Esso Pipeline Replacement Project (Western Section)

Replacement pipeline to transport crude oil and condensate between Esso's facilities at Longford and Long Island Point (Warragul - Hastings Section)

Interim Cultural Heritage Report



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Photo Caption (Coverplate): Hazel Creek (Investigation Area 11740), facing north.

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ABBREVIATIONS

ACHRIS	Aboriginal Cultural Heritage Register and Information System
ALA:	Andrew Long + Associates Pty Ltd
AV:	Average
BLCAC:	Bunurong Land Council Aboriginal Corporation
BP:	Before Present (Years)
BWF:	Boon Wurrung Foundation
CHA:	Cultural Heritage Advisor
CHMP:	Cultural Heritage Management Plan
CHP:	Cultural Heritage Permit
E:	East
GLaWAC	Gunaikurnai Land and Waters Aboriginal Corporation
IA	Investigation Area
IU	Investigation Unit
LDAD	Low Density Artefact Distribution
N:	North
NE:	North East
NW:	North West
OAAV:	Office of Aboriginal Affairs Victoria
RAP:	Registered Aboriginal Party
S:	South
SA:	Salvage Area
SE:	South East
SW:	South West
SU:	Survey Unit
TA:	Testing Area
VAHR:	Victorian Aboriginal Heritage Register
W:	West
WTLCCHC:	Wurundjeri Tribe Land and Compensation Cultural Heritage Council Inc.

INTRODUCTION

1.1 Project Overview

This report is an interim assessment intended to review the known cultural heritage values of the proposed activity area and consider the likely management implications that a Cultural Heritage Management Plan CHMP may have for the proposed activity. This report is not intended as a CHMP pursuant to the requirements of the *Aboriginal Heritage Act* 2006. Note that the proposed activity area will be subject to a CHMP, which is currently being prepared by Esso for the activity.

The Sponsor of the CHMP is Esso Australia Resources Pty Ltd (ABN 62 091 829 819).

This report and the CHMP has been authored by qualified archaeologists and heritage consultants from Andrew Long and Associates Pty Ltd, who have been undertaking professional Aboriginal heritage assessment and evaluation since 1991, in accordance with section 189 of the Act.

The Cultural Heritage Advisors for this CHMP are:

- Ricky Feldman, Executive Director
- David Mathews, Senior Project Manager
- Melinda Albrecht, Senior Project Manager

The authors of this CHMP are:

- David Mathews, Senior Project Manager
- Melinda Albrecht, Senior Project Manager
- Eric Endacott, Archaeologist

1.2 Study Scope and Objectives

The CHMP is being prepared by the sponsor as a mandatory CHMP under Section 46 of the *Aboriginal Heritage Act* 2006 (the Act) to allow the management and protection of Aboriginal cultural heritage during the course of activities associated with the proposed Esso Pipeline Replacement Project (Western Section) that may disturb Aboriginal cultural heritage places within the activity area. In addition, this CHMP provides contingency arrangements for managing the discovery of any further Aboriginal cultural heritage places identified during construction works associated with the activity.

When is a cultural heritage management plan (CHMP) required?

A mandatory CHMP is required for an activity if (Regulation 6)-

- (a) all or part of the activity area for the activity is an area of cultural heritage sensitivity; and
- (b) all or part of the activity is a high impact activity.

Is this activity area an area of cultural heritage sensitivity?

Yes. Part of the activity area does overlap with an area of cultural heritage sensitivity defined as:

Waterways (Regulation 23) Dunes (Regulation 37) Coastal Land (Regulation 28) Registered cultural heritage places (Regulation 22) Coastal Crown Land (Regulation 27) Koo Wee Rup Plain (Regulation 31) Sand sheets (Regulation 38)

Is this activity a high impact activity?

The proposed activity constitutes a high impact activity as defined in Division 5 of the Regulations, as it is a Utility Installation, other than a telecommunication facility (Regulation 43 (1)(b) xxii).

1.3 Study Area

The Sponsor intends to replace an existing 700mm gas pipeline constructed in 1969 (partial replacement in 1980) which is approaching the end of its operational life. The replacement pipeline will allow for the continued delivery of crude and condensate and will also allow for natural gas from Esso's offshore Gippsland operations to continue to flow to Australian households and businesses. The new pipeline will be approximately 350mm in diameter and generally located 900mm below the ground surface.

It is intended that the replacement pipeline will be constructed adjacent to the existing pipeline and within existing easements held by Esso, minimising the need to acquire or disturb additional land.

Excavations in regards to the proposed activity will be extensive where they occur. It is likely that the proposed activity will include:

- Trench excavation
- Excavations for vehicular roads
- Topsoil clearing
- Grading
- Trench excavation or trenchless construction
- Preparation of off-site premises
- Power supply construction
- Borrow pits

The likely impact on land surfaces across part of the activity area will be extensive and will consist of the removal of topsoil (generally <300 mm) and localised deeper excavations (e.g. trench excavations) into the underlying sub-soil across the property. The specific depth of these excavations is likely to be approximately 950-1250mm below the ground surface.

The study area has been divided into two separate sections. This report relates to the western section, extending from Warragul to Hastings (Map 1).

1.4 Legislation

The evaluation undertaken as part of the CHMP will determine the likelihood that Aboriginal heritage values will be impacted by the activity. Section 61 of the *Aboriginal Heritage Act* 2006 will review the matters to be considered in relation to the approval of a management plan and allow the management and protection of Aboriginal cultural heritage during the course of activities.

