CULTURAL HERITAGE MANAGEMENT PLAN 12874

280 EVANS ROAD CRANBOURNE WEST ~~INDUSTRIAL~~ SUBDIVISION AND INDUSTRIAL AND COMMERCIAL DEVELOPMENT

ADVERTISED PLAN

Sponsored by
2 Bond St Nominees Pty Ltd

Amended 13th September 2019

Completed 31st October 2014

Prepared by Cultural Heritage Advisors
Andrea Murphy, Stewart Thomson & Andrew Morris
Amended By Emma McNeil

Archaeology At TARDIS
cultural heritage advisors
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Beaconsfield, VIC 3807
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Aboriginal Heritage Act 2006
Section 66A

Amendment to an approved Cultural Heritage Management Plan – Notice of Approval

CHMP NAME:	**280 Evans Road, Cranbourne West ~~Industrial~~ Subdivision and Industrial and Commercial Development**		
CHMP NUMBER:	**12874**		
SPONSOR:	2 Bond St Nominees Pty Ltd	*ACN/ABN:*	113 960 580
Heritage Advisor(s):	Andrea Murphy, Stewart Thomson and Andrew Morris		
Author(s):	Andrea Murphy, Stewart Thomson and Andrew Morris (Archaeology at Tardis)		
Original CHMP cover date:	31 October 2014	*Pages:*	i-x and 1-171
Approved on:	28 November 2014		
Amended CHMP cover date:	13th September 2019		

TO BE COMPLETED BY THE SECRETARY (OR DELEGATE) I have considered the Evaluation Report for this CHMP and:	Yes	No
I am satisfied that the amendment to the CHMP has been prepared in accordance with the standards prescribed for the purposes of section 66A(4) of the Aboriginal Heritage Act 2006.	✓	
I am satisfied that the amendment to the CHMP adequately addresses the matters set out in section 61.	✓	
In considering this application, I consulted with and considered the views of Aboriginal persons or bodies I considered relevant to the application.	✓	
I have given proper consideration to any relevant human rights	✓	

I, Harry Webber, Director Heritage Services Aboriginal Victoria, acting under authority delegated to me by the Secretary, Department of Premier and Cabinet, and pursuant to section 66A(3) of the *Aboriginal Heritage Act 2006* hereby **approve / refuse to approve** this amended cultural heritage management plan:

[redacted]

Signed:

ADVERTISED PLAN

Dated: [redacted]

- This notice of approval should be inserted after the title page and bound with the body of the management plan.
- The recommendations or conditions in this management plan are now compliance requirements. Officers from the Department of Premier and Cabinet may attend the subject land to monitor compliance with the recommendations.

Aboriginal Heritage Act 2006
Section 65

Cultural Heritage Management Plan – Notice of Approval

CHMP NAME:	**280 Evans Road, Cranbourne West, Industrial Subdivision**		
CHMP NUMBER:	**12874**		
SPONSOR:	2 Bond St Nominees Pty Ltd	*ACN/ABN:*	113 960 580
Cultural Heritage Advisor(s):	Andrea Murphy, Stewart Thomson and Andrew Morris		
Author(s):	Andrea Murphy, Stewart Thomson and Andrew Morris		
Cover date:	31 October 2014	*Pages:*	xx + 170
Received for approval:	31 October 2014		

TO BE COMPLETED BY THE SECRETARY (OR DELEGATE) **I have considered the Evaluation Report for this CHMP and:**	**Yes**	**No**
I am satisfied that the CHMP has been prepared in accordance with the standards prescribed for the purposes of section 53 (in the Aboriginal Heritage Regulations 2007 and the Approved Form).	✓	
I am satisfied that the CHMP adequately addresses the matters set out in section 61.	✓	
In considering this application, I consulted with and considered the views of Aboriginal persons or bodies I considered relevant to the application.	✓	
I have given proper consideration to any relevant human rights	✓	

I, Jane Sweeney, Director Heritage Services, Office of Aboriginal Affairs Victoria, acting under authority delegated to me by the Secretary, Department of Premier and Cabinet, and pursuant to section 65(2) of the *Aboriginal Heritage Act 2006* hereby **approve / refuse to approve** this cultural heritage management plan:

Signed: [redacted]

Dated:

- **This notice of approval should be inserted after the title page and bound with the body of the management plan.**
- **The recommendations in this management plan are now compliance requirements. Officers from the Department of Premier and Cabinet may attend the subject land to monitor compliance with the recommendations.**

280 EVANS ROAD, CRANBOURNE WEST ~~INDUSTRIAL~~ SUBDIVISION AND INDUSTRIAL AND COMMERCIAL DEVELOPMENT CULTURAL HERITAGE MANAGEMENT PLAN

ADVERTISED PLAN

OAAV Management Plan Identifier:	12874
Activity Size:	Medium (r.68 *Aboriginal Heritage Regulations 2007*)
Assessment Type:	Desktop, Standard & Complex (r.56 *Aboriginal Heritage Regulations 2007*)
Sponsor:	2 Bond St Nominees Pty Ltd
Heritage Advisors:	Andrea Murphy, Stewart Thomson & Andrew Morris (Archaeology At Tardis Pty Ltd)
CHMP Authors:	Andrea Murphy, Stewart Thomson & Andrew Morris Amended by Emma McNeil
Draft Completed:	31st October, 2014 Amended 13th September 2019

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PART 1 – ASSESSMENT

This Cultural Heritage Management Plan (CHMP) has been carried out for ~~an industrial~~ subdivision and industrial and commercial development at 280 Evans Road, Cranbourne West (Lot 4 on PS546430, Parish: Lyndhurst), in the local government authority of City of Casey. This CHMP has been sponsored by 2 Bond Street Nominees Pty Ltd. The activity area includes areas of cultural heritage sensitivity as defined in the *Aboriginal Heritage Regulations 2007* (Regulation 31 – Koo Wee Rup Plain), and the activity is a high impact activity (Regulation 46 - Subdivision of land). Therefore, this plan is a mandatory requirement.

The activity area is located in Cranbourne West, approximately 45km southeast of Melbourne (Maps 1 & 2), and comprises 24.51ha (approx.) of farm land. The activity area is bound by Evans Road to the west, Breens Road to the south, Thompsons Road to the north and Cranbourne Terminal Station to the east. The activity area is currently owned, occupied and managed by Ms Julie Meagher.

No Aboriginal cultural heritage places have been previously registered within the activity area.

Andrea Murphy, Stewart Thomson and Andrew Morris (Archaeology At Tardis Pty Ltd) are the cultural heritage advisors and authors of this plan. Emma McNeil amended this plan on 2nd September 2019. Andrea Murphy holds an Honours degree in archaeology and has over twenty years' experience in all facets of cultural heritage management. Andrew Morris holds an Honours degree in archaeology and has five years' experience in cultural heritage management. Stewart Thomson holds an Honours degree in archaeology and has seven years' experience in cultural heritage management (see Appendix 7). Emma McNeil has an Honours degree in archaeology.

A *Notice of Intent to Prepare a Cultural Heritage Management Plan* (NOI) was submitted to the Office of Aboriginal Affairs Victoria (OAAV) on 18 November, 2013. OAAV notified the sponsor on 18 November, 2013 that they will evaluate the plan when completed and have allocated CHMP No. 12874 to the plan (Appendix 1). A *Notice of Intention to Prepare an Amendment to an Approved Cultural Heritage Management Plan* was submitted on the 22nd of August 2019 to the Director of Heritage Services, Aboriginal Victoria.

There is no Registered Aboriginal Party (RAP) in relation to the activity area. The WTLCCHC have lodged a RAP application which includes the activity area. The BWFL and BLCAC previously had RAP applications for the activity area which were formally declined on the 27 August, 2009 (BWFL), and 15 July, 2011 (BLCAC). BWFL have since lodged another RAP application on 30 December, 2013 which includes the activity area. Representatives of the WTLCCHC participated in the fieldwork, and were consulted throughout the assessment. The BWFL and BLCAC and WTLCCHC were provided with the results of the assessment and draft management recommendations and invited to provide comment (Correspondence Log - Appendix 8). No further consultation was held during the amendment, as the changes occurred only to the activity description and did not affect the conditions of the plan, therefore, further consultation was considered unnecessary.

EXECUTIVE SUMMARY

This CHMP is a *medium* sized project as defined by the *Aboriginal Heritage Regulations 2007*, and comprises a desktop, standard and complex components.

DESKTOP ASSESSMENT (SECTION 5)

- The activity area includes areas of cultural heritage sensitivity as defined in the *Aboriginal Heritage Regulations* (Regulation 31 – Koo Wee Rup Plain).
- There are no previously registered Aboriginal heritage places within the activity area.
- There are two previously registered Aboriginal heritage paces within 200m of the activity area (VAHR 7921-0533 & VAHR 7921-0534).
- There are forty one previously registered Aboriginal heritage places within 2km of the activity area (Appendix 2), the majority of which are stone artefact scatters.
- The majority of stone artefact scatters within the geographic region comprise low density stone artefact scatters ($n<10$ pm^2) or isolated artefacts in a surface or subsurface context.
- Stone artefact scatters within the geographic region varied from single artefacts to scatters of in excess of 15,200m^2.
- Sub-surface stone artefact scatters have been located to a maximum depth of 0.93m and have been located in sandy soil deposits.
- Stone artefact scatters in the geographic region are composed primarily of silcrete, quartz and quartzite, with minor components of chert, hornfels, basalt and Crystal Quartz.
- There are no sources of stone material within the geographic region.
- Of the stone artefact assemblages which have been subject to analysis, silcrete is the predominate raw material (49%).
- Aboriginal scarred trees within the geographic region are all on Red Gums close to water sources.
- The activity area lies on the pre-contact vegetation transitional zone between swampy woodland forest and plains grassland, so would have presented as a suitable short term campsite location despite having no potable water sources.
- The activity area has been subject to a range of post-Contact disturbance including vegetation planting & removal, farm complex development, deposition of fill, grazing and ploughing. Therefore the integrity of any archaeological material within the activity area will be poor (Section 5.8).

Aboriginal Cultural Heritage Prediction Model for the Activity Area and Implications for this Investigation

The results of the desktop assessment have been used to assess the likelihood of the activity area to contain Aboriginal cultural heritage. The most likely site types to occur within the activity area are low density stone artefact scatters. Table 3 assesses the potential of the activity area to contain Aboriginal cultural heritage. Apart from stone artefact scatters, no other site type is considered likely for the activity area.

Table 3 Site Prediction Model for the Activity Area

Site Type	Reasonably Possible?	Evidence
Stone artefact scatter	Yes (Low-moderate)	There is potential for low density stone artefact scatters in surface or subsurface context to occur within the activity area. These will only reflect short-term opportunistic campsite locations. A standard assessment is warranted.

STANDARD ASSESSMENT (SECTION 6)

The desktop assessment (Section 5) has shown that it is reasonably possible that Aboriginal cultural heritage is present in the activity area, and therefore a standard assessment is required.

- The entire activity area was subject to ground surface survey.
- No physical or other obstacles constrained the effectiveness of the ground surface survey.
- Ground surface visibility was very poor (<1%), and effective survey coverage was <1% (Map 10).
- No Aboriginal cultural heritage places were located during the ground surface survey.
- No caves, rockshelters, grinding grooves, quarry sites or shell middens were identified during the ground surface survey of the activity area. No mature old growth native vegetation which had the potential to exhibit cultural scarring was present within the activity area.
- The ground surface survey found that the activity area contains a landform likely to contain Aboriginal cultural heritage. This comprises a sandy rise (Survey Unit 2).
- The standard assessment demonstrated that the activity area has been subject to disturbance processes such as ploughing, cattle trampling, grazing, stock ruts, tree planting, tree removal, farm complex construction, fill deposition and shallow open drain (Map 11).

- The desktop and standard assessments have shown that Aboriginal cultural heritage is likely within the activity area, and therefore a complex assessment must be carried out (*r.60(1) Aboriginal Heritage Regulations 2007*).

The results of the standard assessment have been used to refine the desktop assessment Aboriginal cultural heritage prediction model (Section 5.8). There is a moderate likelihood that Aboriginal cultural heritage will occur within the elevated sandy rise (Survey Area 2). Apart from this location, no other part of the activity area is considered likely to contain Aboriginal cultural heritage.

The site types most likely to occur would be isolated stone artefacts or low density surface/subsurface stone artefact scatters. Apart from stone artefact scatters, it is highly unlikely that any other site-type occurs within the activity area (Table 3). Table 5 summarises the potential of the activity area to contain Aboriginal cultural heritage (Map 10).

Table 5 Standard Assessment Aboriginal Cultural Heritage Scientific Sensitivity Model (Map 10)

Place Types	Location/ Landform	Sensitivity
Isolated stone artefact/ Stone artefact scatter	Survey Unit 2 / Rise	Likely (Low - Moderate)
Isolated stone artefact/ Stone artefact scatter	Survey Unit 1 / Undulating paddock	Unlikely (Extremely low)

COMPLEX ASSESSMENT (SECTION 7)

The initial complex assessment was carried out by Andrew Morris (Field Supervisor, Archaeology At Tardis Pty Ltd), William Truscott, Phoebe Heddel-Stevens and Aaron Dalla-Vecchia (Archaeologists, Archaeology At Tardis Pty Ltd), Karen Kapteinis (Geomorphologist, Archaeology At Tardis Pty Ltd), Willy Xiberras, Trevor Dawes, and Shane Nicholson (Aboriginal community representatives, WTLCCHC).

At the request of OAAV (Appendix 8) an additional phase of complex testing was conducted on 2 and 3 October, 2014. Fieldwork was carried out by Stewart Thomson (Field Supervisor, Archaeology At Tardis Pty Ltd), Mark Dowdell (Field Supervisor, Archaeology At Tardis Pty Ltd), Aaron Dalla-Vecchia (Archaeologists, Archaeology At Tardis Pty Ltd), Willy Xiberras and Trevor Dawes (Aboriginal community representatives, WTLCCHC).

The aims of the complex assessment were to:

- Determine the nature and stratigraphy of subsurface landforms in the activity area;
- Sample the activity area for the presence or absence of Aboriginal cultural heritage;

- Undertake a series of test pits within Survey Unit 1 to test the site prediction model;
- Test the site prediction model, that Aboriginal cultural heritage was likely within the elevated sandy rise (Survey Unit 2, Map 10);
- Confirm the nature, extent and significance of any Aboriginal cultural heritage within the activity area.

A total of fifty four test pits were hand excavated. One 1m x 1m and fifty three 0.5m x 0.5m controlled hand excavated test pits were investigated within the activity area (Map 12a & 12b)

As a result of the complex assessment one Aboriginal stone artefact scatter site was identified within the activity area (VAHR 7921-1521) (Map 12a & 12b). This site was found on the elevated sandy rise (Survey Unit 2).

A total of 112 stone artefacts (Appendix 5) were located in 5 test pits during this investigation within the activity area (Appendix 3). The known place extent is determined by the presence of artefacts found in test pits TP1, TP3, TP4 & TP5 (Map 13). The site dimensions are approximately 50m x 50m x 40cm.

At OAAV's request the place extent has been defined by the closest radial test pits containing zero artefacts, due to there being a likelihood of additional cultural material located between the test pits containing stone artefacts & the surrounding radial test pits containing zero artefacts (Map 13).

No organic material with cultural association was identified during the sub-surface testing. The pH levels obtained from the sub-surface testing ranged between 6.0 and 6.5. These levels are considered slightly too acidic to permit organic preservation (Gordon & Buikstra 1983).

The additional phase of complex testing, requested by OAAV, did not locate any Aboriginal cultural heritage outside the previously defined place extent (Map 13). One Aboriginal stone artefact was recorded during this additional phase of sub surface testing and this was found within the defined place extent.

The complex assessment has demonstrated the following:

1. The site prediction model generated for the activity area was accurate;
2. A total of 112 stone artefacts were located in 5 test pits during this investigation within the activity area;
3. One Aboriginal cultural heritage place was registered as a result of the complex assessment (VAHR 7921-1521);
4. VAHR 7921-1521 has been investigated in terms of its extent, nature and significance;

5. The activity area is composed of silty sand overlying sterile clay.

6. No historic Aboriginal places were discovered or are likely to be present in the activity area;

7. No post-contact historic cultural heritage was found during the complex assessment; and

8. The activity area has been subject to disturbance processes such as ploughing, cattle trampling, grazing, animal burrows, tree planting, tree removal, house construction, driveway construction, ground filling, and underground utility installation.

The results and conclusions of the subsurface testing considered in light of the desktop and standard assessments (af.11.c)9.) are presented in Section 8.

ABORIGINAL CULTURAL HERITAGE (SECTION 8)

Known Cultural Heritage Values

The known Aboriginal cultural heritage values in the activity area are restricted to VAHR 7921-1521. This site comprises the lithic remains of a short-term and opportunistic campsite location situated on the edge of woodland overlying extensive grassland.

No organic material within a cultural context was encountered during the complex assessment and therefore no samples were subject for radiometric dating. OSL dating was not considered suitable due to the lack of sufficient place attributes such as high integrity artefact horizons. Places with very low scientific significance typically lack these attributes. Unless there was some evidence to suggest greater antiquity than the Late Holocene (such as evidence of pre-ASTT assemblages), such dating methods cannot be reasonably justified on a scientific basis.

The stone artefact data classes and raw material recovered from the place is typical for the activity area region which shows exploitation of terrestrial resources. The usual range of flakes, tools, cores and angular fragments were identified in moderate numbers and density classes. Silcrete (imported to this site) is the dominant raw material which is also typical of the activity area region.

The place is comprised solely by its archaeological site component (s.5 *Aboriginal Heritage Act 2006*). This component is fully documented and will be preserved in the VAHR site registry.

The detailed assessment of scientific significance of Aboriginal cultural heritage identified within the activity area is presented in Appendix 6.

Apart from the known archaeological values no other known Aboriginal cultural heritage will be harmed. Based on the evidence from this investigation, a scientific and cultural

significance summary of this site and a final archaeological sensitivity model for the activity area are presented in Tables 8 & 9.

All sites, regardless of type, extent or context are considered by the WTLCCHC as being of high cultural significance.

No response in relation to cultural significance was provided by either BSFL or BLCAC.

Significance Summary (Table 8)

VAHR No Place Name	WTLCCHC Cultural Significance	Scientific Significance
7921-1521 280 Evans Rd	*High*	*Moderate - high*

The criteria used to assess scientific significance are presented in Appendix 6. This site has been assessed as being of *moderate-high* significance based on stone artefact density and integrity.

The assessment has demonstrated that:

- The assessment has comprehensively identified and assessed the cultural heritage values of the activity area;
- The known cultural heritage values comprise subsurface stone artefact scatter VAHR 7921-1521;
- VAHR 7921-1521 has *high* cultural significance to WTLCCHC;
- VAHR 7921-1521 has *moderate - high* scientific significance;
- Any additional Aboriginal cultural heritage, if present, is likely to have some minor additional scientific and research value.

CONSIDERATION OF SECTION 61 MATTERS – IMPACT ASSESSMENT (SECTION 9)

The assessment identified the nature, extent and significance of known Aboriginal cultural heritage (Sections 5 – 8). Below the impact of the activity on known places is assessed pursuant to Section 61 of the *Aboriginal Heritage Act 2006*. Based on the current development design (Map 4 amended) this site cannot be retained.

Avoiding Harm to Known Aboriginal Cultural Heritage

Harm to VAHR 7921-1521 cannot be avoided. The location of VAHR 7921-1521 is within a proposed industrial development (Map 15 amended).

Typical earthworks during industrial subdivision construction will include grading of the activity area. As is typical within industrial subdivisions, there is no open space included in the proposed activity. The sponsor has considered avoidance of VAHR 7921-1521,

however, this cannot be achieved without adversely affecting the viability of the development.

There are currently two electricity easements exist within the activity area which significantly constrains the development design by diminishing the amount of developable land and area available for a heritage conservation zone. However, during the production of this CHMP SPAusnet has agreed to the removal of the north-south transmission easement. A planning permit has been lodged with the City of Casey to remove the north-south easement and vary the location of the angled easement in the south-east corner of the property. The Creation of Easement Plan is shown in Appendix 13.

Minimising Harm to Known Aboriginal Cultural Heritage

Harm cannot be minimised for the reason stated above (Section 9.1.1). However, all known physical remains of the place have been collected during preparation of this CHMP.

Specific Management Measures Required

VAHR 7921-1521 is of *moderate-high* scientific significance and has limited research potential. OAAV have requested that management of this site is done by undertaking archaeological salvage of part of this site.

The salvage methodology is presented in Section 10.1.

This salvage excavation must be undertaken before any ground disturbance within the extent of VAHR 7921-1521 occurs.

- Conducting a salvage excavation of VAHR 7921-1521 as presented in Section 10, Recommendation 1 and shown in Map 16, will further investigate the temporal and spatial distribution of the cultural deposit, and recover additional Aboriginal cultural heritage within the extent of VAHR 7921-1521.

Contingency Plan (Section 11)

A Contingency Plan is required to manage potential issues including:

- Specific measures in the unlikely event that any Aboriginal cultural heritage beyond known cultural heritage will be unexpectedly discovered during the activity;
- Any contingency plans required in relation to disputes, delays and other obstacles that may affect the conduct of the activity;
- Reviewing compliance with the cultural heritage management plan and mechanisms for remedying non-compliance;
- The notification of the discovery of Aboriginal cultural heritage during the carrying out of the activity; and requirements relating to the custody and management of any Aboriginal cultural heritage found during the course of the activity.

The Contingency Plan is presented in Section 11.

PART 2 – CULTURAL HERITAGE MANAGEMENT RECOMMENDATIONS

These recommendations become compliance requirements once the Cultural Heritage Management Plan is approved.

10 SPECIFIC CULTURAL HERITAGE MANAGEMENT REQUIREMENTS

These recommendations become compliance requirements once the Cultural Heritage Management Plan is approved.

Based on the findings of this report the following recommendations are made:

10.1 Recommendations

Recommendations Prior to Activity

Recommendation 1: VAHR 7921-1521 (Stone Artefact Scatter)

VAHR 7921-1521 is a subsurface stone artefact scatter which has been assessed as having *high* cultural significance by WTLCCHC, and *moderate-high* scientific significance (Section 8.8 & Appendix 6). The extent, nature and significance of the place was determined during the complex assessment (r.60(1)(b) *Aboriginal Heritage Regulations 2007*, Section 8).

It is recommended that limited archaeological salvage be conducted within the place extent of VAHR 7921-1521 that is to be directly impacted by the activity (Map 15 amended), due to the *moderate-high* scientific significance of the place.

Prior to ground disturbance

Prior to the commencement of any ground disturbance within the extent of VAHR 7921-1521 (Map 16), limited salvage is to be undertaken with the following aims:

1) To further investigate the spatial and temporal distribution of the cultural material associated with VAHR 7921-1521;

2) To recover additional Aboriginal cultural heritage;

3) To help answer further current research questions and further contribute to archaeological knowledge of the place, the activity area or the surrounding region.

To achieve this aim controlled salvage must be undertaken of the artefact bearing deposit down to a sterile layer.

Salvage is to be conducted via the following methodology:

- Excavation of a minimum fifteen (100cm x 100cm x sterile base layer) salvage pits.

- During a meeting with OAAV (6 August 2014) (Appendix 8), OAAV requested that four salvage excavation pit be excavated in a "T" configuration within close vicinity to TP5. The position and configuration of the remaining salvage excavation pits will be undertaken at locations within the extent of VAHR 7921-1521 (Map 16), as agreed upon between the TOG representatives and the cultural heritage advisor at the time of salvage;

- Excavation of the artefact bearing horizon must be conducted to proper archaeological practice by a qualified archaeologist and by hand;

- The salvage pits are to be recorded to sub-metre accuracy using GDA94 MGA coordinates;

- All sediments excavated 100% sieved using 5mm mesh;

- Artefacts found during excavation must be individually point provenanced to the nearest centimetre;

- All artefacts recovered are to be contained in bags with the artefacts provenance details labelled on the bag(s);

- The test pits must to be recorded in detail including, photographic records, pH levels, Munsell colour, sediment descriptions, stratigraphy and disturbance;

- A geomorphological assessment must be undertaken;

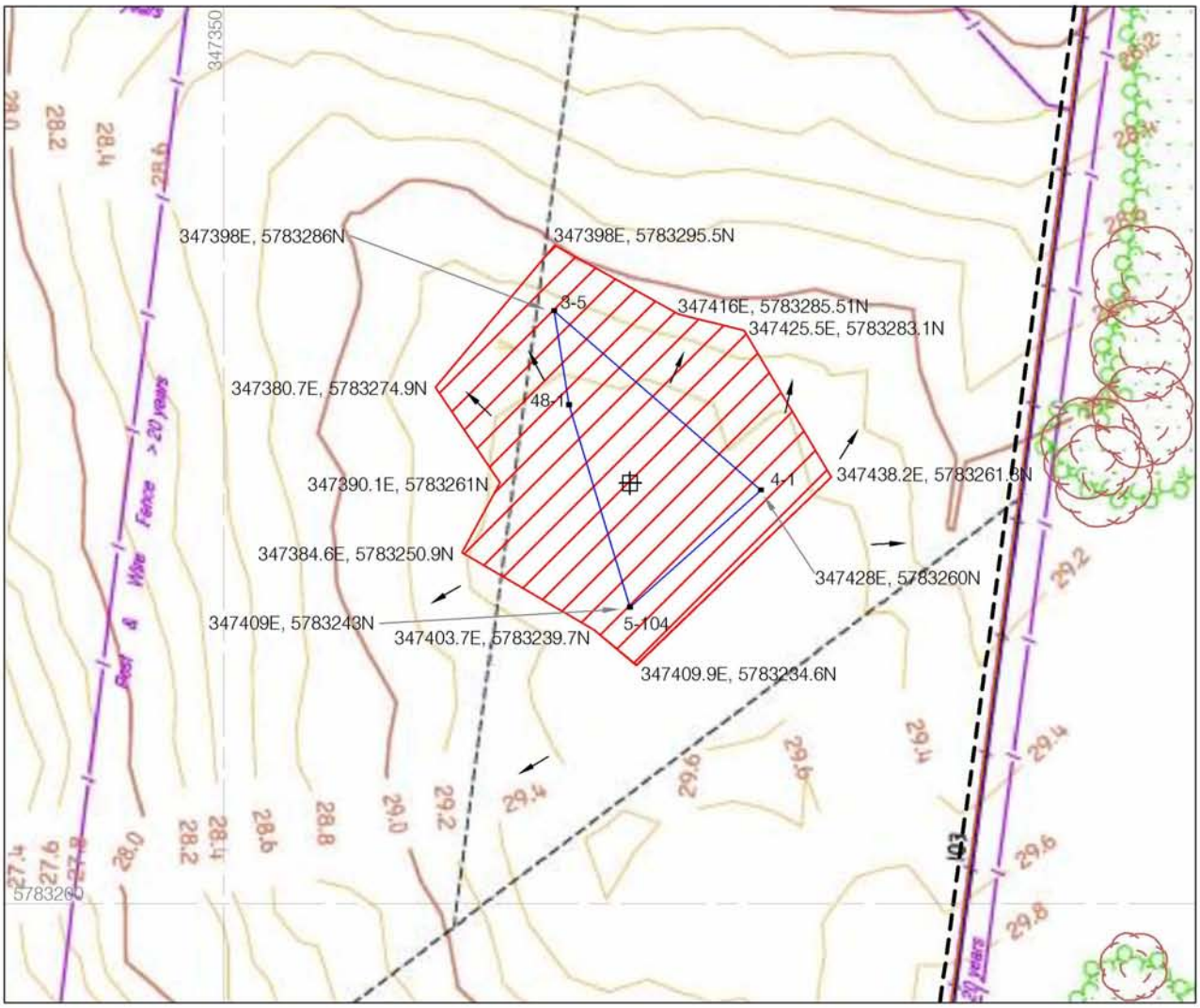
- All artefacts are to be recorded in detail including photographic records, typological determination, material type and size;

- All artefacts recovered are to be subject to detailed analysis, looking specifically at usewear and the potential for conjoining and residue analysis;

- Any organic feature discovered in relation with Aboriginal cultural heritage is to be salvaged completely and subjected to dating analysis. The cost is to be borne by the sponsor or their agent.

Following completion of the salvage excavation, the heritage advisor must complete appropriate VAHR forms and submit a report to OAAV detailing the results of the archaeological salvage.

The custody and management of artefacts must be conducted according to Recommendation 4.



Scale = 1:1000

0 30

Scale of Metres

Legend:

Primary Grid Coordinate 347409E, 5783261N & Test Pit 1 (1x1m) 1 Artefact

x-y Test Pit (50x50cm) x = test pit number y = number of artefacts

Salvage Area

Activity Area Boundary

Fence

VAHR 7921-1521 Place Extent

VAHR 7921-1521 Known Extent

Tree

Denotes Direction of Slight Slope

N

GDA Zone 55

Map 16 Location of Archaeological Salvage to be undertaken within the Extent of VAHR 7921-1521

Recommendation 2: Aboriginal Heritage Information

Prior to commencing works within the activity area, all employees and contractors actively involved in ground disturbance works within the activity must be made aware of the potential for unexpected Aboriginal cultural heritage being unearthed during works. As a minimum, such awareness is to include:

- Information material available on-site throughout the entire activity; and
- Instructions on how to proceed if cultural heritage material is identified.

Information material can be obtained as mini posters from the DPC website at: http://www.dpc.vic.gov.au/index.php/aboriginal-affairs/publications-and-research/aboriginal-cultural-heritage-mini-poster-series

Cultural heritage information must be provided by the Sponsor A copy of Part 2 of the approved CHMP must be on site or be readily accessible at all times.

Recommendations During and Post Activity

Recommendation 3: Contingency Plan

The Contingency Plan presented in Section 11 must be adopted.

Recommendation 4: Custody and Management of Aboriginal Cultural Heritage

Stone artefacts retrieved during the assessment are currently held by AAT. Artefacts will be retained by AAT until the CHMP is approved or until a RAP is approved, whichever is earlier. If no RAP is approved then custody of the artefacts will be offered to the following in order of priority:

- any relevant registered native title holder;
- any relevant native title party;
- RAP applicant;
- any relevant Aboriginal person or persons with traditional or familial links;
- any relevant Aboriginal body or organisation which has historic or contemporary interest in Aboriginal heritage;
- the owner of the land;
- the Museum of Victoria (s.61(e)).

If no party accepts custody of the artefact, then the Sponsor must ensure the artefacts are reburied as close to the original place location as practical within three months after the completion of the activity. The reburial location must be documented to sub-meter accuracy using GDA94 MGA coordinates and reported to OAAV. A reburial location within the electricity easement or other suitable area within the activity area would be recommended after completion of the activity.

All cultural heritage must be buried in a suitable weatherproof container along with a copy of the artefact inventory. An Object Collection Form must be completed and submitted to

OAAV by a suitably qualified cultural heritage advisor. The cost of the reburial is to be borne by the sponsor or their agent. The exact location and timing should be as a result of communication between the relevant Aboriginal group and sponsor.

Any Aboriginal cultural heritage found during the conduct of the activity must be dealt with according to the Contingency Plan.

TABLES (IN TEXT)

MAPS (IN TEXT)

PLATES (IN TEXT)

FIGURES (IN TEXT)

APPENDICES

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ACKNOWLEDGEMENTS

Archaeology At Tardis Pty Ltd would like to thank the following people for their assistance:

2 Bond Street Nominees Pty Ltd – Sponsor
Louise Lowe – KLM Spatial
Alex Palmington, Delta Freedman, Willy Xiberras, Trevor Dawes, and Shane Nicholson – Wurundjeri Tribe Land and Compensation Cultural Heritage Council Inc
Sonia Murray - Bunurong Land Council Aboriginal Corporation
Caroline Briggs - Boon Wurrung Foundation Ltd

ABBREVIATIONS

OAAV	Heritage Services Branch, Office of Aboriginal Affairs Victoria
ACHRIS	Aboriginal Cultural Heritage Register Information Systems
af	Approved Form under clause 64(a) of the Aboriginal Heritage Regulations 2007, specifying the required format of CHMPs
asl	Meters Above Sea Level
BLCAC	Bunurong Land Council Aboriginal Corporation
BP	Years Before Present (1950)
BWFL	Boon Wurrung Foundation Ltd
CHMP	Cultural Heritage Management Plan
CHP	Cultural Heritage Permit
dGPS	Differential Global Positioning System
DPCD	Department of Planning and Community Development
DEPI	Department of Environment and Primary Industries
EVC	Ecological Vegetation Classes
GPS	Global Positioning System
Kya	Thousand years ago
LDRZ	Low Density Residential Zone
LGM	Last Glacial Maximum
LV	Land Victoria
Mya	Million years ago
NoI	Notice of Intent to Prepare a Cultural Heritage Management Plan
OSL	Optically Stimulated Luminescence
RAP	Registered Aboriginal Party
PGC	Primary Grid Coordinate
SLV	State Library of Victoria
TOG	Traditional Owners Group
TP	Test Pit
UGZ	Urban Growth Zone
VAHR	Victorian Aboriginal Heritage Register
WTLCCHC	Wurundjeri Tribe Land and Compensation Cultural Heritage Council Inc

**Throughout this report several technical terms are used that may not be familiar to some readers. An extensive glossary has been included as Appendix 11 and should be referenced for an explanation of terms.*

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PART 1 - ASSESSMENT

1 INTRODUCTION

This Cultural Heritage Management Plan (CHMP) has been carried out for ~~an industrial~~ subdivision and industrial and commercial development at 280 Evans Road, Cranbourne West (Lot 4 on PS546430, Parish: Lyndhurst), in the local government authority of City of Casey. This CHMP is sponsored by 2 Bond St Nominees Pty Ltd (ACN. 113 960 580). The activity area includes areas of cultural heritage sensitivity as defined in the *Aboriginal Heritage Regulations 2007* (Regulation 31 – Koo Wee Rup Plain), and the activity is a high impact activity (Regulation 46 - Subdivision of land). Therefore, this plan is a mandatory requirement. This CHMP was subject to an amendment on 2nd September 2019.

The activity area is located in Cranbourne, approximately 45km southeast of Melbourne (Maps 1 & 2), and comprises 24.51ha (approx.) of farm land. The activity area is bound by Evans Road to the west, Breens Road to the south, Thompsons Road to the north and Cranbourne Terminal Station to the east.

The activity area is currently owned, occupied and managed by Ms Julie Meagher.

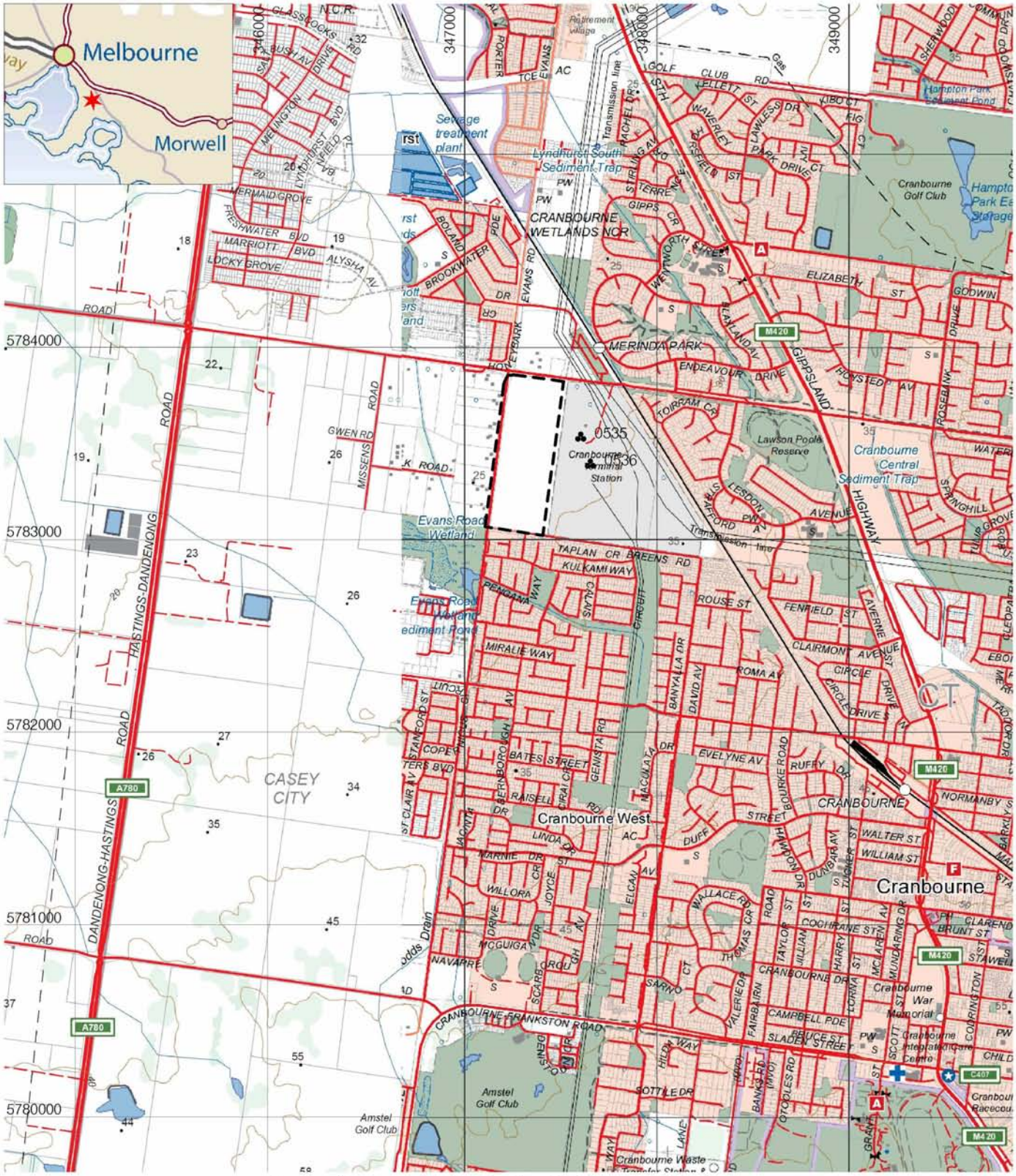
Andrea Murphy, Stewart Thomson and Andrew Morris (Archaeology At Tardis Pty Ltd) are the cultural heritage advisors and authors of this plan. Andrea Murphy holds an Honours degree in archaeology and has over twenty years' experience in all facets of cultural heritage management. Andrew Morris holds an Honours degree in archaeology and has five years' experience in cultural heritage management. Stewart Thomson holds an Honours degree in archaeology and has seven years' experience in cultural heritage management (see Appendix 7). Emma McNeil amended the approved CHMP. Emma McNeil has an Honours degree in Archaeology.

