.

Flake Tool	A flake that has been shaped through the removal of other smaller flakes (retouched) or shows evidence of use (use wear).
Freehand Flaking	A technique of manufacturing or shaping stone artefacts whereby a hand-held stone is hit directly with the hammerstone, also handheld.
Grinding Stone	Stone with a flat surface used as a mortar in the processing of food or other hard materials through pounding, crushing or grinding. Grinding stones are identifiable by the presence of wear in the form of shallow depressions and pitting.
Ground Edge Axes	Stone axes that are commonly oval or round in shape and that have edges formed by grinding and sharpening. Ground edge axes were attached (hafted) to wooden handles using resin or other binding material. Axes from Mount William a large quarry near Lancefield in Victoria are known to have been traded in the form of axe blanks over long distances (see axe grinding groove and axe blanks).
Ground Exposure	A measure of the quantity of sediment that would normally be buried beneath a modern land surface.
Ground Visibility	A term used to describe the area of the ground's surface that is visible during archaeological field surveys. Effective ground visibility refers to the actual area of ground visible during a field survey calculated as the area of ground inspected multiplied by the percentage of ground visibility.
Hafting	The process of attaching a stone artefact onto a wooden handle.
Hammerstone	A stone that has been used to strike a core to create a flake, often causing pitting or other wear on the stone's surface.
Hearth	Fireplace often recognised archaeologically through the presence of charcoal or burnt (discoloured) ground. Historical hearths are usually associated with brick or stone structures.
Historical Archaeological Site	The material remains or other physical evidence of activity associated with the post-contact period; including portable artefacts and structural features of former buildings.
Historical Archaeology	The Study of artefacts and archaeological features relating to the post-contact period.
Holocene	The geological period covering the last 10,000 years BP.
Hornfels	A metamorphic rock, hard and fine-grained.
Industry	A single class of artefacts that are consistent in their form and that can be credited to a single group of people.
Industrial Archaeology	Archaeology concerned with the material consequences of industrial activity.
In situ	In its original place.
Layer	A recognisable band of material of varying thickness.
Limestones	Carbonate-rich sedimentary rocks that are formed through the accumulation of organic remains.
Manuport	An object that is unmodified but has been transported to its find location by humans.
Makers Marks	Marks that have been etched, engraved or printed onto the surface of mass manufactured goods, including glasswares and ceramics.
Maritime Archaeology	The archaeological investigation of shipwrecks, piers, jetties and other maritime structures.

Microliths	Small stone artefacts. In Australia microliths such as backed blades are often associated with assemblages from the late prehistoric period after ca 6000 years BP.
Monitoring	(see watching brief)
Mound	Aboriginal mounds consist of ground that is artificially elevated above the natural levels. Thought to be a consequence of repeated occupation at the same location particularly through the use of earth ovens, mounds can contain a wide range of artefactual material including burials. Mounds that have all but been destroyed are recognisable through changes in the colour and composition of the ground, especially the presence of charcoal.
Platform	Face of core that is struck by a hammerstone, leaving remnants on both the core and the resultant flake.
Pleistocene	The geological period equivalent to the last ice age and preceding the Holocene from ca 2 million to 10,000 years ago. The late Pleistocene commonly refers to the last 40,000 years BP.
Post-contact Period	The time after contact between Aboriginal peoples and Europeans. Also referred to as the historic period. In Victoria the post-contact period begins in early 1800s.
Posthole	A hole that has been dug into the ground to house a post. Postholes are often filled with stone or other packing material (more recently concrete).
Post Deposition	After deposition; term commonly used with reference to factors affecting the preservation of artefacts and archaeological features.
Pre-contact Period	The time period before contact between Aboriginal peoples and Europeans. In Victoria this ends with permanent European settlement.
Quartz	A hard mineral that varies from white to blue in colour and in transparency from opaque to clear.
Quartzite	A metamorphic rock formed through the 'recrystallisation of quartz rich sandstone'.
Radiocarbon Dating	Radiometric dating technique for establishing the age of organic (carbon) remains based on the rate of decay of the radioactive isotope carbon 14 (C14).
Retouch	Secondary modifications to stone artefacts such as trimming or resharpening. Retouch often indicates use of a stone flake and therefore its identification of an actual tool (cf waste flake).
Rock Art, Aboriginal	Aboriginal artworks on rock surfaces such as paintings, stencils, etchings and engravings.
Rock Well Aboriginal	A natural depression that may have been augmented through the removal of rock and from which water was collected.
Ruin	What remains of a former historic structure.
Salvage Excavation	The systematic documentation and recovery of an archaeological site prior to its destruction. Also known as rescue archaeology.
Sandstone	Sedimentary rocks that consist mostly of quartz.
Scarred Trees, Aboriginal	Trees that were used as a source of bark to make canoes and other items. Bark was cut using a stone axe and then levered from the sapwood leaving a scar. The bark around the edge of this scar is called regrowth. Natural scarring is common on some trees and is often difficult to distinguish from scars made by Aborigines during the pre-contact period.