The Aboriginal Heritage Act 2006

The Aboriginal Heritage Act 2006 commenced operation on May 28th 2007.

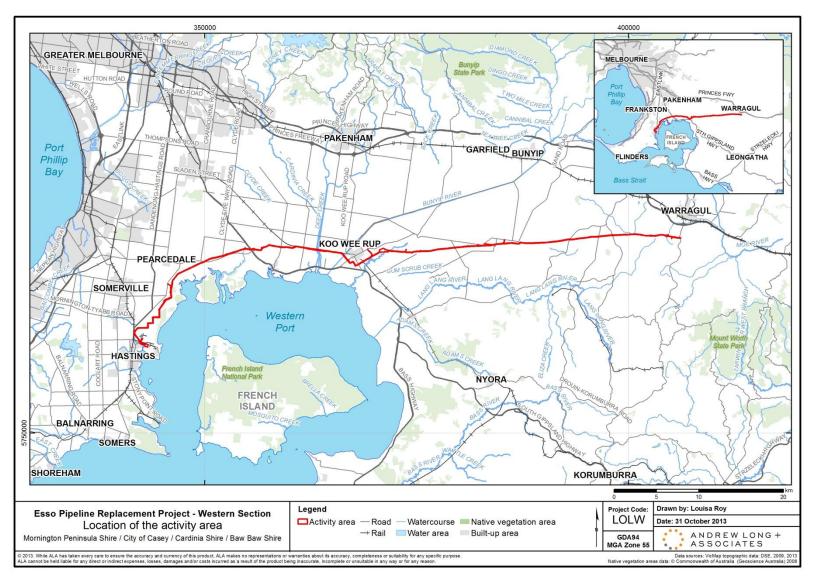
This act provides blanket protection for all Aboriginal heritage sites, places or items in Victoria.

The main aspects of the Act in relation to the development process are as follows:

- An *Aboriginal Heritage Council* (AHC) has been appointed by the Minister, Office of Aboriginal Affairs Victoria, made up of 11 Victorian Aboriginal people.
- Aboriginal community groups with traditional interests in cultural heritage are to apply to the AHC for registration as a *Registered Aboriginal Party* (RAP). RAPs will have the role of endorsing *Cultural Heritage Management Plans* (CHMP) within a given area of interest. There may be two or more RAPs for an area, provided it does not hinder the operation of the legislation.
- Under Section 48, a developer ('sponsor') may be required to submit a CHMP before the issue of a statutory authority by local government or other agency ('decision maker'). A CHMP must be registered with the Secretary, Planning and Community Development (OAAV), and all relevant RAPs notified in writing. If an RAP does not respond, OAAV will act in lieu. A CHMP will contain details of research, field evaluation, consultation and management provisions in regard to the Aboriginal heritage of an area at risk from a development. A *Cultural Heritage Advisor* must be appointed to assist in the preparation of a CHMP. It is the role of an RAP to approve a CHMP if it meets prescribed standards.
- A CHMP will not be considered approved unless it has been approved by all relevant RAPs.

The regulations accompanying the Act specify when a CHMP will be required by law, and prescribe minimum standards for the preparation of a CHMP (Section 53). The approved form for CHMPs specifies the format in which a CHMP should be prepared by a sponsor in order to comply with the Act and the *Aboriginal Heritage Regulations* 2007, and is an approved form under section 190 of the Act.

Other provisions of the Act include Cultural Heritage Permits (Section 36), as required for other works affecting Aboriginal heritage sites, Cultural Heritage Agreements (Section 68), in respect to land containing an Aboriginal heritage site, Inspectors (Part 11) appointed to enforce the Act, Cultural Heritage Audits (Section 80) to be ordered by the Secretary in relation to compliance with a CHMP and a VCAT appeals procedure.



Map 1: Location of the activity area

METHODOLOGY

2.1 Consultation

At the time the Notice of Intent (NOI) to Prepare a CHMP was submitted to the Secretary, AAV, no Registered Aboriginal Parties (RAP(s)) were present for the activity area. Notification of intent to prepare a CHMP, as required by Section 54 of the Aboriginal Heritage Act 2006 was submitted to the Secretary of the Department of Planning and Community Development on 10 October 2013, and a response was received on 10 October 2013. Pursuant with Section 65 of the Act the Secretary, AAV will review the CHMP.

At the time the NOI was submitted, there were two RAP applications for land that includes the activity area; the Wurundjeri Tribe Land and Compensation Cultural Heritage Council (WTLCCHC) and the Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC).

The Bunurong Land Council Aboriginal Corporation (BLCAC) and the Boon Wurrung Foundation Ltd (BWF) had previously submitted applications for RAP status for the activity area, however these applications were declined by the Victorian Aboriginal Heritage Council. Nevertheless the Aboriginal Heritage Council acknowledged that the BLCAC and BWF represent traditional owner groups for the areas of their former application and where no RAP is appointed, they are to be consulted in relation to cultural heritage matters. On December 30, 2013 the BWF lodged a new application for registration as RAP.

Representatives of these groups were invited to participate in the standard and complex assessments of this CHMP.

Name	Abbreviation	Status at the time of the NOI
Boon Wurrung Foundation Ltd	BWF	Traditional Owner Group
Bunurong Land Council Aboriginal Corporation	BLCAC	Traditional Owner Group
Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC)	GLaWAC	RAP applicant
Wurundjeri Tribe Land and Compensation Cultural Heritage Council	WTLCCHC	RAP applicant

Table 1: Traditional Owner Groups and RAP Applicant(s).