A *Notice of Intent to Prepare a Cultural Heritage Management Plan* (NOI) was submitted to the Office of Aboriginal Affairs Victoria (OAAV) on 18th November, 2013. OAAV notified the sponsor on 18th November, 2013 that they will evaluate the plan when completed and have allocated CHMP No. 12874 to the plan (Appendix 1). A *Notice of Intention to Prepare an Amendment to an Approved Cultural Heritage Management Plan* was submitted on 22nd August 2019 to the Director of Heritage Services, Aboriginal Victoria (VAHR).

There is no Registered Aboriginal Party (RAP) in relation to the activity area. The WTLCCHC have lodged a RAP application which includes the activity area. The BWFL and BLCAC previously had RAP applications for the activity area which were formally declined on the 27th August, 2009 (BWFL), and 15th July, 2011 (BLCAC). BWFL have since lodged another RAP application on 30th December, 2013 which includes the activity area. Representatives of the WTLCCHC participated in the fieldwork.

The WTLCCHC, BWFL and BLCAC were provided with the results of the assessment and draft management recommendations, and invited to provide comment (Consultation Log - Appendix 8). No TOGs were consulted during the process ~~of the amendment as the~~ changes occurred only to the activity description and would not affect the conditions, therefore, further consultation was considered unnecessary.

This CHMP is a medium *project* as defined by the *Aboriginal Heritage Regulations 2007*, and comprises a desktop, standard and complex assessment.



Topographic map used for Location Plan: 1:30,000 Number T7921-1-4-3

Legend:

★ Activity Area Location (Inset)

Activity Area Boundary
24.51 hectares (approx)

xxxx Artefact Scatter
VAHR 7921-xxxx

0 500 1000
Scale of Metres

N

Parish: *Lyndhurst*
LGA: *Casey*

ADVERTISED PLAN

Zone 55

Map 1 Activity Area Location an VAHR Places Within 200 metres

Topographic map used for Location Plan: 1:30,000 Number T7921-1-4-3

0 500 1000
Scale of Metres

Legend:

Activity Area Boundary
24.51 hectares (approx)

Area of Aboriginal Heritage Sensitivity

N

ADVERTISED PLAN

Parish: *Lyndhurst*
LGA: *Casey*

Map 2 Statutory Areas of Aboriginal Cultural Heritage Sensitivity

Aerial Photograph: Courtesy of DSE Website 2006

Legend:

0 100 200
Scale of Metres

N

Activity Area Boundary
24.51 hectares (approx)

Parish: *Lyndhurst*
LGA: *Casey*

Map 3 Extent of Activity Area: Aerial Photograph
(Melway Ref: 129 D9)

2 ACTIVITY DESCRIPTION

The activity is ~~an industrial~~ subdivision and industrial and commercial development which will ultimately comprise the Rangebank Business Park. ~~A preliminary concept plan for Stage 1, being the southern portion of the site~~, An indicative road layout has been provided by the Sponsor (Map 4 amended). The plan is based upon the parameters laid out in the Cranbourne West Precinct Structure Plan. ~~A preliminary plan of a large industrial development (truck/trailer manufacture) is shown adjacent to adjacent to the western boundary of the site. This location is ideal for this industrial development as it will make use of the electricity easement for trailer parking on hard stand and the land is sufficient separated from residential properties to the south of Breens Road.~~

This concept plan is supplied for indicative purposes only. This concept plan is not to be considered a final design.

Whilst the future use of the activity area (~~industrial~~ subdivision and industrial and commercial development) is known, the exact development footprint (such as the location of buildings, footpaths, utilities, roads, etc.) is not. As such, for this subdivision the "description of the use of development of each lot permitted by the relevant planning scheme" is used to describe the activity (sch.2 cl.6 (2)(b) *Aboriginal Heritage Regulations 2007*). Presently, the activity area is subject to City of Casey's Urban Growth Zone (UGZ1) and its associated Schedules. Accordingly, as permitted by the Casey Planning Scheme the use and development of the land may include, but is not limited to, the following: industry, office, place of assembly, retail premises, warehouse, service station and emergency facilities

Future subdivision of the lots will be determined by tenant requirements and will be conducted on a 'case by case' basis.

Final and precise depths of cut and fill and founding depths of utilities and buildings are dependent on final building designs following subdivision, building regulations and engineering designs and cannot be provided here. However, it is anticipated that such activities will impact upon any former buried land surfaces ~~to a maximum of 2m~~ to an indicative depth of 6m, which may change upon finalisation of the footprint, ~~depth~~ over the entire activity area (sch.2 cl.6(1)(b) *Aboriginal Heritage Regulations 2007*).

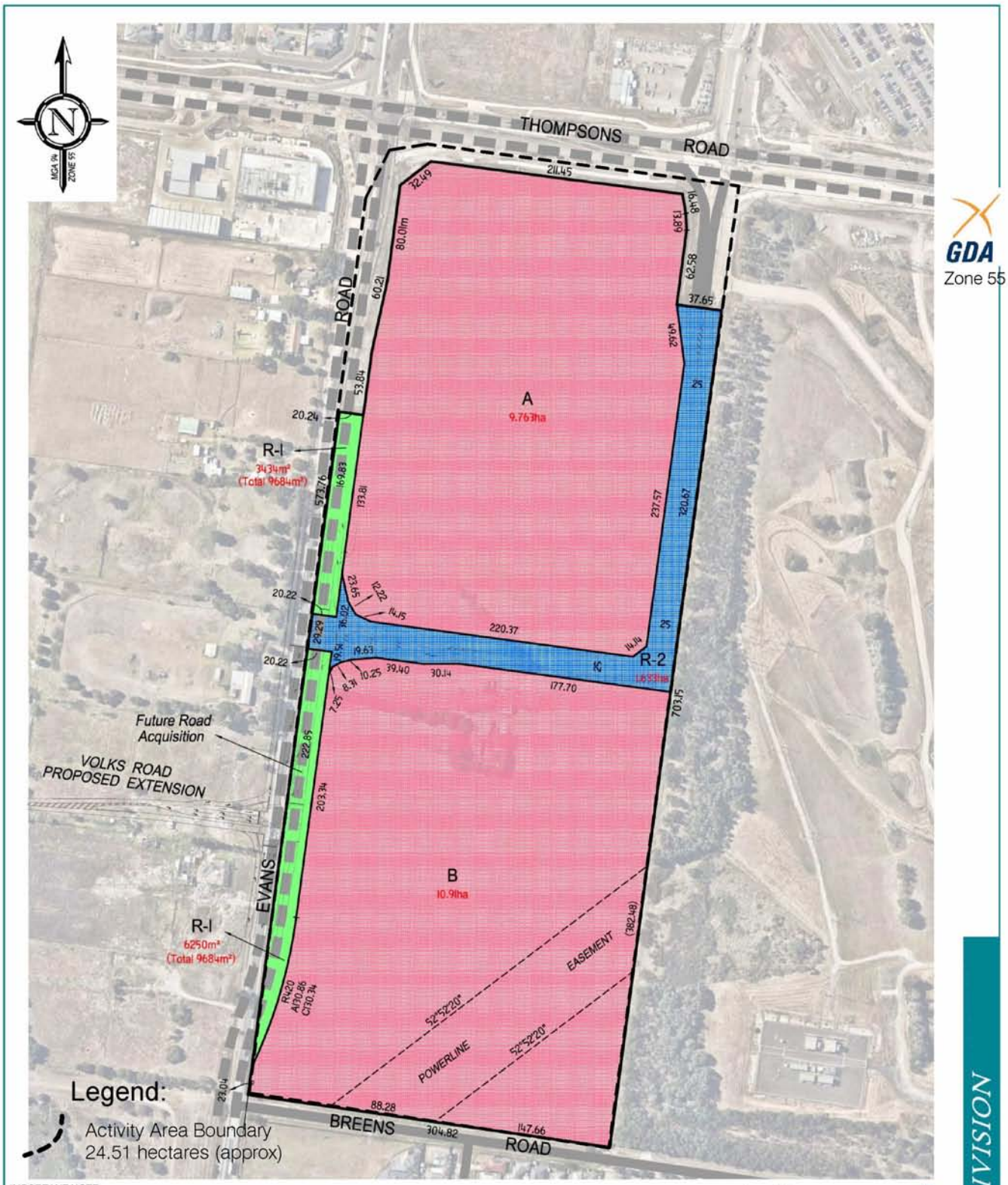
3 EXTENT OF THE ACTIVITY AREA

The activity area is located in Cranbourne, approximately 45km southeast of Melbourne (Maps 1 & 2), and comprises 24.51ha (approx.) of residential land. The activity area is bound by Evans Road to the west, Breens Road to the south, Thompsons Road to the north and Cranbourne Terminal Station to the east.

The salient prominent features of, the activity area are (Map 2):

- Undulating land at approximately 23.6 – 29.6m AHD, with one prominent rise in south east quadrant;

- One residential brick dwelling & sheds occupying the middle portion of the activity area;
- Exotic & native tree plantation;
- Cattle yard & post & wire fences;
- Gravel driveway;
- Electricity transmission easement (electrical transmission wires);
- Filled area in north west corner of activity area (former dam);
- Spoon drain;
- A range of underground services such as water, sewer, gas and telephone.



IMPORTANT NOTE

This plan was prepared for Murphy Trust No.1 as a proposal only and should not be used for any other purpose.

Title has been re-established but not marked at time of preparation, see title for full easement details.

The dimensions, areas and total number of lots shown hereon are subject to field survey and also to the requirements of Council and any other authority which may have requirements under any relevant legislation that could cause a change to this plan.

KLM Spatial can therefore accept no responsibility for reliance on this plan for any financial dealings involving the land.

This note is an integral part of this plan.

This plan must not be passed on to any third party or reproduced in any documentation without the written approval of KLM Spatial.

LEGEND

- PROPOSED LOT
- R-1 FUTURE ROA
- R-2 ROAD DELIVERABLE I

SCALE

60 0 60 120 180

LENGTHS ARE IN METRES

ps courtesy of Nearmap.
p Flown: 22-02-2019

CLIENT:
Murphy Trust No.1

LOCATION:
280 Evans Road
Cranbourne West, 3977
Lot 4 PS546430D V.9201 F.988

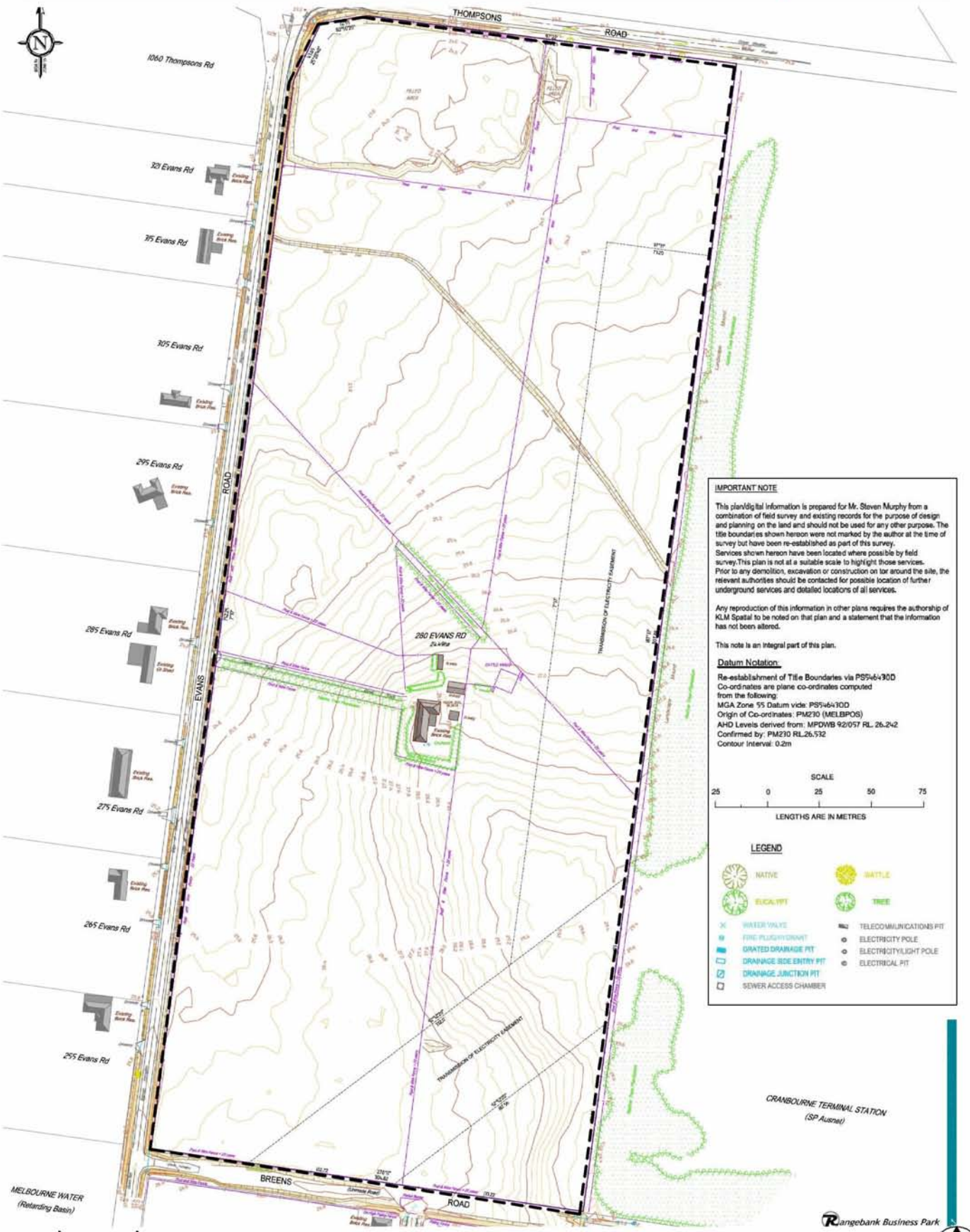
REFERENCE: 5959.07 PP05
VERSION: 1 08-07-2019
SHEET 1 OF 1 SCALE: 1:3000 SHEET SIZE: A3

KLM SPATIAL
Planners Building Designers
Surveyors Engineers
Suite 1, Building 2
3 Ordish Road
Dandenong South 3175
Telephone 03 9794 1600

PROPOSED SUBDIVISION

Map 4 Proposed Development Plan

(Melway Ref: 129 D9)



Legend:

Activity Area Boundary
24.51 hectares (approx)

Parish: *Lyndhurst*
LGA: *Casey*

ADVERTISED PLAN

GDA Zone 55

Map 5 Activity Area Feature Survey

(Melway Ref: 129 D9)

4 DOCUMENTATION OF CONSULTATION

4.1 Consultation in Relation to the Assessment

There is no Registered Aboriginal Party (RAP) in relation to the activity area. The WTLCCHC have a RAP application which includes the activity area. The BWFL and BLCAC previously had RAP applications for the activity area which were formally declined on the 27th August, 2009 (BWFL), and 15th July, 2011 (BLCAC). BWFL have since lodged another RAP application on 30th December, 2013 which includes the activity area. Representatives of the WTLCCHC participated in the fieldwork, and were consulted throughout the assessment.

The WTLCCHC, BWFL and BLCAC were provided with the results of the assessment and draft management recommendations, and invited to provide comment (Consultation Log - Appendix 8).

A *Notice of Intent to Prepare a Cultural Heritage Management Plan* (NOI) was submitted to the Office of Aboriginal Affairs Victoria (OAAV) on 18th November, 2013. OAAV notified the sponsor on 18th November, 2013 that they will evaluate the plan when completed and allocated CHMP No. 12874 to the plan (Appendix 1).

No consultation occurred during the process of the amendment as changes were only made to the activity description and did not affect the conditions of the plan, therefore, further consultation was deemed unnecessary.

4. 2 Participation in the Conduct of the Assessment

Persons listed below participated in the preparation of this plan in the following capacities:

- Andrea Murphy (principal, Archaeology At Tardis Pty Ltd): project management and report editing;
- Andrew Morris (archaeologist, Archaeology At Tardis Pty Ltd): project archaeologist, survey, sub-surface testing supervisor and report writing;
- Mark Dowdell, Vaia Louisas, William Truscott, Phoebe Heddel-Stevens and Aaron Della-Vecchia (archaeologists, Archaeology At Tardis Pty Ltd): complex assessment;
- Stewart Thomson (archaeologist, Archaeology At Tardis Pty Ltd): project archaeologist, survey, sub-surface testing supervisor and report writing;
- Willy Xiberras, Trevor Dawes & Shane Nicholson (WTLCCHC): field representative – complex assessments.

Archaeology At Tardis Pty Ltd key personnel (project managers and supervisors) qualifications and experience are detailed in Appendix 7.

The WTLCCHC, BLCAC and BWFL were requested to supply any relevant information regarding oral tradition, Aboriginal cultural heritage or specific cultural significance relevant

to the activity area (Correspondence Log – Appendix 8). No response has been received at the time of report finalisation.

4. 3 Consultation in Relation to the Recommendations

A draft of the management recommendations for this CHMP was provided to the Traditional Owner Groups (TOG) for comment (Appendix 8 – Correspondence Log). At the time of plan submission, no response had been received.

4. 4 Summary of Consultation Outcomes

As a result of consultation undertaken as part of this CHMP, the following outcomes were achieved:

- Willy Xiberras, Trevor Dawes & Shane Nicholson (WTLCCHC) participated in the field assessments for this CHMP;
- The TOGs have not provided any statement of cultural significance specific to the activity area;
- The TOGs have not provided any comments in response to the draft management recommendations.

5 DESKTOP ASSESSMENT

5. 1 Search of the Victorian Aboriginal Heritage Register (VAHR)

The VAHR was accessed on numerous occasions between19th November, 2013 and 19th October, 2014.

There are no previously registered Aboriginal heritage places within the activity area.

There are two previously registered Aboriginal heritage paces within 200m of the activity area (VAHR 7921-0533 & 0534).

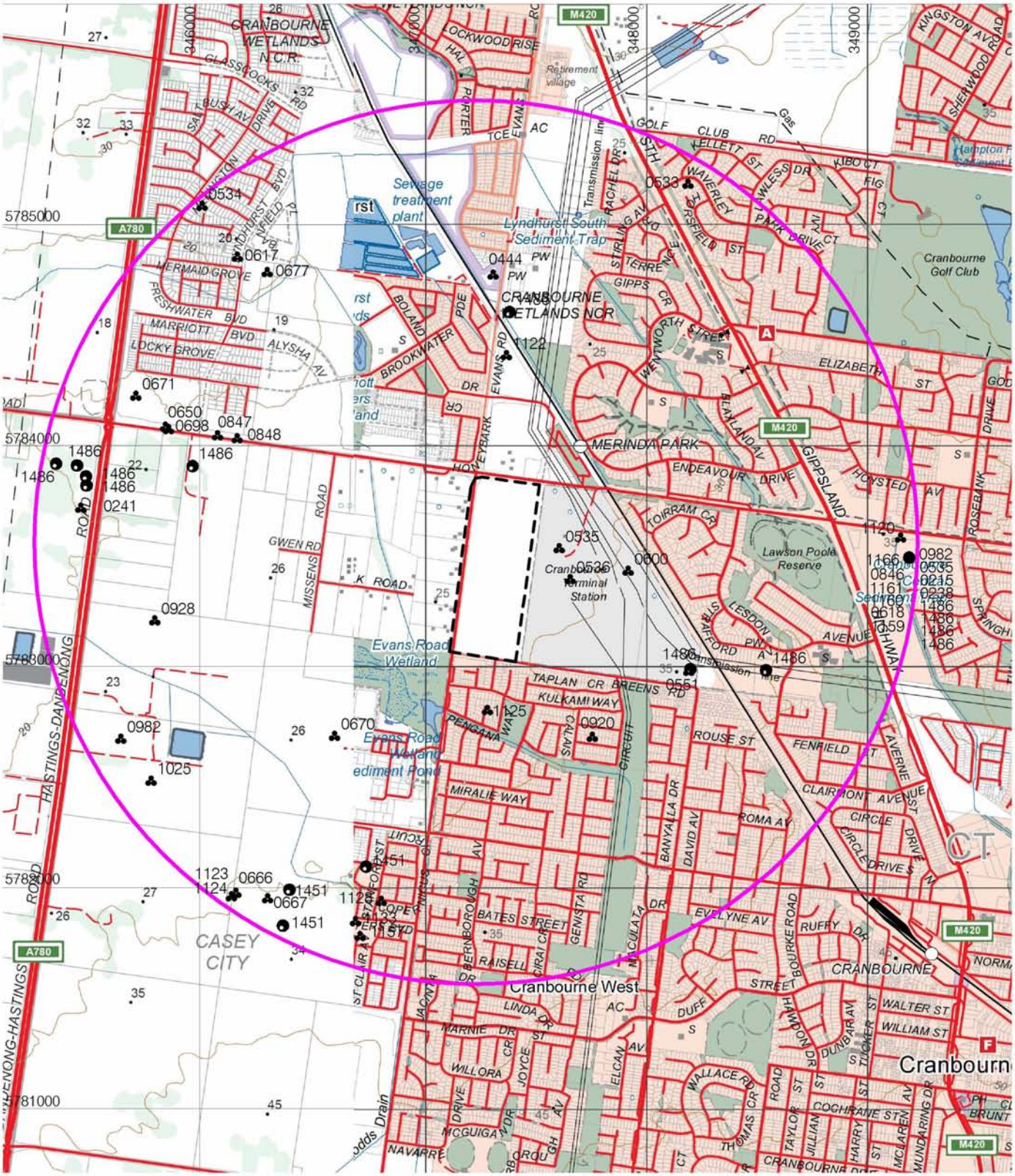
There are forty previously registered Aboriginal heritage places within 2km of the activity area (Appendix 2). These places are discussed in Section 5.3.

5. 2 Geographic Region

The geographic region in which the activity area is located is part of the Dandenong catchment area (Waterwatch Melbourne 2013). The activity area is part of the Eastern Plains geomorphic region of Victoria (Joyce et al 2003).

For further detailed information on the landforms/geomorphology, geography and environmental background of the geographic region refer to Section 5.6.

The geographic region relevant to this investigation is land within a 2km radius of the activity area (Map 6). For practical reasons this area is considered to contain a representative sample of all features that exist throughout the landform relevant to the Aboriginal cultural heritage that may be present. However, features or information outside this region are also discussed where considered pertinent.



Topographic map used for Location Plan: 1:30,000 Number T7921-1-4-3

0 500 1000
Scale of Metres

Legend:

- Activity Area Boundary 24.51 hectares (approx)
- Geographic Region Boundary 2 Kilometres
- xxxx Artefact Scatter VAHR 7921-xxxx
- xxxx Scarred Tree VAHR 7921-xxxx
- xxxx Low Densitiy Artefact Distribution VAHR 7921-xxxx
- xxxx Object Collection VAHR 7921-xxxx

N

Zone 55

Map 6 Previously Registered Aboriginal Places within the Relevant Geographic Region

5. 3 Aboriginal Places in the Geographic Region

There is no previously recorded Aboriginal places within the activity area. However, there are two previously recorded Aboriginal places within 200m of the activity area (Table 1).

Table 1 Aboriginal Places within 200m of the Activity Area

VAHR No Place Name	Place Type	Location	Place Details	Scientific Significance (recorder)
7921-0533 Cranbourne Terminal 1	Artefact Scatter	120m east of the activity area	2 surface stone artefacts (2 flakes, 1 silcrete & 1 quartz	Low
7921-0533 Cranbourne Terminal 2	Artefact Scatter	190m east of the activity area	2 sub-surface stone artefacts (2 flakes, 2 silcrete)	Low

There are 41 previously recorded Aboriginal places are in the geographic region comprising predominantly artefact scatters (n=30, 73%) and scarred trees (n=8, 20%) followed by low density artefact distributions (n=2, 5%), and an object collection (n=1, 2%) (Table 2, Appendix 2).

Table 2 Place-Types within the Geographic Region

Place-Type	Number
Artefact Scatter	30
Low Density Artefact Distribution	2
Scarred Tree	8
Object Collection	1
Total	41

Dated sites within the greater activity area region

The nearest dated sites are located 7km to the east at Clyde North (Cascades on Clyde Estate), 18km east near Pakenham (Edenbrook Estate, Lakeside Estate) and 10km northwest at Keysborough (Bend Road). VAHR 7921-0834 at Cascades on Clyde date to the last 3,000 to 5,000 years. VAHR 7921-0200 and 0769 at Edenbrook date to the last 4,000 years during the Late Holocene (Murphy & Rymer 2009) while VAHR7921-0510/511 at Lakeside, dates to the Late Pleistocene (24,000 years BP) (Rhodes 2004). VAHR 7921-0735 and 0736 at Bend Road date to the Late Pleistocene (Allen *et al* 2008). Based on this evidence there is an occupational hiatus in the region of approximately 20,000 years – except at Bend Road where the model presented by Allen *et al.* (2008) infers a low intensity occupation both pre- and post LGM in the late Pleistocene (35,000 to 25,000 and 20,000 to 5,000 years BP).

No places have been subject to radiometric dating and no places have been dated to the Pleistocene within the geographic region. However, based on stone artefact technology all recorded sites date to the late Holocene, and more probably to the last 2,000 years.

5.4 Previous Work in the Geographic Region

Previous Aboriginal cultural heritage investigations provide relevant information regarding the relationship of archaeological sites and landforms. These investigations also provide insight into site patterning and are therefore a mandatory component in desktop assessments. There has been a significant amount of previous Aboriginal cultural heritage investigation with the geographic region. Below is a summary of those considered relevant to the activity area.

Regional Investigations:

Gaughwin's (1981) Western Port Catchment study included the lower foothills of the Dandenong Ranges. The site survey was generally confined to the coastal region, and only limited sample surveys were undertaken in the northern regions of her study area. Gaughwin did not survey the present activity area. Two hundred and sixty four sites were recorded with less than 1% located away from the coast or coastal plains. Proximity to water was considered an important factor in site location, as 45% of sites were found within 100 metres of water (Gaughwin 1981: 92-95). Based on ethnographic data, sites within the undulating hills of the Dandenong Ranges were expected to be located on slopes or crest of hills.

Smith (1989) undertook a regional Aboriginal archaeological investigation of the Berwick to Bunyip Corridor. The present activity area lies in the western end of this corridor. Smith recorded a total of 62 Aboriginal archaeological sites during this study including: 32 surface scatters of stone artefacts, 15 scarred tree sites, and 15 isolated artefact occurrences. The highest site and artefact densities were found to occur on sandy ridges in the Cranbourne area, particularly those associated with water. This finding has also been previously noted by Presland (1983: 89) and Gaughwin (1981). The dominant stone material types identified in the surface scatters by Smith (1989) were chert and quartz. The majority of artefact types recorded at these sites were flaked pieces and flakes, with less than 2% of the recorded assemblage consisting of formalised tools (Smith 1989: 47).

The activity area conforms to Smith's landscape unit 'Floodplains' (1989: 12; Figure 2). The site prediction model formulated for this landscape unit by Smith is applicable to the activity area and concludes that:

- Scarred trees are the most likely site type to occur in this landscape unit. A relatively high density of scarred trees sites occur in this unit despite the degree of clearing that has occurred over this unit;

- Scarred tree sites could occur anywhere in this unit wherever River Red gums trees still exist.

- Artefact scatters appear to be quite rare in this unit but it is not really known if this is an actual archaeological patterning or as a result of very poor ground surface

visibility in this area [investigations since 1989 have shown a high number of surface lithic sites exist].

Smith (1989: 61) concluded that poor surface visibility within the Berwick-Pakenham Corridor meant that many more sites occur than those recorded during the site survey. Furthermore, since there is some degree of disturbance within the landscape through much of the corridor: most sites will be disturbed to some extent.

Murphy (1997) undertook a desktop Aboriginal archaeological investigation of an area described by the City of Casey as the 'Foreshore & Non-Urban Foreshore', an area that stretches from Cranbourne to Western Port. The predictive archaeological model generated by this study concluded that surface scatters and isolated artefact occurrences are the most likely site types to occur within the study area, and that the majority of these sites will be located within 100m of a past or present water supply. The highest archaeological site densities will be found within the Cranbourne Sand, ridges and hummocks landform unit (Murphy 1997: 19; Figure 3). It was also concluded that the sites located within Cranbourne Sands, ridges and hummocks landform unit may possibly be much older than those identified on the present coast line. Aboriginal quarry sites and scarred trees were considered to be a rare site type within this study area due to lack of suitable resources.

Rhodes (2001) undertook an Aboriginal heritage study of the Greater City of Dandenong. This study reviewed all ethnographic and archaeological investigations that have currently been undertaken within the City's boundaries. Rhodes also included a short period of ground survey and recorded one scarred tree and one isolated artefact. The results of this research were used to construct a predictive model for Aboriginal archaeological sites. Areas of greatest potential are considered to be undeveloped areas containing high numbers of pre-Contact Red Gums as well as undisturbed elevated ground (Rhodes 2001: Figure 9). Using these criteria, Rhodes assessed the present activity area as having potential for scarred trees and to a lesser extent, lithic sites.

Small Scale Assessments

A moderate amount of local Aboriginal archaeological investigation has been undertaken within the geographic region. Such investigations were conducted prior to the introduction of the *Aboriginal Heritage Act 2006* and therefore have limited comparative value. The great majority of reports identified elevated land and floodplains adjacent to permanent potable water as having Aboriginal cultural heritage sensitivity as well as the Cranbourne sands, or for those which located Aboriginal cultural heritage, noted a correlation between such landforms.

Cultural Heritage Management Plans

CHMPs have been required since the introduction of the *Aboriginal Heritage Act* 2006. Therefore the methodologies and analysis employed of CHMPs within the geographic region are directly relevant to this plan. ACHRIS shows there have been 21 CHMP's prepared in the geographic region (Murphy & Dugay-Grist 2008, CHMP 10228; Prideaux 2008, CHMP 10367; Murphy & Owen 2008, CHMP 10392; Stone 2008, CHMP 10580; Mitchell & Richmond 2009a; CHMP 10404; Barker 2009, CHMP 10623; Mitchel &

Richmond 2009b CHMP, 10685; Ford et al 2009, CHMP 10881; Light 2010, CHMP 10714; Light & Schell 2010, CHMP 11198; Saad et al 2010, CHMP 11251; Toscano 2010, CHMP 11191; Murphy & Kennedy 2010, CHMP 11283; Mitchell & McFarlane 2010, CHMP 11367; Dugay-Grist & McAlister 2010, CHMP 11381; Mitchell & McFarlane 2010, CHMP 11464; Burch et al, 2011, CHMP 11616; Murphy & Morris 2011, CHMP 11643; Murphy & Owen 2011, CHMP 11728; Barker & Collins 2011, CHMP 11847; Stone & Rochefort 2011, CHMP 11864; Light 2012, CHMP 11742 and Fiddian 2013, CHMP 12385). None of these CHMP's includes the current activity area.

Murphy & Dugay-Grist (2008) prepared CHMP 10228 for a road widening project along Thomson Road, Cranbourne approximately 950m east of the activity area. One previously recorded Aboriginal heritage place was identified within the activity area during the desktop assessment (VAHR 7921-0542). The standard assessment identified one new stone artefact scatter (VAHR 7921-0822) during a ground surface survey. A complex assessment was carried out that comprised 11 test pits (1m x 1m) and eight shovel probes (0.5m x 0.5m) excavated. Nine stone artefacts were recovered to a maximum depth of 80cm with one new Aboriginal heritage place registered (VAHR 7921-0920).

VAHR 7921-0542, 0822 and 0920 were attributed no scientific significance due to their high representativeness in the geographic region and disturbed context. VAHR 7921-0542 was not threatened by the proposed activity so required no further management recommendations. As VAHR 7921-0822 and 0920 are of no scientific value no management recommendations were deemed necessary.

Prideaux (2008) prepared CHMP 10367 for sewer main extension project in Lyndhurst approximately 850m north of the activity area. A desktop assessment identified no previously registered Aboriginal heritage places within the activity area. A standard assessment was carried out and did not identify any Aboriginal heritage places. As part of the activity was within a culturally sensitive area, a complex assessment was deemed necessary. This assessment comprised two test pits (1m x 1m) and one test pit (0.5m x 0.5m) excavated to a maximum depth of 22cm. Significant ground disturbance was noted as in the soil profile recorded. No Aboriginal places were identified as part of the complex assessment. As no Aboriginal heritage places were identified no management recommendations were offered.

Murphy & Owen (2008) prepared CHMP 10392 for a proposed land development/subdivision of Lot 2, corner Evans and Thompsons Roads, Lyndhurst immediately north of the activity area. No previously recorded Aboriginal heritage places were within the activity area. The standard assessment noted low ground surface visibility and also did not identify any Aboriginal heritage places. A complex assessment was carried out that comprised five test pits (1m x 1m) and 23 shovel probes (0.5m x 0.5m) excavated. Two stone artefacts were recovered to a maximum depth of 45cm with one Aboriginal heritage place registered (VAHR 7921-0928).

VAHR 7921-0928 was attributed no scientific significance due to its high representativeness in the geographic region and low artefact density. No specific management of this site was recommended.

Stone (2008) prepared CHMP 10580 for a proposed Lyndhurst Primary School, Lyndhurst approximately 670m north west of the activity area. No previously recorded Aboriginal heritage places were identified during the desktop assessment. The standard assessment noted low ground surface visibility and did not identify any Aboriginal heritage places or potential sensitive areas that require further testing. A complex assessment was deemed unnecessary due to the findings of the standard assessment and no management recommendations were made.

Mitchell & Richmond (2009a) prepared CHMP 10404 for a proposed commercial subdivision at 635 Hall Road and 690 Westernport Highway, Cranbourne West approximately 1.2km south west of the activity area. Six previously recorded Aboriginal heritage places were identified within the activity area during the desktop assessment (VAHR 7921-0849 to 0854). Places consisted of three scarred trees (VAHR 7921-0849, 0851 & 0852) and three stone artefact scatters (VAHR 7921-0850, 0853 & 0854). VAHR 7921-0849 to 0852 were relocated as part of the standard assessment with VAHR 7921-0853 and 0854 unable to be located. On inspection and consultation with Aboriginal representatives VAHR 7921-0851 was subsequently delisted as a site due it not actually being a cultural scar. No new Aboriginal heritage places were identified as a result of the standard assessment. A complex assessment was carried out that comprised nine mechanical test pits (2.5m x 1.5m), 192 shovel probes (0.4m x 0.4m) and 104 auger holes (0.15m x 0.15m) excavated. A total of 311 stone artefacts were recovered to a maximum depth of 130cm with six Aboriginal heritage places registered (VAHR 7921-0978 to 0983).

VAHR 7921-0851 was attributed no scientific significance due to its high representativeness in the geographic region disturbed context. VAHR 7921-0542 was not threatened by the proposed activity so required no further management recommendations. As VAHR 7921-0822 and 0920 are of no scientific value no management recommendations were deemed necessary.

VAHR 7921-0850, 0853, 0854, 0978, 0979, 0982 and 0983 were attributed low scientific significance due to low stone artefact densities, noted ground disturbances and general representativeness in the geographic region.

VAHR 7921-0849 and 0852 were attributed moderate scientific significance due to the good health of the trees and good condition of the scars.

VAHR 7921-0620, 0980 and 0981 were attributed moderate scientific significance due to its moderate densities and relatively intact contexts.

Recommendations included place avoidance for VAHR 7921-0981 and salvage for the places VAHR 7921-0850, 0620, 0979, 0980 and 0981. The scarred trees VAHR 7921-0849 and 0852 were integrated into the sub-division plans and were not impacted. No management recommendations were made for VAHR 7921-0853, 0854, 0978, 0979, 0982 and 0983.

Barker (2009) prepared CHMP 10623 for a residential subdivision at 230S and 248 Evans Road, Cranbourne west approximately 20m south of the activity area. No previously recorded Aboriginal heritage places were identified within the activity area during the desktop assessment. The standard assessment noted a low rise that may be a sensitive

landform but did not identify any Aboriginal heritage places. A complex assessment was carried out within the area of sensitivity (low rise), and comprised two test pits (1m x 1m), eight shovel probes (0.5m x 0.5m) and 197 auger holes (unspecified) excavated. 18 stone artefacts were recovered to a maximum depth of 50cm with one Aboriginal heritage place registered (VAHR 7921-0928).

VAHR 7921- 0928 was attributed no scientific significance due to low artefact density and its general representativeness within the geographic region. VAHR 7921-0928 required no further management recommendations.

Mitchell & Richmond (2009b) prepared CHMP 10685 for the proposed Homemaker Centre car park extension at 356-400 South Gippsland Highway approximately 1.7km east of the activity area. No previously recorded Aboriginal heritage places were identified within the activity area during the desktop assessment. The standard assessment noted very poor ground surface visibility and did not identify any new Aboriginal heritage places. On consultation with Aboriginal representatives a complex assessment was deemed necessary. This comprised two test pits (1m x 1m) and 66 shovel probes (0.5m x 0.5m) excavated to a maximum depth of 25cm. No aboriginal places were identified as part of the complex assessment. As no Aboriginal heritage places were identified no management recommendations were offered.

Ford et al (2009) prepared CHMP 10881 for the Victorian Desalination Project, Cranbourne which includes the current activity area. Five previously recorded Aboriginal heritage places were identified within the activity area during the desktop assessment (VAHR 7921-0533 to 0536 and 0545). The standard assessment identified a number of potential sensitive areas and one Aboriginal heritage place (VAHR 7921-1133). A complex assessment was carried out that comprised eight test pits (1m x 1m), seven test pits (0.5m x 0.5m) and 359 shovel probes (0.4m x 0.4m) excavated. 76 stone artefacts were recovered to a maximum depth of 110cm with four Aboriginal heritage place registered (VAHR 7921-1129 to 1132).

VAHR 7921-1132 was attributed moderate scientific significance due to moderate densities of stone artefacts, the presences of stone tools within the assemblage and moderate ground disturbance.

VAHR 7921-1129, 1133 was attributed high scientific significance due to high densities of stone artefacts and the presences of stone tools within the assemblage.

VAHR 7921-0533, 0534, 0535, 0536, 0545, 1130 and 1131 were attributed very low scientific significance due to very low densities of stone artefacts and general representativeness within the geographic region

Management recommendations included place avoidance for VAHR 7921-0533, 0534, 0535, 0536, 0545, 1129 and 1130 while salvage was also suggested if avoidance was unavoidable for VAHR 1129 and 1130. Salvage was recommended for VAHR 7921-1133, 1132 and 1131.

Light (2010) prepared CHMP 10714 for a proposed residential subdivision at 135 Evans Road approximately 830m south of the activity area. Three previously recorded Aboriginal

heritage places were identified within the activity area during the desktop assessment (VAHR 7921-0616 to 0618). The standard assessment identified a number of stone artefacts but no Aboriginal heritage places were registered during this assessment. The complex assessment comprised seven test pits (1m x 1m) and 448 shovel probes (0.4m x 0.4m) excavated. 337 Stone artefacts were recovered to a maximum depth of 85cm with eight Aboriginal heritage place registered (VAHR 7921-1120, 1122 to 1125 and 1128). VAHR 7921-0616 and 0617 boundaries and stone artefact numbers were subsequently expanded upon as a result of the complex assessment.