Scarred Trees, Historic	Bark continued to be used by Aborigines and Europeans alike during the post-contact period for roofing, trail blazes, mile markers etc.
Scraper	A stone tool made on a flake or core with steep retouch along one or more edges.
Shell Middens (Marin or Coastal and Freshwater)	The remains of shellfish that were gathered and eaten by Aboriginal people. They may also contain other stone artefacts, charcoal and ash, and the bones of vertebrate prey. Burials are also known to occur in shell midden deposits. Aboriginal shell middens are often confused with natural shell deposits.
Shipwreck	The remains of a ship.
Silcrete	A highly silicious rock formed by the replacement of a parent rock (commonly sandstone) by silica in solution.
Small Tool Tradition	Aboriginal stone artefacts belonging to the small tool tradition are characterised by heavily retouched microliths and backed implements and are presumed to be a mid to late Holocene development.
Spit	Arbitrary quantity of excavated ground.
Stratigraphy	A geological term used to describe the sequence of vertical layers and deposits that comprise an archaeological site.
Stone Arrangement, Aboriginal	Locations where Aboriginal people have positioned rocks to form shapes or patterns. In Victoria, stone arrangements are an uncommon site type.
Stone Artefacts, Aboriginal	Stones that have been modified or used by Aboriginal people.
Stone Quarry, Aboriginal	Sources of stone used for the purpose of manufacturing stone artefacts.
Subject Land	The area that is under investigation. Also referred to as the Study area.
Subsurface Testing	The testing for buried archaeological material through manual or mechanical excavation.
Survey, Pedestrian	The act of looking for archaeological material. Also known as foot survey.
Taphonomy	The study of how archaeological sites are formed.
Toe Holds, Aboriginal	Small scars on the trunks and branches of trees which are a result of the removal of bark to form notches to facilitate climbing.
Usewear	The wear displayed on the surface of an artefact as a result of its use.
Waste Flake	An unmodified and unused flake.
Watching Brief	The monitoring of earthworks or other forms of disturbance at the location of a known archaeological site or of a landform considered sensitive for artefacts or other archaeological material. A watching brief is often a condition of a grant of Consent to disturb or destroy an archaeological site. Also known as monitoring.
Windscreen Survey	Field survey based on observations made from a vehicle. Also known as a drive-through survey (cf pedestrian survey).

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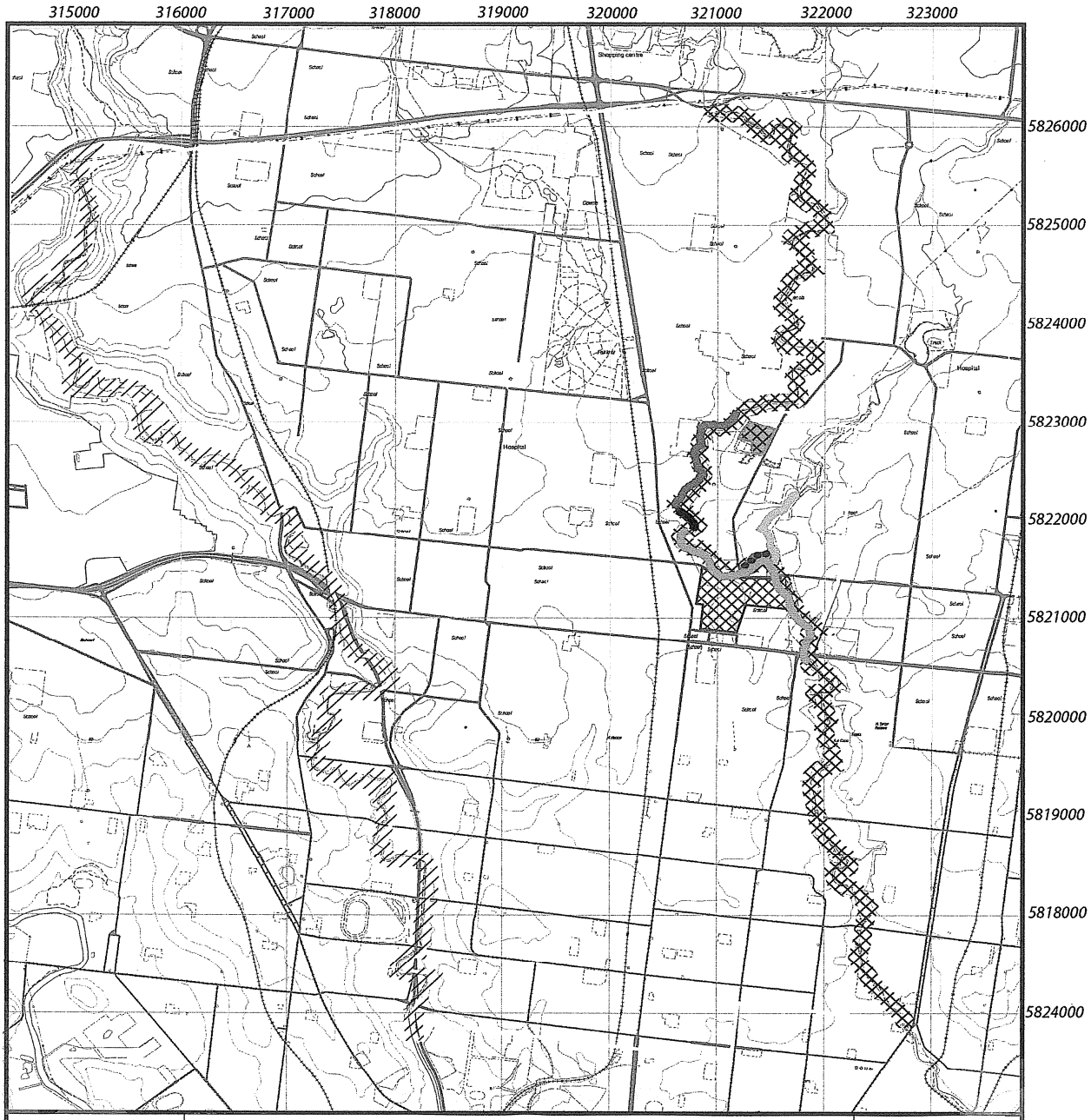
SECTION 8:

Maps

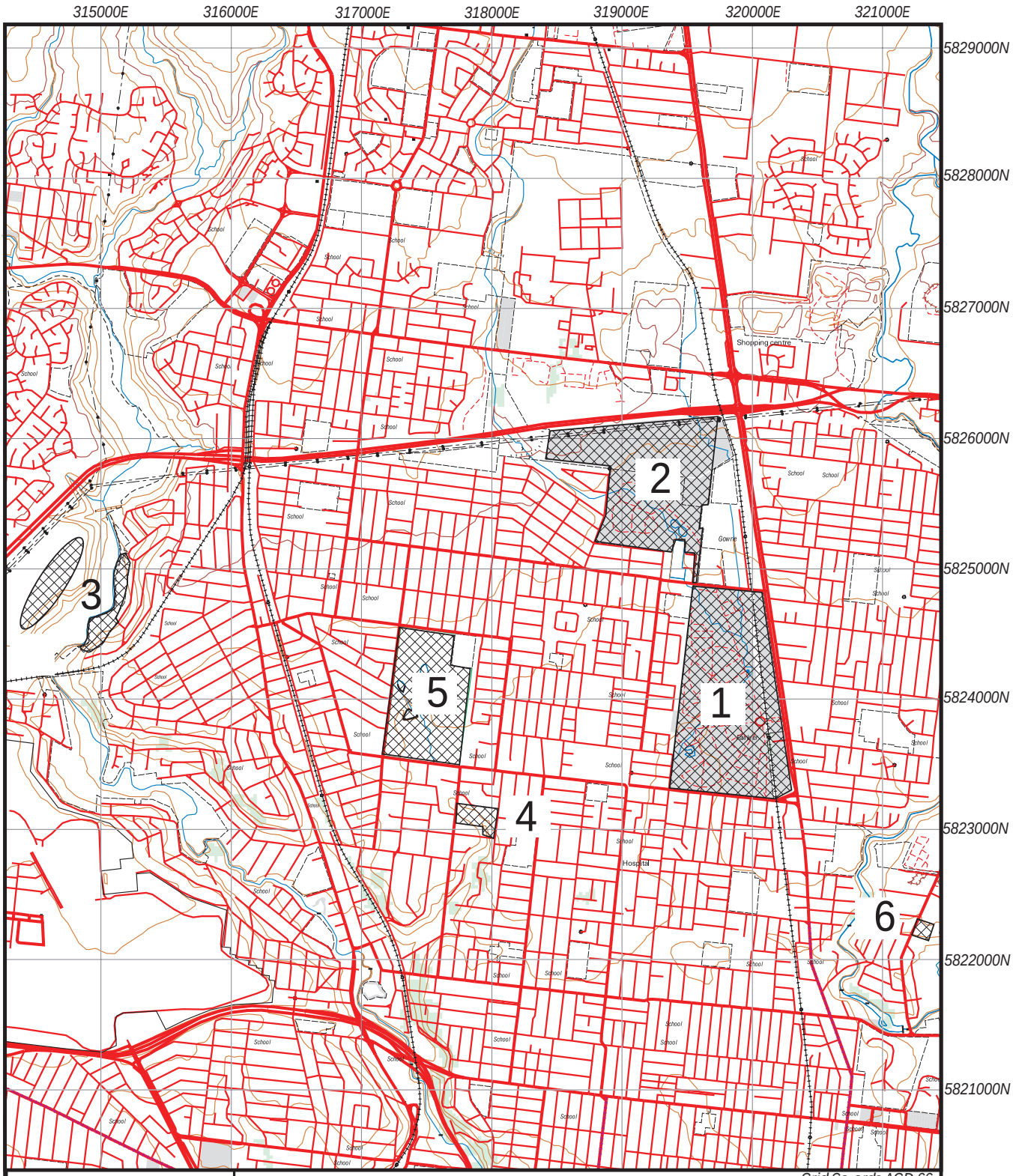


Moreland Pre Contact Aboriginal Heritage Study

Map 1: Location of Previous Aboriginal Archaeological Surveys in Moreland, 2005

- Vines 2003
- Cekalovic1999
- Stocks and Lane 1997
- Rymer 1997
- Weaver 1991
- Debney 1997
- Marshall 1996
- Canning 2003
- Hall 1989
- Johnston and Ellender 1993

Moreland City Council



Map 2: Archaeological Field Survey Locations 2004

APPENDICES

The following items have been included as appendices to provide an historical context to the period within which the Study was drafted (2003 to 2005). As the Study was finalised in 2010, the following sections of the report feature legislation that has been superseded. It also includes detail of community consultation undertaken in 2005 in a former legislative framework.