2.2 Desktop Assessment

This section outlines the aims, methods and results of the desktop assessment of the CHMP. The aims of the desktop assessment are threefold:

• to determine the level of previous investigation of the activity area and the surrounding region;

- to determine the presence of registered Aboriginal cultural heritage places within the activity area; and
- to determine the environmental context of the activity area with regard to landform and geomorphology.

The methods used to undertake the desktop assessment included:

- using appropriate sources, including Victorian government on-line information, reviewing and summarising relevant environmental background;
- searching the Victorian Aboriginal Heritage Register (VAHR) and other research sources (cf. consultancy reports, academic research etc.) for information relating to the activity area and the geographic region (a VAHR search was undertaken on 11 October 2013); and
- reviewing and analysing this information to identify or characterise the Aboriginal cultural heritage site types and locations likely to be present within the activity area.

2.3 Standard Assessment

The aims of the field survey of the CHMP were as follows :

- To re-inspect (where possible) the previously registered Aboriginal cultural heritage place within the activity area (7921-0036);
- Where land access was available, to inspect all areas with ground surface visibility for Aboriginal cultural heritage within the activity area; and
- Undertake a general assessment of the overall archaeological potential of the activity area.
- Involve members of the RAP applicants and Traditional Owner Groups.

The field survey was conducted over 11 days (November 7-13, November 29 and December 2-6, 2013). The field survey methodology was dictated by the need to systematically examine the three landform areas within the activity area (Drouin-Warragul Hills, Koo Wee Rup Plain and Western Port). The activity area was divided into 153 investigation areas (IA), which were based largely on property parcels and landforms.

The field survey was undertaken by a combined vehicular and pedestrian survey; pedestrian transects were generally walked east to west across the activity area. Where land access was available, the entire activity area was surveyed in this fashion, with each member of the field team spaced approximately 2-5m apart. This spacing enabled each individual to examine all surface exposures within the activity area in accordance with archaeological practice outlined in Burke and Smith (2004, 65-69).

Pedestrian spacing was sufficient to identify any areas of significant ground exposure. According to r. 59 (3) of the *Aboriginal Heritage Regulations* 2007, which stipulates what a standard assessment must include, the field survey involved the examination of all potential mature trees, caves, rock shelter or cave entrances within the activity area. There were several mature eucalyptus trees growing within the activity area and these were all inspected for cultural scarring, with no scarred trees identified.

As a component of the field survey and as a means of informing the conduct of the subsequent complex assessment, each investigation area was assessed in terms of the overall archaeological sensitivity and the overall disturbance of the area. The initial archaeological sensitivity rating was to some degree based on the outcomes of the desktop assessment, and was subsequently modified as a result of observations made during the field survey. For example, previously identified places within the Koo Wee Rup landform were frequently located on elevated rises and previously identified places in the Western Port landform were invariably located in close proximity to waterways.

On the basis of this data an initial higher sensitivity was expected in similar areas within the activity area. Following this methodology each investigation area was assigned an archaeological sensitivity rating, reflecting the environmental and cultural value of a location, and a disturbance rating, reflecting the compound impact of past and present land uses.

- Archaeological sensitivity ratings ranged from low to high, and were based on a variety of factors including proximity to water, landform, elevation, vegetation type, RAP applicant and traditional owner group's viewpoints and the presence or absence of identified cultural heritage.
- Disturbance ratings were based on a range from high to none, with the ratings values sequence reversed.

The disturbance ratings assigned to an investigation area were based on factors such as the extent of landscape modification by activities such as, but not confined to, prior and current cropping regimes (where identifiable) and impacts resulting from stock trampling and previous pipeline trenching.

2.4 Complex Assessment

The aims of the subsurface testing will be to fully define the actual archaeological sensitivity of the activity area, to determine the presence / absence of archaeological subsurface deposits and to collect data on the nature and significance of any deposits identified.

There were three distinct landforms identified across the activity area during the standard assessment; the Warragul-Drouin Hills, the Koo Wee Rup Plains and Western Port (Map 2 - Map 5).

The complex assessment proposes to test a sample of IAs from each landform area according to several criteria:

- The degree of previous disturbance (where possible to assess)
- The archaeological potential rating
- Discussions conducted during the standard assessment with the RAP applicants and traditional owner groups

The subsurface testing programme is intended to confirm the stratigraphy and the general subsurface nature of the three landforms through the controlled excavation of a stratigraphic 1x1m test pit at each landform area. A series of additional 1x1m test pits as well as 40x40cm shovel test pits transects with approximately 20 to 25m spacing will also be excavated at select properties within each landform area.

Excavation Methods

Shovel test pits consisting of pits ~400x400mm in area will be carefully excavated stratigraphically by shovel in 100 mm spits (The long handled shovel had a blade that measured 20cm wide by 30cm long). These shovel test pits will be distributed across a selection of properties on landforms identified during the standard assessment as having archaeological potential.