VAHR 7921-1120, 1122, 1124, 1125 and 1126 were attributed low scientific significance due to their low stone artefact densities and general representativeness in the geographical region.

VAHR 7921-0616 to 0618, 1127 and 1128 were attributed moderate scientific significance due to their moderate stone artefact densities of stone artefacts and low levels of disturbance. VAHR 7921-1127 in particular is noted as having possible intact archaeological deposits OSL dated to the late Pleistocene.

VAHR 7921-1123 was attributed high scientific significance due to its undisturbed mid-Holocene soil deposits.

Recommendations included avoidance for VAHR 7821-0618, 1123 and 1127. As harm could not be avoided, salvage was recommended for VAHR7921-0616, 0617, 1120, 1125 and 1128.

Light & Schell (2010) prepared CHMP 11198 for the proposed Marriott Waters Neighbourhood Activity Centre approximately 0.7km west from the activity area. No previously recorded Aboriginal heritage places or areas of cultural sensitivity were identified within the activity area during the desktop assessment. The activity area had been subject to two previous archaeological surveys (Nicholls & Chamberlain, 2003 and Hyett, 2005) that did not identify any new Aboriginal heritage places no. Based on the findings of the desktop assessment and of previous studies it was deemed unnecessary to undertake a standard or complex assessment. Recommendations included a contingency plan should any Aboriginal cultural material be discovered during the proposed works.

Saad et al (2010) prepared CHMP 11251 for the proposed Merinda Park Railway Station Car Park extension, Thomsons Road, Cranbourne approximately 0.2km north from the activity area. No previously recorded Aboriginal heritage places were identified within the activity area during the desktop assessment. As a large number of Aboriginal heritage places were recorded within the geographical region a standard assessment was deemed necessary. The standard assessment did not identify any new Aboriginal heritage places and noted some surface ground disturbance. A geotechnical report on the activity area suggested the presence of sub-surface archaeological deposits so for this reason a complex assessment was carried out. This comprised two test pits (1m x 1m) and 17 shovel probes (0.25m x 0.25m) excavated to a maximum depth of 50cm. No Aboriginal heritage places were recorded as a result of the complex assessment. As no cultural heritage was identified it was deemed that no management recommendations were necessary.

Toscano (2010) prepared CHMP 11191 for the proposed Evans Road Upgrade, Lyndhurst approximately 0.8 km north from the activity area. No previously recorded Aboriginal heritage places were identified within the activity area during the desktop assessment. As a large number of Aboriginal heritage places were recorded within the geographical region a standard assessment was deemed necessary. The standard assessment identified significant ground disturbance throughout the activity area and no new Aboriginal heritage places were identified. A complex assessment was carried out that comprised one test pit (1m x 1m) and nine shovel probes (0.5m x 0.5m) excavated to a maximum depth of 86cm. No Aboriginal heritage places were recorded as a result of the complex assessment. As no cultural heritage was identified, no management recommendations were necessary.

Murphy & Kennedy (2010) prepared CHMP 11283 for a proposed Residential Subdivision at 450 Evans Road, Lyndbrook approximately 1.1 km north from the activity area. No previously recorded Aboriginal heritage places were identified within the activity area during the desktop assessment. Dunes and low lying floodplain/swamp were identified with in the activity area as having low potential for Aboriginal cultural heritage. A standard assessment was conducted that identified no new Aboriginal heritage places but confirmed the presence of low potential areas of cultural sensitivity. A complex assessment was carried out that comprised one test pits (1m x 1m) and 14 shovel test pits (0.5m x 0.5m) excavated to a maximum depth of 1m. No new Aboriginal heritage places were recorded as a result of the complex assessment. As no cultural heritage was identified it was deemed that no management recommendations were necessary.

Mitchell & McFarlane (2010a) prepared CHMP 11367 for a proposed Commercial Subdivision at 195 Evans Road, Cranbourne approximately 0.46 km south west from the activity area. One previously recorded Aboriginal heritage place was identified within the activity area during the desktop assessment as a result of a previous survey (VAHR 7921-0650). As the activity area has already been surveyed it was deemed unnecessary to carry out another. A complex assessment was carried out that comprised 12 test pits (1m x 1m) and eight shovel test pits (0.5m x 0.5m) excavated to a maximum depth of 0.5m. No new Aboriginal heritage places were recorded and VAHR 7921-0650 was unable to be relocated. As VAHR 7921-0650 was not relocated it was considered to be of low scientific significance and possibly destroyed. No management recommendations were required as VAHR 7921-0650 of low scientific significance.

Dugay-Grist & McAlister (2010) prepared CHMP 11381 for a proposed Six Unit Development at 15 Evans Road, Cranbourne North approximately 1.35 km north east from the activity area. No previously recorded Aboriginal heritage places were identified within the activity area during the desktop assessment. Cranbourne Sands were identified within the activity area as having high potential for Aboriginal cultural heritage. A standard assessment was conducted that identified no new Aboriginal heritage places. A complex assessment was carried out that comprised 12 test pits (0.4m x 0.4m) excavated to a maximum depth of 0.5m. No new Aboriginal heritage places were recorded as a result of the complex assessment. As no cultural heritage was identified it was deemed that no management recommendations were necessary.

Mitchell & McFarlane (2010b) prepared CHMP 11464 for a proposed Commercial Subdivision at 195 Evans Road, Cranbourne approximately 1.5 km south west from the activity area. Twelve previously registered Aboriginal were identified as being within the

activity during the desktop assessment (VAHR 7921-0849, 0850, 0852, 0853, 0854, 0620, 0980, 0978, 0979, 0981, 0982, 0983). These consisted of two scarred trees and ten artefacts scatters. Due to previous assessments of the activity area it was deemed unnecessary to conduct a standard or complex assessment.

VAHR 7921-0850, 0853, 0854, 0978, 0979, 0982 and 0983 were attributed low scientific significance due to their low stone artefact densities and general representativeness in the geographical region.

VAHR 7921-0849, 0852, 0620, 0980 and 0981 were attributed moderate scientific significance due to their moderate stone artefact densities of stone artefacts and low levels of disturbance.

Management recommendations included place avoidance for VAHR 7921-0849, 0852, 0981 and, salvage excavation for VAHR 7921-0620, 0850, 0979 and 0980. No management recommendations were offered for VAHR 7921-0853, 0854, 0978, 0982 and 0983.

Burch et al (2011) prepared CHMP 11616 for a proposed Commercial Subdivision at 940 Thompsons Road, Cranbourne West approximately 1 km west from the activity area. One previously recorded Aboriginal heritage place (isolated stone artefact) was identified within the activity area during the desktop assessment as a result of a previous investigation (VAHR 7921-1157). A complex assessment was carried out that comprised 7 test pits (1m x 1m) and 92 shovel test pits (0.5m x 0.5m) excavated to a maximum depth of 0.5m. No Aboriginal heritage places were recorded and no further cultural heritage was attributed to VAHR 7921-1157. As VAHR 7921-1157 consisted of a previously collected isolated stone artefact it was deemed to not be at risk of harm. No further management recommendations were deemed necessary.

Murphy & Morris (2011) prepared CHMP 11643 for a proposed Residential Subdivision at 520 Evans Road, Cranbourne approximately 1.7 km north from the activity area. Three previously registered Aboriginal were identified as being within the activity during the desktop assessment. A standard assessment was conducted that identified no new Aboriginal heritage places. A complex assessment was carried out that comprised 4 test pits (1m x 1m), seven test pits (0.5m x 0.5m), 21 test pits (0.4m x 0.4m) and 14 mechanical test pits (3-10m x 0.45m) excavated to a maximum depth of 1.25m. No Aboriginal heritage places were identified, nor any additional Aboriginal cultural heritage in the vicinity of previously registered places VAHR 7921-0742, 7921-0743 and 7921-0744.

Murphy & Owen (2011) prepared CHMP 11728 for a Power Realignment for the Victorian Desalination Project at Cranbourne West, approximately 0.7km east of the activity area. This CHMP was required as Aboriginal stone artefact scatter (VAHR 7921-0535) was previously recorded within the activity area at between 40 & 60cm in depth with light grey sand. Ford et al (2009) have previously conducted a CHMP within the activity area. However, no complex assessment was conducted as the proposed alignment avoided the site. CHMP 11728 was therefore required to clarify the extent, nature and significance of VAHR 7921-0535. A total of 47 test pits were excavated during the complex assessment. Eighty one stone artefacts were identified within 24 of the 47 test pits. The stone artefacts were recorded between 5cm and 70cm below the surface. VAHR 7921-0535 was

assessed as having a very low scientific sensitivity. A sample salvage of VAHR 7921-0535 was recommended to further investigate the spatial and temporal distribution of the cultural material present.

Barker & Collins (2011) prepared CHMP 11847 for the Western Highway Sewer Main, approximately 850 west of the activity area. Two silcrete stone artefacts (VAHR 7921-1357) were located on the surface of a ploughed and cultivated raised market garden bed on low lying land during the standard assessment. No additional Aboriginal cultural heritage was identified during the complex assessment. No specific management measure were recommended to manage the Aboriginal place.

Stone & de Rochefort (2011) prepared CHMP 11864 for Evans Road channel and culverts 0.85km north of the activity area. One previously recorded Aboriginal scarred tree (VAHR 7921-0238) is located within the activity area. No Aboriginal cultural heritage was located during the standard assessment, although an area of sensitivity was located consisting of a hummocky land unit. One 1mx1m test pit and eight shovel probes were excavated during the complex assessment. No Aboriginal cultural heritage was located. It was recommended to fence of the scarred tree during construction.

Light (2012) prepared CHMP 11742 for an Industrial & Commercial Subdivision at 1060 Thompsons Road, Cranbourne West approximately 25m west of the activity area. This CHMP only consisted of a desktop assessment as a standard & complex assessment were considered unnecessary on the basis that two field surveys (Matthews & Thomson 2005 & Light 2010) have previously assessed the activity area and did not identify any Aboriginal cultural heritage, and concluded that the landform on which the activity is located is of low Aboriginal archaeological potential. No Aboriginal cultural heritage was recorded within the activity area.

Fiddian (2013) prepared CHMP 12385 for a Temple and Childcare works approximately 0.7km north of the activity area. The standard assessment conducted concluded that the sections of the activity area had been subject to significant ground disturbance had low archaeological potential. An area of higher ground was viewed as the only sensitive area within the activity area. A complex assessment was conducted and comprised three 1mx1m and twenty two shovel probes. One Aboriginal place (VAHR 7921-1451) was located during the complex assessment. Three Aboriginal stone artefacts were recorded within TP2 excavated within a sandy rise. The stone artefacts were located from between 11cm and 40cm below the surface. VAHR 7921-1451 was assessed as having low scientific significance and no further management recommendations were deemed necessary.

5. 5 Historical and Ethno-Historical Accounts in the Geographic Region

The information used to construct pre-Contact Aboriginal people's spatial organisation is predominantly based on observations made by Europeans during the initial period of contact and subsequent settlement of the activity area. Most of these observations were made after 1830, by which time some groups of Aboriginal people had experienced over 30 years of contact with the sealers and whalers who frequented coastal regions. Early historical accounts of Aboriginal land use within and surrounding the activity area are scant.

The activity area lies within the traditional lands of the *Bunurong* tribe (Map 7). The *Bunurong* (Western Port) tribes belonged to the inter-marriage network and language ties group known as the *Kulin,* which inhabited areas around Melbourne. At the time of contact the *Kulin* nation was made up of the *Bunurong, Woiworung, Jajowrong, Taunguong* and *Wathaurung* (Presland 1994: 40).

The territory of the *Bunurong* is thought to have extended to Werribee River in the west, Dandenong Ranges to the north and Tarwin River east of Wilson's Promontory (Clark 1990, G.A. Robinson Journal 1844 in Clark 1998). Early Aboriginal population numbers made by observers are, at best estimates. An 1839 census of the *Bunurong* by Thomas suggested that at the time of colonisation, this tribe comprised of approximately 500 persons or 'six square miles per person' (Thomas ML 9: 47).

European contact with the *Bunurong* around Western Port was initially by sealers and whalers frequenting Bass Strait from the late 1790's. Aboriginal women were kidnapped from both Tasmania and the mainland for use as labourers and concubines, often resulting in hostile confrontations. The missionary Langhorne (Thomas ML: 61) mentioned that tribes of the Western Port had the 'occasional affray' with sealers and he believed that this contact had greatly reduced their numbers.

The effects of early contact with Europeans on Aboriginal tribes of Western Port severely decimated the population. Diseases such as smallpox, influenza and venereal disease spread rapidly throughout the territory, and by 1835 an entire clan, which once occupied the Western Port area known as the "*Bonkoolawol*", had succumbed to the effects of small pox (Thomas ML: 21: 14). Virtually no other information is available within ethnographic sources of this group.

In physical appearance there was little to distinguish the various *Kulin* tribes. There are few descriptions of coastal Aboriginals when still relatively unaffected by European contact. Those seen by Captain Milius of *Le Naturaliste* at Western Port in 1802 could well have been members of the *Bonkoolawol* or a war party from Gippsland, with whom the *Bunurong* often clashed.

Intermarriage and exchange of goods between the *Kulin* tribes is known to have occurred (Sullivan 1981: 36). *Kulin* people often met for inter-clan gatherings, such as that recorded in 1844 when groups of *Woiworung* people were camped on the site of the future M.C.G., and a group of *Bunurong* were camped on the site of the future Government House (Presland 1994: 47). The *Bunurong* held meetings every three months and corroborees were held at full and new moons (Thomas ML 21: 97). Notices of planned gathering were distributed to neighbours via message sticks, and during these inter-tribal gatherings marriages were arranged, and disputes settled. Greenstone from the Mt William quarries in the *Woiworung* territory was transported or traded into the *Bunurong* territory (McBryde 1984). Within the *Kulin*, some tribes were more likely to exchange wives or hold corroborees with certain other tribes. The *Bunurong* had ceremonial links with, and most often married, members of *Taungurong* and *Wathaurung* tribes (Gaughwin 1981: 59). However, these alignments did not prevent warfare between the tribes (Thomas ML 1, 23 March 1839).

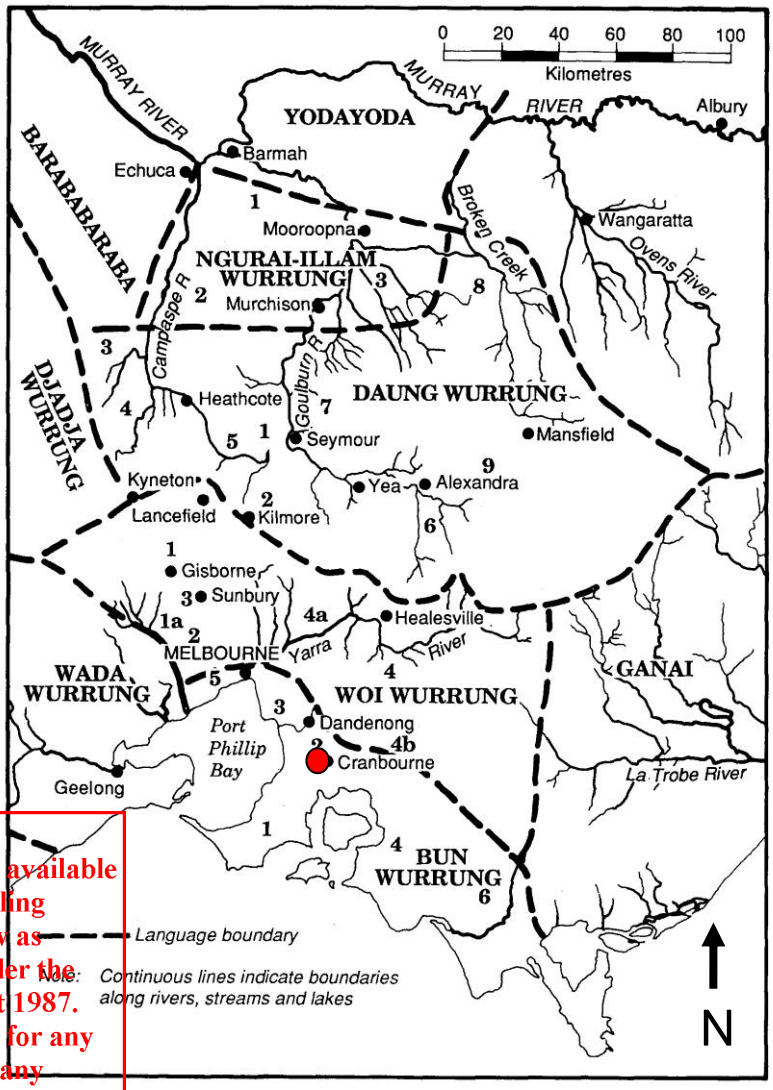
Aspects of the seasonal movements by the *Bunurong* through their territory have been recorded by Assistant Aboriginal Protector Thomas, and early settlers in the Western Port region. Most of these observations were made after 1830, by which time Aboriginal people had already been dramatically impacted upon by more than 30 years contact will sealers and whalers who frequented coastal regions. Gaughwin (1981) considers that the *Bunurong* continued their seasonal exploitation in a circular pattern from Melbourne to Anderson's Inlet and the Mornington Peninsula during the early contact period. This trip was thought to take about one month with an average stay of one to two nights at each campsite while the resources within a 10 kilometre radius were exploited (Sullivan 1981: 37).

The *Bunurong* clan whose estate may have included the proposed activity area was the *Mayone buluk* meaning 'people of the swamp' (Map 7, Clan 2). Their territory is thought to have been "Carrum Swamp, the coastal strip at the head of Western Port Bay and the upper portion of the Mornington Peninsular" (Barwick 1984: 177). The clan was patrilineal and belonged to the *bunjil* moiety system. Clan leaders were known as '*arweet*', and the leader at the time of European contact was Mortrungo (1797/8-1848), his heir was Buggup (1820-48), who was a corporal in the Native Police Corps. A Dr Bailey also recorded much ethnographic information during the 1840s cites clan member Manmangenur (c. 1821-1845) as a recognised authority within this group (Barwick 1984: 117).

The activity area may also be within the clan lands of the *Ngaruk willam* (meaning 'stone dwellers') whose territory is given as Brighton, Mordialloc, Dandenong and between Mt Eliza and Mt Martha (Clark 1990: 365) (Map 5, Clan 3). The clan leader of this group at the time of European contact was 'Old George the King' (c. 1770-1839). Two of his sons Nunnuptune (1821-1849) and Mumba (1825-1846) were members of the Native Police Corps (Barwick 1984: 117). The main ethnographic informants of this clan are Thomas (1846) and Howitt (1904).

There is little specific ethnographic information of the lifestyles of the *Mayone buluk* and *Ngaruk willam* clans at the time of European settlement. The few instances and recollections cited by early residents make little reference to clans or clan estates, movements or names. However, snippets of information cited within local histories can be assumed to be that of *Mayone buluk* or *Ngaruk willam* clan members. The territorial boundaries of these clans would have been flexible, as both groups shared common characteristics such as those associated with initiation ceremonies, marriages and spoke closely related languages. There would also have been a reciprocal rights arrangement between these two clans and other for seasonally available resources.

In 1827 Hovell noted an Aboriginal campsite whilst travelling south along the east bank of the Dandenong Creek, north of the present proposed activity area. At this campsite, Hovell and his party encountered a small group of local Aboriginal people (Hibbins 1984: 4). This brief meeting indicates that margins of Carrum Swamp were frequently utilised by family groups.



Map 7 **Kulin Language Areas & Clans (Clark 1990: 364)**

● *Approx. location of Activity Area*

There are currently few recorded Aboriginal burial sites within the Western Port region. However, there is historical evidence that burial sites within the Western Port region (e.g. Lang Lang and Mordialloc) were both common and conspicuous. Members of the *Kulin* were known to both bury their dead, as well as place them in tree hollows that were then often burnt. Thus, based on this scant information, burial sites may still exist in undisturbed locations within the region but are considered unlikely for the present CHMP area.

Previous investigations in Keysborough (du Cros 1998, TerraCulture Pty Ltd 2000) found evidence of an Aboriginal burial ground that was identified through local European oral history. This burial ground was considered to exist 'on the third rise on Hutton Road'. The hill is a sandy rise landform as is sometimes used for burials in other Victorian regions. No surface evidence of this burial ground was located during the site survey, and the Wurundjeri Aboriginal community prevented sub-surface testing of the area for archaeological evidence (du Cros 1998) to support the European oral tradition for the burial ground. The purported burial ground area has not been recorded with Aboriginal Affairs Victoria.

The ethnohistorical information provides evidence that the *Bunurong* tribe occupied Carrum Swamp and the Dandenong Plains in an organised manner. Clans generally had areas in which they spent much of their time and provided the basis for all their needs. Specific campsite locations mentioned by William Thomas and others do not include the proposed activity area.

Aboriginal population numbers decreased rapidly after white settlement of the Dandenong region due to dispossession of land and associated resources, and the spread of diseases brought into the area by Europeans settlers. By 1856 the remaining *Bunurong* lived mostly at 'Moody Yallock' (Mordialloc), exploiting the swamp and adjacent coastline.

The TOGs for the activity area have been unable to provide any additional historic or contemporary cultural information specific to the activity area.

5. 6 Landforms, Geomorphology and Geology

Geology

The geology of the activity area is dominated by Red Bluff Sandstone (previously mapped as Baxter Sandstone) ferruginised sands and gravels (VandenBerg 1997; Morand 2010). These Miocene-Pliocene (23-2.6 Ma BP) age concreted sands are fluvial and paralic in origin and cover most of the northern terrestrial regions of Port Phillip Bay and Western Port Bay (Holdgate & Gallagher 2003; Abele 1976). The bedrock and soil profile above the rock is strongly differentiated, poorly sorted, mainly coarse pale yellow and brown sands with variable amounts of gravel, finer sands and clay (Figure 1) (Jenkin 1974; VandenBerg 1997). Coarse material tends to occur in lenses, and is frequently cross-bedded, with finer particles present in continuous beds (Jenkin 1974). Weathering of the strata has resulted in the formation of fine clayey sand regolith with pisolitic inclusions derived from the decomposition of the Red Bluff Sandstone rock (VandenBerg 1997; Jenkin 1974). It is likely that the regolith has some aeolian component introduced to it due to the proximity of the unit to local Cranbourne Sand deposits (Geological Survey of Victoria 1967). The Red Bluff Sandstone is typically 12 metres thick, but can be up to 24 metres thick in places (Jenkin 1974).

In places, the Red Bluff Sandstone is overlain by a thin, unmapped mantle of Cranbourne Sand aeolian deposits. These sands are comprised of clear, medium to fine colourless quartz, with some near-surface iron staining present from contact with the Red Bluff Sandstone (Jenkin 1974). These dunes and sand sheets trend NW-SE, with their postulated source being re-worked sands from Port Phillip Bay (Jenkin 1974). In periods of drier climates (primarily the Last Glacial Period) the deposits were thought to have extended across Westernport Bay prior to marine transgression (Cupper et al 2003). Where undisturbed, the Cranbourne Sands contain obvious bedding and distinct soil horizons (Bowler 2007). The thin soils present on the unit are usually strongly acidic with one or more indurated sand horizons present below dark-light grey sandy topsoils (Joyce et al 2003).

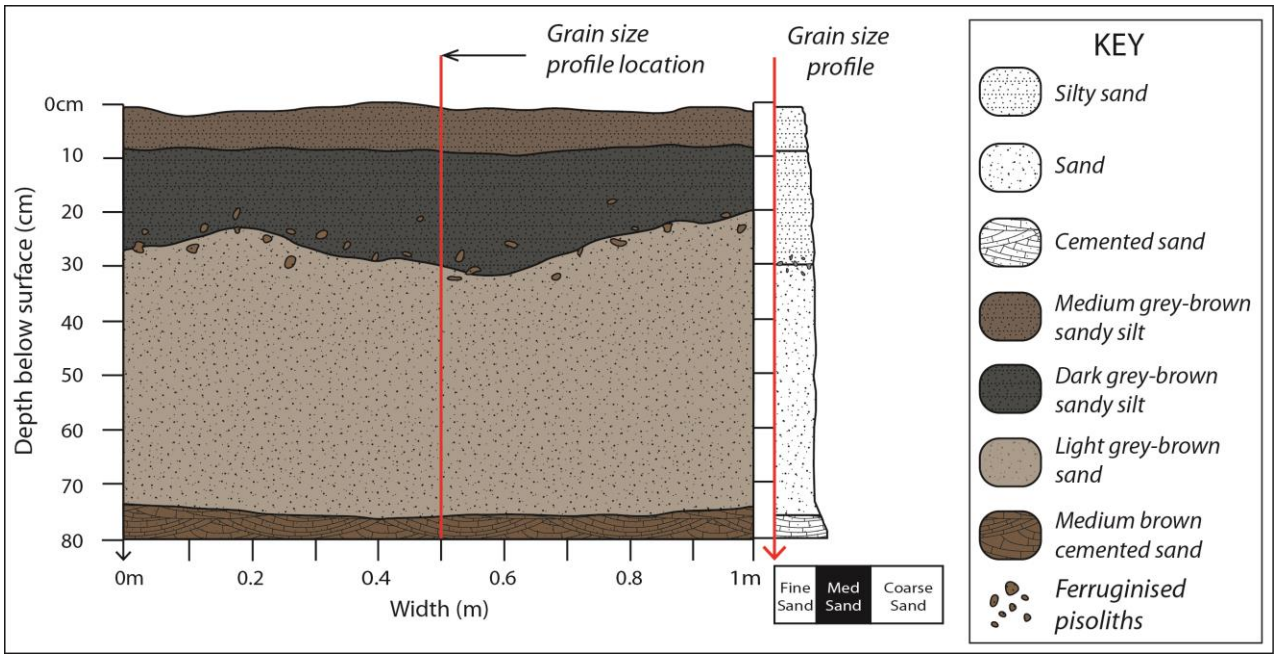


Figure 1: Stratigraphic representation of the barrier dune sedimentary profile

Geomorphology and Landform

The northern section of the Mornington Peninsula is part of the Eastern Plains geomorphic region of Victoria (Joyce et al 2003). The plains have flat to undulating relief and are covered with Late Cainozoic sedimentary deposits (Joyce et al 2003). These plains separate the Western Port and Port Phillip Sunklands to the east and west respectively, with the watershed of both located near Botanic Ridge near Cranbourne, and southeast of the activity area (Hills 1975; Joyce et al 2003). The region is bounded by faults (Selwyn and Tyabb Faults) with much of the relief dependent on the past movement of these structures and the subsequent deposition of Quaternary sediments (Joyce et al 2003).

Drainage on the Eastern Plains unit is linear in orientation, with bedrock bedding planes playing little part in drainage patterns (Jenkin 1974). Instead, the drainage patterns are largely due to the orientation of the dunes present and the close proximity of Carrum Swamp (Hills 1975; Jenkin 1974). These factors create parallel stream networks, with watercourses flowing from southeast to northwest along the dune swales and alluvial valleys towards the Carrum Swamp (Jenkin 1974). In the past, streams connected the small swamps that lay between the dune ridges, however, most of these swamps have been drained and the streams modified by human influences.

Due to the low relief and elevation of the activity area, the main geomorphic processes that have and are acting on the area are eustatic sea level and weathering processes. Changes in sea level have contributed to the sedimentation and erosion cycles of the region by effectively lowering and increasing the base level. Decreases of sea level typically cause erosion of the ground surface, while increases cause sedimentation. Decreases in sea level in the past have had a two-fold influence on the landscape, causing increased erosion on the Red Bluff Sandstone surface, while uncovering a sediment source for the Cranbourne Sand deposits (Jenkin 1974). The sea level

regression allowed prevalent westerly winds to transport sand from this new source across the northern parts of the Mornington Peninsula (Jenkin 1974). Weathering processes such as chemical weathering and physical weathering have acted on the Red Bluff Sandstone to produce concreted pisoliths and the mobilisation of iron at the top of the profile (Abele 1976). The mobilisation of iron can continue upwards into the Quaternary aeolian sediments, creating an additional ferruginised layer with pisolith inclusions.

Geological & Geomorphological History

The landscape seen at present has its roots in the Mid-Late Cretaceous, when Australia and Antarctica began to split apart (Jenkin 1976). Tectonic processes became pronounced in response to the widespread rifting, their effects lasting up until the Late Tertiary (Duddy 2003; Ollier 1995). In response to crustal extension, rapid subsidence occurred under the weight of over 10^5 km^3 of deposited volcanic and fluviatile sediments that washed into the basin during the period from flanking terrestrial surfaces (Duddy 2003; Bryan et al 1997; Jenkin 1974). Substantial tectonic reorganisation continued in the Mid-Late Cretaceous during the initial separation of the two continents, and included folding, faulting and uplifting of the landscape (Duddy 2003; Hills 1975). The Mornington Peninsula was formed during this period of tectonic reorganisation as part of the southwest-trending Mornington Peninsula-King Island High which separated the Gippsland and Otway Basins (Duddy 2003). As the landscape was rapidly uplifted, stripping of sediment occurred along the Mornington surface, exposing the Palaeozoic rock strata in places, mostly to the south of the activity area (Duddy 2003; Hill 1999; Joyce et al 2003).

Following the tectonic reorganisation, basic igneous activity occurred in Victoria during the Paleocene and Eocene (59-30 Ma BP) in the form of the voluminous extrusion of the Older Volcanics unit in eastern Victoria (Day 1989). At this time, climates were warmer and wetter than present, as the Australasian Plate was under the influence of the Paleocene-Eocene Thermal Maximum (PETM) (~55 Ma BP) (White & Mitchell 2003; Tripati & Elderfield 2005). Both this short period of warmth and the slightly cooler temperatures of the Early Tertiary (66-34 Ma BP) allowed for increased rates of rock weathering, which continued intermittently up until the end of the Pliocene, where cooler, drier climates became more widespread (White & Mitchell 2003).

Intermittent tectonic activity occurred throughout the Tertiary, peaking around 8-4 Ma BP, with some uplifted areas reaching several hundred metres above previous Cretaceous levels (Sandiford et al 2004). During the Oligocene (34-23 Ma BP), significant north-east trending faults activated in eastern Victoria, creating up to 1km of vertical displacement in the landscape (Dyksterhuis & Müller 2008). In the period of time between the Early Tertiary and the Early Quaternary, many faults in eastern Victoria were observed to have reactivated at least once, causing several tectonic movement events and landscape deformation (Dyksterhuis & Müller 2008). Tectonic movement, particularly uplift, was usually followed by rapid erosion and removal of weathered sediment from the uplifted areas of landscape (Joyce et al 2003). The sudden increase in elevation subsequently increased the erosional activity of streams and slope processes, facilitating the stripping of soil and weathered sediment from the landscape (Joyce et al 2003; Jenkin 1999).

Sea level from the Miocene onwards fluctuated, causing several changes in depositional regime across the landscape. It was during this stage that the Miocene-Pliocene Red Bluff Sandstone was deposited (Abele 1976; Holdgate & Gallagher 2003). In the Early Miocene (23-15 Ma BP), lower sea levels allowed continental deposition to dominate, with braided streams laying down sequences of quartz pebbles, sands and clays (Abele 1976). An increase in sea level in the Late Miocene and Early Pliocene (11-3 Ma BP) increased sedimentation along marine-terrestrial margins, depositing the upper sequences of the Red Bluff Sandstone unit in marginal marine conditions (Abele 1976; Gostin 1973). Sea level retreated once more in the Mid-Late Pliocene allowing for a period of intense leaching and ferruginisation, cementing the Tertiary bedrock sequences (Gostin 1973).

During the Last Glacial Period (33-18 ka BP), shifts in climate promoted the formation and movement of the Cranbourne Sands across the Mornington Peninsula and the southern areas of the Koo Wee Rup Swamp (Cupper et al 2003). A combination of lowering of sea levels, prevailing westerly wind direction and lack of vegetation cover mobilised dunes across much of Victoria, particularly in the north and along the southern coastlines, causing them to cover vast areas of the landscape with constantly moving transgressive sand sheets and dunes (Hesse & McTainsh 2003; Cupper et al 2003). These sands appear to have extended from around Frankston to the northern part of the Westernport Bay area during lower sea levels, with the main source region for the Cranbourne Sands being Port Phillip Bay (Cupper et al 2003; Jenkin 1974). As the climate ameliorated at the end of the LGM, these sheets and dunes appear to have stabilised as vegetation expanded, covering the dunes at the advent of warmer, wetter climates and sea levels increased, cutting off the sand source regions from the depositional areas (Wiggs 2011; Cupper et al 2003).

Forests increased in size and extent following the increase in rainfall and sea level up to the Holocene Climatic Optimum (HCO) approximately 6 ka BP, when sea levels reached approximately 1-3m above current levels (Bryant 1992). The main swamps to the north and northwest expanded in size and depth due to the increase in base level, while sedimentation of streams also increased, producing the alluvial flats and floodplains seen today (Cupper et al 2003). This period was short, and soon after the HCO, climates cooled and dried out, and the sea level dropped. This produced increased incision of streams as base level decreased, and many paired terraces were created along stream channels in coastal Victoria. In the lead up to the present, the climate continued to dry, and in conjunction with lowering sea levels after the HCO, saw Port Phillip dry up for a brief period between 2.8-1ka BP in response to the blockage of the bay by the Nepean Bay Bar (Holdgate et al 2011). This blockage was broken through by sea water around 1ka BP, allowing for the flooding of the bay to current levels (Holdgate et al 2011).

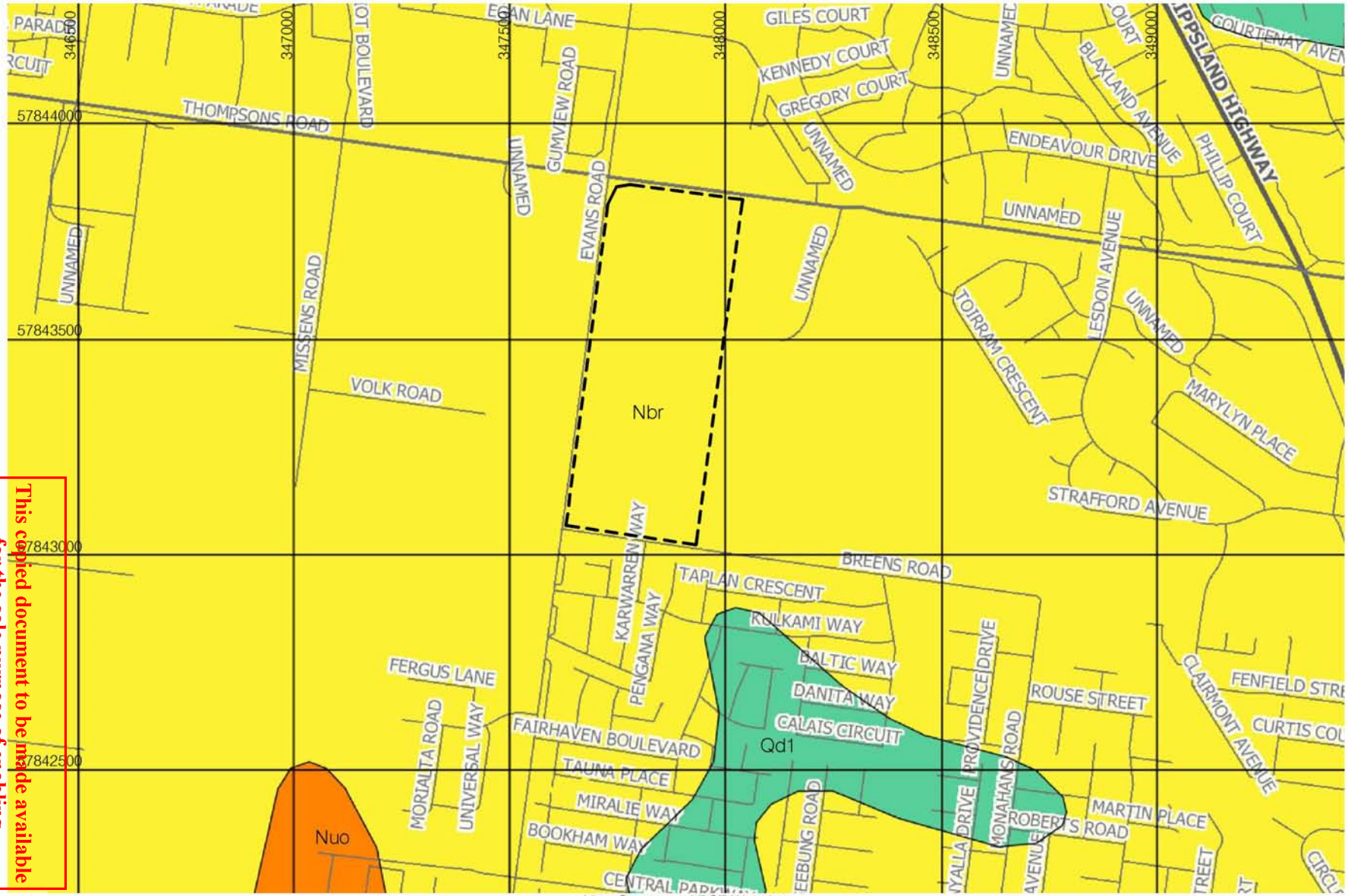
The drier climatic conditions persisted until European settlement, when land clearance began to create land for pasture. Removal of the vegetation increased erosion, which produced an increase in sediment being transported into the local streams (Dodson & Mooney 2002). Erosion is still the main geomorphic process acting on the landscape at present, with most of the sediment being eroded from the slopes, transported to the stream, eroded from the local stream banks and transported downstream out of the catchment (Wallbrink & Hancock 2003).