It is appropriate to include the following items as an appendix to the report due to the change in legislative frameworks that have occurred since these sections were written and the current legislative framework.

Appendix 1: The Moreland City Council (MCC) Project Brief

This investigation into Moreland's Aboriginal archaeological sites has four major components:

1. A research component that collates historical information on or that is relevant to an understanding of Moreland's Aboriginal archaeological sites;
2. Fieldwork that samples areas or landforms where Aboriginal archaeological sites would be expected to occur;
3. Modelling of the distribution and form of Aboriginal archaeological sites for the entirety of Moreland that takes its historical development into consideration as well as the current land uses;
4. Advice to the MCC on the preservation of registered (known) Aboriginal archaeological sites or landforms that are considered sensitive for surface or subsurface Aboriginal archaeological material. This advice is to take a form that is suitable for inclusion in the MCC planning scheme.

This investigation has been conducted following the MCC Brief, presented here in full. The MCC Brief outlines the Policy and Legislative Context of the Study, its aims and objectives, TerraCulture's tasks and the form of the report. As stated in the Brief the assignment objectives will provide Council with the following:

- Recommendations for the protection of Aboriginal heritage sites in the Planning Scheme, utilising appropriate planning tools contained in the VPP's;
- An Aboriginal Heritage Management resource document suitable for use by local government planners for consideration of Aboriginal heritage values during the planning process;
- Information on the location of known (registered) pre-contact Aboriginal archaeological sites and on areas of potential archaeological sensitivity for pre-contact Aboriginal archaeological sites within the City of Moreland;
- A proposal for a management structure and protocol that could be implemented at Moreland City Council with regard to the future management of Aboriginal archaeological sites; and
- A proposal for a method and outline of tasks for further investigation of contact period and post-contact sites of Aboriginal cultural heritage significance in the City of Moreland.

Moreland City Council

Aboriginal Heritage Study

Request for Quotation - September 2003

Moreland City Council

1. BACKGROUND

Moreland City Council wishes to commission a suitably qualified heritage consultant to conduct an Aboriginal Heritage Study of the City of Moreland.

Council recognises that Aboriginal peoples are the original custodians of the land now known as the City of Moreland. The Wurundjeri people, part of the Woriworung group, traditionally utilised the rich resources of the region and its many waterways. The 'Merri Merri' Creek, in particular, was a meeting place for the Woiworung and three other cultural language groups for the purposes of social contact, ceremonies, marriage, trade and for deciding issues of tribal law. European settlement of the region severely disrupted the significant spiritual, cultural and physical relationship with the land that the Woiworung and their neighbouring groups had maintained for many thousands of years. Protection of Aboriginal cultural heritage is noted as a heritage objective within the Moreland Municipal Strategic Statement.

Consultation with Aboriginal Affairs Victoria, the Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc. and Kulin Nation Cultural Heritage Organisation indicates that Indigenous heritage in the following locations is likely to be particularly vulnerable to disturbance from development:

- land along watercourses;
- land that has undergone minimal development since white settlement; and
- land close to any registered Aboriginal archaeological site (recorded on AAV GIS site distribution maps).

However, apart from some survey work along the Merri and Moonee Ponds Creeks, there have been no systematic archaeological surveys of the City of Moreland.

Council has received correspondence from both the Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc. and Kulin Nation Cultural Heritage Organisation, asking that they be consulted about planning applications that may impact on sites of Aboriginal cultural heritage significance. In response to requests from the Wurundjeri and Kulin Nation, an internal procedure and checklist was developed as part of the planning process to identify the instances in which notice about planning applications should be given to relevant Aboriginal organisations. This mechanism has, however, proved ineffective in addressing the complex issues of Aboriginal heritage conservation as the protocol exists outside the planning scheme and therefore has no statutory weight.

Currently, the planning scheme requires that only applications for extractive industry be referred to Aboriginal Affairs Victoria (AAV). The Environmental Significant Overlays (ESOs) covering the Merri Creek and Moonee Ponds Creek and their immediate surrounds require that, if considered appropriate by Council, the views of AAV should be considered. To date, there has not been any clear direction to guide this discretion. In addition, recent communication from AAV indicates that they will no longer be acting in a referral capacity for local government in matters of Indigenous heritage.

2 POLICY AND LEGISLATIVE CONTEXT

A review of Commonwealth and State law, and State and Local policy, demonstrates a clear legal requirement and policy directive for Moreland City Council to ensure adequate protection for Aboriginal Cultural Heritage.