The 1x1 m test pits will be excavated in controlled spits (generally 50-100mm depth) with a focus on identifying artefacts *in situ* within their stratigraphic context. The 1x1m test pits will be excavated by

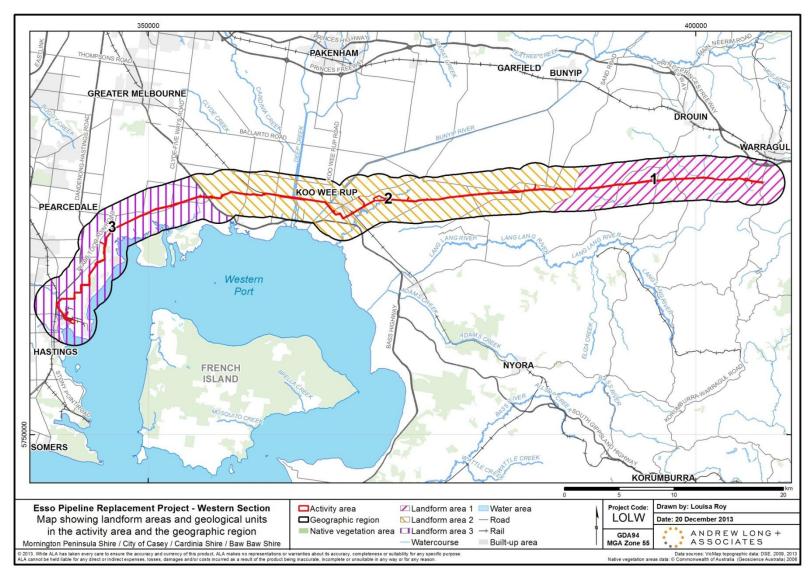
hand using trowels and all excavated materials will be 100% hand sieved (using a 5mm mesh) to determine the presence / absence of stone artefacts and to provide an indicator on the preservation of other types of culturally deposited material (e.g. faunal remains, burnt clay). The presence of bioturbation markers (e.g. cicada burrows, earthworm burrows, tree roots, sediment mixing) and other forms of site disturbance were documented. Datum points will be established using the highest corner of each individual excavation.

Radiometric dating

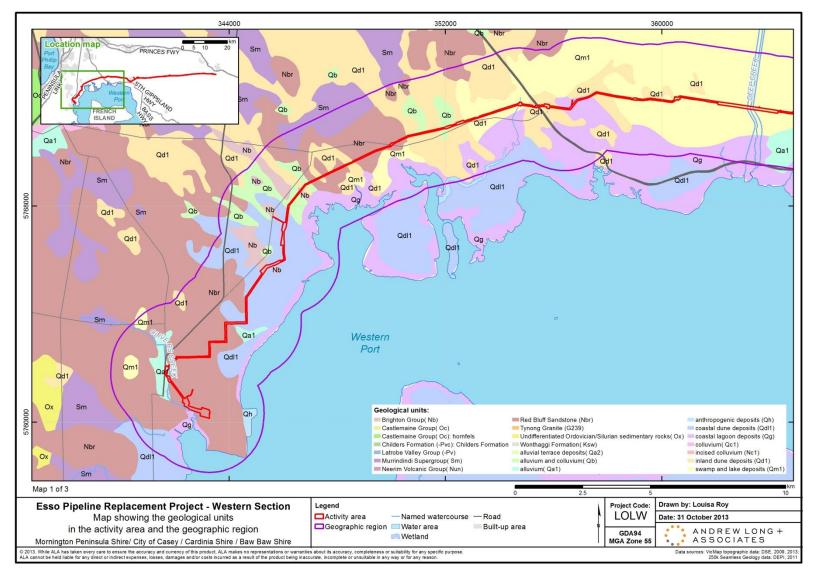
No radiometric dates were taken during this phase of testing.

2.5 Key Assumptions

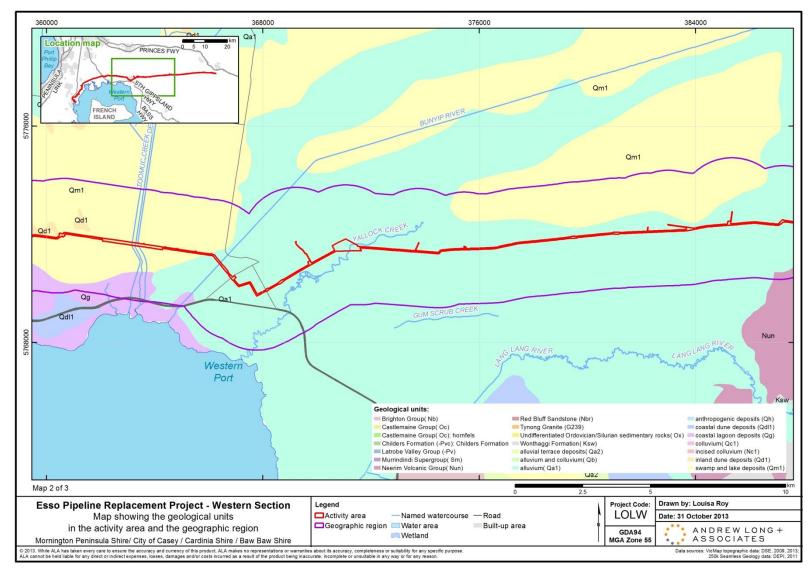
The ground surface visibility of the activity area was limited due to a dense ground cover of introduced grass and weed species, vegetation from the market garden and agricultural cropping. This grass cover obscured visibility across the majority of the activity area. The weather at the time of the standard assessment was at times very poor with frequent showers which hampered pedestrian and vehicular access to parts of the activity area. For this reason a number of investigation areas were assessed from adjacent roads and fencelines.