Geomorphological History

Time period	Geological Event/Environmental conditions	Effect
Mid-Jurassic - Late Cretaceous (176-90 Ma)	- Australia & Antarctica begin to separate	Widespread uplifting and erosion remove thick sequences of pre-Cretaceous regolith from flanking terrestrial surfaces. Tectonic uplift creates the Mornington Peninsula-King Island High ridge
Paleocene-Eocene (66 – 34 Ma BP)	- Older Volcanics extruded - Paleocene-Eocene Thermal Maximum (PETM)	Tectonic reorganisation prompts the extrusion of the Older Volcanics in Eastern Victoria. Short period of PETM warmer climates promote increased rock weathering
Eocene – Pliocene (56-2.6 Ma BP)	- Intermittent & discontinuous tectonic uplift	Tectonic re-activation creates widespread faulting and deformation across Victoria. Erosion of soil follows uplift
Miocene – Pliocene (23-2.6 Ma BP)	- Sea level fluctuations	Initial increase in sea level in Early Miocene promotes continental fluvial deposition of lower Red Bluff Sandstone strata. Further increases in sea level in the Late Miocene-Early Pliocene allow marginal marine sequences of Red Bluff Sandstone to be deposited in the landscape. Sea level retreat in Mid-Late Pliocene promotes weathering and ferruginisation of surface rock strata
Late Pliocene - Late Pleistocene (2.6 Ma – 18ka BP)	- Sea level retreat - Last Glacial Period	Sea levels retreat from Miocene high (3-4m above current levels) in lead up to Last Glacial Maximum. Climates become cool & dry. Vegetation cover decreases, allowing for increased river discharge and erosion. Cranbourne Sand sediments are transported from the west across the northern areas of the Mornington Peninsula and Western port Bay. Sea level ~120m lower than present
Early-Late Holocene (10-4ka BP)	- Holocene Climatic Optimum (HCO)	Sea levels increase to 1-3m above present levels & climates become warmer and wetter than present. Cranbourne Sand dunes and sheets stabilise. Increase in sedimentation due to increase in base-level.
Late Holocene (4-1ka BP)	- Climatic aridification	After HCO, sea level dropped & climates cooled. Incision of streams increased after HCO in response to base-level drop. Port Phillip Bay dries up ~2.8ka BP before being flooded again at ~1ka BP
Late Holocene – Present (~1850 – Present)	- European settlement	Clearing of landscape by Europeans for pasture. Vegetation removal increases erosion on slopes and increases sedimentation downstream

Stone Sources

Stone sources for the region include sources of silcrete, coastal flint, chert and quartz. The flint is likely to be sourced along the coastline, having been washed onshore from offshore outcrops of limestone (Scott-Virtue 1982). Silcrete boulders in southeastern Australia are typically sub-basaltic silcrete, and are associated with basalt flows of the Older Volcanic group along the Mornington Peninsula, French Island and Phillip Island. Erosion of the basalt can promote subsequent erosion of the underlying silcrete deposits, and these boulders can form aprons along slopes and stream courses (Webb 1995). Chert and quartz can be sourced from the Silurian and Ordovician marine sediments along the Mornington Peninsula, with the quartz occurring in hydrothermal veins that have been weathered and exposed to the surface over time.



Map Courtesy of DSE Website

GDA Zone 55

Legend:

Activity Area Boundary

Nbr Red Bluff Sandstone

Nuo Monbulk Volcanic Group

Qd1 inland dune deposits

0 250 500

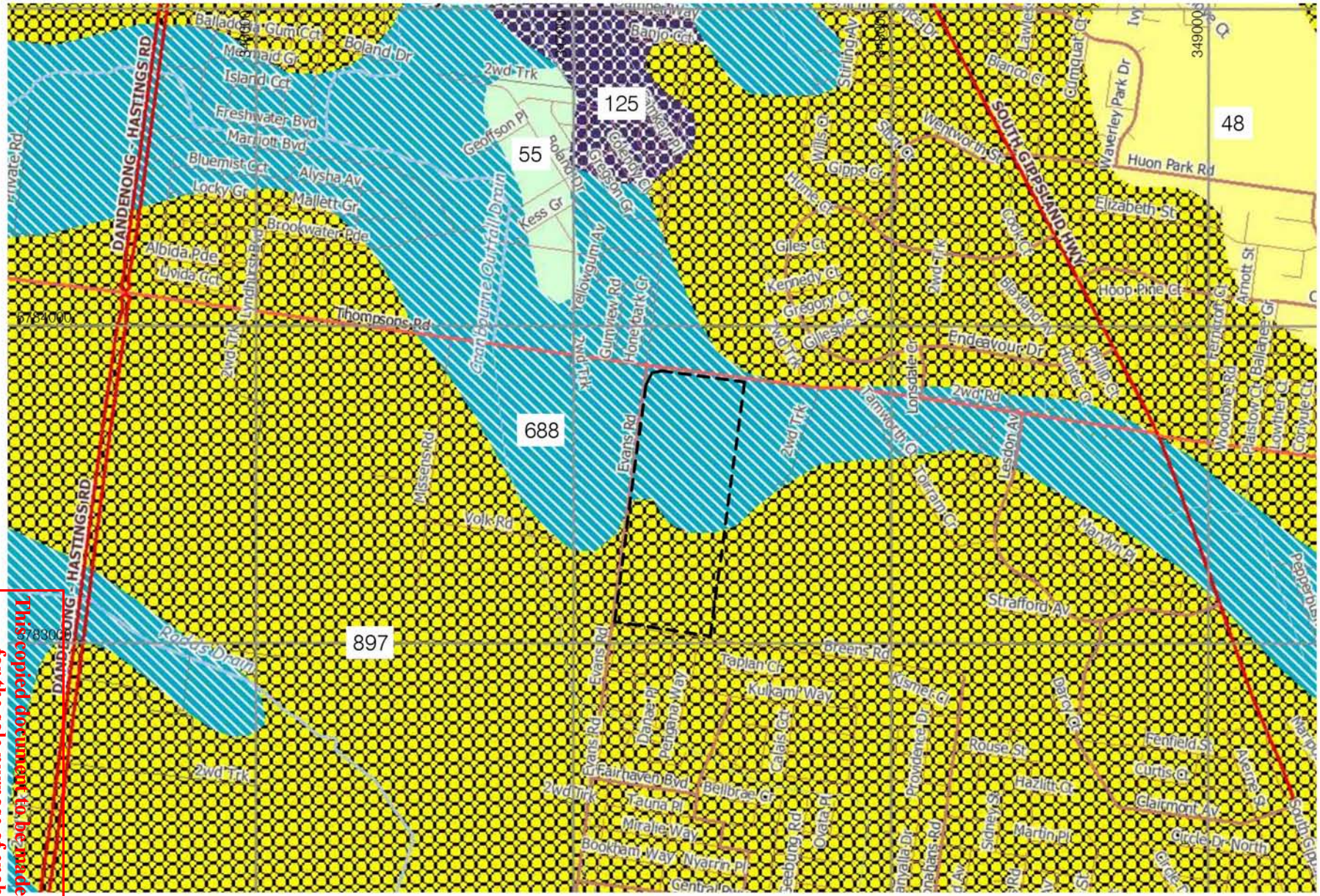
Scale of Metres

Map 8 Geology of the Activity Area

Archaeology At Tardis *cultural heritage advisors*

5. 7 Strategic Values

This location provided some strategic advantage, being located on the edge of a woodland area overlooking extensive local grasslands. People choosing to camp at this location were able to exploit the rich and varied resources associated with these two Ecological Vegetation Classes (EVC) (Map 9). Camping at this location was however extremely limited in relation to duration, due to the lack of potable water and that game would be readily available. The nearest seasonal water source is nearly 1km to the north (wetlands).



Legend

Activity Area Boundary

48	Heathy Woodland	688	Swampy Riparian Woodland/ Swamp Scrub Mosaic
55	Plains Grassy Woodland		
125	Plains Grassy Wetland	897	Plains Grassland/Plains Grassy Woodland Mosaic

Map 9 1750 Ecological Vegetation Classes of the Activity Area

Archaeology At Tardis *cultural heritage advisors*

Flora and Fauna

Red Gum (*Eucalyptus camaldulensis*) were once more numerous along watercourses and within floodplain areas. The undulating plains and former wetlands that extend from Dandenong to Cranbourne and Carrum were once densely covered by Red Gum forest. Because of their smooth bark and large size, they were commonly used for the manufacture of bark and wooden implements by Aboriginal people (Edwards 1972: 31). Apart from the manufacture of wood and bark implements and access to food resources, the bark from these trees would also have been removed for other non-utilitarian purposes such as ceremonial and social. Austral Bracken was used for medicinal purposes, with the juice from the stem applied to relieve the itching of insect bites, as well as for food. The underground stems of the plant were collected and eaten as a starchy food staple (Lane 1996: 3). The sugary extrusions of sap which formed on the leaf of the Manna Gum were collected and eaten by Aboriginal people, and the smoke of its burning leaves was thought to reduce fever (Lane 1996: 3). It is beyond the scope of this study to reconstruct the resource structure at a local scale; however, some of the food resources that were utilised by Aboriginal people are wetland root crops (such as *Typha* and *Triglochin*) and dry land root crops (such as *Microseris scapigera*).

The region surrounding the activity area would have contained a large number and wide variety of fauna species associated with forests, wetlands and waterways prior to European settlement. With the demise of native habitat, the number and range of species that once existed has been greatly reduced. Arboreal and land mammal species that would have been commonplace throughout the activity area are: brushtail possum, Leadbeater's possum, ringtail possum, horseshoe bat, tiger quoll, native rat, wallaby, kangaroo, echidna and emu. Within wetlands and associated with waterways would have existed: black swam, ducks, ibis, fish and crustacean (LCC 1991: 111). Detailed lists of plants and animal species known to exist within the Western Port and Port Phillip areas can be obtained from Gaughwin (1981), Sullivan (1981), Presland (1994) and Gott (1983).

Summary

In summary the resources potentially available to Aboriginal people within the geographic region included the following:

- Red gum and other native eucalypt species occurring within swampy riparian wooodland areas: utilised for manufacture of wooden implements also non-utilitarian purposes;
- Large variety of woodland based fauna;
- Grasslands: sources of seeds, fibre and range of fauna;
- Local raw material sources: basalt, quartz, siltstone/mudstone, hornfels and ironstone.

The exploitation of these resources may have left the following archaeological remains:

- Scarred trees situated within low-lying floodplain/swamp landforms;

- Low to moderate density stone artefact scatters situated on elevated sandy landforms in a surface or sub-surface context.

5. 8 Land Use History of the Activity Area

The background research conducted for this has been assembled by the author (Stewart Thomson), and Louise Blake (Historian). Louise Blake investigated the history of the activity area and surrounds via Title searches and other available documentation (Appendix 10).

The following historical information is presented in support of land use changes in the historic past. This section provides a brief overview in order to assess disturbance to the activity area.

Since European settlement of the activity area, dramatic changes have been made to the Cranbourne region, particularly in relation to hydrology, native vegetation and fauna. These changes are associated with pastoral activities (such as clearing of vegetation, ploughing, major and minor drainage works).

The vast majority of pre-Contact Red Gum trees have been cleared from the activity area region during the original settlement of this area from the mid to late 1800s. It is also likely that the seasonal wetlands associated with Eumemmerring Creek were drained during this early period. The past land use of the activity area include both grazing and possibly cropping, resulting in significant soil disturbance to the topsoil horizon (500-600mm).

Tree clearance, development of the land for pastoral and market garden activities would have adversely impacted on any archaeological site that existed. As a result of past land use, cultural material (such as stone tools) would have been disturbed, redeposited, or even destroyed. Many scarred tree sites that existed prior to tree clearance may have been destroyed. Only mature original Red Gum trees that have been retained may still contain evidence of pre-Contact cultural use. Repeated ploughing will have destroyed the spatial and temporal integrity of any site to an average depth of 500-600mm, whilst localised areas of disturbance (such as dams, stock ruts, tree stump removal), may have resulted in significant disturbance to a greater depth.

Draining of the Carrum Swamp has had the greatest post-Contact impact on the activity area region. The Carrum Swamp was an extensive wetland area extending from the Dandenong foothills through to Mordialloc, the margins of the swamp would have included the present activity area. In 1868 Dandenong Shire Council made channels across the swamp to carry the creek waters to Mordialloc and Kananook Creeks, resulting in some land being taken up for grazing and cultivation. In 1878 Patterson River was cut through the swamp and coastal sand to Port Phillip Bay as a further drainage measure. The river begins roughly where the Dandenong and Eumemmerring Creeks intersect at Bangholme.

Flooding in 1889 overcame the channels and the artificial river, and the Carrum Trust was formed to enlarge all outlets and construct small channels for irrigation during dry periods. Further floods in 1923-4 resulted in enlargement of the drains by the State Rivers and Water Supply Commission, which partly superseded the Trust by 1910.

The Trust was abolished in 1936, and the Dandenong Valley Authority took over responsibility in 1966. The Authority oversaw the construction of the Patterson Lakes water-sport complex near the mouth of the river in the 1980s. These cumulative drainage works resulted in the activity area changing from intermittent wetlands to dry arable land.

Landuse specific to the Activity Area

The activity area bears little resemblance to its pre-contact form. Both the Swampy Riparian woodland in the northern half and Plains Grassland EVC's have been completely removed. No evidence of these former EVC's remains within the activity area.

The activity area is currently being used as a cattle farm.

Comparison between the archive aerial photographs from 1963 (Plate 1) and 2006 (Map 2) illustrates that the land within the activity area has been cleared of all native vegetation, and has undergone significant disturbance within the north west portion of the activity area, with the deposition of a large area of fill. Construction of the farm complex, residence and paddock, exotic vegetation planting and removal, and ploughing is also evident.

The proposed activity area now contains limited potential for *in situ* Aboriginal or historic archaeological sites. As the majority of original (pre-contact) vegetation had been removed from the activity area, any possible scarred trees that may have existed within the activity area have been removed.

In summary, activities that may have degraded archaeological resources within the activity area are:

- Native vegetation clearance;
- Exotic vegetation planting and removal;
- Long term grazing;
- Repeated ploughing;
- Farm complex construction (including residence, sheds, fences, driveway, underground services etc.);
- Large area of fill deposition.

Aerial Photograph: Run 32 1963

Legend:

0 100 200
Scale of Metres

N

Activity Area Boundary
24.51 hectares (approx)

Parish: *Lyndhurst*
LGA: *Casey*

Plate 1 1963 Aerial Photograph: Project M8 486, 4/1963: Run 32, Photo 119

5. 9 Collection and Review of Oral History Relevant to the Activity Area

The WTLCCHC, BLCAC and BWFL were requested to supply any relevant information regarding oral tradition, Aboriginal cultural heritage or specific cultural significance, relevant to the activity area (Appendix 8 – Correspondence Log). No such information was provided by the TOGs at the time of report finalisation.

5. 10 Conclusions from the Desktop Assessment

- The activity area includes areas of cultural heritage sensitivity as defined in the *Aboriginal Heritage Regulations* (Regulation 31 – Koo Wee Rup Plain).
- There are no previously registered Aboriginal heritage places within the activity area.
- There are two previously registered Aboriginal heritage paces within 200m of the activity area (VAHR 7921-0533 & VAHR 7921-0534).
- There are forty one previously registered Aboriginal heritage places within 2km of the activity area (Appendix 2).
- The majority of stone artefact scatters within the geographic region comprise low density stone artefact scatters (n<10) or isolated artefacts in a surface or subsurface context.
- Stone artefact scatters within the geographic region varied from isolated artefacts to scatters of in excess of 15,200m^2.
- Sub-surface stone artefact scatters have been located to a maximum depth of 0.93m and have been located in sandy soil deposits.
- Stone artefact scatters in the geographic region are composed primarily of silcrete, quartz and quartzite, with minor components of chert, hornfels, basalt and Crystal Quartz.
- Of the stone artefact assemblages which have been subject to analysis, silcrete is the predominate raw material (49%).
- Activity area was a highly suitable location for short-term / opportunistic campsite;
- Aboriginal scarred trees within the geographic region are all Red Gums close to waterways.
- The activity area has been subject to a range of post-Contact disturbance including vegetation planting & removal, farm complex development, deposition of fill, grazing and ploughing. Therefore the integrity of any archaeological material within the activity area will be poor (Section 5.8).

A standard assessment is recommended pursuant to r.58(1) *Aboriginal Heritage Regulations 2007*.

... the results of a desktop assessment show that it is reasonably possible that Aboriginal cultural heritage is present in the activity area.

5.11 Aboriginal Cultural Heritage Prediction Model for the Activity Area and Implications for this Investigation

The results of the desktop assessment have been used to assess the likelihood of the activity area to contain Aboriginal cultural heritage. The most likely site types to occur within the activity area are low density stone artefact scatters. Table 3 assesses the potential of the activity area to contain Aboriginal cultural heritage. Apart from stone artefact scatters, no other site type is considered likely for the activity area.

Table 3 Site Prediction Model for the Activity Area

Site Type	Reasonably Possible?	Evidence
Stone artefact scatter	Yes (Low-moderate)	There is potential for stone artefact scatters in surface or subsurface contexts to occur within the activity area. These will only reflect short-term opportunistic campsite locations. A standard assessment is warranted.

6 STANDARD ASSESSMENT

The desktop assessment (Section 5) has shown that it is reasonably possible that Aboriginal cultural heritage is present in the activity area, and therefore a standard assessment is required.

The activity area was subject to ground surface survey in accordance with proper archaeological practice (Burke & Smith 2004). The survey revealed very poor ground surface visibility (<1%) throughout the majority of the activity area. Occasional patches of good ground surface visibility occurred.

6.1 Fieldwork Participants

The standard assessment was carried out by Andrew Morris (Field Supervisor and archaeologist, Archaeology At Tardis Pty Ltd). No Aboriginal community representatives were available for the standard assessment.

6.2 Standard Assessment Methodology

A pedestrian survey was conducted (Burke & Smith 2004: 66-69) in order to assess 100% of the activity area. All areas were examined to determine areas of good ground surface visibility and / or high potential archaeological sensitivity for Aboriginal cultural material. A systematic pedestrian survey was conducted examining all areas and comprehensively sampling all landform patterns, elements and attributes.

Detailed notes were taken including description of landform elements, ground surface visibility, ground surface disturbance, geology, geomorphology, vegetation, water sources and potential Aboriginal cultural heritage sensitivity (Burke & Smith 2004: 69-80). Photographs were also taken.

A map showing the survey area, estimates of effective survey coverage and disturbance is shown in Maps 10 & 11.

Photographs were taken using a standard scale with 20cm divisions.

6.3 Ground Surface Visibility, Survey Areas and Effective Survey Coverage

Archaeological visibility refers to the amount of ground surface that is clearly visible for inspection. The greater the ground surface visibility, the more effective are surface surveys. Examples of high surface visibility are vehicular & pedestrian tracks, dune blow outs (100% per m^2); and examples of poor visibility are areas of heavy vegetation cover (0-10% per m^2). Unfortunately, it is often the case that highly visible Aboriginal cultural heritage places are also often highly disturbed. High ground surface visibility is therefore often related to the amount of disturbance that has occurred. This disturbance may be manmade (such as drainage lines, vehicle tracks), by stock (overgrazing, tracks), or due to natural processes (erosion by wind or water). The level of ground surface visibility is typically assessed as follows:

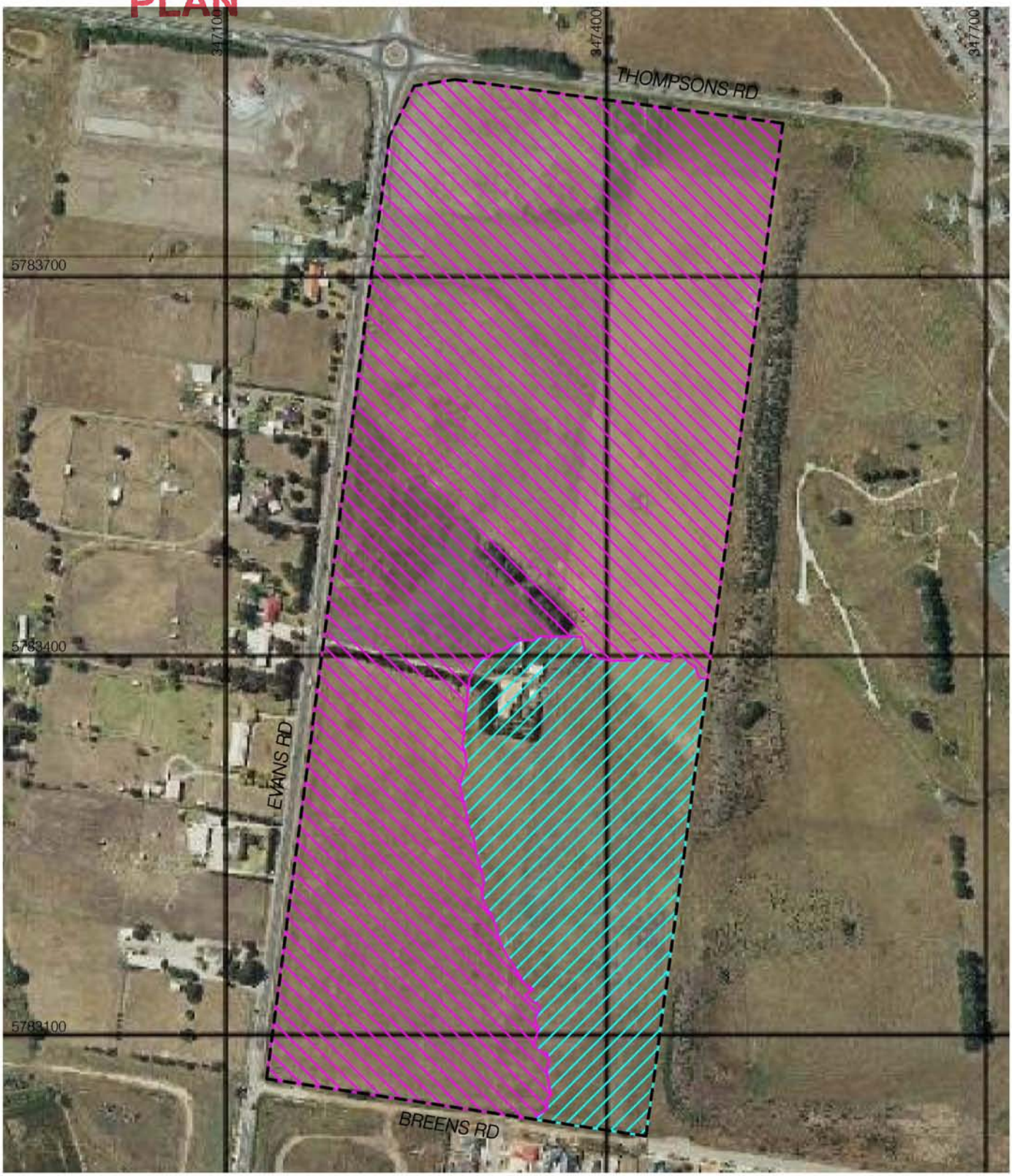
0%	No visible ground surface
0 – 10%	Very poor
10 – 30%	Poor
30 – 50%	Fair
50 – 70%	Good
70 – 90%	Very good
90 – 100%	Excellent

Ground surface visibility was very poor. Parts of the activity area has been subject to moderate levels of ground disturbance including dam construction, fill deposition, stock trampling, tree planting, building & structures, driveway and shallow open drain (Map 11). Effective survey coverage was less than 1% of the activity area.

For the purpose of this assessment, the activity area is composed of two survey units based on landform (Table 4).

Table 4 Survey Units & Effective Survey Coverage of Activity Area (Map 10)

Survey Unit, Area (ha) % of Activity Area	Description	Ground Surface Visibility	Effective Survey Coverage
1. – Low Lying Undulating Paddock & Area of Fill 19.1ha 78%	Survey unit 1 is comprised of low lying undulating paddocks and area of fill. The area of fill is in the north west corner of the activity area. Visibility was extremely poor <1%) due to thick pasture grasses. This survey unit is considered to have extremely low potential to contain Aboriginal cultural heritage.	<1%	<1%
2. – Sandy Rise & Residence 5.41ha 22%	Survey unit 2 comprises undeveloped sandy rise. Visibility was extremely poor <1%) due to thick pasture grasses. This survey unit is considered to have potential for low-moderate density stone artefact scatters. It is unlikely that any soil deposits with potential to contain Aboriginal cultural heritage will exist beneath the extant buildings.	<1%	<1%
			Total Effective Survey Coverage <1%



Aerial Photograph: Courtesy of DSE Website

Legend:

0 100 200
Scale of Metres

Activity Area Boundary
24.51 hectares (approx)

Survey Area 1
ESC : <1%
Sensitivity : Extremely Low

Survey Area 2
ESC : <1%
Sensitivity : Low - Moderate

N

GDA
Zone 55

Map 10 Survey Units, Effective Survey Coverage and Aboriginal Cultural Heritage Sensitivity

Survey Unit 1 – Undulating Paddock& Area of Fill

Survey Unit 1 is comprised of low lying undulating paddocks and area of fill. This survey unit comprises 78% (19.1ha) of the activity area (Map 8). This survey unit includes a driveway, area of fill, undulating paddocks, and drainage ditch (Plates 2 - 4). Ground surface visibility in this survey unit was <1%.

No Aboriginal cultural heritage was located in this survey unit.

It is unlikely that any soil deposits with potential to contain Aboriginal cultural heritage will exist beneath driveway and northern fill area due to the previous landscape modification and low lying nature of the land. The remainder of the survey unit is considered to have an extremely low potential to contain Aboriginal cultural heritage.

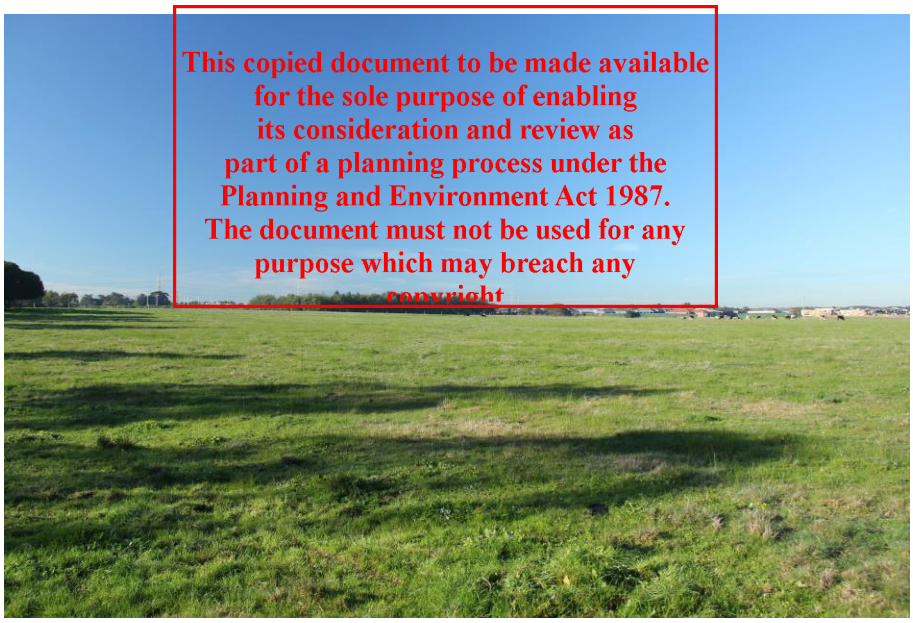


Plate 2

Survey Unit 1

North - facing south west

Very poor ground visibility

Plate 3

Survey Unit 1

South - facing north west

Very poor ground visibility

Plate 4

Survey Unit 1

North - facing west

Area of fill

Very poor ground visibility

Survey Unit 2 – Rise & Residence

Survey Unit 2 comprises a minor sandy rise and is also the location of the small farm complex. This survey unit comprised 22% (5.4ha) of the activity area (Map 10), and ranges in level from 23.6 – 29.6m above sea level.

Visibility was generally very poor (<1%) due to thick pasture grasses (Plates 5 & 6).

No Aboriginal cultural heritage was located.

It is unlikely that any soil deposits with potential to contain Aboriginal cultural heritage will exist beneath the extant buildings due to the extensive nature of previous landscape modification. The remainder of the survey unit is considered to have potential for low-moderate density stone artefact scatters due to it being slightly elevated and the former EVC transitional zone.

Plate 5

Survey Unit 2

Top of the rise facing south

Apart from occasional stock rut, very poor ground surface visibility

Plate 6

Survey Unit 1 in foreground & Survey Unit 2 in background

Extant residence in background facing north east

Very poor ground visibility

6.4 Mature Trees, Caves, Rock Shelters or Cave Entrances

No mature native trees were observed within the activity area.

No caves, rock shelters or cave entrances were identified within the activity area (r.59 (3) *Aboriginal Heritage Regulations 2007*).

6.5 Obstacles

No obstacles were encountered in completing the standard assessment.

6.6 Areas Likely to Contain Aboriginal Cultural Heritage & Aboriginal Cultural Heritage Scientific Sensitivity Model

The results of the standard assessment have been used to refine the desktop assessment Aboriginal cultural heritage prediction model (Section 5.8). There is a low - moderate likelihood that Aboriginal Cultural heritage will occur within the activity area (Survey Area 2). There is an extremely low likelihood that Aboriginal Cultural heritage will occur within the remainder of the activity area. However, the site types most likely to occur would be isolated stone artefacts or surface/subsurface stone artefact scatters. Table 5 summarises the potential of the activity area to contain Aboriginal cultural heritage (Map 10).

Table 5 Standard Assessment Aboriginal Cultural Heritage Scientific Sensitivity Model (Map 10)

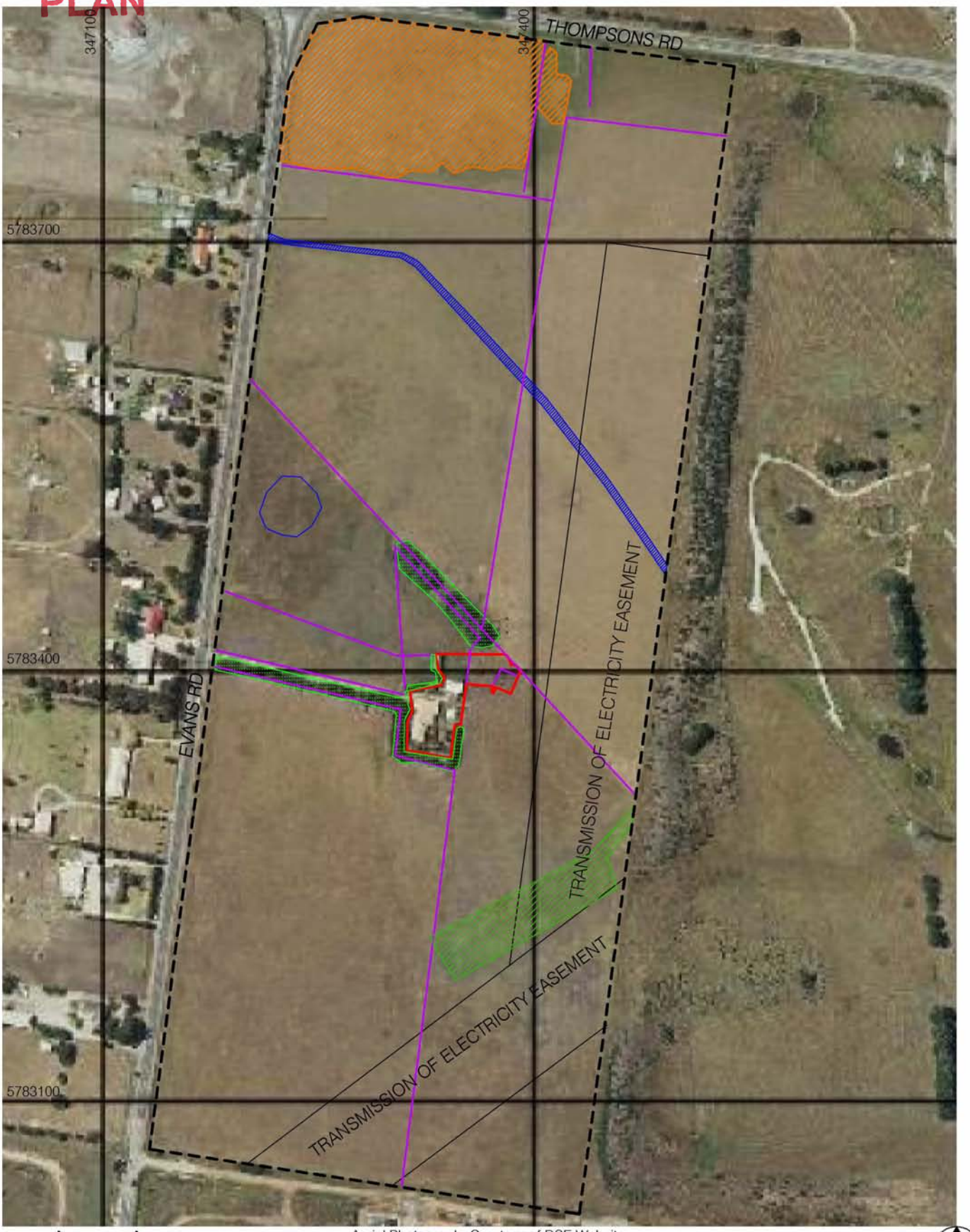
Place Types	Location/ Landform	Sensitivity
Isolated stone artefact/ Stone artefact scatter	Survey Unit 2 / Rise	Likely (Low - Moderate)

Place Types	Location/ Landform	Sensitivity
Isolated stone artefact/ Stone artefact scatter	Survey Unit 1 / Undulating paddock	Unlikely (Extremely low)
Earth features, human remains, quarries, rock art, stone features, shell midden	Entire activity area	None
Culturally scarred trees	Entire activity area	None

6.7 Results of the Standard Assessment

No Aboriginal cultural heritage places were recorded during the ground surface survey.

The activity area has been subject to disturbance processes such as removal of native vegetation, ploughing, cattle trampling, grazing, stock rubbing, tree planting, tree removal, house construction, driveway construction, ground filling and underground utility installation.



Legend:

Aerial Photograph: Courtesy of DSE Website

Activity Area Boundary
24.51 hectares (approx)

Filled Dam

Plantation

Buildings and Structures

Shallow Open Drain

Fence

Fill

Historic Windrow (Removed)

0 50 100
Scale of Metres

N

GDA
Zone 55

Map 11 Disturbance within the Activity Area

(Melway Ref: 129 D9)

6. 8 Conclusions from the Standard Assessment

- The activity area was subject to a comprehensive ground surface survey.
- No physical or other obstacles constrained the effectiveness of the ground surface survey.
- Ground surface visibility was very poor (<1%), and total effective survey coverage was <1% (Map 10).
- No Aboriginal cultural heritage places were located during the ground surface survey.
- No caves, rockshelters, grinding grooves, quarry sites or shell middens were identified during the ground surface survey of the activity area. No mature old growth native vegetation which had the potential to exhibit cultural scarring was present within the activity area.
- The ground surface survey found that the activity area contains a landform likely to contain Aboriginal cultural heritage. This comprises a sandy rise deemed as Survey Unit 2.
- The standard assessment demonstrated that the activity area has been subject to disturbance processes such as complete removal of native vegetation, ploughing, cattle trampling, grazing, stock rubbing, tree planting, tree removal, farm complex construction, fill deposition and shallow open drain (Map 11).
- The standard assessment concludes that surface and/ or subsurface deposits of low density stone artefacts are likely to occur on the elevated sandy rise (Survey Unit 2).
- The desktop and standard assessments have shown that Aboriginal cultural heritage is likely within the activity area, and therefore a complex assessment must be carried out (*r.60(1) Aboriginal Heritage Regulations 2007*).

7 COMPLEX ASSESSMENT

The desktop and standard assessments indicated that the activity area included a landform (rise) with potential to contain Aboriginal cultural heritage (Survey Unit 2). Due to the lack of ground surface visibility, it was not possible to clarify whether Aboriginal cultural heritage was present, or to identify the nature, extent and significance of any Aboriginal cultural heritage without carrying out a complex assessment.

The initial complex assessment was carried out by Andrew Morris (Field Supervisor, Archaeology At Tardis Pty Ltd), William Truscott, Phoebe Heddel-Stevens and Aaron Dalla-Vecchia (Archaeologists, Archaeology At Tardis Pty Ltd), Karen Kapteinis (Geomorphologist, Archaeology At Tardis Pty Ltd), Willy Xiberras, Trevor Dawes, and Shane Nicholson (Aboriginal community representatives, WTLCCHC).

At the request of OAAV (Appendix 8) an additional phase of complex testing was conducted on 2 and 3 October, 2014. Fieldwork was carried out by Stewart Thomson (Field Supervisor, Archaeology At Tardis Pty Ltd), Mark Dowdell (Field Supervisor, Archaeology At Tardis Pty Ltd), Aaron Dalla-Vecchia (Archaeologists, Archaeology At Tardis Pty Ltd), Willy Xiberras and Trevor Dawes (Aboriginal community representatives, WTLCCHC).

Map 12a & 12b present the test pit locations. Test pit co-ordinates and dimensions and logs are presented in Appendix 3.

7. 1 Aims

The aims of the complex assessment were to:

- Determine the nature and stratigraphy of subsurface landforms in the activity area;
- Sample the activity area for the presence or absence of Aboriginal cultural heritage;
- Undertake a series of test pits within Survey Unit 1 to test the site prediction model;
- Test the site prediction model, that Aboriginal cultural heritage was likely within the elevated sandy rise (Survey Unit 2, Map 10);
- Confirm the nature, extent and significance of any Aboriginal cultural heritage within the activity area.

7.2 Fieldwork Participants

The complex assessment was carried out by Andrew Morris (Field Supervisor), Stewart Thomson (Field Supervisor), Mark Dowdell (Field Supervisor), William Truscott, Phoebe Heddel-Stevens and Aaron Dalla-Vecchia (Archaeologists, Archaeology At Tardis Pty Ltd), Karen Kapteinis (Geomorphologist, Archaeology At Tardis Pty Ltd), Willy Xiberras, Trevor Dawes, and Shane Nicholson (Aboriginal community representatives, WTLCCHC).

7.3 Fieldwork Supervisor

The fieldwork was supervised by Andrew Morris, Stewart Thomson and Mark Dowdell (Archaeologist, Archaeology At Tardis Pty Ltd). Andrew, Stewart and Mark are suitably qualified in archaeology to supervise the excavations (Appendix 7).

7.4 Methodology

A total of fifty four test pits were hand excavated. One 1m x 1m and fifty three 0.5m x 0.5m controlled hand excavated test pits were investigated within the activity area (Map 12a & 12b) (Appendix 3 presents all data relating to the test pits).

All test pits were excavated in stratigraphic layers and 5cm spits using standard archaeological equipment (trowels, spades, sieves and brushes). All excavated soil was hand sieved through 5mm mesh. All test pits were photographed with a standard scale with 20cm divisions. All test pits were excavated to culturally sterile clay. All soil descriptions were carried out using Munsell colour charts, and pH tests were carried out. Spoil heaps were located a minimum of 1m away from the test pit. Test pit locations were recorded using a dGPS (GDA94 datum) (Appendix 3).

7.5 The Stratigraphy and General Subsurface Nature of the Activity Area

Test pit 1 investigated the stratigraphy and general subsurface nature of the activity area (Plate 7 & Figure 1).

The stratigraphy is in general composed of medium brown silty sand topsoil (A1) overlying dark grey brown silty sand (A2), overlying a layer of dark grey brown silty sand with ironstone & coffee rock inclusions (A3), over a layer of mottled grey orange greyish brown sterile clay (B) (Plate 7 & Figure 1). Depths of each soil layer varied throughout the activity area.