Commonwealth

- The Commonwealth Aboriginal and Torres Strait Islander Protection Act 1984—amended in 1987 to provide specifically for the protection of Aboriginal cultural property in Victoria by adding a new Part IIA. Part IIA is understood to be capable of protecting a broad range of places (including areas/ sites) that hold cultural significance for Aboriginal people. Protection applies regardless of whether the place contains material evidence or past Aboriginal occupation (such as occupation deposits, structures or art motifs), and can apply to contemporary Aboriginal cultural property as well as ancient and historical places.
- The Commonwealth Aboriginal and Torres Strait Islander Heritage Protection Act 1984 identifies the Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc. as the custodians of Aboriginal cultural heritage in Moreland.

Victoria

- State Archaeological and Aboriginal Relics Preservation Act 1972—Except for human remains buried after 1834, the State Act provides a 'blanket' or automatic protection for all 'relics' (including sites, artefacts and human remains) relating to the past Aboriginal occupation of Australia, both before and after the arrival of Europeans. All relics are protected by the State Act, whether or not they have been formally recorded
- The Victorian State Planning Policy Framework Clause 15.11—Requires responsible authorities to identify, conserve and protect places of natural or cultural value from inappropriate development. These include places of Aboriginal cultural heritage significance, including historical and archaeological sites.
- Melbourne 2030 Policy 5.4— Acknowledges the wide range of sites that exist across metropolitan Melbourne and the surrounding region including places of spiritual importance or meaning to Indigenous people, cultural landscapes, archaeological sites and relics and historic places. Attention will be paid to conserving these while encouraging appropriate new development that respects those established heritage values. Initiative 5.4.1 commits the State government to working with relevant agencies to enhance respect and understanding for Indigenous peoples and culture, and to developing ways to recognise important Indigenous cultural issues within the planning system.

City of Moreland

- Moreland Municipal Strategic Statement (Clause 21.06-4) makes a commitment to conserve and enhance places, archaeological sites and landscapes that contribute to the City's diverse social, cultural and physical character, and to respect heritage elements such as Aboriginal relics and artefacts. The MSS recommends that further strategic work is required to investigate pre-European and Aboriginal heritage.
- Moreland's Reconciliation Policy and Action Plan (2001-2004) also indicates a commitment to respecting identified Aboriginal sacred sites and special places.

3 ASSIGNMENT AIM

It is the intention that this study be confined to Aboriginal pre-contact sites. Aboriginal post-contact sites and places are intended to be addressed in a subsequent study.

This study is intended to facilitate protection for both recorded and unknown Aboriginal heritage sites and places. Therefore, Council requires information on the location, distribution and existing conditions of Aboriginal archaeological sites, as well as on landforms of potential archaeological sensitivity within the City of Moreland.

It is crucial that this information is prepared in a format suitable for inclusion in the Moreland Planning Scheme and which conforms to the requirements of the Victoria Planning Provisions. This information is critical to the long term management and protection of Aboriginal pre-contact heritage within the municipality.

4 ASSIGNMENT OBJECTIVES

The assignment will provide Council with:

- recommendations for the protection of Aboriginal heritage sites in the Planning Scheme, utilising appropriate planning tools contained in the VPPs;
- an Aboriginal Heritage Management resource document suitable for use by local government planners for consideration of Aboriginal heritage values during the planning process. This document will be compatible with the recommendations for changes to the Planning Scheme;
- information on the location of existing pre-contact Aboriginal archaeological sites, and on areas of potential archaeological sensitivity for pre-contact Aboriginal archaeological sites within the City of Moreland;
- a proposal for a management structure and protocol that could be implemented at Moreland City Council with regard to the future management of Aboriginal archaeological sites; and
- a proposal for a method and outline of tasks for further investigation of contact period and post-contact sites of Aboriginal cultural heritage significance in the City of Moreland.

The consultants are expected to consult with and consider the opinions of the Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc., Kulin Nation Cultural Heritage Organisation, Aboriginal Affairs Victoria, and other relevant Aboriginal groups on the future management of Aboriginal archaeological sites within the City of Moreland. In the case of Crown land parcels within the City of Moreland, it may be necessary to consult with any parties who hold Native Title interests in the area. An appropriate consultation program must be identified as part of the consultant's submissions.

5 PROJECT AREA

The project area is the entire City of Moreland, and is shown on the accompanying map. It consists of all land area within the City, irrespective of its contemporary land use.

6 CONSULTANTS' TASKS

We envisage that to meet these objectives the consultants will undertake the following tasks:

6.1 Consult with the Project Manager, the City of Moreland Strategic Planning Coordinator and key members of the Moreland Urban Strategy Branch regularly throughout the course of the project

6.2 Consult with representatives from the Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc, Kulin Nation Cultural Heritage Organisation, and Aboriginal Affairs Victoria Heritage Services Branch throughout the course of the project.

6.3 Develop a predictive model for the location of Aboriginal archaeological sites and landforms of archaeological sensitivity within the City. The model will include but not be limited to background research; literature search and review; site registry search and review; map and archival research; geomorphological research and survey; drainage pattern and other environmental research and survey.