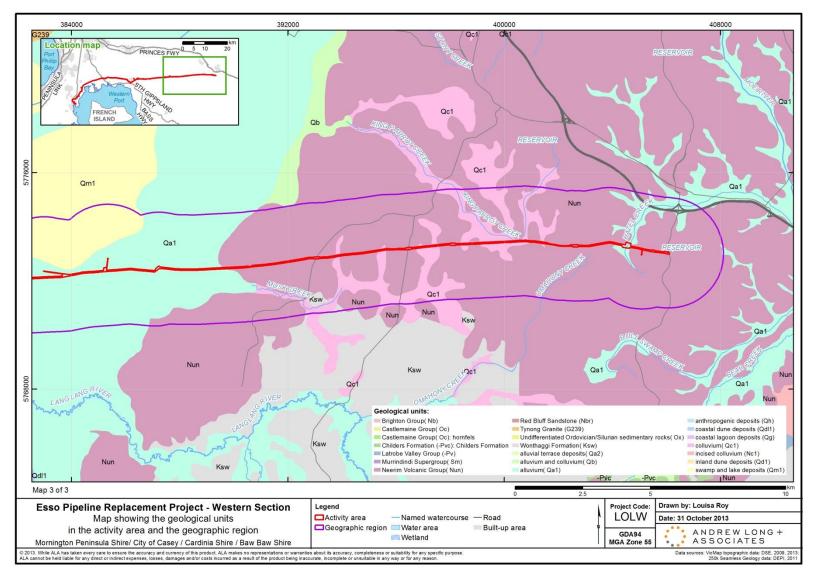
Map 2: Landform areas of the activity area and geographic region



Map 3: Geological units in geographic region – western section



Map 4: Geological units in geographic region - mid section



Map 5: Geological units in geographic region – east section

CULTURAL HERITAGE ASSESSMENT

3.1 Existing Conditions

3.1.1 Geology

The geographic region containing the activity area has been defined as the area within a 2km radius of the activity area (Map 2 - Map 5). From east to west the alignment is characterised by three general landscape sections: the Warragul-Drouin Hills, the Koo Wee Rup Plains and Western Port.

The activity area comprises two geomorphological units – the Victorian Southern Uplands and the Victorian Eastern Plains¹. The sections of the activity area located within the Eastern Plains unit include: the Koo Wee Rup Plains. The sections of the activity area that focus on land around Warragul and Westernport are situated within the Southern Uplands geomorphological unit.

The landscape of the Warragul-Drouin Hills comprises rolling hills, and is bisected by frequent tributaries, small creeks and minor gullies.

The landscape of the Koo Wee Rup Plains consists of highly modified, low lying plains across the width of the Koo Wee Rup Swamp basin.

The landscape of the Western Port consists of undulating sandy rises around the north eastern margins of Westernport. The drainage pattern is characterised by occasional creeks and small swamps.

3.1.2 Historical and Ethno-Historical Aboriginal Occupation and Use of the Activity Area

Available ethno-historical and historical information relating to Aboriginal people in the geographic region is briefly reviewed here. This information can assist in formulating a model of Aboriginal subsistence and occupation patterns in the study areas. In conjunction with an analysis of the documented archaeological record of the region, the ethno-historical information also assists in the interpretation of archaeological sites in the wider area, and in predicting the potential location of archaeological site types.

There are several problems concerned with correctly identifying and describing 19th century Aboriginal groups in Victoria, largely as a result of discrepancies in early European accounts and the difficulties early settlers had in understanding Aboriginal languages and social systems. Furthermore, the devastating effects of European settlement, such as the loss of traditional lands and resources, the spread of disease, social breakdown and removal of both groups and individuals to reserves and

¹ <u>http://vro.dpi.vic.gov.au/dpi/vro/vrosite.nsf/pages/landform_geomorphological_framework_7</u> - accessed 12-10-2013.

mission stations have added further complexities. As a result it is hard to identify and document the specific Aboriginal clan groups in the geographic region both before and after the period of initial European settlement.

The ethno-historical information presented within this report is based on the observations and writings of men from the nineteenth century, and certain contextual limitations should be considered when reading these accounts. As pointed out by Barwick (1984, 103), "...their jealousies, ambitions, loyalties and roles in colonial society shaped their inquiries and the content of their publications".

These nineteenth century authors were writing from an Anglo-centric and gender biased viewpoint for a colonial audience who had a very limited and generally negative view on Aboriginal life, heritage, and culture. Despite these shortcomings, nineteenth century ethnographical accounts are a useful resource; the information has often been provided to the author by Aboriginal informants or by first-hand observations and experience. Such information may include knowledge regarding regional Aboriginal stories, life, culture and beliefs, and this data has been utilised to inform the ethno-historical section of this report.

The Warrigal-Drouin areas are located in the border district between traditional Aboriginal groups of three different language groups, the *Kurnai* or *Ganai* peoples (Clark 1990, 364; Barwick 1984), who occupied Gippsland between Wilson's Promontory and the New South Wales border, the *Woi wurrung* (spelling according to Clark 1990, 363, however numerous variants exist) who occupied the Yarra Valley, adjacent plains and ranges and the *Bun wurrung*, who occupied the Mornington Peninsula and Westernport area.

A language group consisted of independent groups of closely related kin, or 'clans', who were spiritually linked to designated areas of land through their association with topographic features connected to mythic beings or deities. Clan lands were inalienable and clan members had religious responsibilities (e.g. conducting rituals) to ensure 'the perpetuation of species associated with the particular mythic beings associated with that territory' (Berndt 1982, 4).