Plate 7

Stratigraphy of landform
TP1 facing north
survey unit 2

1 stone artefact @ 40cm
VAHR 7921-1521

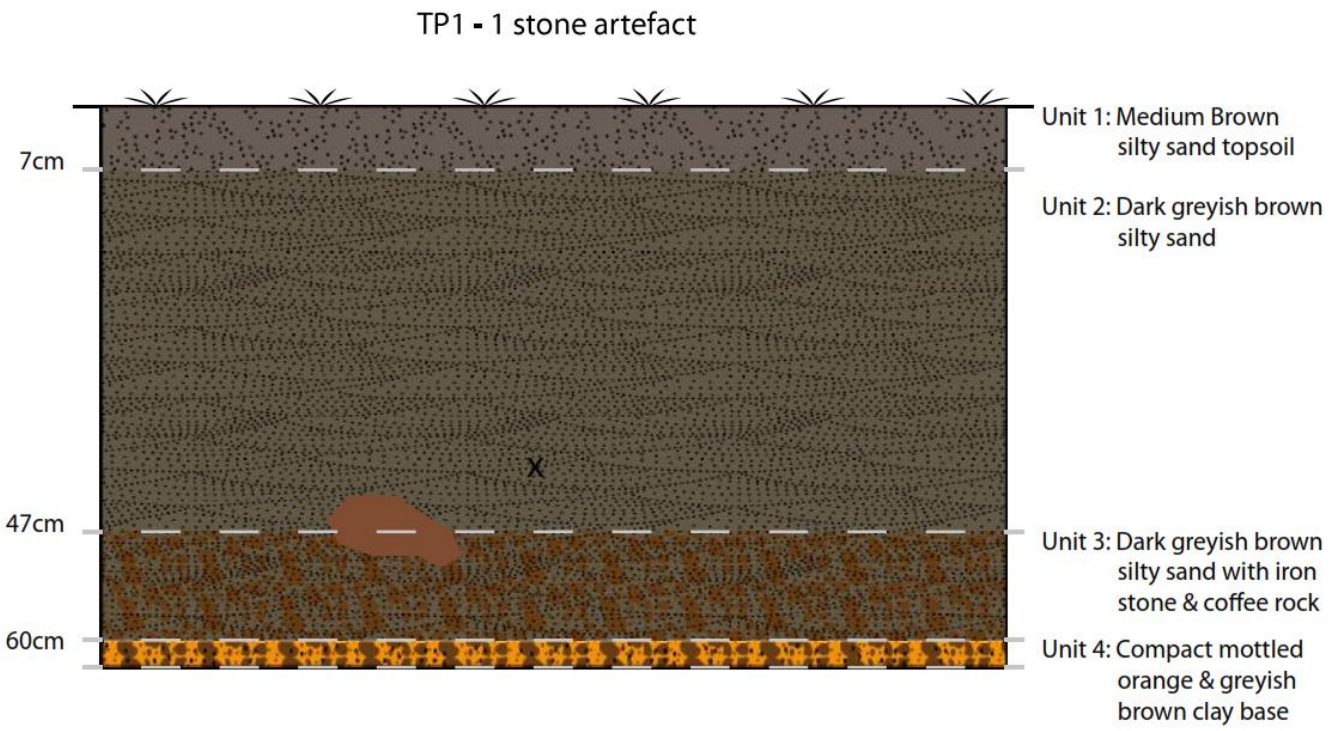


Figure 2 TP1 Stratigraphy of Representative Landform

7.6 Subsurface Testing Location Map

Subsurface testing locations are shown in Maps 12a & 12b.

7.7 Excavation Details

Test Pits

A total of one 1m x 1m and fifty three 0.5m x 0.5m controlled hand excavated test pits were excavated (Maps 12a & 12b). A detailed summary of all test pits excavated is presented in Appendix 3.

7.8 Obstacles

No physical or other obstacles constrained the effectiveness of the subsurface investigation.

Aerial Photograph: Courtesy of DSE Website

Legend:

0 100 200
Scale of Metres

Activity Area Boundary
24.51 hectares (approx)

xx Test Pit 1x1m
xx = test pit number

x-y Test Pit 1x1m with Artefact
x = test pit number
y = number of artefacts

xx Test Pit 50x50cm
xx = test pit number

x-y Test Pit 50x50cm with Artefact
x = test pit number
y = number of artefacts

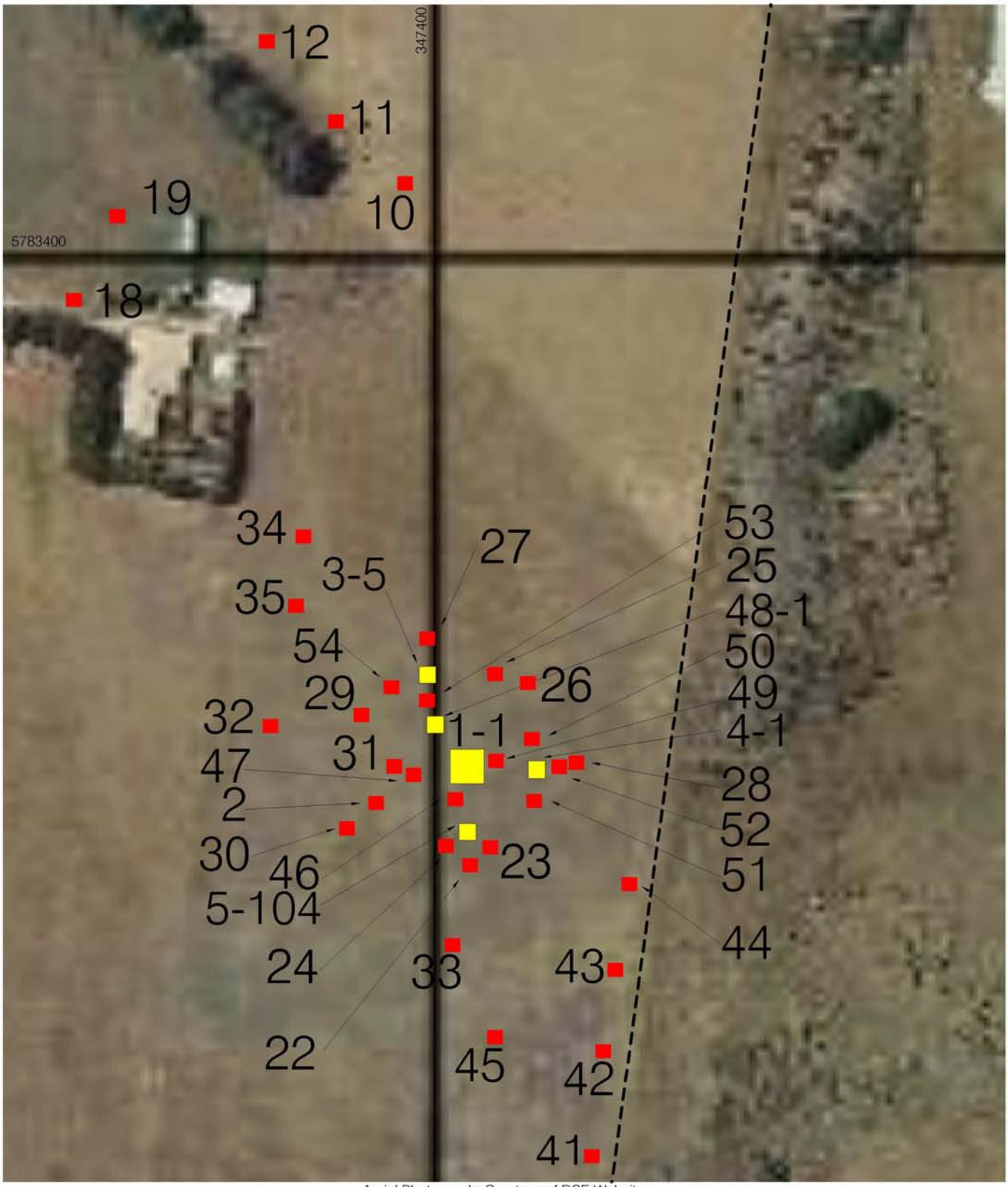
N

GDA
Zone 55

Parish: *Lyndhurst*
LGA: *Casey*

Map 12a Subsurface Testing Locations and Artefacts

(Melway Ref: 129 D9)



Aerial Photograph: Courtesy of DSE Website

Legend:

0 25 50
Scale of Metres

N

Activity Area Boundary
24.51 hectares (approx)

Parish: *Lyndhurst*
LGA: Casey

xx Test Pit 1x1m
xx = test pit number

xx Test Pit 50x50cm
xx = test pit number

x-y Test Pit 1x1m with Artefact
x = test pit number
y = number of artefacts

x-y Test Pit 50x50cm with Artefact
x = test pit number
y = number of artefacts

GDA
Zone 55

Map 12b Subsurface Testing Locations and Artefacts

(Melway Ref: 129 D9)

7.9 Results of the subsurface testing

As a result of the complex assessment one Aboriginal stone artefact scatter site was identified within the activity area (VAHR 7921-1521) (Map 12a & 12b) (Appendix 4).

A total of 112 stone artefacts (Appendix 5) were located in 5 test pits during this investigation within the activity area (Appendix 3).

No organic material with cultural association was identified during the sub-surface testing. The pH levels obtained from the sub-surface testing ranged between 5.0 and 6.5. These levels are considered too acidic to permit organic preservation (Gordon & Buikstra 1981).

The additional phase of complex testing, requested by OAAV, did not locate any Aboriginal cultural heritage outside the previously defined place extent (Map 13). One Aboriginal stone artefact was recorded during this additional phase of sub surface testing.

7.10 Conclusions from the subsurface testing

A total of fifty four test pits were hand excavated. One 1m x 1m, and fifty three 0.5m x 0.5m controlled hand excavated test pits were investigated within the activity area (Map 12a & 12b).

The complex assessment has demonstrated the following:

1. The site prediction model generated for the activity area was accurate;
2. A total of 112 stone artefacts were located in 5 test pits during this investigation within the activity area;
3. One Aboriginal cultural heritage place was registered as a result of the complex assessment (VAHR 7921-1521);
4. VAHR 7921-1521 has been investigated in terms of its extent, nature and significance;
5. The activity area is composed of silty sand overlying sterile clay.
6. No historic Aboriginal places were discovered or are likely to be present in the activity area;
7. No post-contact historic cultural heritage was found during the complex assessment; and
8. The activity area has been subject to disturbance processes such as ploughing, cattle trampling, grazing, animal burrows, tree planting, tree removal, house construction, driveway construction, ground filling, and underground utility installation.

The results and conclusions of the subsurface testing considered in light of the desktop and standard assessments (af.11.c)9.) are presented in Section 8.

8 ABORIGINAL CULTURAL HERITAGE

8.1 Aims

The aim of this Section is to assess and present the cultural heritage values found in the activity area. The aims are threefold:

1. To fulfil *statutory requirements* by presenting and discussing the details of the Aboriginal cultural heritage found during the assessment so that it complies with the *Aboriginal Heritage Regulations 2007*.
2. To answer *research questions* and assess the *research potential* of Aboriginal cultural heritage in the activity area.
3. To present a *statement of significance* and final *sensitivity model* of the Aboriginal cultural heritage values specific to the activity area.

This information is used for two purposes:

1. To make an impact assessment of the activity in relation to each Aboriginal place found in the activity area, the potential for the activity to harm unknown Aboriginal cultural heritage in the activity area, and consider contingency plans in accordance with s.61 of the *Aboriginal Heritage Act 2006* (Section 9).
2. To manage appropriately the Aboriginal cultural heritage values in the activity area according to the significance and research potential of the Aboriginal cultural heritage values and in accordance with the *Aboriginal Heritage Act 2006* (Section 10).

8.2 Aboriginal Cultural Heritage Place

One new Aboriginal stone artefact scatter was recorded (VAHR 7921-1521) within the activity area during this assessment.

8.2.1 VAHR 7921-1521: Extent, Nature and Significance (Map 13)

Place Name:	280 Evans Rd
VAHR No:	7921-1521
Place Type:	Sub-surface stone artefact scatter
Primary Grid Coordinate*:	347409E 5783261N
Published Map No:	(1:30K) T7921-1-4-3
Cadastre:	Lot 4 PS546430/ Parish of Lyndhurst / City of Casey
Test Pits:	TP1 (n=1), TP3(n=5), TP4 (n=1), TP5 (n=104), TP48 (n=1)
Contents:	112 stone artefacts: 110 silcrete & 1 quartz complete flakes (n=46), angular fragments (n=47), cores (n=2), split flake (n=3), proximal flake (n=6), medial flake (n=2), distal flake (n=6)

Vertical Artefact Distribution:	10 – 40cm below the surface (Ploughzone)
Depth of Highest Artefact Density:	40cm below the surface
Artefact Density per m^2:	56 m^2 (Moderate)
Typical Soil Profile Description:	Silty Sand
Known Extent:	Test pits TP1, TP3, TP4 & TP5
Disturbance:	Grazing, ploughing, stock trampling, tree removal & bioturbation
Location:	280 Evans Road, Cranbourne West
Landform:	Rise
Waterways:	None
Scientific Significance:	Moderate - high

*GDA94 MGA Zone 55

Extent

The known place extent is determined by the presence of artefacts found in test pits TP1, TP3, TP4 & TP5 (Map 13).

At OAAV's request the place extent has been defined by the closest radial test pits containing zero artefacts, due to there being a likelihood of additional cultural material located between the test pits containing stone artefacts & the surrounding radial test pits containing zero artefacts (Map 13).

Photos of the test pit containing Aboriginal cultural heritage and the stone artefacts are presented below.

Plate 8

TP1 facing north
survey unit 2
1 stone artefact
40cm below surface
VAHR 7921-1521

Plate 9

TP1
Artefact

Plate 10

TP3 facing north
survey unit 2
5 stone artefacts
20-30cm below surface
VAHR 7921-1521

Plate 11

TP3
Artefacts

Plate 12

TP4 facing north
survey unit 2
1 stone artefact
10cm below surface
VAHR 7921-1521

Plate 13

TP4
Artefact

Plate 14

TP5 facing north
survey unit 2
104 stone artefacts
40cm below surface
VAHR 7921-1521

Plate 15

TP5
Sample of artefacts

Plate 16

TP5
Sample of conjoined artefacts

Plate 17

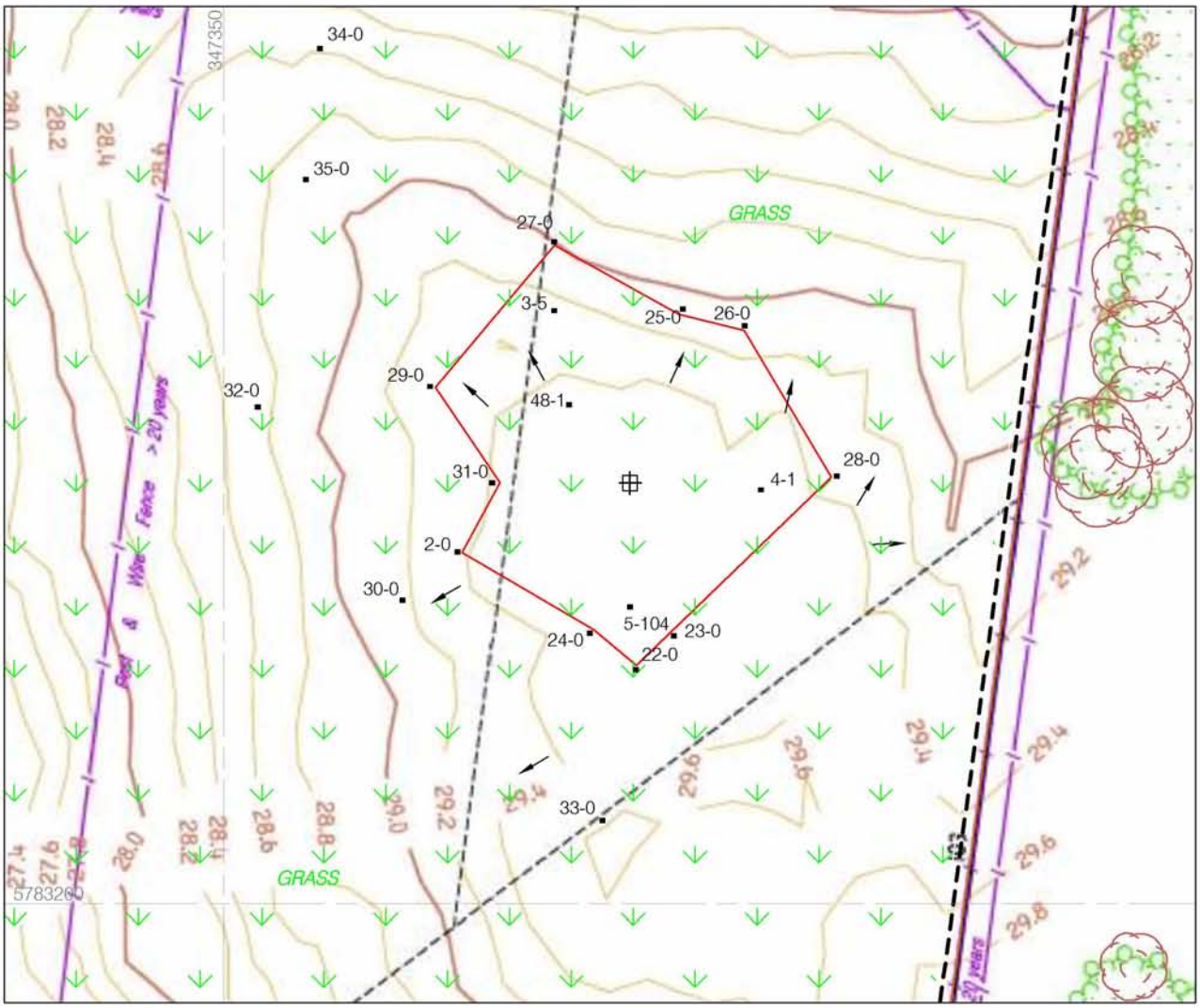
TP5
Sample of conjoined artefacts

Plate 18

TP48 facing north
survey unit 2
1 stone artefact
25-30cm below surface
VAHR 7921-1521

Plate 19

TP48
Artefact



Scale = 1:1000

0 30

Scale of Metres

Legend:

Primary Grid Coordinate
347409E, 5783261N
& Test Pit 1 (1x1m)
1 Artefact

x-y Test Pit (50x50cm)
x = test pit number
y = number of artefacts

Grass

Activity Area Boundary

Fence

VAHR 7921-1521 Place Extent

Tree

Denotes Direction of Slight Slope

N

GDA
Zone 55

ADVERTISED PLAN

Map 13 Place Extent - VAHR 7921-1521

Nature

VAHR 7921-1521 is a subsurface stone artefact scatter that is located on the only rise within the activity area. It has an average artefact density of 56 artefacts per m^2 which is considered moderate. A total of 112 stone artefacts were recorded comprising complete flakes (n=46), angular fragments (n=47) including 2 geometric microliths, cores (n=2) and broken & split flakes (n=17). The dominant raw materials present were silcrete (n=111) and quartz (n=1).

The place has been disturbed by vegetation clearance, grazing, stock trampling, ploughing and tree removal. No suitable material was available for radiometric dating or environmental analyses. All artefacts were found within the ploughzone of an active A horizon.

There was no evidence of high integrity occupation deposits or features, stratified or otherwise, and all subsurface cultural material was found in natural soil horizons (Appendix 3). The evidence demonstrated that the place likely represents minor knapping event. No evidence was found for significant long-term camping or food preparation.

Cultural Significance

VAHR 7921-1521 has been assessed by the WTLCCHC having *high* cultural significance (Appendix 12). No assessment has been received from BLCAC or BWFL.

Scientific Significance

The place has a moderate average artefact density. VAHR 7921-1521 has been assessed as having *moderate-high* scientific (archaeological) significance (Appendix 6).

There is no evidence of occupation deposits or features, stratified or otherwise. The place likely dates to the Late Holocene. The stone artefacts recovered are very common within the region and throughout Victoria generally.

Artefact Depths

The majority of the stone artefacts were recorded at a depth of 40cm below the surface, and were located within & TP5 (n=104). The remainder of artefacts were located at 40cm (TP1, n=1), 20-30cm TP3 (n=5) 10cm (TP4, n=2) and 25-30cm (TP48, n=1). All stone artefacts recorded are within the ploughzone.

Manufacturing techniques

Most of the assemblage comprises small angular fragments and tiny flakes (Table 6) that were probably created during the knapping process. The fact that so many small pieces of flaking debris are present indicates that knapping was conducted at this locality. The four piece conjoin described above also constitutes evidence that knapping was undertaken at 280 Evans Road.

The assemblage contains only two cores (one of these is unidirectional and the other is multidirectional). Although the presence of the multidirectional core suggests that a generalised reduction strategy was being employed, bladelets have been removed from the unidirectional core. The lack of bladelets in the assemblage suggests that these have been preferentially selected for use or further modification elsewhere.

Some formal tool production was conducted at this locality, as evidenced by the presence of two geometric microliths and a small number of blade sections that may represent abandoned production attempts.

8.3 Details of the Assessment

The following briefly describes the nature of the site.

8.3.1 Stone Artefacts

A total of 112 stone artefacts were recovered during the standard and complex assessment (Appendix 5). See Tables 6 & 7 for stone artefact material and data classes.

Almost all of the stone artefacts were recovered from Test Pit 5 (Appendix 5) and the overwhelming majority (94.6%) were recovered from a depth of approximately 40cm.

Table 6 Stone Artefact Data Classes

Data Class	No. of Artefacts	% of artefacts
Angular Fragment	47	41.9
Complete Flake	46	41.0
Split Flake	3	2.7
Proximal flake	6	5.4
Medial Flake	2	1.8
Distal Flake	6	5.4
Core	2	1.8
Total	112	100

VAHR 7921-1521 is a stone artefact scatter, and has an average artefact density of 56 artefacts per m^2 from within the excavated test pits.

The presence of geometric microlith's are typical components of assemblages associated with the Australian Small Tool Tradition (ASTT) and dated the assemblage to the Late Holocene.

Table 7 Stone Artefact Raw Material

Raw Material	No. of artefacts	% of artefacts
Silcrete	111	99
Quartz	1	1
Total	112	100

The dominant raw material was silcrete (n=111) followed by quartz (n=1) (Table 7).

8.3.2 Site Formation Processes

The artefact scatter component at VAHR 7921-1521 likely formed as a result of artefact manufacture, use and discard practices associated with ephemeral past Aboriginal occupation of the activity area. VAHR 7921-1521 has been subject to post-depositional disturbance by tree removal, ploughing, grazing and stock trampling. Post-depositional site formation processes have reduced the spatial and temporal integrity of the artefacts located.

8.4 Information in Relation to Discovered Aboriginal Cultural Heritage

The WTLCCHC, BLCAC & BWFL were requested to provide, a statement of significance for any discovered Aboriginal cultural heritage during an assessment for a plan (Section 4). WTLCCHC provided a statement and is provided in Appendix 12.

8.5 Oral Information in Relation to Aboriginal Heritage of the Activity Area

WTLCCHC, BLCAC & BWFL were requested to provide any oral information in relation to the Aboriginal heritage of the activity area (Section 4). At time of CHMP submission no oral information was supplied.

8.6 Results of the Assessment of Aboriginal Cultural Heritage

VAHR 7921-1521 – Stone artefact scatter

VAHR 7921-1521 has been recorded as a stone artefact scatter in ACHRIS (Map.13). A total of 112 stone artefacts were recorded during this assessment for VAHR 7921-1521.

Disturbance

The activity area has been disturbed by farming activity since European occupation. Examination of Map 14 illustrates that VAHR 7921-1521 has also been previously disturbed through the process of exotic tree planting and removal.

The presence of pieces of glass and ceramic fragments at depths of 100-200mm also indicates that some of the near-surface sediments have been disturbed or may possibly have accumulated relatively recently.

Conjoining artefacts are present in the assemblage (one set of four, one set of three and two sets of two pieces) (Photos 16 & 17). The sets of two and three do not refit at impact points and are therefore breakages that almost certainly occurred after the production of the artefacts. This is an indication that the assemblage has been subject to some disturbance after its creation; trampling and ploughing are common causes.

Three out of the set of four conjoining artefacts can be fitted back together in a way that reveals the order in which they were manufactured. Specifically, a series of three small flake removals can be reconstructed to reveal that unidirectional flaking of high quality

silcrete took place at this locality. Conjoins such as this one are usually only present in assemblages that have not been subject to significant levels of disturbance. The fact that conjoinable artefacts are present at this site adds to its overall significance.

Landforms

The activity area comprises a very gently undulating paddock with a slight rise located in the south east quadrant of the activity area. The site location within the rise conforms to the site prediction model that states short term occupation evidence will be found on elevated landform of Survey Unit 2. This rise is essentially the first rise to the immediate south of pre-contact Riparian Woodlands and would have been a predictable dry campsite location.

Known Cultural Heritage Values

The known Aboriginal cultural heritage values in the activity area are restricted to VAHR 7921-1521.

No organic material within a cultural context was encountered during the complex assessment and therefore no samples were subject for radiometric dating. OSL dating was not considered suitable due to the lack of sufficient place attributes such as high integrity and deep artefact horizons. Places with very low scientific significance typically lack these attributes. Unless there was some evidence to suggest greater antiquity than the Late Holocene (such as evidence of pre-ASTT assemblages), such dating methods cannot be reasonably justified on a scientific basis.

The stone artefact data classes and raw material recovered from the place is typical for the activity area region. The usual range of flakes, tools, cores and angular fragments were identified in moderate numbers and density classes. Silcrete is the dominant raw material which is also typical of the activity area region.

The place is comprised solely by its archaeological site component (s.5 *Aboriginal Heritage Act 2006*). This component is fully documented and will be preserved in the VAHR site registry.

Some formal tool production was conducted at this locality, as evidenced by the presence of two geometric microliths and a small number of blade sections that may represent abandoned production attempts.

8.7 Research Potential

The research potential of stone artefact scatters can be assessed by the likelihood that salvage excavations can provide additional data to significantly add to research questions. This can be assessed by determining whether places contain the attributes sufficient to supply this data. These attributes are essentially the same as those used to assess the scientific significance of places (Appendix 6) and include the following:

- A high density of stone artefacts

- Heterogeneous high density artefact clusters with significant temporal and spatial integrity
- Stratified high integrity occupation deposits and features
- Suitable samples for radiometric dating
- Evidence of intra and inter-site variability

The complex assessment has demonstrated that the known Aboriginal cultural heritage in the activity area represented by stone artefact scatter VAHR 7921-1521, may have minor research potential due to the moderate-high artefact density located in TP5. However the temporal and spatial integrity of the stone artefacts may have been disturbed within the area of highest artefact density due to farming activities including tree removal (Map 14).

Aerial Photograph: Run 32 1963

Legend:

0 100 200
Scale of Metres

Activity Area Boundary
24.51 hectares (approx)

Place Extent

Parish: *Lyndhurst*
LGA: *Casey*

N

GDA
Zone 55

Map 14 Demonstrated Disturbance within Known Place Extent of VAHR 7921-1521

8.8 Statement of Significance and Sensitivity Model

A statement of cultural heritage significance is a mandatory component of a CHMP. Cultural heritage significance includes (s.4 *Aboriginal Heritage Act 2006*):

(a) archaeological, anthropological, contemporary, historical, scientific, social or spiritual significance; and
(b) significance in accordance with Aboriginal tradition;

European assessments of cultural heritage significance (especially archaeological, scientific, anthropological, aesthetic, historic or social / spiritual) may not accord with those of the Aboriginal community. It is up to the Aboriginal people to decide the Aboriginal cultural significance, including significance in accordance with Aboriginal tradition (s.4(b) *Aboriginal Heritage Act 2006*), of any Aboriginal cultural heritage in the activity area.

The WTLCCHC, BLCAC, and BWFL were requested to provide a statement of any relevant information regarding the oral tradition, Aboriginal cultural heritage or specific significance, including significance according to Aboriginal tradition, of the activity area (Section 4). Only WTLCCHC responded and their statement is provided in Appendix 12.

The approach adopted for this CHMP aims to produce an analytical, transparent and specific scientific (archaeological) significance assessment to Aboriginal cultural heritage (s.4(a) *Aboriginal Heritage Act 2006*). A summary of place significance is presented in Table 8 below. This statement of significance also aims to place the Aboriginal cultural heritage values of the activity area within a regional context.

The detailed assessment of scientific significance of Aboriginal cultural heritage identified within the activity area is presented in Appendix 6.

Apart from the known archaeological values no other known Aboriginal cultural heritage will be harmed. Based on the evidence from this investigation a significance summary of known cultural heritage and a final model for the activity area are presented in Tables 8 & 9.

Table 8 Significance Summary

VAHR No Place Name	WTLCCHC Cultural Significance	Scientific Significance
7921-1521 280 Evans Rd	*High*	*Moderate-high*

Table 9 Activity Area Aboriginal Cultural Heritage

Place Type	Location / Landform	Known Cultural Heritage
Sub surface stone artefact scatter	280 Evans Road, Cranbourne West / Rise	VAHR 7921-1521

8.9 Map showing Aboriginal Cultural Heritage in the Activity Area

All Aboriginal cultural heritage investigated in the activity area with reference to Victorian Aboriginal Heritage Register number is shown in Map 13.

8.10 Areas Likely to Contain Aboriginal Cultural Heritage but will not be Impacted

There are no areas within the boundary of the activity area that are considered likely to contain Aboriginal cultural heritage that will not be impacted by the activity.

8.11 Conclusions

The assessment has demonstrated that:

- The assessment has comprehensively identified and assessed the cultural heritage values of the activity area;
- The known cultural heritage values comprise subsurface stone artefact scatter VAHR 7921-1521;
- VAHR 7921-1521 has *high* cultural significance to WTLCCHC;
- VAHR 7921-1521 has *moderate-high* scientific significance;
- Any additional Aboriginal cultural heritage, if present, is likely to have some minor additional scientific and research value.

9 CONSIDERATION OF SECTION 61 MATTERS – IMPACT ASSESSMENT

The assessment identified the nature, extent and significance of known Aboriginal cultural heritage (Sections 5 – 8). Below the impact of the activity on known places is assessed pursuant to Section 61 of the *Aboriginal Heritage Act 2006*.

9.1 VAHR 7921-1521 – Stone Artefact Scatter

9.1.1 Can Harm be Avoided?

Harm to VAHR 7921-1521 cannot be avoided. The location of VAHR 7921-1521 is within a proposed industrial development (Map 15 amended).

Typical earthworks during industrial subdivision construction will include grading of the activity area. As is typical within industrial subdivisions, there is no open space included in the proposed activity. The sponsor has considered avoidance of VAHR 7921-1521, however, this cannot be achieved without adversely affecting the viability of the development.

There are currently two electricity easements exist within the activity area which significantly constrains the development design by, diminishing the amount of developable land and area available for a heritage conservation zone. However, during the production of this CHMP SPAusnet has agreed to the removal of the north-south transmission easement. A planning permit has been lodged with the City of Casey to remove the north-south easement and vary the location of the angled easement in the south-east corner of the property. The Creation of Easement Plan is shown in Appendix 13.

9.1.2 Can Harm be Minimised?

Harm cannot be minimised for the reason stated above (Section 9.1.1). However, all known physical remains of the place have been collected during preparation of this CHMP.

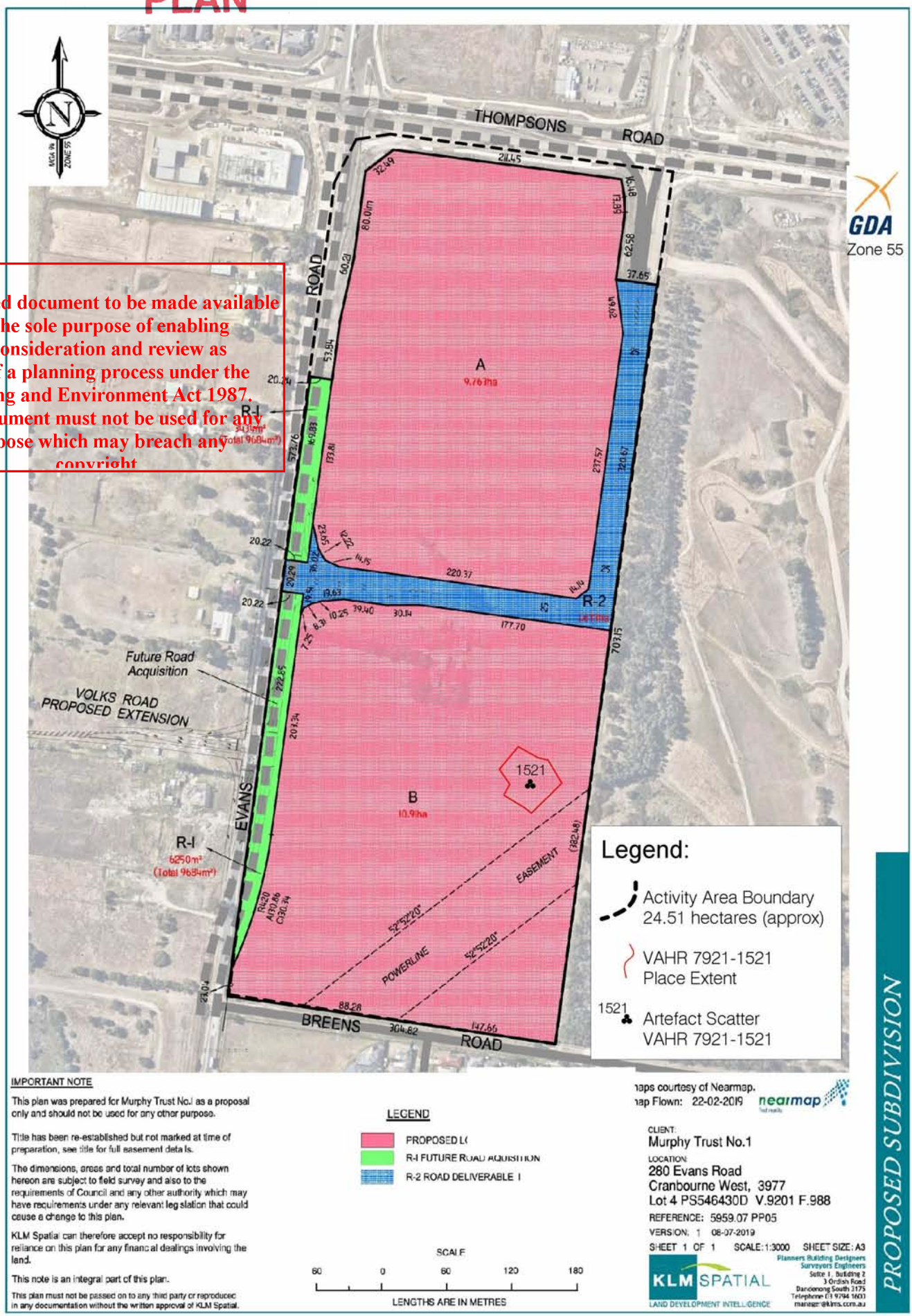
9.1.3 Are Specific Management Measures Required?

VAHR 7921-1521 is of *moderate-high* scientific significance and has limited research potential. OAAV have requested that management of this site is done by undertaking salvage by archaeological excavation of part of this site. .

The salvage methodology is presented in Section 10.1.

This salvage excavation must be undertaken before any ground disturbance within the extent of VAHR 7921-1521 occurs.

- Conducting a salvage excavation of VAHR 7921-1521 as presented in Section 10, Recommendation 1 and shown in Map 16, will further investigate the temporal and spatial distribution of the cultural deposit, and recover additional Aboriginal cultural heritage within the extent of VAHR 7921-1521.



IMPORTANT NOTE

This plan was prepared for Murphy Trust No.1 as a proposal only and should not be used for any other purpose.

Title has been re-established but not marked at time of preparation, see title for full easement details.

The dimensions, areas and total number of lots shown hereon are subject to field survey and also to the requirements of Council and any other authority which may have requirements under any relevant legislation that could cause a change to this plan.

KLM Spatial can therefore accept no responsibility for reliance on this plan for any financial dealings involving the land.

This note is an integral part of this plan.

This plan must not be passed on to any third party or reproduced in any documentation without the written approval of KLM Spatial.

LEGEND

PROPOSED LOTS
R-1 FUTURE ROAD ACQUISITION
R-2 ROAD DELIVERABLE

SCALE
60 0 60 120 180
LENGTHS ARE IN METRES

Maps courtesy of Nearmap.
Map Flown: 22-02-2019 nearmap

CLIENT: Murphy Trust No.1
LOCATION: 280 Evans Road Cranbourne West, 3977
Lot 4 PS546430D V.9201 F.988
REFERENCE: 5959.07 PP05
VERSION: 1 08-07-2019
SHEET 1 OF 1 SCALE: 1:3000 SHEET SIZE: A3

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Map 15 VAHR 7921-1521 in relation to Development Plan

(Melway Ref: 129 D9)

9.2 Contingency Plan

A Contingency Plan is required to manage potential issues including:

- specific measures in the unlikely event that any Aboriginal cultural heritage beyond known cultural heritage will be unexpectedly discovered during the activity;
- any contingency plans required in relation to disputes, delays and other obstacles that may affect the conduct of the activity;
- reviewing compliance with the cultural heritage management plan and mechanisms for remedying non-compliance;
- the notification of the discovery of Aboriginal cultural heritage during the carrying out of the activity; and requirements relating to the custody and management of any Aboriginal cultural heritage found during the course of the activity.

The Contingency Plan is presented in Section 11.

9.3 Custody and Management of Aboriginal Cultural Heritage

Stone artefacts retrieved during the complex assessment are currently held by the heritage advisor. All artefacts are stored in bags that have provenance information recorded on labels. Currently there is no RAP for the activity area. Artefacts will be retained by the cultural heritage advisor until the plan is approved or until a RAP is approved, whichever is earlier. If no RAP is approved then custody of the artefacts will be offered to the following in order of priority:

- Any relevant native title holder;
- Any relevant native title party;
- RAP applicant;
- Any relevant Aboriginal person or persons with traditional or familial links;
- Any relevant Aboriginal body or organisation which has historical or contemporary interest in Aboriginal heritage;
- The owner of the land;
- The Museum of Victoria (s.61(e)).

Any Aboriginal cultural heritage found during the conduct of the activity must be dealt with according to the Contingency Plan (Section 11).

PART 2 – CULTURAL HERITAGE MANAGEMENT RECOMMENDATIONS

These recommendations become compliance requirements once the Cultural Heritage Management Plan is approved.

10 SPECIFIC CULTURAL HERITAGE MANAGEMENT REQUIREMENTS

These recommendations become compliance requirements once the Cultural Heritage Management Plan is approved.

Based on the findings of this report the following recommendations are made:

10.1 Recommendations

Recommendations Prior to Activity

Recommendation 1: VAHR 7921-1521 (Stone Artefact Scatter)

VAHR 7921-1521 is a subsurface stone artefact scatter which has been assessed as having *high* cultural significance by WTLCCHC, and *moderate-high* scientific significance (Section 8.8 & Appendix 6). The extent, nature and significance of the place was determined during the complex assessment (r.60(1)(b) *Aboriginal Heritage Regulations 2007*, Section 8).