6.4 Develop an archaeological survey strategy to test the validity of the predictive model. The predictive model should be developed with the information derived from the research and assistance of a geomorphologist and a drainage/environmental specialist. The involvement of these professionals will address issues relating to palaeo-landform, remnant and relict landforms, and any alterations or changes that may have taken place (e.g. in drainage patterns) in the post-contact period. The aim will be to integrate information about palaeo-environment, climate and landforms into the predictive model and determine how these might have affected subsistence-settlement patterns in the past.

6.5 Implement the survey strategy development as part of the above assessment. This work will include:

6.5.1 Locate Aboriginal archaeological sites and places within the project area, using a systematic survey strategy.

6.5.2 Record and interperet any Aboriginal archaeological sites and places found.

6.5.3 Use standard survey forms to collect and collate all survey data.

6.5.4 With the consent of the relevant local Aboriginal stakeholders prepare an electronic database in a format which is compatible with Council's GIS mapping system, which contains relevant data about the Aboriginal archaeological sites.

6.5.5 Establish the significance of any archaeological sites and places found, using crietira normally applied to the assessment of Aboriginal cultural heritage resources.

6.5.6 Identify any areas or landforms of archaeological sensitivity for pre-contact Aboriginal archaeological sites, taking into consideration the history of land use and disturbance within the area.

6.6 Establish the implications which the presence of any archaeological resources may have for the future management and development of the City of Moreland.

6.7 Establish the views of Aboriginal people and any other groups with a special interest in the archaeology of the project area, on matters such as the interpretation and significance of recorded sites and places, and on appropriate management procedures.

6.8 Develop a statement on Aboriginal cultural heritage for inclusion in Council's Municipal Strategic Statement.

6.9 Develop a draft Local Policy for protection and management of pre-contact Aboriginal cultural heritage for inclusion in the Moreland City Council Local Policy section of the Planning Scheme.

6.10 Prepare a schedule and process for implementation of the Local Policy, including recommendations about appropriate training for planning staff.

6.11 Identify and map areas suitable for inclusion in a Heritage Overlay and Schedule and/or other relevant overlay.

6.12 Condense the results of the above investigations into an Aboriginal heritage management resource document suitable for use by Moreland City Council planners.

7 DOCUMENTATION

The City of Moreland and the Consultant will submit the following documentation:

7.1 Direct to the site Register, Aboriginal Affairs Victoria (AAV):

- notification of intention to carry out a survey (Schedule 2) prior to the start of fieldwork.

- Completed AAV site record cards and associated documentation (field note, photographs, maps etc) for all archaeological sites located.
- Two (2) copies of the final report on the project (one bound, one un-bound)

7.2 Copies of the above documents will be retained at the City of Moreland.

7.3 The Consultant will submit, to the Project Manager nominated in Section 10:

- 3 hard-copies of the draft report on the project (two bound/one un-bound)
- Electronic copy of draft report in Microsoft Word 2000 format
- 3 hard-copies of the final report on the project (two bound/one un-bound)
- Electronic copy of final report in Microsoft Word 2000 format
- Electronic version of database

Total number of copies of the Final Report needed: 2 unbound; 3 bound; electronic version

8 REPORT

The project report will generally conform with the AAV Guidelines for Conducting and Reporting Upon Archaeological Surveys in Victoria.

All figures tables and references to sites recorded during the project must show AAV registry numbers NOT field designations. AAV site registry numbers will be issued by the Site Registrar on receipt of suitably completed record cards and associated documentation.

9 RESTRICTIONS AND REQUIREMENTS

9.1 The Consultant will ensure that all work is carried out in accordance with the requirements set out in the AAV Guidelines for Conducting and Reporting Upon Archaeological Surveys in Victoria.

9.2 No person involved in the project shall damage or interfere with archaeological sites or places beyond the requirements of the survey.

9.3 No excavations, augering or other forms of sub-surface sampling will be carried out during the project unless all necessary permits and consents have been obtained.

9.4 The Consultant shall be fully responsible for the supervision of all sub-consultants or assistants engaged in connection with the work.

9.5 All necessary arrangements for access to private land are to be made in advance of fieldwork by the Consultant, in consultation with the Project Manager. The Project Manager is to provide a letter of introduction for the consultant, which explains the nature and purpose of the study.

10 PROJECT MANAGEMENT AND TIMING

10.1 The Project Manager is Ms. EJ Shu, Strategic Planner, City of Moreland.

10.2 All site record cards and associated documentation must be submitted to the Site Registrar, Aboriginal Affairs Victoria, at the earliest possible time following completion of fieldwork. Copies will be retained at the City of Moreland as a confidential file in the Strategic Planning Unit.

10.3 The Project Manager may, at her discretion, submit the draft report to Aboriginal Affairs Victoria for comment.

10.4 The Final Report and all additional documentation must be submitted to the Project Manager by January 30, 2004.

11 PARTICIPATION BY COUNCIL

Council will support the consultancy by:

- providing a detailed briefing and orientation to the consultancy team;
- ensuring availability of management and relevant staff and make necessary appointments on behalf of the consultants;
- providing access to planning materials and other information as needed; and
- providing advice and regular feedback in relation to specific issues and the progress of the Consultancy on a whole.