Alfred Howitt, an early anthropologist who spent much time in Gippsland, noted that the *Kurnai* comprised of five or six distinct sub-groups: *Brataualong, Braiakaulung, Tatungalung, Brabralung, Krauatungalung* and *Bidawal* (Clark 1998). The Warrigal-Drouin area lies nearest to the traditional territory of the *Braiakaulung* people, who occupied the Latrobe River Valley, and the valleys of the Thompson, Avon and Macalister Rivers. The southern boundary of this territory occurs along the Strezlecki Ranges (Howitt 1904, Sketch Map of Gippsland). Clark (1998, 187-188) has identified the *Bunjil Kraura* as the *Braiakaulung* clan most closely associated with the Drouin region.

The only known references regarding the *Bunjil Kraura* are in relation to a Birraark, or medicine man who belonged to the clan (Howitt 1904, 393), a 'leading man', who carried the clan name of *Bunjil-kraura*, meaning 'West Wind' (Howitt 1904, 738).

A review of the ethnohistorical literature indicates that there are few direct references to the *Braiakaulung* language group, with most documentation on the *Kurnai* people centring on the *Tatungalung* language group, who were based around the Gippsland lakes.

Other Aboriginal clans documented in proximity to the Warrigal-Drouin areas, who may have ranged through this part of West Gippsland include:

- The Bulug willam meaning 'swamp dwellers'. This Woi wurrung clan identified with the ranges and swamps south of 'Yering' on the Upper Yarra, extending south east to Koo-Wee-Rup Swamp and the head waters of the La Trobe River, south west to adjoining Bun wurrung clans at Cranbourne (Clark 1990, 385-386).
- The Yallock balug, a Bun wurrung clan based on the Bass River at Tooradin (Clark 1990, 368).

• The *Yowengarra*, a *Bun wurrung* clan based in the Tarwin Ranges near Leongatha (Clark 1990, 369).

During the post-contact period relations between the *Kurnai* and the peoples based in the Port Phillip area, notably the *Woiwurrung* and *Bunwurrung*, were invariably strained, and there are several accounts of violent raids and reprisals between these groups and the *Kurnai* (Gunson 1968, 7-9; Thomas in Legislative Council. 1859, 62). The region of South Gippsland adjoining Westernport Bay was considered to be disputed territory as a result of this antipathy, and presumably acted as a buffer zone to relieve social friction (Smyth 1878 vol. 1, 412). In 1840 a *Bun wurrung* group arrived at Yallock station (8 km north west of Lang Lang) on their way to carry out a reprisal raid in Gippsland. The women, children and old men of the group remained at the station 'hunting and fishing' until the raiding party returned five weeks later.

Some observations were made of Aboriginal groups, likely to be *Bun wurrung*, by explorers who entered the Western Port region in the early 1800s. In 1802 Bowen, the first mate on the *Lady Nelson*, briefly met a group of Aboriginal people at Settlement Point (20 km south west of Lang Lang). Three months later Captain Milius from the *Le Naturaliste* expedition also met an Aboriginal group around Settlement Point, whom he describes in terms of their temperament and body ornamentation. He also describes following the group and an encounter with a 'family who were eating shell fish around a little fire' (Horton & Morris 1983, 21-25).

By 1812 sealers were visiting Western Port on a seasonal basis and by 1826 they were permanently settled at Phillip Island exploiting the seal colony at Seal Rocks (Gaughwin & Sullivan 1984, 82). The relationship between local Aboriginal groups and the sealers is not well documented however it has been reported that sealers carried out raids on Aboriginal territory, murdering men and stealing women (Massola 1974, 45).

At the time of European contact, the *Bun wurrung* are believed to have occupied land in the Tooradin and Warneet areas.

The name of 'Tooradin' is based on an Aboriginal word, too-roo-dun, meaning swamp monster, or bunyip (Blake 1977, 259). Smyth gave an account of the Bunyip, *Toor-roo-dun*, who lived on the Western Port Plains:

The Western Port blacks call the Bun-yip Toor-roo-dun, and a picture of the animal, made by Kurruk many years ago, under the direction of a learned doctor, is that of a creature resembling the emu...On the Western Port plains there is a basin of water – never dry, even in the hottest summers – which is called Toor-roo-dun, because the Bun-yip lives in that water. Toor-roo-dun inhabits the deep waters, and the thick mud beneath the deep waters, and in this habit resembles the eel. The natives never bathe in the waters of this basin. A long time ago some of the people bathed in the lake, and they were all drowned, and eaten by Toor-roo-dun (Smyth 1876, 436).

Smyth also related a belief regarding a mountain range called '*Narn*' located to the north east of Western Port:

There is a range with a well-marked culminating point lying to the north-east of Western Port, which, the Aborigines say, is inhabited by an animal resembling in form a human being, but his body is hard like stone. The mountain is called Narn, and the strange animal is named Wi-wonder-rer. Formerly this animal used to kill many blacks. So many indeed were killed by Wi-wonder-rer that at last it became necessary to consider in what way those remaining might be preserved. A council of aged and wise men was held, and much debate ensued, and many suggestions were made. Finally it was agreed that the most cunning doctor, with other learned doctors and priests, should visit Narn and ascertain the conditions of Wi-won-der-rer, and, if possible, kill him and his people (of whom there were a good many). The wise men explored the mountain ranges very carefully. Armed with spears, stone hatchets, and waddies, they sought to find and lay the strange creatures with bodies like stones. And they found them at length; but their weapons, when they assaulted them, made no impression on them. It was reported,

however, that these creatures were vulnerable in the eyes and the nostrils. One doctor said he had thrust his spear into the eye of a Wi-wonder-rer, and had killed him, and another said that he had killed one by thrusting his spear into his nostril. The blacks will not visit this range. A settler was lost many years ago in the neighbourhood of Narn, and though every inducement was offered to the blacks to explore the range, and, if possible, track him, they would on no account go near it. They said the settler had been caught and killed by Wi-won-der-rer (Smyth 1876, Vol 1, 455-456).