It is recommended that limited archaeological salvage be conducted within the place extent of VAHR 7921-1521 that is to be directly impacted by the activity (Map 15 amended), due to the *moderate-high* scientific significance of the place.

Prior to ground disturbance

Prior to the commencement of any ground disturbance within the extent of VAHR 7921-1521 (Map 16), limited salvage is to be undertaken with the following aims:

1) To further investigate the spatial and temporal distribution of the cultural material associated with VAHR 7921-1521;

2) To recover additional Aboriginal cultural heritage;

3) To help answer further current research questions and further contribute to archaeological knowledge of the place, the activity area or the surrounding region.

To achieve this aim controlled salvage must be undertaken of the artefact bearing deposit down to a sterile layer.

Salvage is to be conducted via the following methodology:

- Excavation of a minimum fifteen (100cm x 100cm x sterile base layer) salvage pits.

- During a meeting with OAAV (6 August 2014) (Appendix 8), OAAV requested that four salvage excavation pit be excavated in a "T" configuration within close vicinity to TP5. The position and configuration of the remaining salvage excavation pits will be undertaken at locations within the extent of VAHR 7921-1521 (Map 16), as agreed upon between the TOG representatives and the cultural heritage advisor at the time of salvage;

- Excavation of the artefact bearing horizon must be conducted to proper archaeological practice by a qualified archaeologist and by hand;

- The salvage pits are to be recorded to sub-metre accuracy using GDA94 MGA coordinates;

- All sediments excavated 100% sieved using 5mm mesh;

- Artefacts found during excavation must be individually point provenanced to the nearest centimetre;

- All artefacts recovered are to be contained in bags with the artefacts provenance details labelled on the bag(s);

- The test pits must to be recorded in detail including, photographic records, pH levels, Munsell colour, sediment descriptions, stratigraphy and disturbance;

- A geomorphological assessment must be undertaken;

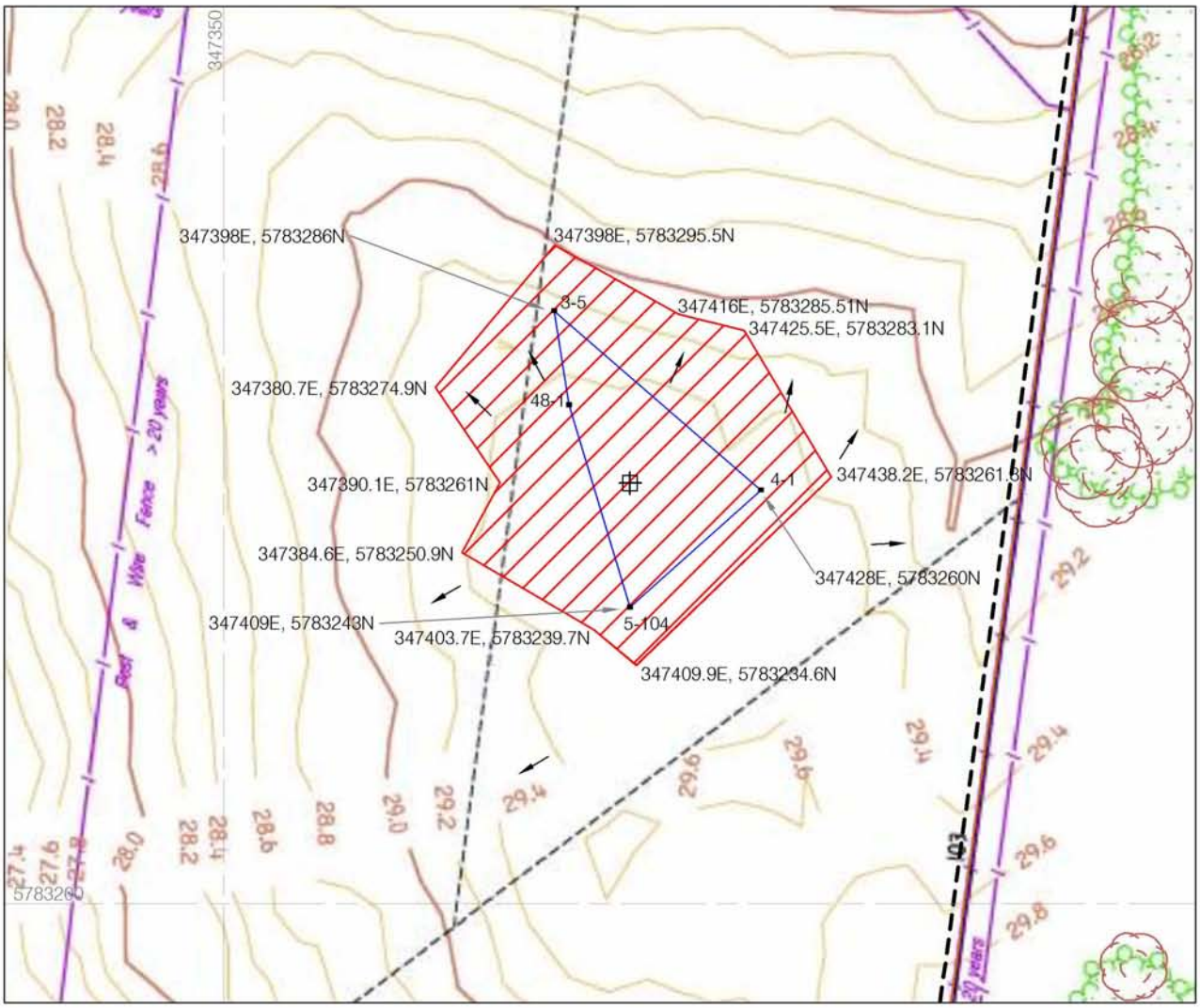
- All artefacts are to be recorded in detail including photographic records, typological determination, material type and size;

- All artefacts recovered are to be subject to detailed analysis, looking specifically at usewear and the potential for conjoining and residue analysis;

- Any organic feature discovered in relation with Aboriginal cultural heritage is to be salvaged completely and subjected to dating analysis. The cost is to be borne by the sponsor or their agent.

Following completion of the salvage excavation, the heritage advisor must complete appropriate VAHR forms and submit a report to OAAV detailing the results of the archaeological salvage.

The custody and management of artefacts must be conducted according to Recommendation 4.



Scale = 1:1000 0 30 Scale of Metres

Legend:

- Primary Grid Coordinate 347409E, 5783261N & Test Pit 1 (1x1m) 1 Artefact
- x-y Test Pit (50x50cm) x = test pit number y = number of artefacts
- Salvage Area
- Activity Area Boundary
- Fence
- VAHR 7921-1521 Place Extent
- VAHR 7921-1521 Known Extent
- Tree
- Denotes Direction of Slight Slope

N

GDA Zone 55

ADVERTISED PLAN

Map 16 Location of Archaeological Salvage to be undertaken within the Extent of VAHR 7921-1521

Recommendation 2: Aboriginal Heritage Information

Prior to commencing works within the activity area, all employees and contractors actively involved in ground disturbance works within the activity must be made aware of the potential for unexpected Aboriginal cultural heritage being unearthed during works. As a minimum, such awareness is to include:

- Information material available on-site throughout the entire activity; and
- Instructions on how to proceed if cultural heritage material is identified.

Information material can be obtained as mini posters from the DPC website at: http://www.dpc.vic.gov.au/index.php/aboriginal-affairs/publications-and-research/aboriginal-cultural-heritage-mini-poster-series

Cultural heritage information must be provided by the Sponsor A copy of Part 2 of the approved CHMP must be on site or be readily accessible at all times.

Recommendations During and Post Activity

Recommendation 3: Contingency Plan

The Contingency Plan presented in Section 11 must be adopted.

Recommendation 4: Custody and Management of Aboriginal Cultural Heritage

Stone artefacts retrieved during the assessment are currently held by AAT. Artefacts will be retained by AAT until the CHMP is approved or until a RAP is approved, whichever is earlier. If no RAP is approved then custody of the artefacts will be offered to the following in order of priority:

- any relevant registered native title holder;
- any relevant native title party;
- RAP applicant;
- any relevant Aboriginal person or persons with traditional or familial links;
- any relevant Aboriginal body or organisation which has historic or contemporary interest in Aboriginal heritage;
- the owner of the land;
- the Museum of Victoria (s.61(e)).

If no party accepts custody of the artefact, then the Sponsor must ensure the artefacts are reburied as close to the original place location as practical within three months after the completion of the activity. The reburial location must be documented to sub-meter accuracy using GDA94 MGA coordinates and reported to OAAV. A reburial location within the electricity easement or other suitable area within the activity area would be recommended after completion of the activity.

All cultural heritage must be buried in a suitable weatherproof container along with a copy of the artefact inventory. An Object Collection approved form must be completed and submitted to OAAV by a suitably qualified cultural heritage advisor. The cost of the reburial is to be borne by the sponsor or their agent. The exact location and timing should be as a result of communication between the relevant Aboriginal group and sponsor. Appropriate management measures must be implemented to ensure that the reburied artefacts are not disturbed in the future.

Any Aboriginal cultural heritage found during the conduct of the activity must be dealt with according to the Contingency Plan.

11 CONTINGENCY PLAN

A Contingency Plan is required to manage potential issues including: specific measures in the unlikely event that any Aboriginal cultural heritage beyond known cultural heritage will be unexpectedly discovered during the activity; any contingency plans required in relation to disputes, delays and other obstacles that may affect the conduct of the activity; reviewing compliance with the cultural heritage management plan and mechanisms for remedying non-compliance; the notification of the discovery of Aboriginal cultural heritage during the carrying out of the activity; and requirements relating to the custody and management of any Aboriginal cultural heritage found during the course of the activity. The Sponsor must ensure that the relevant Contingency Plan is followed. To assist in this aim, a checklist has been provided (Appendix 9).

At the time of preparation of this CHMP, no RAP has been appointed with responsibility for the activity area.

The following contingency plans refer to the involvement only of RAP(s) under the *Aboriginal Heritage Act 2006*. RAP applicants or Traditional Owners Groups (TOGs) may be consulted until RAP(s) are appointed, at which time only RAP(s) have statutory responsibility for the activity area. Where there is no RAP appointed for the activity area, a cultural heritage advisor can facilitate appropriate representation.

11.1 Changes to Section 61 Matters or the Activity

The *Aboriginal Heritage Act 2006* requires a new CHMP to be prepared in the following circumstances:

1. Changes to the activity or actions that are inconsistent with this CHMP.
2. Changes to the activity that will require a statutory authorisation (eg an amendment to a planning permit).

Actions which are considered as inconsistent to an approved plan are described in Part 6 (81(1)(a)(b)(c)) of the *Aboriginal Heritage Act 2006*. This section indicates that when the Sponsor of an approved plan has (a) contravened or is likely to contravene the recommendations in the plan or (b) the impact on Aboriginal cultural heritage will be greater than that determined at the time the plan was approved then the Minister may order a cultural heritage audit.

A cultural heritage audit must be conducted by / or under the direction of an inspector or a cultural heritage advisor who will prepare (at the Sponsors cost) a report to the Minister to determine whether a contravention to the plan has occurred. If the Minister orders a cultural heritage audit, then a stop order (Part 6, Division 2, 5.87) will also be issued to the Sponsor for the activity, whilst the audit is underway. The Sponsor is referred to Part 6 of the *Aboriginal Heritage Act 2006* for full details relating to management of plan inconsistencies.

Statutory authorisations are described in s.50 *Aboriginal Heritage Act 2006*. A decision maker must not grant a statutory authorisation for the activity if the activity would be inconsistent with the approved CHMP (s.52(3) *Aboriginal Heritage Act 2006*).

11.2 Dispute Resolution between the RAP and the Sponsor

As a RAP is not responsible for evaluating this CHMP, there can be no dispute between the RAP and the Sponsor in relation to what is agreed to in the implementation of the CHMP or the conduct of the activity.

11.3 Management of Aboriginal Cultural Heritage Discovered during the Activity

This contingency plan includes discovery, notification, evaluation, Section 61 matters and reporting procedures. This contingency plan must be followed if any unexpected cultural heritage is discovered during the activity. In the activity area unexpected cultural heritage comprises:

1. Human remains (see Section 11.3.1).
2. Stone artefact scatters that contain cultural heritage attributes which, when assessed, are below the analytical threshold of moderate scientific significance outlined in Appendix 6 (see Section 11.3.2).
3. Stone artefact scatters that contain cultural heritage attributes which, when assessed, equal or exceed the analytical threshold of moderate scientific significance outlined in Appendix 6 (see Section 11.3.2).
4. All other place-types not mentioned above (see Section 11.3.2).

11.3.1 Discovery of Human Skeletal Remains

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

1. Discovery:

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

2. Notification

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

3. Impact Mitigation or Salvage:

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

4. Curation and Further Analysis:

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

5. Reburial:

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

11.3.2 Management of Other Aboriginal Cultural Heritage

1. A person making such a discovery will immediately suspend any relevant works at the location and within a 10m radius of the relevant place extent.

2. The person shall immediately notify the nominated Project Delegate for the Sponsor.

Sponsor – Project Delegate	Mr Steven Murphy 19 Illawarra Road, Hawthorn VIC 3122 Phone: 03 9016 4365 Email: smurphy@perfectionprivate.com.au

3. The Sponsor's Project Delegate will notify the heritage advisor, and if necessary to prevent any further disturbance, the location will be isolated by a fence, safety webbing or other suitable barrier and works may recommence outside this 10m area of exclusion.

4. The heritage advisor will evaluate the Aboriginal cultural heritage. The heritage advisor will determine if it is part of an already known place or should be registered as a new place. The heritage advisor must report the discovery to the Secretary by updating and / or completing place records and advise on possible management strategies.

5. The heritage advisor will facilitate the involvement of the RAP in the onsite investigation and assessment of the scientific and cultural significance of the

Aboriginal cultural heritage as well as recommendations on its management to both the cultural heritage advisor and Sponsor.

6. In the first instance, the Sponsor must make every effort to avoid or minimise harm to any Aboriginal cultural heritage.

7. If the Aboriginal cultural heritage is assessed by the heritage advisor, in consultation with the RAP, as a place with below moderate scientific significance or no specific cultural significance, then after recording the material, no further management is required and works may proceed. The heritage advisor must submit relevant documentation to Site Registry (VAHR), OAAV.

8. If other Aboriginal cultural heritage is discovered, the heritage advisor in consultation with the RAP and the Sponsor, must explore all options to avoid impact to the Aboriginal cultural heritage. If impact is unavoidable, then it must be minimised where possible and salvage excavation of the Aboriginal cultural heritage undertaken to minimise impact, if considered appropriate by the heritage advisor. In consultation with the RAP salvage excavation methodology must be carried out in accordance with proper archaeological practice taking into account occupational health and safety issues. After recording the material works may proceed. The heritage advisor must complete the appropriate Victorian Aboriginal Heritage Registry forms and submit a report to OAAV and the RAP detailing the results of excavations within 6 months of the completion of the salvage excavations. If human remains are discovered the contingency in Section 11.3.1 must be followed.

9. Within a period not exceeding three (3) working days a decision must be made by the heritage advisor in consultation with the RAP and the Sponsor, as to the process to be followed to manage the Aboriginal cultural heritage in a culturally appropriate manner, and how to proceed with the works.

Failure of parties to reach an agreed course of action in this manner will be classed as a Dispute under this agreement;

10. Work may recommence within the 10m radius exclusion zone:

    - When the appropriate protective measures have been taken;
    - Where the relevant Aboriginal cultural heritage records have been updated and / or completed;
    - Where all parties agree there is no prudent or feasible course of action; or
    - Once any relevant dispute has been resolved.

11. Where relevant, the cultural heritage advisor, Sponsor and RAP will ensure that the above steps are followed and that legal obligations and requirements are complied with at all times.

12. Custody and management of any artefactual material discovered during the conduct of the activity must be arranged by the cultural heritage advisor in consultation with the RAP. All artefacts will be stored in bags that have provenance information recorded on the labels.

If the RAP wishes to rebury any cultural material located during the activity, consultation should occur between the sponsor and the RAP to facilitate this, and to identify a suitable location within the activity area which does not directly impact upon the activity. Any reburial must occur within the boundary of the activity area as shown in this CHMP.

Where the RAP cannot or will not exercise their right to custody of the cultural heritage, or in the event that no RAP exists for the activity area, custody can be ascribed in the following order:

- Any relevant Native Title holder;
- Any current RAP applicant for the activity area;
- Any relevant person(s) with traditional or familial links;
- Any relevant Aboriginal body with historical or contemporary interests;
- The land owner;
- The Museum of Victoria (*Aboriginal Heritage Act 2006*: Section 61I)

Where there are two or more potential custodians of cultural heritage, these potential custodians must agree between themselves as to an appropriate management outcome for the cultural heritage within 14 days from notice of their option to be custodians of the cultural heritage material. If appropriate management has not been agreed to within 14 days, the cultural heritage advisor will proceed to the next potential custodian of the cultural material.

11.4 Notification of the Discovery of Aboriginal Cultural Heritage found during the Activity

The notification of the discovery of Aboriginal cultural heritage is dealt with in Section 11.3 above. Please note that there is different notification procedures for the discovery of human skeletal remains (Section 11.3.1, point 2) compared to all other Aboriginal cultural heritage (Section 11.3.2, point 2).

11.5 Reviewing Compliance with the CHMP and Mechanisms for Remedying Non-Compliance

Review of this plan can be undertaken at any time by project delegates representing the Sponsor and OAAV, or an agreed independent reviewer, to ensure that all parties are complying with the terms of the plan. Any non-compliance must result in the stopping of works until a meeting is held to discuss non-compliance and agreement on a process moving forward. This must occur even if no harm has occurred to Aboriginal cultural heritage. A checklist is provided in Appendix 9.

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APPENDIX 1 - CHMP DOCUMENTATION

Department of Planning and Community Development

Notice of Intent to prepare a Cultural Heritage Management Plan for the purposes of the *Aboriginal Heritage Act 2006*

This form can be used by the Sponsor of a Cultural Heritage Management Plan to complete the notification provisions pursuant to s.54 of the *Aboriginal Heritage Act 2006* (the "Act").

For clarification on any of the following please contact Victorian Aboriginal Heritage Register (VAHR) enquiries on 1800-726-003.

SECTION 1 - Sponsor information

Sponsor:	2 Bond St Nominees Pty Ltd		
ABN/ACN:	14 654 756 357		
Contact Name:	Mr Steven Murphy		
Postal Address	19 Illawarra Road, Hawthorn, Vic, 3122		
Business Number:	03 9016 4365	Mobile:	
Email Address:	smurphy@perfectionprivate.com.au		

Sponsor's agent (if relevant)

Company:			
Contact Name:			
Postal Address			
Business Number:		Mobile:	
Email Address:			

SECTION 2 - Description of proposed activity and location

Project Name:	280 Evans Road, Cranbourne
Municipal district:	Casey City Council

Clearly identify the proposed activity for which the cultural heritage managment plan is to be prepared (ie. Mining, road construction, housing subivision)

Subdivision

SECTION 3 - Cultural Heritage Advisor

Andrew Morris	Archaeology at Tardis	amorris@tardisenterprises.com.au
Name	*Company*	*Email address*

SECTION 4 - Expected start and finish date for the cultural heritage management plan

Start Date:	09-May-2013	Finish Date:	28-Feb-2014

Submitted on:18 Nov 2013

Department of Planning and Community Development

SECTION 5 - Why are you preparing this cultural heritage management plan?

☑ A cultural heritage management Plan is required by the Aboriginal Heritage Regulations 2007

What is the high impact Activity as it is listed in the regulations?

Subdivision

Is any part of the activity an area of cultural heritage sensitivity, as listed in the regulations? Yes

☐ Other Reasons (Voluntary)

☐ An Environmental Effects Statement is required

☐ A Cultural Heritage Management Plan is required by the Mister for Aboriginal Affairs.

SECTION 6 - List the relevant registered Aboriginal parties (if any)

This section is to be completed where there are registered Aboriginal parties in relation to the management plan.

SECTION 7 - Notification checklist

Ensure that any relevant registered Aboriginal party\s is also notified. A copy of this notice with a map attached may be used for this purpose.
(A registered Aboriginal party is allowed up to 14 days to provide a written response to a notification specifying whether or not it intends to evaluate the management plan.)

In addition to notifying the Deputy Director and any relevant registerd Aboriginal party\s, a Sponsor must also notify any owner and/or occupier of any land within the area to which the management plan relates. A copy of this notice with a map attached may be used for this purpose.

Submitted on:18 Nov 2013

From: <vahr@dpcd.vic.gov.au>
Date: Mon, Nov 18, 2013 at 12:18 PM
Subject: Notice of Intent to Prepare CHMP 12874
To: smurphy@perfectionprivate.com.au, amorris@tardisenterprises.com.au

To whom it may concern,

This is a formal automated response indicating that, on 18-Nov-2013, the Secretary, Department of Planning and Community Development received a Notice of Intent to Prepare a Cultural Heritage Management Plan (CHMP) for:

2 Bond St Nominees Pty Ltd - 280 Evans Road, Cranbourne

The notification has been allocated the AAV Project Number:

CHMP Plan ID. 12874

Please quote this number when making any future enquires to AAV regarding this project.

If your activity lies within the boundaries of a registered Aboriginal party you must also notify this organisation of your intention to prepare the CHMP (if you have not already done so). Further information about registered Aboriginal parties can be found at:

http://www.dpcd.vic.gov.au/indigenous/aboriginal-heritage-council/registered-aboriginal-parties

The information relating to your development has been entered by your cultural hertiage advisor. If you detect an error in the information, please email VAHR@dpcd.vic.gov.au with the correct information and quoting the CHMP Plan ID.

Please do not reply to this email.

APPENDIX 2 – PREVIOUSLY REGISTERED ABORIGINAL HERITAGE PLACES IN THE GEOGRAPHIC REGION

VAHR Number	Place Name	Place Type
7921-0215	Dandenong 2	Scarred Tree
7921-0238	Dandenong 8	Scarred Tree
7921-0241	Cranbourne 6	Artefact Scatter
7921-0444	Koorio 2	Artefact Scatter
7921-0533	Cranbourne Terminal 1	Artefact Scatter
7921-0534	Cranbourne Terminal 2	Artefact Scatter
7921-0535	Cranbourne Terminal 3	Artefact Scatter
7921-0536	Cranbourne Terminal 4	Artefact Scatter
7921-0551	Anco Southeast	Artefact Scatter
7921-0600	Andorra Isolated Artefact	Artefact Scatter
7921-0617	Cw Ia 2	Artefact Scatter
7921-0618	Cw St 1	Scarred Tree
7921-0650	Evans Rd 1	Artefact Scatter
7921-0666	Marriot As 1	Artefact Scatter
7921-0667	Marriot As 2	Artefact Scatter
7921-0670	Andorra Ia2	Artefact Scatter
7921-0671	Andorra Ia3	Artefact Scatter
7921-0677	Andorra Ia4	Artefact Scatter
7921-0698	Breens Road 1	Artefact Scatter
7921-0846	Cw-1	Scarred Tree
7921-0847	Cw-2	Artefact Scatter
7921-0848	Cw-3	Artefact Scatter
7921-0920	Springhill 2	Artefact Scatter
7921-0928	Merinda Park	Artefact Scatter
7921-0982	Western Port Highway 2	Artefact Scatter
7921-1025	Evans Road Cranbourne West Artefact Scatter	Artefact Scatter
7921-1120	135 Evans Rd 1	Artefact Scatter
7921-1122	135 Evans Rd 2	Artefact Scatter
7921-1123	135 Evans Rd 3	Artefact Scatter
7921-1124	135 Evans Rd 4	Artefact Scatter
7921-1125	135 Evans Rd 5	Artefact Scatter
7921-1128	135 Evans Rd 8	Artefact Scatter
7921-1133	Clairmont As1	Artefact Scatter
7921-1157	Thompsons Road 16	Artefact Scatter
7921-1159	Thompsons Road Scarred Tree 1	Scarred Tree
7921-1160	Thompsons Road Scarred Tree 4	Scarred Tree
7921-1161	Thompsons Road Scarred Tree 5	Scarred Tree
7921-1166	Thompsons Road Scarred Tree 3	Scarred Tree
7921-0535	Cranbourne Terminal 3	Object Collection
7921-1451	Evans Rd 1 As	Low Density Artefact Distribution
7921-1486-1	Springhill 3	Low Density Artefact Distribution

APPENDIX 3 – EXCAVATION INVENTORY

Test Pit Co-ordinates and Dimensions

Test Pit #	Co-ordinates – GDA94, MGA Zone 55 (derived by dGPS with accuracy of <1.0m)		Dimensions (m)	Number of Stone Artefacts	Depth of artefacts (cm)
	Easting	Northing			
1	347409	5783261	1.0 x 1.0	1	1 @ 40
2	347384	5783251	0.5 x 0.5	0	
3	347398	5783286	0.5 x 0.5	5	2 @ 20 3 @ 30
4	347428	5783260	0.5 x 0.5	1	1 @ 10
5	347409	5783243	0.5 x 0.5	104	104 @ 40
6	347449	5783579	0.5 x 0.5	0	
7	347434	5783598	0.5 x 0.5	0	
8	347418	5783618	0.5 x 0.5	0	
9	347407	5783636	0.5 x 0.5	0	
10	347392	5783421	0.5 x 0.5	0	
11	347373	5783438	0.5 x 0.5	0	
12	347354	5783460	0.5 x 0.5	0	
13	347224	5783221	0.5 x 0.5	0	
14	347214	5783205	0.5 x 0.5	0	
15	347206	5783180	0.5 x 0.5	0	
16	347193	5783157	0.5 x 0.5	0	
17	347177	5783124	0.5 x 0.5	0	
18	347301	5783389	0.5 x 0.5	0	
19	347313	5783412	0.5 x 0.5	0	
20	347279	5783400	0.5 x 0.5	0	
21	347257	5783406	0.5 x 0.5	0	
22	347409.8	5783233.9	0.5 x 0.5	0	
23	347415.3	5783238.8	0.5 x 0.5	0	
24	347403.1	5783239.1	0.5 x 0.5	0	
25	347416.6	5783286.2	0.5 x 0.5	0	
26	347425.6	5783283.7	0.5 x 0.5	0	
27	347398	5783291	0.5 x 0.5	0	
28	347439	5783262	0.5 x 0.5	0	
29	347380	5783275	0.5 x 0.5	0	
30	347376	5783244	0.5 x 0.5	0	
31	347389	5783261	0.5 x 0.5	0	
32	347355	5783272	0.5 x 0.5	0	
33	347405	5783212	0.5 x 0.5	0	
34	347364	5783324	0.5 x 0.5	0	
35	347362	5783305	0.5 x 0.5	0	
36	347427	5783030	0.5 x 0.5	0	
37	347432	5783054	0.5 x 0.5	0	
38	347434	5783079	0.5 x 0.5	0	
39	347436	5783104	0.5 x 0.5	0	
40	347440	5783128	0.5 x 0.5	0	

Test Pit #	Co-ordinates – GDA94, MGA Zone 55 (derived by dGPS with accuracy of <1.0m)		Dimensions (m)	Number of Stone Artefacts	Depth of artefacts (cm)
	Easting	Northing			
41	347443	5783154	0.5 x 0.5	0	
42	347446	5783183	0.5 x 0.5	0	
43	347450	5783205	0.5 x 0.5	0	
44	347454	5783229	0.5 x 0.5	0	
45	347417	5783187	0.5 x 0.5	0	
46	347406	5783252	0.5 x 0.5	0	
47	347394	5783259	0.5 x 0.5	0	
48	347400	5783272	0.5 x 0.5	1	1 @ 30
49	347417	5783263	0.5 x 0.5	0	
50	347427	5783268	0.5 x 0.5	0	
51	347427	5783252	0.5 x 0.5	0	
52	347434	5783261	0.5 x 0.5	0	
53	347398	5783279	0.5 x 0.5	0	
54	347388	5783283	0.5 x 0.5	0	

Test Pit Log

Test Pit	Disturbance	Profile Description	Munsell	pH
1	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-7cm, dark grey silty sand, grass root fibres, firm [2] 7-47cm, dark grey brown silty sand, rootlets, firm (1 artefact) [3] 47-60cm, dark grey brown silty sand, weak [4] 60cm+ Clay, mottled greyish orange, strong	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
2	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-5cm, dark grey silty sand, grass root fibres, firm [2] 5-28cm, dark grey brown silty sand, rootlets, firm [3] 28-55cm, moderate grey brown silty sand, weak [4] 55-90cm, dark grey brown silty sand, firm [5] 90cm+ Clay, mottled greyish orange, strong	10YR4/1 10YR4/2 10YR5/2 10YR4/2 10YR5/4	6
3	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-6cm, dark grey silty sand, grass root fibres, firm [2] 6-40cm, dark grey brown silty sand, rootlets, firm (5 artefacts) [3] 40-53cm, dark grey brown silty sand, weak [4] 53cm+ Clay, mottled greyish orange, strong	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
4	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-12cm, dark grey silty sand, grass root fibres, firm (1 artefact) [2] 12-37cm, dark grey brown silty sand, rootlets, firm [3] 37-58cm, dark grey brown silty sand, weak [4] 58-70cm, moderate grey brown silty sand, firm [5] 70cm+ Clay, mottled greyish orange, strong	10YR4/1 10YR4/2 10YR5/2 10YR4/2 10YR5/4	6
5	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-13cm, dark grey silty sand, grass root fibres, firm [2] 13-50cm, dark grey brown silty sand, rootlets, firm (104 artefacts) [3] 50-76cm, dark grey brown silty sand, weak [4] 76cm+ Clay, mottled greyish orange, strong	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6.5
6	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-6cm, dark grey silty sand, grass root fibres, firm [2] 6-54cm, dark grey brown silty sand, rootlets, firm [3] 54cm+ mottled brown orange, Clay, strong	10YR4/1 10YR4/2 10YR5/4	6
7	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-8cm, dark grey silty sand, grass root fibres, firm [2] 8-40cm, dark grey brown silty sand, rootlets, firm [3] 40-45cm, dark grey brown silty sand, weak [4] 45cm+ Clay, mottled brown orange, very firm	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
8	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-5cm, dark grey silty sand, grass root fibres, firm [2] 5-41cm, dark grey brown silty sand, rootlets, firm [3] 41-47cm, dark grey brown silty sand, weak [4] 47cm+ Clay, mottled brown orange, very firm	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
9	Grazing, stock trampling, vegetation	[1] 0-7cm, dark grey silty sand, grass root fibres, firm	10YR4/1	6

Test Pit	Disturbance	Profile Description	Munsell	pH
	clearance, ploughing	[2] 7-38cm, dark grey brown silty sand, rootlets, firm [3] 38-46cm, dark grey brown silty sand, weak [4] 46cm+ Clay, brown orange, very firm	10YR4/2 10YR4/2 10YR5/4	
10	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-6cm, dark grey silty sand, grass root fibres, firm [2] 6-34cm, dark grey brown silty sand, rootlets, firm [3] 34cm+ Clay, mottled brown orange, very firm	10YR4/1 10YR4/2 10YR5/4	6
11	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-7cm, dark grey silty sand, grass root fibres, firm [2] 7-53cm, dark grey brown silty sand, rootlets, firm [3] 53-60cm, dark grey brown silty sand, weak [4] 60cm+ Clay, brown orange, very firm	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
12	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-9cm, dark grey silty sand, grass root fibres, firm [2] 9-27cm, dark grey brown silty sand, rootlets, firm [3] 27-52cm, dark grey brown silty sand, weak [4] 52-57cm, moderate grey brown silty sand, firm [5] 57cm+ Clay, brown orange, very firm	10YR4/1 10YR4/2 10YR5/2 10YR4/2 10YR5/4	6
13	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-7cm, dark grey silty sand, grass root fibres, firm [2] 7-28cm, dark grey brown silty sand, rootlets, firm [3] 28-42cm, dark grey brown silty sand, weak [4] 42cm+ Clay, brown orange, very firm	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
14	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-8cm, dark grey silty sand, grass root fibres, firm [2] 8-54cm, dark grey brown silty sand, rootlets, firm [3] 54cm+ Clay, mottled brown orange, very firm	10YR4/1 10YR4/2 10YR5/4	6
15	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-7cm, dark grey silty sand, grass root fibres, firm [2] 7-21cm, dark grey brown silty sand, rootlets, firm [3] 21-42cm, dark grey brown silty sand, weak [4] 42cm+ Clay, brown orange, very firm	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6.5
16	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-6cm, dark grey silty sand, grass root fibres, firm [2] 6-15cm, dark grey brown silty sand, rootlets, firm [3] 15-32cm, dark grey brown silty sand, weak [4] 32cm+ Clay, brown orange, very firm	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6.5
17	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-6cm, dark grey silty sand, grass root fibres, firm [2] 6-18cm, dark grey brown silty sand, rootlets, firm [3] 18-51cm, dark grey brown silty sand, weak [4] 51cm+ Clay, dark grey orange, very firm	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
18	Grazing, stock trampling, vegetation clearance, ploughing, fill deposit	[1] 0-100cm, dark grey silty sand, grass root fibres, firm [2] 100cm+ building rubble, rigid	10YR4/1	5.5

Test Pit	Disturbance	Profile Description	Munsell	pH
19	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-8cm, dark grey silty sand, grass root fibres, firm [2] 8-58cm, dark grey brown silty sand, rootlets, firm [3] 58-84cm, dark grey brown silty sand, weak [4] 84cm+ Clay, dark grey orange, very firm	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
20	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-12cm, dark grey silty sand, grass root fibres, firm [2] 12-36cm, dark grey brown silty sand, rootlets, firm [3] 36-70cm, dark grey brown silty sand, weak [4] 70cm+ Clay, dark grey orange, very firm	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
21	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-6cm, dark grey silty sand, grass root fibres, firm [2] 6-15cm, dark grey brown silty sand, rootlets, firm [3] 15-75cm, dark grey brown silty sand, weak [4] 75cm+ Clay, dark grey orange, very firm	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
22	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-9cm, dark grey silty sand, grass root fibres, firm [2] 9-54cm, dark grey brown silty sand, rootlets, firm [3] 54-65cm, dark grey brown silty sand, weak [4] 65cm+ Clay, dark grey orange, very firm	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
23	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-26cm, dark grey silty sand, grass root fibres, firm [2] 26-59cm, dark grey brown silty sand, rootlets, firm [3] 59-67cm, dark grey brown silty sand, weak [4] 67cm+ Clay, dark grey orange, very firm	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
24	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-16cm, dark grey silty sand, grass root fibres, firm [2] 16-40cm, medium grey brown silty sand, rootlets, firm [3] 40-45cm, dark grey brown silty sand, firm, coffee rock [4] 45cm+ Clay, dark grey orange, very firm, coffee rock	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
25	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-20cm, dark grey silty sand, grass root fibres, firm [2] 20-25cm, dark grey brown silty sand, rootlets, firm [3] 54cm+ Clay, mottled brown orange, very firm, coffee rock	10YR4/1 10YR4/2 10YR5/4	6
26	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-9cm, dark grey silty sand, grass root fibres, firm [2] 9-49cm, medium grey brown silty sand, rootlets, firm [3] 49-55cm, dark grey brown silty sand, firm, coffee rock [4] 55cm+ Clay, dark grey orange, very firm, coffee rock, saturated	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
27	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-9cm, dark grey silty sand, grass root fibres, firm [2] 9-57cm, medium grey brown silty sand, rootlets, firm [3] 57-72cm, dark grey brown silty sand, firm, coffee rock [4] 72cm+ Clay, dark grey orange, very firm, saturated	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
28	Grazing, stock trampling, vegetation	[1] 0-30cm, dark grey silty sand, grass root fibres, firm	10YR4/1	6

Test Pit	Disturbance	Profile Description	Munsell	pH
	clearance, ploughing	[2] 30-59cm, medium grey brown silty sand, rootlets, firm [3] 59-66cm, dark grey brown silty sand, firm, gravel (sandstone) [4] 66cm+ Clay, dark grey orange, very firm	10YR4/2 10YR4/2 10YR5/4	
29	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-24cm, dark grey silty sand, grass root fibres, firm [2] 24-61cm, dark grey brown silty sand, rootlets, firm [3] 61-78cm, dark grey brown silty sand, weak [4] 78-87cm, moderate grey brown silty sand, firm [5] 87cm+ Clay, brown orange, very firm	10YR4/1 10YR4/2 10YR5/2 10YR4/2 10YR5/4	6
30	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-40cm, dark grey silty sand, grass root fibres, firm [2] 40-60cm, medium grey brown silty sand, rootlets, firm [3] 60cm+ Clay, dark brown orange, very firm, saturated, coffee rock	10YR4/1 10YR4/2 10YR5/4	6
31	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-30cm, dark brown silty sand, grass root fibres, weak [2] 30-48cm, medium grey brown silty sand, rootlets, firm [3] 48-51cm, dark grey brown silty sand, firm [4] 51cm+ Clay, dark grey orange, firm	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
32	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-32cm, dark brown silty sand, grass root fibres, weak [2] 32-45cm, medium grey brown silty sand, rootlets, firm [3] 45-50cm, dark grey brown silty sand, firm, coffee rock [4] 50cm+ Clay, dark grey orange, firm, coffee rock	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
33	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-40cm, dark brown silty sand, grass root fibres, weak [2] 40-84cm, medium grey brown silty sand, rootlets, firm [3] 84-87cm, dark grey brown silty sand, firm, coffee rock [4] 87cm+ Clay, dark grey orange, firm, coffee rock	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
34	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-29cm, dark grey silty sand, grass root fibres, firm [2] 29-32cm, medium grey brown silty sand, rootlets, firm [3] 32cm+ Clay, dark brown orange, very firm, coffee rock	10YR4/1 10YR4/2 10YR5/4	6
35	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-53cm, dark brown silty sand, grass root fibres, weak [2] 53-60cm, medium grey brown silty sand, rootlets, firm [3] 60-65cm, dark grey brown silty sand, firm, coffee rock [4] 65cm+ Clay, dark grey orange, firm, coffee rock	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
36	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-10cm, dark grey silty sand, grass root fibres, gravel, firm [2] 10-40cm, medium grey brown silty sand, rootlets, gravel, firm [3] 40cm+ Clay, dark brown grey, very firm, sandstone & ironstone	10YR4/1 10YR4/2 10YR5/3	
37	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-40cm, dark grey silty sand, grass root fibres, firm [2] 40-60cm, medium grey brown silty sand, rootlets, firm [3] 60cm+ Clay, dark brown orange, gravel, very firm	10YR4/1 10YR4/2 10YR5/4	