12 BUDGET

The consultancy budget will be determined following receipt of quotations. A maximum of $20,000 is available. Consultant's submissions must include a breakdown of costs in accordance with the proposed project methodology.

13 YOUR QUOTATION

Submissions must be clearly marked: Contract No 1031, Aboriginal Heritage Study, and must be submitted in the Tender Box, Moreland City Council, Municipal Offices, 90 Bell Street Coburg 3058 by 4pm Friday 10 October.

Submissions will only be accepted at the above address. Facsimiles and late submissions will not be accepted. It is the responsibility of the tenderer to ensure that tenders are received in the tender box in the deadline. Moreland City Council reserves the right not to accept the lowest or any tender.

You must specify:

- details of your firm's relevant skills and experience;
- details of the personnel who will actually carry out the assignment, including their roles for this project and their previous experience;
- proposed methodology with appropriate timelines; and
- fee schedule, including any expenses to be charged.

Submissions must include a breakdown of all tasks, and must specify staff responsible for each task as well as the budget allocated to each task.

14 SELECTION CRITERIA

Consultants' proposals will be assessed in accordance with the following:

- proven skills and track record in the Aboriginal Heritage field;
- understanding of the Victoria Planning Provisions and the tools to use the planning scheme to protect Aboriginal Heritage;
- proposed methodology, including appropriate consultation program;
- timely completion of the project;
- capacity to work effectively with Council; and
- value for money.

15 ADVICE TO TENDERERS

For inquiries regarding this assignment please contact:

EJ Shu

Strategic Planner

Telephone 9240 1260

Fax 9240 1186

eshu@moreland.vic.gov.au

Liz Nairn

Coordinator Strategic Planning

Telephone 9240 1188

Fax 9240 1186

lnairn@moreland.vic.gov.au

Council will not pay any costs associated with the preparation of any submissions.

Council will not be obliged to accept any quotation.

Council will require the successful consultants to assign any intellectual property rights arising out of this assignment to Council.

Appendix 2 : Aboriginal community consultation undertaken as part of the drafting of the Study between 2003-2006.

For detail on consultation undertaken in 2010, please see the Foreword to this Study, drafted in 2010.

Under the Regulations of *The Commonwealth Aboriginal and Torres Strait Islander Heritage Protection Act 1984*, the City of Moreland falls within the boundaries of the Wurundjeri Tribe Land Compensation and Cultural Heritage Council Incorporated (Wurundjeri for short). Under the heritage legislation, this organisation represents the Aboriginal owners and custodians of Aboriginal archaeological sites in the Moreland area.

2.1 Wurundjeri response

At the time of this investigation (2004), the Wurundjeri's administrative centre was at Healesville, with Mr Allan Wandin its elected chairperson. Among other responsibilities, Allan was the contact for all matters relating to Aboriginal heritage within Wurundjeri's area, including archaeological investigations. As such, TerraCulture wrote to Allan informing him of our commission with the City of Moreland and requesting field representatives to assist with the planned surveys. A draft report was also sent to Allan inviting comments on the findings of the investigation particularly the recommendations on the conservation of known archaeological sites, archaeologically sensitive landforms and the requirement for additional field-based investigations. Allan has indicated that he would like a formal meeting with the MCC to discuss the investigation and the recommendations.

Ian Hunter is a Wurundjeri Elder with whom the MCC has had regular contact. Ian has provided invaluable advice to the MCC on Aboriginal heritage for some time. He has taken on the role as an educator and is one of council's vital connections to the broader Aboriginal community. As such, Ian was also contacted regarding TerraCulture's commission and invited to participate and to comment on the project.

2.2 Wurundjeri perspective

The Aboriginal and Torres Strait Islander Heritage Protection Act 1984 recognises a cultural significance to artefacts, sites and places, distinct from an assessment based on scientific values. The Wurundjeri have their own views on the importance of individual archaeological sites within Moreland and the general sensitivity of the municipality for Aboriginal archaeological materials. This report focuses on the scientific values but records any views expressed by the Wurundjeri representatives during the course of the investigation.

2.3 Aboriginal Affairs Victoria (AAV)

AAV Heritage Services Branch is the State Government body that administers the Commonwealth and State Legislation that serves to protect Aboriginal heritage in Victoria. This heritage includes archaeological sites, artefact collections and places of cultural significance.

As well as the project aims as stated in the MCC Brief and where appropriate, the standard Aboriginal Affairs Victoria Outline Brief for Archaeological Survey Projects was also adopted. With the adoption of this Brief, the current investigation will meet AAV's requirements for undertaking and reporting on an Aboriginal archaeological survey. These requirements were:

a) To locate Aboriginal archaeological sites within the project area, using a systematic survey strategy.

b) To record and interpret any Aboriginal archaeological sites found.

c) To establish the significance of any archaeological sites found, using criteria normally applied to the assessment of cultural heritage resources.

d) To identify any areas or landforms of high archaeological potential.

e) To establish the implications which the presence of any archaeological resources may have for the future management and/or development of the project area.

f) To establish the views of Aboriginal people, and of any other groups with a special interest in the archaeology of the project area, on matters such as the interpretation and significance of recorded sites, and on appropriate management procedures.

g) To develop recommendations and guidelines for:

1. management of each identified archaeological site, or areas of high archaeological potential;
2. methods to be used for carrying out additional work, including information on permits /consents required if sites are to be disturbed or destroyed; and
3. interpretation of each identified archaeological site, or areas of high archaeological potential.