The closest documented Aboriginal clan to the Tooradin area was the *Yallock balug* clan, who were associated with Bass River, Tooradin, Western Port (Clark 1990, 364-5, 368). Intertribal relationships varied throughout the region. Tooradin was one of the campsites favoured by the *Bun wurrung* during their winter movements between Port Phillip and Western Port (Gunson 1968: 6-10).

There exist reports of Aboriginal activity at the project area and its neighbouring property – the Tooradin Hotel, to the south – previously known as the Bridge Inn / Hotel.

Ben Brett, a European settler who arrived in Western Port in 1863 and resided at Lang Lang noted in the 1880's:

Behind the Bridge Hotel lie numbers of what are known as "Blackfellows Ovens" much after the same style as you find them outside Swan Hill. The blacks were very numerous around Tooradin at one time. The game proving a happy hunting ground for them...The "ovens" have not been disturbed here, although occasional axeheads and flints are picked up (Gunson 1968:9).

Twenty years earlier Brett had noted Aboriginals hunting eels in the mud-flats off Tooradin, observing they could procure 'a couple of sacks in short time' (Gunson 1968:9). Brett recalled that three or four Aboriginal people '...had a mia-mia at Tooradin, and used to come as far as Red Bluff' and observed that the group shot ducks and caught eels in the Tooradin Creek which they would then sell (Brett in South Gippsland Development League 1966, 380).

At the time of European contact, clans from two language groups, the *Bun wurrung* and the *Woi wurrung* (Clark 1990, 364) are believed to have occupied land in the Pakenham / Koo Wee Rup region. The territories of two clans who are thought to have extended into the geographic region are²:

- The *Bulug willam* meaning 'swamp dwellers'. This *Woi wurrung* clan identified with the ranges and swamps south of 'Yering' on the Upper Yarra, extending south east to Koo Wee Rup Swamp and the head waters of the LaTrobe River, south west to adjoining *Bun wurrung* clans at Cranbourne (Clark 1990, 385-386).
- The Mayune balug clan meaning 'Mayune people' (i.e. people associated with the locality of Mayune). This Bun wurrung clan was associated with Carrum Swamp, the upper Mornington Peninsula and the head of Western Port Bay (Clark 1990, 366-7).

William Thomas, an Assistant Protector of Aborigines, recorded most of the little documented information regarding the lifestyle of the Aboriginal people in Western Port. He observed clans living a hunter-gatherer lifestyle, moving within their lands to make use of seasonal plant and animal resources (i.e. he noted that coastal clans used to travel by canoe to French Island to obtain eggs), trading opportunities and to meet ritual and kinship obligations. In 1854 whilst travelling through Western Port with an Aboriginal group Thomas observed that:

...all are employed; the children in getting gum, knocking down birds etc; the women in digging up roots, killing bandicoots, getting grubs etc; the men in hunting kangaroos, etc, scaling trees for opossums etc. They mostly are at the encampment about an hour before

 $^{^2}$ Recent claims have been made that *Woi wurrung* clans did not extend as far south as Pakenham / Koo-Wee-Rup (see Rhodes 2004, 27-31).

sundown – the women first, who get fire and water, etc. by the time their spouses arrive...In warm weather, while on tramp, they seldom make a miam – they use merely a few boughs to keep off the wind, in wet weather a few sheets of bark make a comfortable house. In one half hour I have seen a neat village begun and finished (Thomas in Gaughwin & Sullivan 1984, 93-94).

A review of early explorer's recordings of Aboriginal people in the Western Port area (Sullivan 1981) found that camping locations with bark huts were noted throughout Western Port and were always located on the banks of rivers and creeks. Aboriginal people were observed to spend between 3-10 days at these types of camps, exploiting resources within a 10 km radius (1981, 33-7).

While it is likely that Aboriginal people utilised the resources provided by Koo Wee Rup Swamp and would have travelling routes that considered the extensive nature of the swamp, information for the pre-contact period regarding Aboriginal associations to the swamp is limited. Gaughwin (1983) has highlighted the importance of coastal wetlands in providing significant subsistence resources. Many references by William Thomas describe the importance of eeling in the region with mud dykes used to catch eels near the mouth of creeks running into Westernport. Tooradin was also named as a location where eeling took place (Thomas in Gaughwin 1983, 62). There has been some suggestion that the swamp restricted movement between the eastern and western parts of the *Bun wurrung* territory, and that Cardinia Creek marked a travelling route through the swamp (Gaughwin & Sullivan 1984, 89; Smith 1991, 15).

Through an examination of ethnographic sources for the wider Westernport region, Sullivan found that possum and kangaroo were staple resources used by Aboriginal people, however plant foods and smaller game such as bandicoots, rats and lizards were determined to be an important dietary supplements (Sullivan 1981, 22).