Test Pit	Disturbance	Profile Description	Munsell	pH
38	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-25cm, dark grey silty sand, grass root fibres, firm [2] 25-30cm, medium grey brown silty sand, rootlets, firm [3] 30cm+ Clay, dark brown orange, gravel, very firm	10YR4/1 10YR4/2 10YR5/4	6
39	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-10cm, dark grey silty sand, grass root fibresl, firm [2] 10-40cm, medium grey brown silty sand, rootlets, gravel, firm [3] 40cm+ Clay, dark brown grey, ironstone, very firm	10YR4/1 10YR4/2 10YR5/3	6
40	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-45cm, dark grey silty sand, grass root fibres, firm [2] 45-70cm, medium grey brown silty sand, gravel, rootlets, firm [3] 70cm+ Clay, dark brown orange, very firm	10YR4/1 10YR4/2 10YR5/4	6
41	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-45cm, dark grey silty sand, grass root fibres, firm [2] 45-100cm, medium grey brown silty sand, rootlets, firm [3] 100cm+ Clay, dark brown yellow, very firm	10YR4/1 10YR4/2 10YR5/2	6
42	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-25cm, dark grey silty sand, grass root fibres, firm [2] 25-80cm, medium grey brown silty sand, rootlets, firm [3] 100cm+ Clay, dark brown yellow, very firm	10YR4/1 10YR4/2 10YR5/2	6
43	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-25cm, dark grey silty sand, grass root fibres, firm [2] 25-80cm, medium grey brown silty sand, rootlets, firm [3] 100cm+ Clay, dark brown yellow, very firm	10YR4/1 10YR4/2 10YR5/2	6.5
44	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-40cm, dark grey silty sand, grass root fibres, firm [2] 40-80cm, medium grey brown silty sand, rootlets, firm [3] 80cm+ Clay, dark brown yellow, very firm	10YR4/1 10YR4/2 10YR5/2	6
45	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-40cm, dark grey silty sand, grass root fibres, firm [2] 40-80cm, medium grey brown silty sand, rootlets, firm [3] 80cm+ Clay, dark brown yellow, coffee rock inclusions, very firm	10YR4/1 10YR4/2 10YR5/2	6
46	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-40cm, dark grey silty sand, grass root fibres, firm [2] 40-75cm, medium grey brown silty sand, rootlets, firm [3] 75cm+ Clay, dark brown yellow, coffee rock inclusions, very firm	10YR4/1 10YR4/2 10YR5/2	6
47	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-20cm, dark grey silty sand, grass root fibres, firm [2] 20-40cm, medium grey brown silty sand, rootlets, firm [3] 40cm+ Clay, dark brown yellow, ironstone & sandstone inclusions, very firm	10YR4/1 10YR4/2 10YR5/2	
48	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-10cm, dark grey silty sand, grass root fibres, firm [2] 10-50cm, dark grey brown silty sand, rootlets, firm (1 artefact) [3] 50-60cm, dark grey brown silty clay with frequent ironstone inclusions, weak [4] 60cm+ Clay, mottled greyish orange, sandstone & ironstone inclusions, strong	10YR4/1 10YR4/2 10YR4/2 10YR5/4	6
49	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-40cm, dark grey silty sand, grass root fibres, firm [2] 40cm+ Clay, dark brown yellow, ironstone & sandstone inclusions, very firm	10YR4/1 10YR5/2	6

Test Pit	Disturbance	Profile Description	Munsell	pH
50	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-20cm, dark grey silty sand, grass root fibres, firm [2] 20-40cm, medium grey brown silty sand, rootlets, firm [3] 40cm+ Clay, dark brown yellow, ironstone & sandstone inclusions, very firm	10YR4/1 10YR4/2 10YR5/2	6
51	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-30cm, dark grey silty sand, grass root fibres, firm [2] 30-70cm, light grey brown silty sand, rootlets, firm [3] 70cm+ Clay, grey, ironstone & sandstone inclusions, very firm	10YR4/1 10Y4/1 10YR4/2	7
52	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-40cm, dark grey silty sand, grass root fibres, firm [2] 40-60cm, medium grey brown silty sand, rootlets, firm [3] 60cm+ Clay, dark brown yellow, ironstone & sandstone inclusions, very firm	10YR4/1 10YR4/2 10YR5/2	6
53	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-30cm, dark grey silty sand, grass root fibres, firm [2] 30-50cm, medium grey brown silty sand, rootlets, firm [3] 50cm+ Clay, dark brown yellow, ironstone & sandstone inclusions, very firm	10YR4/1 10YR4/2 10YR5/2	6
54	Grazing, stock trampling, vegetation clearance, ploughing	[1] 0-20cm, dark grey silty sand, grass root fibres, firm [2] 20-40cm, medium grey brown silty sand, rootlets, firm [3] 40cm+ Clay, dark brown yellow, ironstone & sandstone inclusions, very firm	10YR4/1 10YR4/2 10YR5/2	6

APPENDIX 4 – PLACE GAZETTEER

VAHR No	Place Name	Primary Grid Coordinate*	Place Type
7921-1521	280 Evans Rd	347409E 5783261N	Stone Artefact Scatter

*GDA94 MGA Zone 55

APPENDIX 5 – ARTEFACT INVENTORY

VAHR No	Ref No.	Easting*	Northing*	Depth (m)	RM	Primary Form	C %	% of edge with retouch/ usewear	Flake Platform	Flake Termination	No. of Complete scars	Longest scar (axial mm)	Formal Tool/ Core type	L	W	T	MD
7921-1521	1	347409	5783261	0.4	Quartz	Flake - Complete	None	None	Plain	Feather				17.15	10.5	3.48	18.55
7921-1521	2	347398	5783286	0.2	Silcrete	Flake - Complete	None	None	Plain	Feather				9.21	5.62	1.94	9.21
7921-1521	3	347398	5783286	0.2	Silcrete	Angular Fragment	None	None									13.98
7921-1521	4	347398	5783286	0.3	Silcrete	Flake - Complete	None	None	Plain	Step				16.04	6.08	1.85	17.7
7921-1521	5	347398	5783286	0.3	Silcrete	Flake - Longitudinal Split	None	None	Plain	Feather				14.18	6.53	2.25	15.81
7921-1521	6	347398	5783286	0.3	Silcrete	Flake - Complete	None	None	Plain	Step				12.25	16.14	2.58	21.92
7921-1521	7	347428	5783260	0.1	Silcrete	Flake - Complete	None	None	Plain	Hinge				16.35	11.27	2.44	17.93
7921-1521	8	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									22.15
7921-1521	9	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									8.03
7921-1521	10	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									22.85
7921-1521	11	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									19.41
7921-1521	12	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									7.95
7921-1521	13	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									10.7
7921-1521	14	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									13.74
7921-1521	15	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									11.95
7921-1521	16	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									11.76
7921-1521	17	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									10.65
7921-1521	18	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									12.36
7921-1521	19	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									9.34
7921-1521	20	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									6.55
7921-1521	21	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									15.84
7921-1521	22	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									16.55
7921-1521	23	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									6.97

VAHR No	Ref No.	Easting*	Northing*	Depth (m)	RM	Primary Form	C %	% of edge with retouch/ usewear	Flake Platform	Flake Termination	No. of Complete scars	Longest scar (axial mm)	Formal Tool/ Core type	L	W	T	MD
7921-1521	24	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									10.78
7921-1521	25	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									9.43
7921-1521	26	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									11.12
7921-1521	27	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									10.9
7921-1521	28	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									11.01
7921-1521	29	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									10.55
7921-1521	30	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									6.54
7921-1521	31	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									9.52
7921-1521	32	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									8.92
7921-1521	33	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Hinge				19.35	13.49	1.57	20.18
7921-1521	34	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Step				9.61	9.86	4.11	13.81
7921-1521	35	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Step				11.23	9.02	3.08	14.57
7921-1521	36	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Feather				16.68	13.62	6.21	16.82
7921-1521	37	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Feather				14.11	10.54	2.52	14.6
7921-1521	38	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Feather				12.23	10.51	1.32	13.65
7921-1521	39	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Hinge				12.87	9.87	1.58	14.02
7921-1521	40	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Step				14.03	8.23	2.18	15.37
7921-1521	41	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Step				8.2	7.46	0.77	9.71
7921-1521	42	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Step				7.6	9.88	1.52	12.32
7921-1521	43	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Step				8.08	10.87	2.27	13.86
7921-1521	44	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Feather				11.29	4.85	1.13	11.25
7921-1521	45	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Step				9.41	15.57	1.87	16.59
7921-1521	46	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Step				9.05	8.28	2.46	10.23
7921-1521	47	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Step				11.99	7.28	1.02	13.43

VAHR No	Ref No.	Easting*	Northing*	Depth (m)	RM	Primary Form	C %	% of edge with retouch/ usewear	Flake Platform	Flake Termination	No. of Complete scars	Longest scar (axial mm)	Formal Tool/ Core type	L	W	T	MD
7921-1521	48	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Step				6.77	6.49	1.07	8.54
7921-1521	49	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Feather				9.02	7.79	1.22	10.94
7921-1521	50	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Feather				5.14	7.93	2.09	9.97
7921-1521	51	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Step				7.14	5.93	2.08	7.83
7921-1521	52	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Step				8.62	4.94	2.73	9.33
7921-1521	53	347409	5783243	0.4	Silcrete	Flake - Longitudinal Split	None	None	Plain	Feather				12.27	7.5	1.29	14.12
7921-1521	54	347409	5783243	0.4	Silcrete	Flake - Proximal	None	None	Plain					6.76	4.69	1.43	8.64
7921-1521	55	347409	5783243	0.4	Silcrete	Flake - Distal	None	None		Feather				14.73	3.6	3.4	15.28
7921-1521	56	347409	5783243	0.4	Silcrete	Flake - Distal	None	None		Step				12.01	9.39	1.99	14.83
7921-1521	57	347409	5783243	0.4	Silcrete	Core - Unidirectional	None				3	14.84					27.12
7921-1521	58	347409	5783243	0.4	Silcrete	Flake - Proximal	None	None	Plain					18.43	14.3	2.92	24.69
7921-1521	59	347409	5783243	0.4	Silcrete	Flake - Distal	None	None		Hinge				16.73	18.33	2.9	21.63
7921-1521	60	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									20.28
7921-1521	61	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Hinge				19.3	12.52	4.43	19.92
7921-1521	62	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									28.3
7921-1521	63	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									20.65
7921-1521	64	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Feather				9.64	6.32	1.23	9.68
7921-1521	65	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Step				14.67	9.02	2.54	15.88
7921-1521	66	347409	5783243	0.4	Silcrete	Flake - Proximal	None	None	Crushed					14.28	12.54	2.22	18.75
7921-1521	67	347409	5783243	0.4	Silcrete	Flake - Distal	None	None		Feather				17.43	6.62	2.89	17.55
7921-1521	68	347409	5783243	0.4	Silcrete	Flake - Proximal	None	None	Plain					15.37	11.26	1.64	18.18
7921-1521	69	347409	5783243	0.4	Silcrete	Flake - Medial	None	None						12.02	10.2	2.57	16.07
7921-1521	70	347409	5783243	0.4	Silcrete	Flake - Distal	None	None		Feather				10.98	12.08	3.02	17.12

VAHR No	Ref No.	Easting*	Northing*	Depth (m)	RM	Primary Form	C %	% of edge with retouch/ usewear	Flake Platform	Flake Termination	No. of Complete scars	Longest scar (axial mm)	Formal Tool/ Core type	L	W	T	MD
7921-1521	71	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									9.24
7921-1521	72	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									7.63
7921-1521	73	347409	5783243	0.4	Silcrete	Flake - Longitudinal Split	None	None	Crushed	Feather				8.6	4.97	1.27	8.96
7921-1521	74	347409	5783243	0.4	Silcrete	Flake - Distal	None	None		Step				19.33	5.73	2.29	19.71
7921-1521	75	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									11
7921-1521	76	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Step				15.41	16.87	2.13	20.31
7921-1521	77	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									5.05
7921-1521	78	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									8.57
7921-1521	79	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Flaked	Step				5.04	7.2	1.27	9.18
7921-1521	80	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Feather				7.09	7.82	0.92	8.97
7921-1521	81	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									11.62
7921-1521	82	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									9.57
7921-1521	83	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Step				5.26	7.32	0.98	8.57
7921-1521	84	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									8.22
7921-1521	85	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Feather				5.51	6.73	1.13	7.66
7921-1521	86	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Feather				9.81	5.91	1.22	10.43
7921-1521	87	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Hinge				10.6	8.14	1.2	10.44
7921-1521	88	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Feather				7.08	10.44	1.81	11.59
7921-1521	89	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									12
7921-1521	90	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Feather				8.06	5.16	1.11	8.2
7921-1521	91	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Hinge				10.85	6.41	3.13	11.16
7921-1521	92	347409	5783243	0.4	Silcrete	Flake - Proximal	None	None	Plain					6.51	8.48	2.6	10.52
7921-1521	93	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Feather				5.97	8.42	4.17	9.15
7921-1521	94	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Feather				9.49	7.42	1.32	9.8

VAHR No	Ref No.	Easting*	Northing*	Depth (m)	RM	Primary Form	C %	% of edge with retouch/ usewear	Flake Platform	Flake Termination	No. of Complete scars	Longest scar (axial mm)	Formal Tool/ Core type	L	W	T	MD
7921-1521	95	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									11.03
7921-1521	96	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									14.24
7921-1521	97	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									12.69
7921-1521	98	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Hinge				14.99	8.88	1.43	15.53
7921-1521	99	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Hinge				12.19	5.8	2.87	12.46
7921-1521	100	347409	5783243	0.4	Silcrete	Flake - Proximal	None	None	Plain					13.71	7.56	4.49	15.18
7921-1521	101	347409	5783243	0.4	Silcrete	Flake - Medial	None	None						11.63	7.34	2.25	13.9
7921-1521	102	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Feather				12.61	11.82	2.33	16.66
7921-1521	103	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									17.97
7921-1521	104	347409	5783243	0.4	Silcrete	Angular Fragment	None	None					Backed - Geometric Microlith				15.76
7921-1521	105	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									11.1
7921-1521	106	347409	5783243	0.4	Silcrete	Angular Fragment	None	None									23.68
7921-1521	107	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Crushed	Feather				21.54	9.74	2.72	21.53
7921-1521	108	347409	5783243	0.4	Silcrete	Angular Fragment	None	None					Backed - Geometric Microlith				15.19
7921-1521	109	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Feather				11.63	18.91	3.5	25.66
7921-1521	110	347409	5783243	0.4	Silcrete	Flake - Complete	None	None	Plain	Feather				18.3	9.35	2.6	19.31
7921-1521	111	347409	5783243	0.4	Silcrete	Core - Multidirectional	None	None			5	19.63					39.1
7921-1521	112			0.3	Silcrete	Flake - Proximal	None	None	Plain					30	17	3	30.1

*GDA94 MGA Zone 55

Artefact Analysis Abbreviations

RM	raw material	W	width – axial for flake & blades (mm)
C%	percentage of cortex	T	thickness (mm)
L	length – axial for flake & blades (mm)	MD	maximum artefact dimension (mm)

APPENDIX 6 – SCIENTIFIC SIGNIFICANCE ASSESSMENT

The following Appendix presents the scientific significance assessment ratings of Aboriginal cultural heritage places identified within the activity area. Assessment of place significance is complex and encompasses a range of heritage values. The heritage values of a site or place are broadly defined as the 'aesthetic, historic, spiritual scientific or social values for past, present or further generations' (Australia ICOMOS, *The Illustrated Burra Charter* 1999). Cultural significance considers aesthetic, historic, spiritual and social values. The assessment of cultural significance is left to the relevant Aboriginal community to decide, although when no assessment is provided, general cultural significance is attributed. In this investigation scientific, or archaeological, significance is based on a detailed and transparent set of queries. The results of the assessment are presented in Table A9 followed by an explanation of the framework.

Table A10 Stone Artefact Scatter Scientific Significance Assessment Rating

VAHR No	7921-1521	
Query	Answer	Rating
Artefact density per m^2	56	4
Extent of place	No	0
Natural soil horizons	Yes	0
Disturbance	Yes	0
Contact or Pleistocene / Early Holocene*	No	0
More than one period*	No	0
High integrity occupation deposits, surfaces or features*	No	1
Multiple artefact horizons, stratified high integrity occupation deposits, surfaces or features*	No	0
Natural history research potential*	No	0
Representativeness*	C	0
Scientific Significance	Moderate - High	(5)

'The scientific or research value of a place will depend upon the importance of the data involved or its rarity, quality or representativeness to the degree which the place may contribute further substantial information' (Australia ICOMOS, *The Illustrated Burra Charter* 1999: 73). Schiffer and Gumerman (1977: 211-212) consider 'a site or a resource ... to be scientifically significant when its further study may be expected to help answer current research questions. This is scientific significance as defined as research potential'. Some places have evidence that may span many

thousands of years and therefore have the potential to answer significant research questions regarding natural history, human evolution and adaptation.

The enactment of the *Aboriginal Heritage Act 2006* and *Aboriginal Heritage Regulations 2007* has required the introduction of a new scientific significance assessment framework to replace earlier frameworks. This framework rates Aboriginal cultural heritage places in greater detail so that more transparent cultural heritage outcomes and management strategies can be formulated. It comprises a structured query-based analysis which aims to produce detailed, consistent and replicable place assessments and clear links to place management recommendations. Selected place attributes examine in greater detail questions of place contents, condition and representativeness.

The body of evidence accumulated to date indicates that some place attributes are more significant than others. For example, stratified high integrity occupation deposits are usually in better condition, rarer and contain more significant cultural material than artefact horizons in environmental deposits. However, as archaeological data bases grow and change, the significance of criteria may change. This does not mean that the assessment of archaeological scientific significance is subjective but that it is affected by the interaction of various disciplinary forces including theory, research questions, methodology, knowledge base and the nature of the archaeological record.

After applying the following scientific significance assessment framework, the place rating results are subsequently considered within the context of the analysis of stone artefacts, a discussion of the cultural heritage values within the activity area, answers to specific research questions, an assessment of the research potential of recorded places and a general assessment of the cultural heritage values of the activity area within a regional context (Section 8).

This process ensures that the scientific significance assessment framework has been applied reasonably and takes into account unusual scenarios. For example, an artefact may have very little *intrinsic* scientific values in itself, say a single isolated geometric microlith in a natural soil horizon; but may be found within a highly significant stratigraphic *context*; say in an undisturbed soil horizon below a buried terminal Pleistocene ground surface. This place would rate low-moderate scientific significance (3) using the criteria below. However, a consideration within Sections 8 would demonstrate that the place is in fact of very high scientific significance because it would demonstrate that the ASTT began thousands of years earlier than previously thought. In this manner *extraordinary* examples can be accounted for.

Artefact Scatters

The stone artefact scatter is a common place-type found in Victoria and consequently comprises a high proportion of places recorded on the VAHR. Scientific significance is assessed in this investigation by the examining the following criteria.

Average Artefact Density

Places with higher average artefact densities per m^2 contain larger amounts and more varied information. Higher artefact densities usually represent more intensive and varied human behaviour. For example, focussed Aboriginal activity, such as longer-term campsites, will generally leave high concentrations of cultural material. In contrast, Aboriginal people traversing the landscape, dropping or otherwise discarding stone artefacts on a regular basis will often leave a very low density of artefacts. This is considered to represent *background cultural noise* or *background archaeological noise* and is identified by artefact densities with less than five artefacts per m^2. The higher the density of stone artefacts within a place, the higher its scientific significance.

Formal artefact density calculations for place scientific significance assessments are based on the results of hand excavated 1m x 1m test pits and / or 50cm x 50cm probes. Once place boundaries are known the average artefact density is calculated by dividing the number of recorded artefacts by the extent of the area excavated (m^2). The density scale is based on consulting experience and benchmarking conducted on various known places (eg VAHR 7921-0735, VAHR 7921-0736 & VAHR 7921-0769) which have been excavated using proper archaeological practice and have different levels of scientific significance (eg VAHR 7921-0735 & VAHR 7921-0736 having *very high* scientific significance). Artefact density data from most registered places on the VAHR is not used because the data is not of sufficient accuracy for rating scientific significance. It is envisaged that additional benchmark data from the VAHR will be available in the future in order to refine the average artefact density classes used in this scientific significance assessment framework.

Extent of Artefact Densities

Larger places are usually considered to have higher scientific significance than smaller ones because they generally contain more information. Furthermore, larger places were likely the focus of more intensive and varied Aboriginal behaviour. If places have artefact densities of 46 per m^2 or above, then they are likely to be assessed having at least moderate scientific significance (see below). Based on consulting experience and benchmarking (see *Average Artefact Density* above) a significant size threshold is notionally considered here to be at least 100m x 100m in extent (or 10,000m^2). Place-size data from most registered places on the VAHR is not used because it is not of sufficient accuracy for rating scientific significance. It is envisaged that additional benchmark data from the VAHR will be available in the future in order to refine the place-size criteria used in this scientific significance assessment framework.

Natural Soil Horizons

Natural formation processes may form natural soil layers or horizons by the laying down of sediments by natural agents such as wind and water (Isbell 2002; McKenzie et al 2004; cf Schiffer 1972, 1976: 15-16). These horizons may be subsequently created or destroyed by various post-depositional processes. The process of soil profile genesis and development may bury artefacts but without forming obvious anthroposols or high integrity occupation deposits. Artefacts found within natural soil profiles habitually form artefact horizons. The temporal and spatial integrity of artefact horizons will depend on the depositional and post-depositional formation processes of these deposits. Generally they have less temporal and spatial integrity than intact high integrity occupation deposits and, with all other criteria being equal, have less scientific significance. They comprise the overwhelming artefact scatter type encountered during complex assessments.

Disturbance

Disturbance of Aboriginal cultural heritage places can take many forms and include both environmental and human agents not only at the time of deposition but also after places have been abandoned. Disturbance can be categorised as low, high or significant. Low disturbance is when archaeological deposits or features have little discernable disturbance so they are essentially intact and retain a high degree of spatial and temporal integrity. High disturbance is when agents have likely altered the temporal and spatial integrity to such an extent which has lowered their information potential and therefore scientific significance. Examples of high disturbance include deflation, native vegetation clearance, ploughing, rabbit burrowing, heavy stock trampling and stock rubs. Significant ground disturbance has altered the information potential of a place to such a degree that it has effectively destroyed the integrity of the place. Examples of significant ground disturbance include heavy natural erosion, or grading, excavating digging, dredging and deep ripping by machinery. The information potential remaining will essentially be the intrinsic attributes of the artefacts themselves.

Period and Number of Periods Represented

Most places contain stone tool assemblages attributed to the Australian Small Tool Tradition which may be dated 6,000 and 7,000 years ago (Hiscock & Attenbrow 2004). The landform and depositional context is also usually attributed to the period of latest landscape formation associated with present sea level stabilising 5,000 to 6,000 years BP (Marsden & Mallet 1975: 114-116; Bird 1993: 145; Douglas & Ferguson 1993: 387). Other periods, such as the Late Pleistocene and European Contact, are poorly represented in the archaeological knowledge base. Due to their rareness they are of high research interest and significance. Places with more than one period represented allow the investigation of cultural change, interaction and adaptation over a longer period of time. Based on the criteria of research potential and rarity, these places will have increased scientific significance.

High Integrity Occupation Deposits, Surfaces and / or Features

OAAV has no official definition of an *occupation deposit or feature* (r.61(6) *Aboriginal Heritage Regulations 2007*) but unofficially defines an occupation deposit as "anything that is indicative of human occupation eg a single artefact ..." (OAAV email 25.5.2009). This nominal definition of an occupation deposit takes no account of the depositional context of cultural material which is critical in understanding the archaeological record and the interpretation of past human behaviour – as pointed out by Binford (1964: 431) more than 45 years ago in the distinction between primary and secondary depositional context. Taking the above into account, and in contrast to the nominal definition of OAAV, a high integrity occupation deposit can be defined as a deposit formed by the laying down of deposits (artefacts and / or sediments) by human activities that bury artefacts and form distinct *archaeological* stratigraphic entities such as layers (eg dense lens of stone artefacts & bone between natural soil horizons, stratified shell deposits) or features (eg hearths, occupation mounds). An occupation surface is a distinct layer or interface between depositional strata upon which human activities were carried out and artefacts / features deposited. Most commonly this may be represented by a prior land surface (eg soil horizon) that has been subsequently buried by natural soil horizons (eg dune deposits). High integrity occupation deposits, features and surfaces have a high degree of spatial and temporal integrity and therefore will have higher scientific significance than archaeological deposits with lower integrity (eg artefact horizons in environmental deposits).

Multiple Artefact Horizons, Stratified High Integrity Occupation Deposits, Surfaces and / or Features

Places with multiple artefact horizons, stratified high integrity occupation deposits, surfaces and / or features have the potential to investigate chronological change within places; often with greater time depth and chronological resolution compared to places with lower spatial and temporal integrity. They are rarer, have higher research potential, and therefore also have higher scientific significance. High integrity occupation deposits, surfaces and features will likely have higher scientific significance than artefact horizons.

Natural History Potential

Some places have environmental evidence that may span many thousands of years and therefore have the potential to answer significant research questions regarding natural history, climatic and environmental conditions. This evidence can be used to investigate human evolution and adaptation. Generally this evidence is rarely found in Victorian places and has high research potential and scientific significance.

Representativeness

Representativeness refers to the regional distribution of a particular place-type and its scientific significance. It is assessed to whether the place is common, rare or very rare in a given region. Assessments of representativeness are biased by current knowledge of the distribution and numbers of places in a region. Current knowledge varies from place to place, depending on the extent and quality of previous archaeological research. Consequently, a place that is assigned low scientific significance based on other queries, but is considered a rare occurrence, may only be regarded as such in terms of current knowledge of the regional archaeology. Its rareness may not necessarily increase the place significance to moderate or above.

The representativeness used for Aboriginal cultural heritage places are:

- Common occurrence;
- Rare occurrence;
- Very rare occurrence.

Common places include the majority of stone artefact scatters. Typically such stone artefact scatters have the following attributes: below moderate artefact density class (≤45 artefacts per m^2); date to the Late Holocene, and no evidence of high integrity occupation deposits or features, stratified or otherwise.

Rare stone artefact scatters typically have the following attributes: moderate or above artefact density class (≥46 artefacts per m^2); more than one artefact horizon; more than one period of occupation (eg early and late Holocene); but may not have high integrity occupation deposits.

Very rare stone artefact scatters typically have the following attributes: moderate or above artefact density class (≥46 artefacts per m^2); high integrity occupation deposits, stratified or otherwise; and occupation from more than one period (eg late Pleistocene and late Holocene).

Ensuring a representative sample of significant place-types is preserved provides opportunities for research questions and techniques not yet developed to be available for future archaeologists.

Stone artefact scatters identified during this investigation are rated according to the following queries and answers:

1. What is the average artefact density per metre?

Stone Artefact Density (per m^2)*	Score	Density Class
1 – 4	0	Extremely low
5 – 15	1	Very low
16 – 30	2	Low
31 – 45	3	Low – moderate
46 – 60	4	Moderate
61 – 75	5	Moderate – high
76 – 90	6	High
91+	7	Very high

*Minimum artefact size 10mm

2. If the average artefact density rates 46 artefacts per m^2 or above, is the density spatially extensive (more than 100m x 100m, 10,000m^2)? No = 0, Yes = +1

3. Are artefacts within natural soil horizons? No = high integrity occupation deposits (see below), Yes = 0

4. Are the natural soil horizons disturbed? No = 0, Yes (high) = -1, Yes (significant) = -2

5. Are European Contact or Pleistocene / Early Holocene periods represented? No = 0, Yes = +1

6. Is more than one period represented? No = 0, Yes = +1

7. Are there high integrity occupation deposits, occupation surfaces and / or features? No = 0, Yes = +1

8. Are there multiple artefact horizons, stratified high integrity occupation deposits, occupation surfaces and / or features? No = 0, Yes = +1 (artefact horizons), Yes = +2 (high integrity occupation deposits, surfaces, features)

9. Is there an opportunity to research natural history (eg climate & environmental changes)? No = 0, Yes = +1

10. Is the place a common, rare or very rare occurrence? C = 0, Rare = +1, Very rare = +2

Artefact scatters are rated according to the following scores from the detailed list of queries above:

Score	Scientific Significance Rating
0	extremely low
1	very low
2	low
3	low – moderate
4	moderate
5	moderate – high
6	high
7+	very high

General Principles on the Appropriate Application of the Rating Criteria

Although the framework presented above cannot be applied as a simple formula in all circumstances, the appropriate application of the framework must take into account the following principles:

Current knowledge of stone artefact scatters typically means that places with the following attributes must not be rated having moderate or above scientific significance:

- Average stone artefact density of ≤45 per m^2;
- No evidence of a discernable stone artefact horizons;
- A single stone artefact horizon in natural soil horizons;
- One period of occupation either ASTT or post-ASTT;
- No *high integrity occupation deposits* and / or features, stratified or otherwise.

Places rated moderate or above scientific significance typically must have the following attribute:

- Average stone artefact density of ≥46 artefacts per m^2.

If the place has a lower average density class then the place typically must score one or more of the following queries (see above):

- European Contact or Pleistocene / Early Holocene periods represented;
- More than one period represented;
- *High integrity occupation deposits*, occupation surfaces and / or features;
- Multiple artefact horizons, stratified *high integrity occupation deposits*, occupation surfaces and / or features;
- Natural history research potential; or
- Rare or very rare occurrence;

If the average density score is below moderate, then the number of extra scores required to rate a place with moderate or above scientific significance must be as follows:

Average Density Class	Score	Minimum Extra Score Required
Extremely low	0	4
Very low	1	3
Low	2	2
Low-moderate	3	1

If the principles presented above are not followed, then the framework has not been applied appropriately.

APPENDIX 7 – AUTHOR & SUPERVISOR SUMMARY CVs

Andrea Murphy

Director & Senior Project Manager

Andrea Murphy is a Senior Cultural Heritage advisor with extensive experience and qualifications in both indigenous and non-indigenous cultural heritage assessment and management, including EES & EIS projects, major urban excavations, desktop assessments, site survey, excavation, monitoring and production of site management strategies. Andrea has been the manager of Archaeology At Tardis Pty Ltd, archaeologists and cultural heritage advisors for 15 years and a heritage professional for more than 23 years. Andrea has authored or co-authored more than 2000 heritage documents ranging from statements of heritage advice, Cultural heritage Management Plans, Precinct Structure Plans and major Aboriginal and historic salvage excavations. Andrea currently manages a large team of senior heritage advisors, geomorphologist, field archaeologists, graphics department and research division.

QUALIFICATIONS:

Bachelor of Arts (Prehistory) – La Trobe University (1980-1984)

Master of Arts (Historic Archaeology) - La Trobe University (1990 -1991)

AWARDS:

Winner of the 2003 UNESCO Asia-Pacific Cultural Heritage Conservation Award

AFFILIATIONS:

Australian Society of Historic Archaeology

Australian Association of Consulting Archaeologists Inc.

Australian Anthropological and Archaeological Society

National Trust (VIC)

Royal Historical Society (VIC)

PROFESSIONAL EXPERIENCE:

1995 to present - Director and Principal Consultant of Archaeology At Tardis

1988 to 1995 – Consultant archaeologist and heritage manager in Victoria, South Australia, New South Wales, Tasmania

1985 to 1988 – Assistant archaeologist in various short term projects in Spain, Portugal, India, Ireland, Greece and England

RELEVANT RECENT EXPERIENCE

MAJOR AUSTRALIAN CULTURAL HERITAGE PROJECTS

- Pipeline Routes
- Optical Fibre Cable Routes
- Road and Highway/Freeway Infrastructure
- Rail Infrastructure – Urban and Regional Fast Rail
- Urban Residential and Industrial Developments
- Waterway Rehabilitation Works
- Wind Farms
- Victorian Desalination Project
- Local Government Advisor and Project Manager
- Defence Advisor and Project Manager
- Parks Advisor and Project Manager

AREAS OF SPECIALISATION – INDIGENOUS AND HISTORIC

- Parks and forest archaeological assessment
- Coastal archaeological assessment
- Archaeological salvage
- Lithic, midden, earth features & scarred trees identification and management
- Aboriginal Cultural Heritage Management Plans
- Due Diligence Assessments
- Heritage Management within residential/urban context
- Archaeological Test Excavations
- Competent & active contributor to multi disciplinary teams
- Development of activity area specific high level archaeological site prediction models
- Development and application of evidence based, transparent scientific significance criteria based on *The Burra Charter*
- Frequent expert witness at VCAT

Andrew Morris

Senior Archaeologist & Cultural Heritage Advisor

Andrew Morris is a Senior Archaeologist and Cultural Heritage Advisor having graduated with an Honours Degree in Arts (archaeology major) at La Trobe University. Andrew has extensive experience in excavation, survey, archaeological testing, archaeological research and artefact analysis. Andrew has been actively involved in archaeological research, cultural heritage fieldwork and laboratory analysis since 2004, and has co-authored over 30 Cultural Heritage Management Plans and numerous additional minor reports. Andrew has developed an array of excavation, survey and laboratory experience, having worked on projects in Tasmania, New South Wales, Victoria and Cyprus. Andrew has extensive knowledge and understanding of the *Aboriginal Heritage Act 2006* (Vic), the *Aboriginal Heritage Regulations 2007* (Vic), and the *Heritage Act 1995* (Vic).

QUALIFICATIONS

Bachelor of Arts - Honours (arch. major)
La Trobe University, 2007

AFFILIATIONS

Australian Archaeological Association

Australian Society for Historical Archaeology

MAJOR INTERNATIONAL PROJECTS

- Australian-Cyprus Expedition - Deneia
- Palaion Demarcheion Excavation - Nicosia

MAJOR AUSTRALIAN CULTURAL HERITAGE PROJECTS

- Coastal Shell Midden Survey in South-West Gippsland
- Yorktown Convict Settlement Tasmania
- Carlton Gardens Melbourne
- Cape Paterson Ecovillage
- Cardinia Road Employment Precinct
- Stockyard Hill Wind Farm
- "The Sisters" Residential Development
- Road and Highway/Freeway Infrastructure
- Pipeline Routes
- Waterway Rehabilitation Works
- Residential and Industrial & Mixed Use Developments
- Golf Course Developments

SUMMARY OF EXPERIENCE

- Indigenous and Historical Archaeology
- Site Survey and Recording
- Sub-surface Investigation
- Due Diligence Assessments
- Cultural Heritage Management Plans (CHMPs)
- Artefact Analysis
- Excavation and Analysis of Human Remains
- Excavation and Analysis of Faunal Assemblages

Stewart Thomson

Senior Archaeologist & Cultural Heritage Advisor

Stewart Thomson is an archaeologist having graduated with an Honours Degree in Archaeology from La Trobe University in 2004. Stewart has experience in excavation, survey, archaeological monitoring, archaeological research and testing and artefact analysis as well as report production, including Cultural Heritage Management Plans.

Stewart's main body of experience concerns managing assessments for indigenous and non-indigenous cultural heritage. Stewart has developed an array of excavation, survey and laboratory experience, having worked on projects in Victoria and New South Wales.

Stewart's role in Archaeology at Tardis is Archaeological Project Manager and is responsible for resourcing and managing large field teams and producing required reporting.

QUALIFICATIONS:

Bachelor of Archaeology, Honours – La Trobe University, 2004

L2 First Aid Certificate

Victorian Construction Industry Induction – Red Card

AFFILIATIONS:

Australian Archaeological Association

Australian Association of Consulting Archaeologists Inc

RELEVANT RECENT EXPERIENCE

MAJOR AUSTRALIAN CULTURAL HERITAGE PROJECTS

- Road and Highway/Freeway Infrastructure
- Pipeline Routes
- Local Government Heritage Study
- Urban Developments
- Mixed Use Zone Developments
- Utility Installations
- Golf Course Developments
- Power Line Routes and Transmission Stations
- Telecommunication towers
- Residential Developments
- Industrial Developments
- Wind Farms and associated infrastructure
- Archaeological salvage
- Victorian Desalination Project

SUMMARY OF EXPERIENCE

- Research
- Site Survey and Recording
- Archaeological Testing
- Archaeological Monitoring
- Site Excavation
- Historic Research
- Artefact Analysis

APPENDIX 8 – CORRESPONDENCE & CONSULTATION LOG

Date	From	To	Item
18.11.2013	Andrew M	VAHR	NOI to commence CHMP
	VAHR	Andrew M & Sponsor	CHMP # 12874
	Andrew M	Wurundjeri,	Request for field workers
15.1.2014	Andrew M	Wurundjeri, Bunurong & Boonwurrung	Provided results & recs for review and comment and requested knowledge of cultural heritage or oral tradition specific to activity area
28.2.2014	Stewart T	Sponsor	Provided draft Exec Summ for review
3.3.2014	Stewart T	Sponsor	Draft CHMP for comment
26.6.2014	Sponsor	Stewart T	Advised OK to submit
30.6.2014	Sponsor	Stewart T	Send signed Application to the Secretary for Approval of CHMP
1.7.2014	Stewart T	VAHR	Submitted CHMP for evaluation
1.8.2014	VAHR	StewartT & Sponsor	Rejected CHMP
1.8.2014	StewartT	VAHR	Request meeting to discuss rejection
4.8.2014	FranciscoA - OAAV	StewartT & Sponsor	Meeting Invitation
6.8.2014	FranciscoA & David T - OAAV	StewartT, AndreaM – Tardis & Louise Lowe (KLM) & Stephen Murphy (Sponsor)	Meeting. OAAV requested additional sub surface testing be undertaken in south east quadrant of activity area.
6.8.2014	Louise Lowe (KLM)	Stewart T	Will advise acceptable time to undertake additional fieldwork
26.9.2014	Stewart T	Wurundjeri,	Request for field workers
14.10.2014	Stewart T	Wurundjeri, Bunurong & Boonwurrung	Provided results & recs for review and comment and requested knowledge of cultural heritage or oral tradition specific to activity area
28.10.2014	Stewart T	Sponsor	Revised draft CHMP for comment
30.10.2014	Sponsor	Stewart T	Advised OK to submit
31.10.2014	Stewart T	VAHR	Submitted CHMP for evaluation
22.08.2019	Emma McNeil	VAHR	Signed Notice of Intent to Amend a CHMP lodged with VAHR
	Emma McNeil	Louise Lowe (KLM)	Client notified of submission of NOI
	Emma McNeil	City of Casey	The City of Casey council was notified of NOI
26.08.2019	VAHR	Emma McNeil	Secretary received notice to amend a CHMP
30.08.2019	AAT	Louise Lowe (KLM)	Draft sent to client
02.09.2019	Louise Lowe (KLM)	Emma McNeil	Changes made to draft
02.09.2019	AAT	Louise Lowe (KLM)	Second draft sent to client

APPENDIX 9 – CHECKLIST FOR CONTINGENCY

CHECKLIST FOR COMPLIANCE WITH CHMP 12874			
Discovery of Cultural Material:			
1	Has all activity within 10m ceased?		
2	Has the Heritage Advisor been advised?		
3	Has the find/s been left in place?		
4	Has the find/s been protected (e.g.: with fencing) if required?		
5	In relation to suspected human remains, has the Coroner's Office been notified?		
6	Has an appropriate mitigation/salvage strategy been developed?		
7	Has the mitigation/salvage works been implemented?		
Reburial:			
8	Has the reburial site(s) been fully documented by a suitably qualified archaeologist?		
9	Has the reburial site been clearly marked?		
10	Have all details been provided to OAAV?		
11	Has a strategy been developed to ensure no further disturbance will occur to the remains (such as Section 173 in the Planning and Provision Act)?		
Changes to Activity:			
12	Does the activity deviate in any way from the activity as described in this CHMP? If so, then a new plan must be prepared for the activity.		