Appendix 3: The legislative background at the time of the drafting of the Study between 2003-2006

For detail on the Legislative Framework 2010, please refer to the Foreward to this Study.

The legislative background

Victoria has both State and Commonwealth legislation providing protection for Aboriginal cultural heritage.

Planning and Environment Act 1987

Among its many objectives, *The Planning and Environment Act (1987)* sets out 'to establish a framework for planning the use, development and protection of land in Victoria'. The Act presents a planning framework that includes local planning schemes to help guide decisions made at the local council or municipal level. The Act does not refer specifically to the protection of Aboriginal archaeological sites or other types of Aboriginal heritage. However, its objectives '…to conserve and enhance those buildings, areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value' encompasses Aboriginal heritage. Also, specific sections of the Act (such as 173 '*Responsible authority may enter into agreements*') have been used by local councils and Aboriginal groups to help preserve archaeological sites.

Table 1. Summary of legislation relevant to Aboriginal archaeological sites

	Relevant legislation, policy or strategy	Intent of the legislation in regard to Aboriginal cultural heritage	Relevance to the City of Moreland
FEDERAL	*The Aboriginal and Torres Strait Islander Heritage Protection Act 1984* • Incorporates Schedule 21 specific to the protection of Aboriginal sites in Victoria. • Includes Regulations listing Aboriginal communities with statutory responsibility for sites in defined areas	• Protection of Aboriginal cultural heritage values. • To avoid inadvertent destruction or disturbance of and to reduce the impacts on known Aboriginal cultural heritage sites and places and on archaeologically sensitive landforms. • To meet the long-term conservation needs of archaeological sites. • To provide traditional owners with control over the management of Aboriginal cultural heritage.	Very relevant
	Environment and Heritage Legislation Amendment Bill (No. 1) 2002; Australian Heritage Council Bill 2002; Australian Heritage Council (Consequential and Transitional Provisions) Bill 2002	• Protection of cultural sites of National significance. • Maintain National Heritage List. • Maintain Commonwealth Heritage List for places owned or controlled by the Commonwealth.	Low relevance

	Relevant legislation, policy or strategy	Intent of the legislation in regard to Aboriginal cultural heritage	Relevance to the City of Moreland
STATE	*The Archaeological and Aboriginal Relics Preservation Act 1972*	• Protection of Aboriginal cultural heritage values. • To avoid inadvertent destruction or disturbance of and to reduce the impacts on known Aboriginal cultural heritage sites and places and on archaeologically sensitive landforms. • To meet the long-term conservation needs of archaeological sites. • To ensure traditional owners involvement in the management of Aboriginal cultural heritage.	Very relevant
	Coroner's Act 1985	• To ensure appropriate investigation following the discovery of human remains. • To identify pre-European settlement Aboriginal remains.	Relevant
	Planning & Environment Act 1987	• Provide a framework for planning that avoids inadvertent destruction or disturbance of Aboriginal cultural heritage sites and places and on archaeologically sensitive landforms. However, this Act does not specifically refer to pre-contact Aboriginal heritage.	Relevant
	Extractive Industries Development Act 1995	• To avoid inadvertent destruction or disturbance of Aboriginal cultural heritage sites and places and on archaeologically sensitive landforms. • To ensure traditional owners involvement in the management of Aboriginal cultural heritage.s	Low Relevance

Table 2. Implications of the State and Commonwealth heritage legislation for Moreland's Aboriginal archaeological sites

	Relevant legislation	Administration
FEDERAL	• *The Aboriginal and Torres Strait Islander Heritage Protection Act 1984*	• Aboriginal Affairs Victoria
FEDERAL	• *Environment and Heritage Legislation Amendment Act (No. 1) 2003;* • *Australian Heritage Council Act 2003;* • *Australian Heritage Council (Consequential and Transitional Provisions) Act 2003*	• Department of the Environment and Heritage.
STATE	• *The Archaeological and Aboriginal Relics Preservation Act 1972*	• Aboriginal Affairs Victoria.
STATE	• *Coroner's Act 1985*	• Department of Justice.
	• *Planning & Environment Act 1987*	• Department of Sustainability and the Environment.
	• *Extractive Industries Development Act 1995*	• Department of Primary Industries- Minerals and Petroleum Division.

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Moreland City Council

Language Link

中文	9280 1910	**Español**	9280 1916
Italiano	9280 1911	**Hrvatski**	9280 1917
Ελληνικα	9280 1912	हिन्दी	9280 1918
العربية	9280 1913		
Türkçe	9280 1914	**All other languages**	
Việt Ngữ	9280 1915	9280 1919	

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