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

In the late 1830s land began being settled by European colonists with Aboriginal resources depleted by introduced cattle. While there are few accounts of Aboriginal people's responses to European settlement in the study region, several local history publications refer to Aboriginal people interacting with early European settlers along Cardinia Creek, 10 km west of Pakenham (BPHS 1982, 10; Beaumont *et. al.*1979, 34). At a particularly large water hole along the creek, known as 'Gin Gin Bean' by the local Aboriginal clan, Aboriginal people speared large blackfish, which they exchanged for flour, sugar and salt (BPHS 1982, 10; Beaumont *et. al.*1979, 34). A reference to the 1851 'Black Thursday' bush fire, indicates that Aboriginal people were still closely associated with the 'Gin Gin Bean' run at this time. They described the lack of visibility during the fires as 'bright fellow [pointing towards the sun] had got the blight in his eye' (Beaumont *et. al.* 1979, 12)

Many Aboriginal people living in the region sought refuge in various stations set up around 1839-1843 in Westernport by William Thomas (Barwick 1998, 31). Thomas hoped that the stations would encourage Aboriginal people to take up an agricultural lifestyle but Thomas spent most of his time unsuccessfully trying to keep Aboriginal people out of Melbourne. The 1839 census of Aboriginal people living in and around Melbourne recorded 12 *Boonwoorong* people (Lakic & Wrench 1994, 112-113). In 1847 an influenza epidemic further depleted their population. By 1866 most of the remaining Aboriginal people in the Port Phillip region, including *Bun wurrung*, were removed from their lands to Coranderrk Aboriginal Station (Clark & Heydon 1998). Some Aboriginal people in the region were able to live outside of Aboriginal Missions in the later half of the 1800s. Thomas managed to secure 832 acres of land at Mordialloc in 1852 at a location where Aboriginal people had camped since 1835. Thomas spent years trying to 'defend the interests of the Bunurong' who had strong attachments to the Mordialloc Reserve, by preventing its cancellation. Despite his efforts the Mordialloc Reserve was eventually revoked and sold in 1863, with some of the Aboriginal residents moved to Coranderrk Aboriginal Station, and the remainder staying in camps at Mordialloc and Cranbourne where the last of them died in 1877 (Barwick 1998, 35, 52, 66). Ben Brett, a European settler who arrived in Westernport in 1863, reported another Aboriginal camp in the region from around this time period. Brett recalled that three or four Aboriginal people '…had a mia-mia at Tooradin, and used to come as far as Red Bluff' and observed that the group shot ducks and caught eels in the Tooradin Creek which they would then sell (Brett in South Gippsland Development League 1966, 380).

The current activity area contains Esso's existing easement, sections of which were constructed during the late 1960s. The construction of the existing easement would have brought about a moderate level of ground disturbance to sections of the activity area. On-going maintenance of the easement has further contributed to disturbances within the activity area.

3.1.2 Aboriginal Cultural Heritage Places

According to the Victorian Aboriginal heritage register (ACHRIS), there is one registered Aboriginal place (7921-0036) within the activity area and 41 registered Aboriginal cultural heritage places within the geographic region. The majority of these registered Aboriginal places are artefact scatters or low density artefact distributions, and the remainder are scarred trees and shell middens. These artefact scatters generally comprise low numbers of stone artefacts, although high density artefact scatters also occur in the geographic region.

The standard assessment for the CHMP encountered on average very poor ground surface visibility with agricultural crops and introduced grass and weed species present across the majority of the activity area.

There were occasional soil exposures within the activity area, generally focusing around vehicular tracks and underneath trees and other vegetation within the activity area. These soil exposures were carefully inspected during the standard assessment. In total 44 stone artefacts (32 within the activity area) were identified. Artefacts were identified within each of the three landform areas that had been identified during the desktop assessment, namely, the Warragul-Drouin Hills, Koo Wee Rup Plain and Western Port.

In accordance with r. 59 (3) the field survey included the examination of all potential mature trees for signs of scarring, caves, rock shelter or cave entrance within the activity area: none were identified.

Given the low surface visibility, and that Aboriginal cultural heritage material is present within the activity area, it is deemed necessary to undertake a Complex Assessment in accordance with Regulation 60 (1b). Subsurface testing as part of a complex assessment will be employed to identify the nature, extent and significance of potential Aboriginal cultural heritage in accordance with Regulation 60 (1b). Testing areas for the complex assessment will be preferentially selected based on investigation areas with higher archaeological potential rating. Additionally a sample of investigation areas with lower archaeological potential ratings will be tested to provide quantitative support of the assumptions and rationale behind the rating system.

RECOMMENDATIONS

4.1 Recommendations

The complex assessment subsurface testing programme and RAP consultation programme has recommenced in 2014. Any Section 61 matters and place specific recommendations will be contingent upon the outcomes of this investigation and consultation process. It would therefore be premature to provide any recommendations at this stage.

4.2 Contingencies

In addition to the Aboriginal heritage place management recommendations to be provided as part of the CHMP, a series of contingency responses will be provided that will become compliance requirements once the CHMP is approved.

The contingencies will provide instructions regarding the management of any Aboriginal cultural heritage found during the execution of the activity. This will include a list of actions that must be followed to ensure compliance. The contingencies will also describe the requirements relating to the custody and management of Aboriginal cultural heritage found during the execution of the activity and a protocol for the management of the discovery of human remains. In addition, a section relating to dispute resolution, delay and other obstacles as well as nominating project delegates will be considered.

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