APPENDIX 10 – HISTORIC REPORT 280 EVANS ROAD CRANBOURNE WEST PREPARED BY LOUISE BLAKE

280 EVANS ROAD, CRANBOURNE WEST

A Historic Report to Archaeology at Tardis Pty Ltd

Prepared by Louise Blake
Blake Hyland Group Pty Ltd

July 2013

CONTENTS

1. INTRODUCTION

This report has been prepared for Archaeology at Tardis Pty Ltd and investigates the history of land ownership and land use of the activity area known as 280 Evans Road, Cranbourne. The activity area is located in the Parish of Lyndhurst, and is part of the Casey City Council.

This research has been conducted using previously published material, as well as a range of public records, including land titles. A detailed list of references is included in the bibliography.

2. THEMATIC HISTORY

2.1 Exploration era

Between 1798 and 1802 several British expeditions explored the Victorian coastline and Port Phillip Bay and reported on the settlement potential of the region.
The first European exploration of Western Port occurred in 1798, when George Bass set out from Port Jackson in a whale boat to explore the south-east coast and determine if a strait separated the colony of New South Wales and Van Diemen's Land [Australian Dictionary of Biography]. Searching for shelter along the Victorian coast Bass sailed into a harbor which he named Western Port. Shaw [1996: 3] writes that Bass found that the "country had 'a pleasing appearance' with 'grass and ferns' growing 'luxuriantly', but it was 'thinly and lightly timbered'. There were patches of brush, but also salt-marshes and the very scarce water was brackish. There were no other harbours or rivers." On a later trip with Matthew Flinders, Bass confirmed the existence of the strait [Shaw 1996: 3].

Following Bass' discovery whalers, sealers and other traders began exploring the coastline and islands of the strait. Sealers were sometimes left for months at a time on the coast and the islands, where they killed seals and sea elephants for their skin and oil until the industry declined in the 1830s [Morgan 1997: 25]. Keen to make use of the strait, Governor King sent Lieutenant Grant on a surveying expedition in 1800, but though Grant noticed a deep bay he missed Port Phillip. King sent Grant back in March 1801, where he only got as far as Western Port where he spent five weeks. Grant found the area quite suitable for agriculture and the harbour a good refuge for ships and seal fisheries [Shaw 1996: 4]. In January 1803 Acting Lieutenant Charles Robbins ventured into Port Phillip Bay on board the 'Cumberland'. As part of the expedition Robbins, together with Acting Surveyor General Charles Grimes, and James Flemming journeyed up the Maribyrnong (Saltwater) River, and also found a site for a potential settlement on the Yarra River [Shaw 1996: 7-8].

Following these expeditions Lieutenant Colonel David Collins was sent to establish a British settlement at Port Phillip. This settlement was established at Sullivans Bay, near what is now Sorrento, and was made up largely of convicts, but it was short-lived due to a lack of fresh water and arable land. After a few months Collins abandoned Sorrento and took the convicts to Tasmania [Shaw 1996: 15]. Cole [1984: 41] writes

that after Collins's departure Governor King was still concerned about French interest in the coastline and sent Lieutenant Colonel W. Paterson to establish a settlement at Launceston and to investigate whether Port Phillip or Western Port would make a suitable occupying post. Acting Lieutenant Charles Robbins returned to survey Western Port with John Oxley, but neither considered the port a suitable place for a settlement.

In 1824 explorers Hume and Hovell visited the Port Phillip region and again surveyed the landscape, this time with a view to its potential as grazing land. Shaw [1996: 33-35] writes that Hume and Hovell were intending to travel overland to Western Port, but mistakenly arrived at Corio Bay. They described the landscape they encountered on their journey in glowing terms – finest soil, abundant grass, fine harbour – and suggested that it would make a fine settlement. Shaw [1996: 35-36] writes that in response to these reports, and continuing concerns that the French wanted to establish a colony in the region, a settlement was established at Western Port at what is now Corinella in November 1826. William Hovell, who accompanied the expedition, explored the Western Port region and gave a favourable report of the region [Shaw 1996: 39].

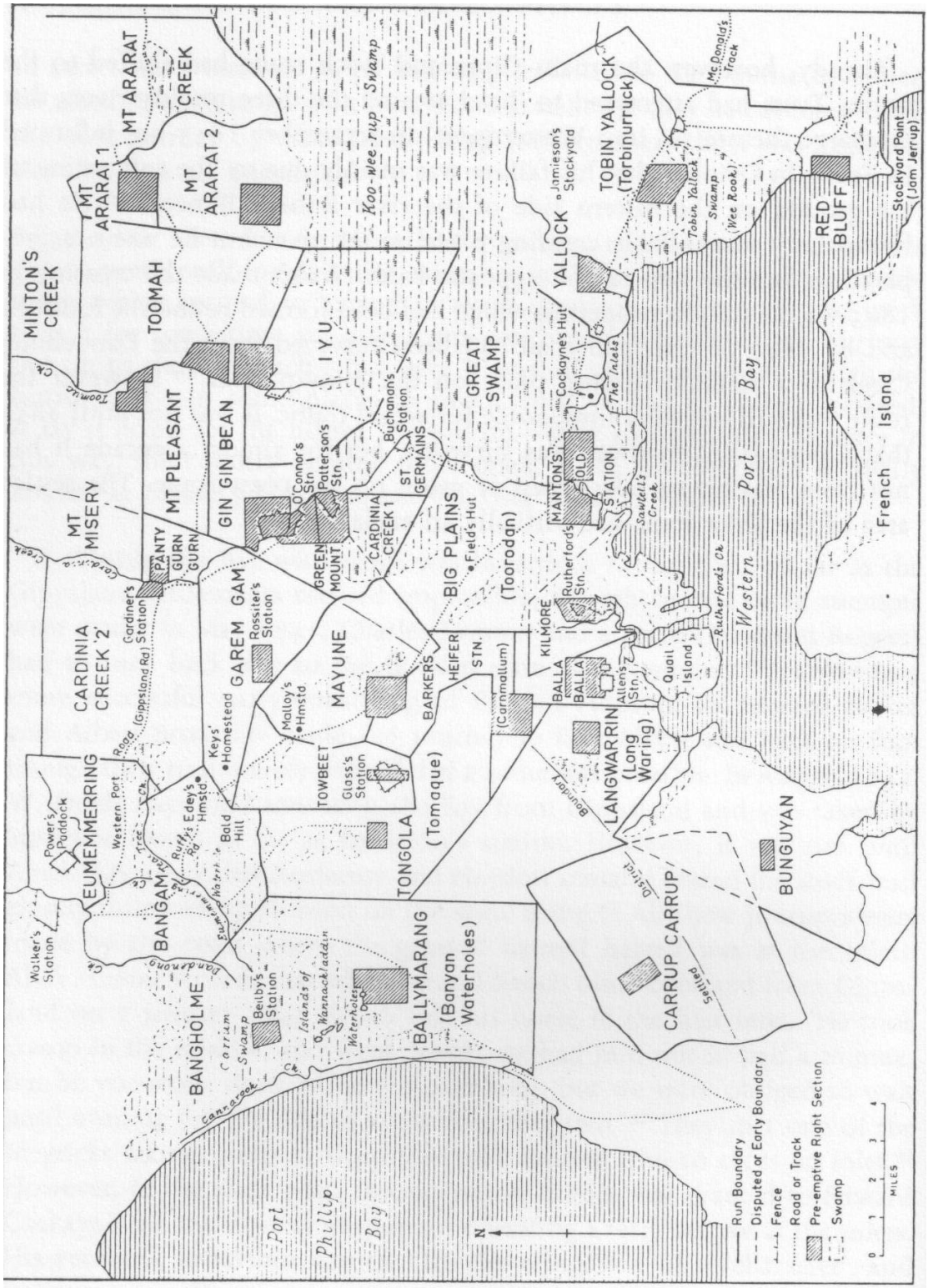
By the mid 1830s a shortage of pasture in Tasmania and the favourable reports by Hume and Hovell prompted a number of settlers in Tasmania to explore the grazing potential of Port Phillip. In 1834 Edward Henty established a settlement at Portland, and in June 1835, John Batman, one of the founders of the Port Phillip Association, visited Port Phillip and acquired a large amount of land, from Melbourne to Indented Head and inland to Gisborne, through a 'treaty' with the Woi wurrung, Boon wurrung and Watha wurrung clans. Despite the treaty later being declared void by the Governor of New South Wales members of the Port Phillip Association went ahead with their plans to take up land at Port Phillip [Shaw 1996: 50].

2.2. Pastoral era

Members of the Port Phillip Association and other squatters began flooding into the Port Phillip district in the mid 1830s, bringing with them sheep and cattle to graze on what seemed like an abundant supply of grazing land. Squatting was legalised in 1836 with squatters being charged a license fee of £10 for a 'run'. Dingle [1984: 25] writes that these runs were often quite large and were determined by the number of stock that could be grazed on them with minimal labour. The runs had few fences or buildings, apart from a hut and fencing around holding yards, and the land wasn't usually cultivated at this time [Dingle 1984: 27].

Gunson [1968: 19] writes that shortly after Joseph Hawdon and the first overlanders arrived from Sydney in 1836 squatters moved east with their cattle to the open country near Dandenong. The Ruffy brothers, who arrived from Tasmania in 1836, are said to have been the first to settle permanently in the Shire of Cranbourne. They initially occupied the Tomaque run between Dandenong and Cranbourne, and later took up the Mayune run [see Figure 1]. The activity area was part of land occupied by the Ruffy brothers and later became part of the Towbeet run taken up by Samuel Webster in 1844 [Gunson 1968: 38]. The Webster's ran sheep at Towbeet, as did the Ruffy brothers at Mayune, while other runs in the district were cattle stations [Gunson 1968:

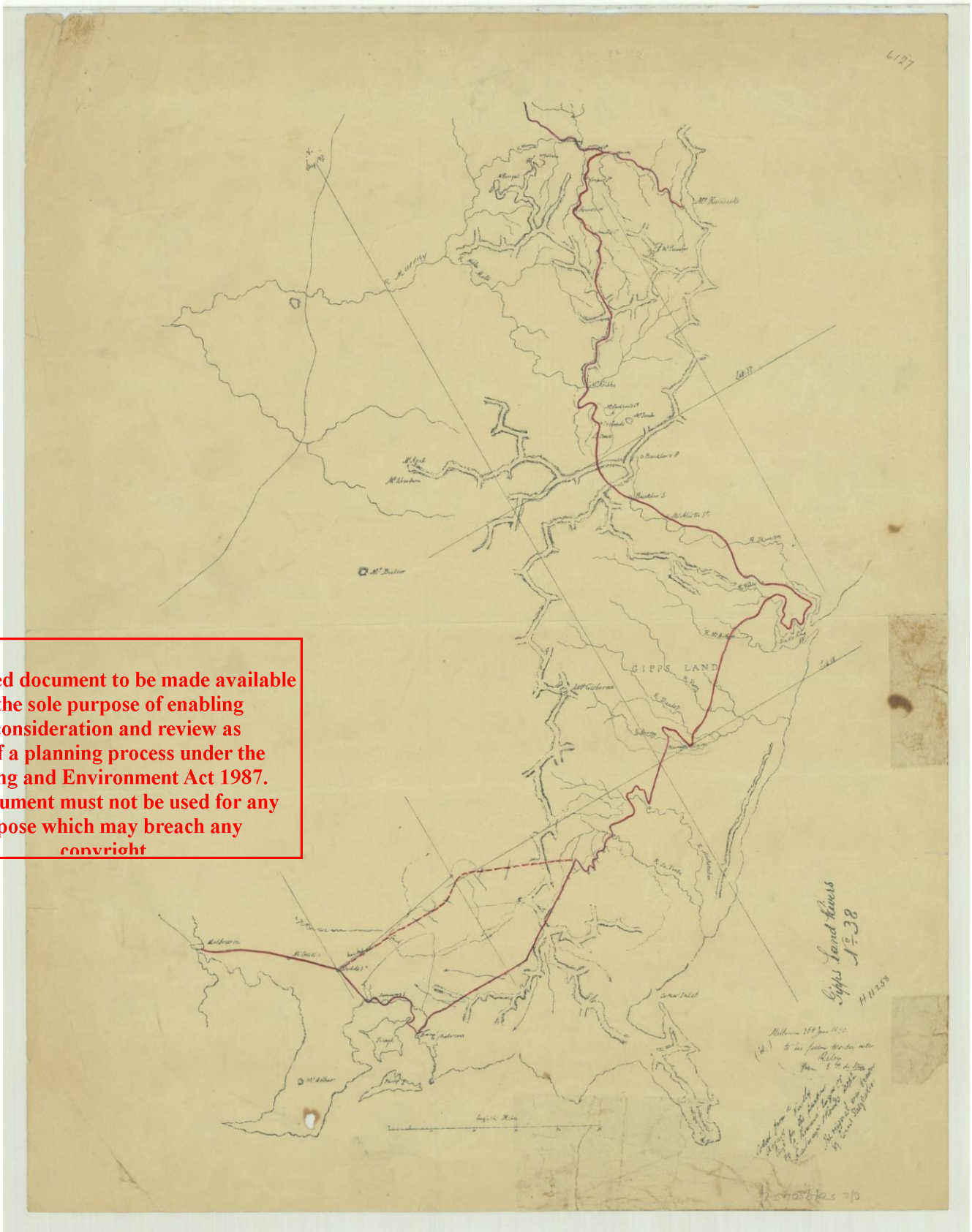
39]. Following Samuel Webster's death in 1847 the Towbeet run was taken up by Hugh Glass [Gunson 1968: 38].



Squatting runs, Western Port District

[Figure 1: Squatting runs, Western Port District; Gunson, N, *The Grooved Country*, p.50]

The settlement of land was contingent on reliable transport routes. In 1840 Paul Strzelecki's Gippsland expedition reached Western Port, where it found the abandoned settlement of Corinella. Morgan [1997: 32] writes that after recovering from their journey the party travelled to Melbourne via Tooradin and Cranbourne. Strzelecki's map of the expedition shows the route from Tooradin passing through Dodds, which may have been Charles Dodds's Greenmount station on Cardinia Creek [see Figure 2]. Lay [2003: 163] writes that following Strzelecki's expedition a route was established between Dandenong and Tooradin that followed what is now the South Gippsland Highway. This route passed through the Towbeet and Mayune runs east of the activity area [see Figure 1]. By 1844 the route had extended to Alberton [Lay 2003: 163].

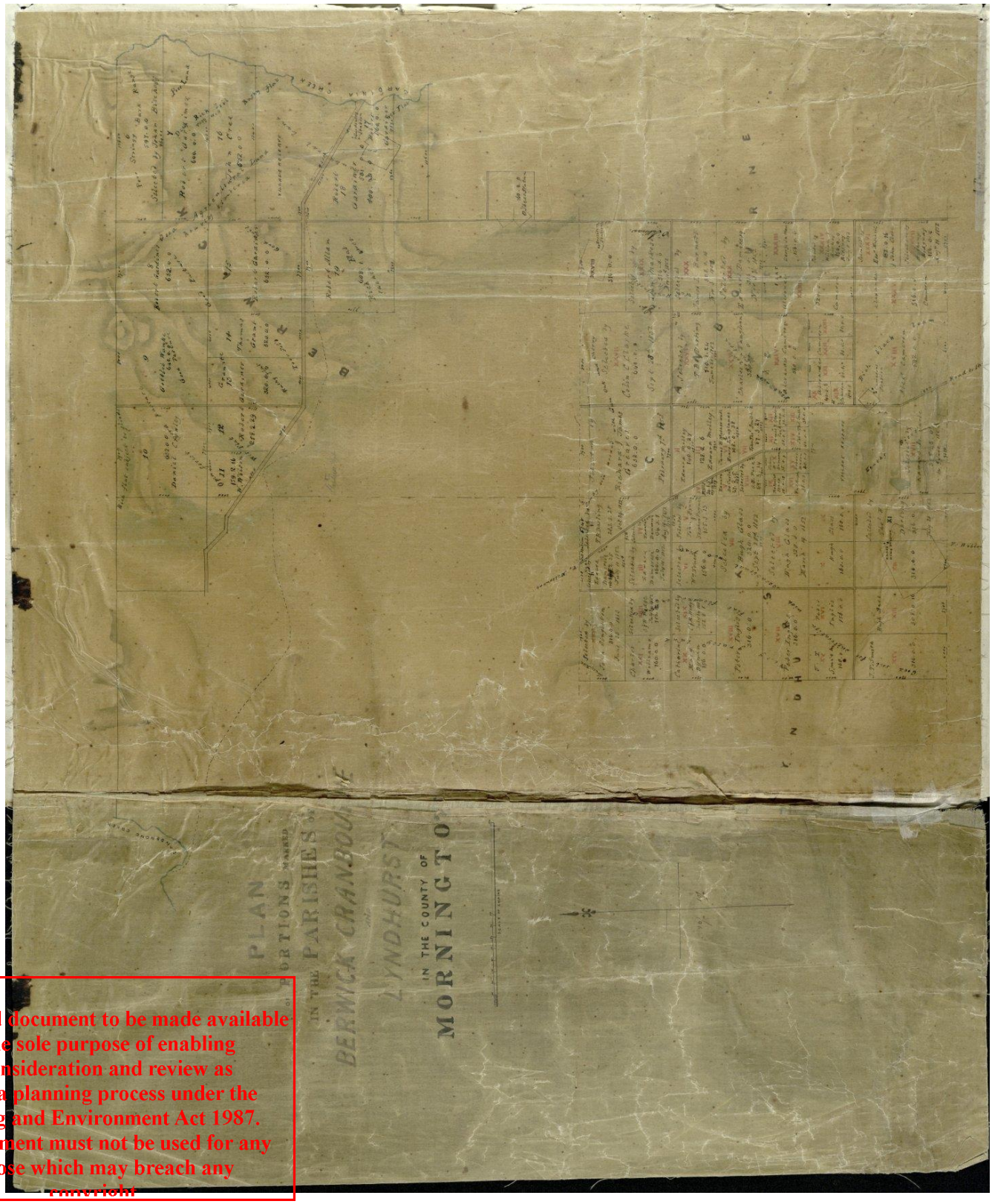


[Figure 2: 'Sketch map from Gipps Land expedition of 1840 [cartographic material]/ [by Paul Edmund de Strzelecki], 1840, State Library of Victoria, accessed online 1 March 2012]

With limited security of tenure at this time many pastoral runs did not have permanent structures though there is evidence that in the Western Port region some runs featured station homesteads and cottages and some of the wives of squatters and run managers lived on the runs. The births of a number of Samuel Webster's children were registered at Western Port, but it is not yet known if the family lived on the Towbeet run or elsewhere in the district [Victorian Pioneer Index].

2.3 Settlement era & early Crown land sales

From 1847 squatters were given more security of tenure with the Order in Council of 1847 giving them the option of taking up a pre-emptive right on their land - a long term lease - at the end of which lease holders could purchase up to 640 acres of the run, which usually included a homestead and adjoining land. [Nelson & Alves 2009: 29]. Following Samuel Webster's death in 1847 Hugh Glass acquired the Towbeet run and later applied for the pre-emptive right to a portion of the run which included the head station in Crown Allotment 12. A plan of parts of the parishes of Berwick, Cranbourne and Lyndhurst in the 1850s marks the location of Glass's head station south of the activity area, as well as an outstation in the vicinity of Crown Portion 2 in the Parish of Lyndhurst on the boundary with the Parish of Cranbourne. The land in the parishes is described as "good soil for cultivation with occasional wet flat". The activity area is located in Crown Portion 6 of the Parish of Lyndhurst and was selected by William Toner [see Figure 3].



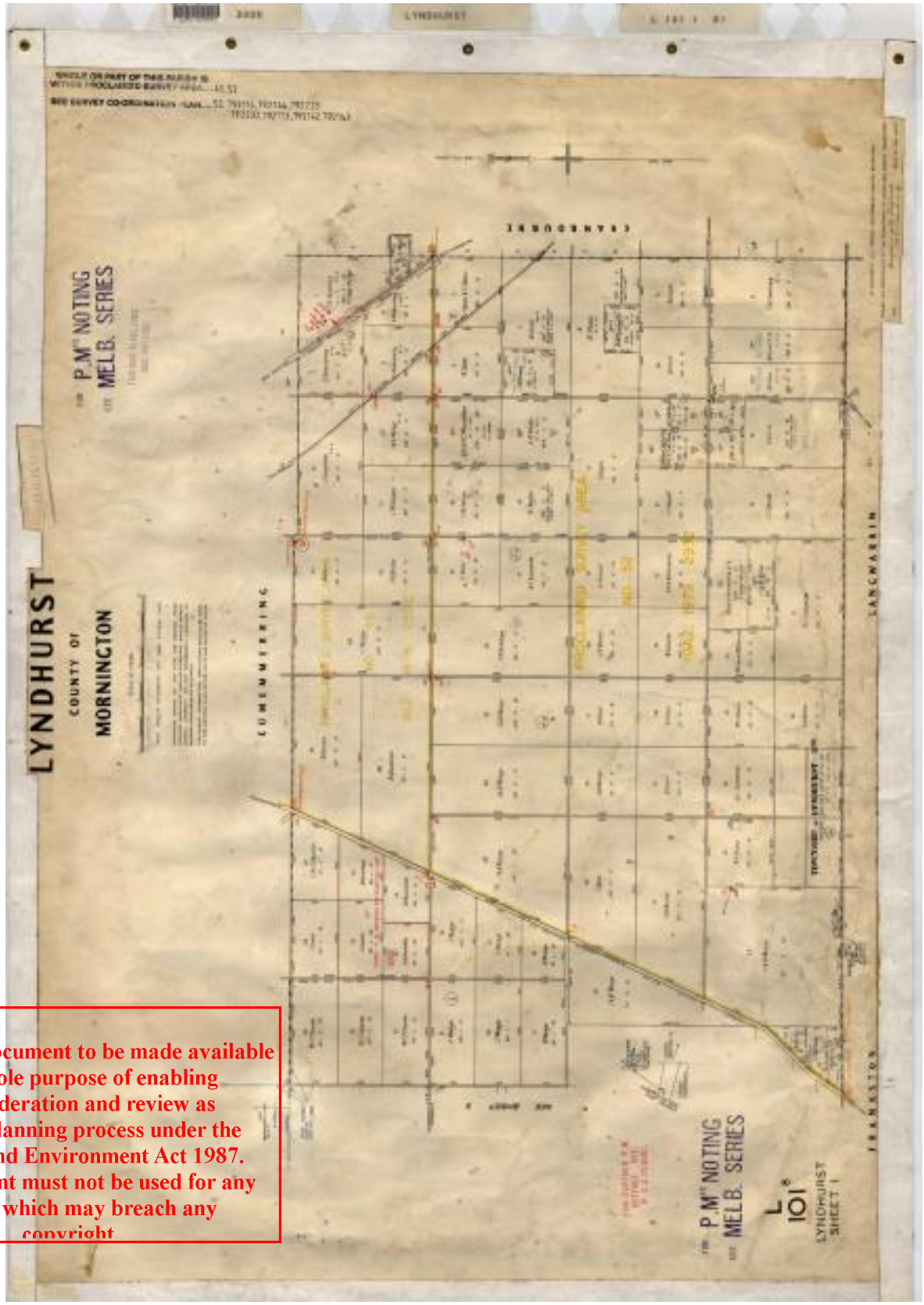
[Figure 3: Plans of portions marked in the parishes of Berwick, Cranbourne and Lyndhurst [cartographic material], Vale collection, c1850s, State Library of Victoria, accessed online 12 July 2012]

The 1850s was a period of significant change in the administration and development of Victoria, which in 1851 became a separate colony from New South Wales. The 1850s goldrush led to an increase in the population and the opening up of land for settlement and food production [Gunson 1968: 56]. The 1850s also saw the survey of townships and the beginnings of official roads through the district, following the establishment of District Roads Boards under the 1853 Roads Act. In 1852 the Cranbourne and Lyndhurst district was surveyed by H.B. Foot and the township of Cranbourne laid out on part of the Mayune, Towbeet, and Barker's Heifer Station runs [Gunson 1968: 56]. Town lots in Cranbourne were surveyed in 1857 [Gunson 1968: 60]. The Cranbourne Road District was proclaimed on 19 June 1860 and included the parishes of Cranbourne, Sherwood, Langwarrin, and Lyndhurst. Part of the Parish of Eumemmerring was added in 1862 when the boundaries were redefined. Cranbourne became a Shire in 1868, and in 1872 the boundaries were again redefined with the western parts of the parishes of Eumemmerring and Lyndhurst added to Dandenong [Gunson 1968: 87]. The activity area remained within the Shire of Cranbourne.

Grazing and the cultivation of crops were among the early uses of land in the district. Gunson [1968: 179-80] writes that in 1856 the Mornington Farmers' Society was formed as a branch of the Port Phillip Farmers' Society, and Cranbourne soon became the venue for its annual shows. Dairying was also an important industry in the district. Dingle [1984: 114-115] writes that milch cows were an essential part of establishing a farm in order to supply milk, butter and cheese for families and employees, while dairy farmers close to Melbourne also supplied the urban market with whole milk. From 1853 the activity area was owned by James Rodgers and may have been part of a property known as Belmont (or Bellmont). Shire of Cranbourne rate books show that in some years during the 1860s & 70s the allotment was leased and at other times it was occupied by James Rodgers. Like other farms in the district Belmont appears to have been used for dairying.

2.4 Closer Settlement era

In the early twentieth century the pastoral industry experienced a number of significant changes that affected land settlement and use. Dingle [1984: 116] writes that technological changes in the dairying industry, such as refrigerated transport, the development of the centrifugal cream separator and the Babcock tester, transformed dairying from a farm craft to a major industry. In Cranbourne the extension of the rail network into Gippsland enabled local farmers to transport their whole milk to the Melbourne markets more efficiently. Some Cranbourne farmers also sent their milk to the Lady Talbot Institute Dairy on part of the former Mayfield property [Context 2004: 32]. Part of the railway line runs through Crown Portion 6 east of the activity area [see Figure 4].



[Figure 4: Lyndhurst L101(8); © State of Victoria, 2009. Materials supplied by the State of Victoria under the Creative Commons Attribution – Noncommercial 2.5 Australia Licence. To view a copy of this licence, visit http://creativecommons.org/licenses/by-nc/2.5/au/]

In the 1890s the Government introduced the Closer Settlement Scheme as part of a move to break up the large pastoral estates. The scheme was a response to an increased demand for agricultural land following the 1890s depression and government concerns that those seeking land might move to other colonies. The Land Act 1898 enabled the Government to purchase large estates and subdivide them into smaller farming allotments, allowing more people to settle on the land [Nelson & Alves 2009: 285]. Following the end of World War One Soldier settlement schemes were established with the same principles but more generous conditions. Settlers in both schemes were expected to live on the land, fence it, destroy vermin and weeds, and undertake other improvements before they were entitled to the Crown Grant. Following the end of World War Two a similar scheme designed for soldier settlers was introduced. A number of allotments in the Parish of Lyndhurst were subdivided for closer settlement, including Crown Portions 7 & 8 but Crown Portion 6 remained largely intact until 1970.

3 SPECIFIC HISTORY

The following section provides details of the land ownership and land use of the activity area known as 280 Evans Road, Cranbourne. For a simplied summary see the table in the Appendix.

3.1 Towbeet Pastoral run

As noted in Section 2.2 of this report, the activity area was part of the Towbeet pastoral run taken up by Samuel Webster in 1844. Gunson [1968: 19, 36, 38] writes that the run had previously been part of the territory occupied by the Ruffy brothers who were the first to settle permanently in the Shire of Cranbourne after arriving from Tasmania in 1836. The Ruffy brothers initially squatted on the Tomaque run and later took up the Mayune run in 1840. Both the Ruffy brothers and Samuel Webster ran sheep on their runs, unlike other runs in the district that ran cattle [Gunson 1968: 19]. Nothing further is known about Webster's use of the run. With limited security of tenure at this time many pastoral runs did not have permanent structures though there is evidence that in the Western Port region some runs featured station homesteads and cottages and some of the wives of squatters and run managers lived on the runs [Gunson 1968: 41]. When Samuel Webster died in 1847 his residence was described as Towbeet and the birth of two of his children had been registered in Western Port in 1846 and 1847 [Victorian Pioneer Index]. If the Webster's did live on the run it is not yet known where their residence was located. The head station associated with the Towbeet run is described on later maps as 'Glass home station' but it may have dated from Webster's occupation of the run [see Figure 3]. After Samuel Webster died in 1847 the run passed to James McConnell and Francis Webster, who is likely to have been Samuel's widow.

In 1848 the Towbeet run was acquired by Hugh Glass, who is recorded as a bondsman in Francis Webster's application for probate of her husband's estate [PROV, VPRS 28/P0, Unit 2, File A/175]. Although Glass is described in the affidavit as a storekeeper in Melbourne, at the time Glass was a well known station agent and merchant. After

arriving in Port Phillip in 1840 he began farming on the Merri Creek and later built up a network of runs, some of which he used to send stock to the Newmarket sales. In the 1850s he built Flemington House and by 1862 he was regarded as the richest man in Victoria and was worth £800,000. By 1865 Glass owned 35,000 acres scattered over 20 runs, though they were not considered productive. His business empire collapsed in 1869 [Senyard, J. E., 'Glass, Hugh (1817–1871)', Australian Dictionary of Biography, National Centre of Biography, Australian National University, http://adb.anu.edu.au/biography/glass-hugh-3620/text5625, accessed 16 August 2012.].

The activity area was located between Hugh Glass's head station in the south and an out station in the north.

3.2 Rodgers family

As stated in Section 2.3 of this report, the activity area is located in part of Crown Portion 6 in the Parish of Lyndhurst, which was acquired by William Toner on 14 July 1852. By April 1853 the allotment had been acquired by James Rodgers [PROV, VPRS 460/P0, Unit 2810, File 27511]. Nothing further is known about William Toner and what use, if any he made of the activity area.

Crown Portion 6 remained in the ownership of the Rodgers family until the late nineteenth century. It is not yet known when James Rodgers arrived in Victoria, but some evidence suggests that in the 1840s the family were living north of Melbourne in the Merri Creek district where several of their children were born [Victorian Pioneer Index]. In 1890, when Thomas Rodgers applied for a certificate of title for part of Crown Portions 5, 6 & 7 he stated that he had lived on Crown Portion 6 from when his father had bought the land in 1853 until 1865. The allotment was partially fenced in 1853 and wholly fenced by 1855 [PROV, VPRS 460/P0, Unit 2810, File 27511]. At the time of his application Thomas Rodgers was a storekeeper in Yarraville.

Shire of Cranbourne rate books show that in some years during the 1860s James Rodgers leased Crown Portion 6, but at other times he was recorded as the owner and occupant. One of the tenants who leased Crown Portion 6 was Josiah Allen who was recorded as the tenant between 1867 and 1869. Gunson [1968: 121] writes that Josiah Clarke Allan took up farming in the Cranbourne district in 1866 and was prominent in the local community. In the 1880s Allan opened a general store in conjunction with his dairy. In the mid 1860s the owner of the neighbouring Crown Portion 5 was recorded as John Payne and the tenant was Alexander Allen, but by 1869 Crown Portion 5 was occupied by Alice Payne. Crown Portion 5 had been selected by John Ryan and Stephen Payne in 1852, but following Stephen Payne's death in 1853 it appears to have remained in the ownership of the Payne family. By 1870 James Rodgers is again recorded as the owner and occupier of Crown Portion 6 [Shire of Cranbourne rate books, 1866-1871]. The rate books do not record a house on either allotment in the 1860s. It is not known what specific use was made of the activity area at this time, but other farms in the area were used for grazing and dairying [Gunson 1968: 59-60].

In the 1870s rate books the ownership and occupancy of Crown Portion 6 is not clear. In 1871 James Rodgers was still recorded as the owner and occupant of Crown Portion 6, while Alice Payne was still recorded as the occupant of Crown Portion 5 owned by John Payne. In 1875 James Rodgers was recorded as being rated for 156 acres and a house on Crown Portion 5 valued at £38, while farmer Alice Payne was also rated for 156 acres and a house on Crown Portion 5 valued at £35. In 1878 James Rodgers was again recorded as the owner of Crown Portion 5, but Thomas Rodgers was recorded as the occupant. It is not clear who occupied the activity area at this time, but it is likely that it was still owned by the Rodgers family [Shire of Cranbourne rate books, 1871-1879]. In 1880 a deed of gift was signed between James Rodgers and Ellen Rodgers for Crown Portion 6 [PROV, VPRS 460/P0, Unit 2810, File 27511]. Ellen Rodgers died In January 1882 having bequeathed the 156 acre property described as "Bellmont" to her son, Thomas [PROV, VPRS 7591/P2, Unit 69, File 23/352]. Probate records show that the 156 property included a wooden house, but does not specify if the property was on Crown Portion 5 or 6. Ellen also owned two cottages in Dandenong [PROV, VPRS 28/P2, Unit 127, File 23/352]. Ellen was described as a widow at the time of her death but it is not yet known when James Rodgers died. By 1885 the Shire of Cranbourne recorded Thomas Rodgers as the owner and occupant of Crown Portion 6 which was valued at £35. Thomas was also leasing part of Crown Portion 5 from a Mrs Kemp [Shire of Cranbourne rate book, 1885]. By 1887 Crown Portion 6 was valued at £45 [Shire of Cranbourne rate book, 1887].

In 1890, when Rodgers applied for the Certificate of Title for parts of Crown Portions 5, 6 & 7, Crown Portion 6 was leased by Richard Butler George [PROV, VPRS 460/P0, Unit 2810, File 27511]. George was also leasing the 48 acres in Portion B5 from Alice Kemp, as well as Rodgers's 34 acres in Portion B7 [Shire of Cranbourne rate book, 1890]. By 1892 the allotment was being leased by William Butterfield, and in 1893 Thomas Rodgers was again recorded as the owner and occupant [Shire of Cranbourne rate books, 1892-1893]. By 1896 Crown Portion 6 was owned by John Henry Jones. Further research is needed on what use Rodgers's tenants made of the activity area.

3.3 Jones family

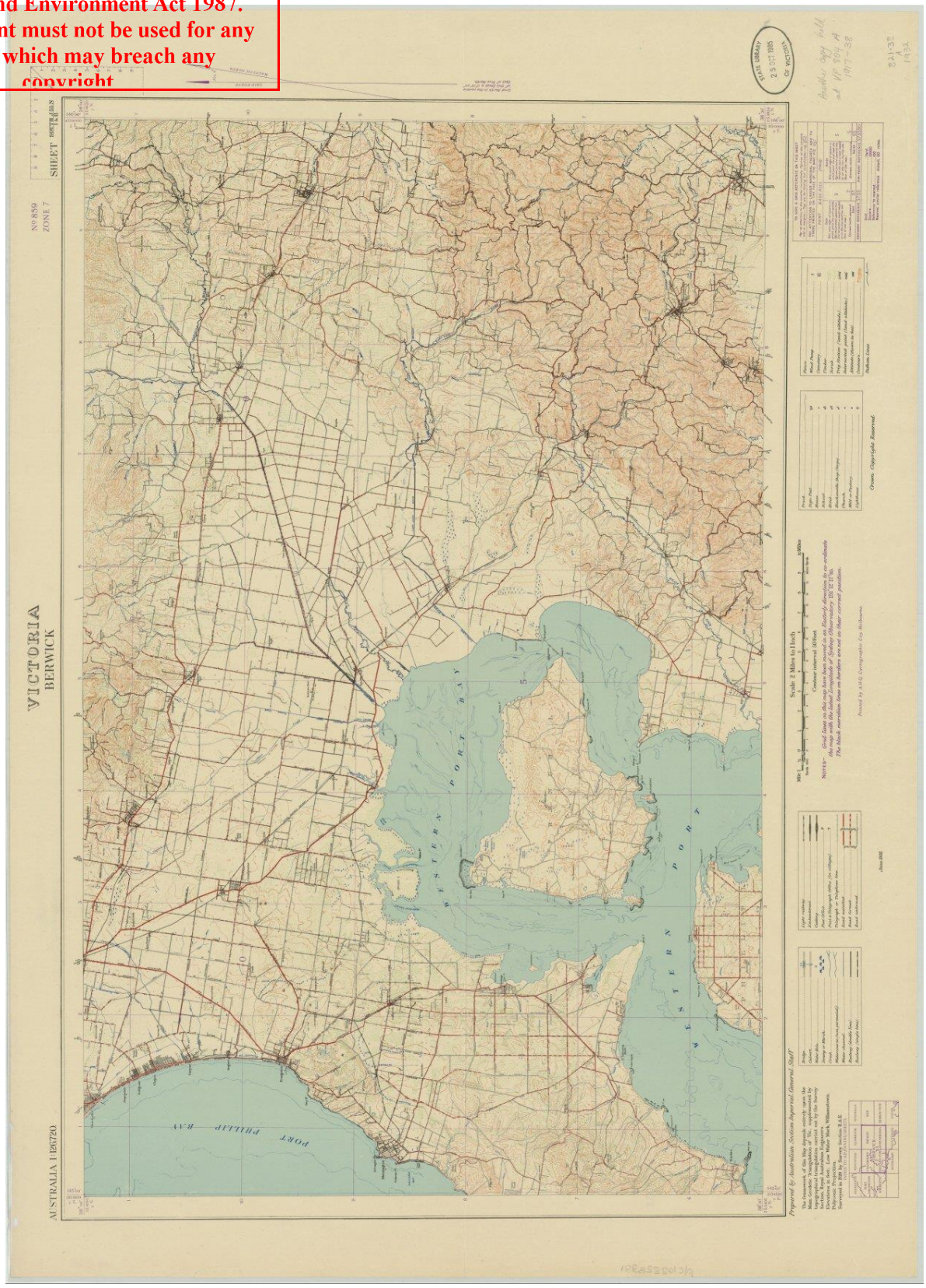
In 1896 John Henry Jones is recorded as the owner and occupant of Crown Portion 6, which was still valued at £45. Jones was also recorded as leasing 48 acres on part of Crown Portion 5 from a Mrs Alice Kemp [Shire of Cranbourne rate book, 1893]. By 1912 Crown Portion 6 was valued at £57, but in 1917 it was valued at £65 [Shire of Cranbourne rate book, 1912, 1917].

By 1920 John Henry Jones was leasing the property when a clearing sale was advertised in the *South Bourke & Mornington Standard* [2 December 1920]. The sale included cows, farm horses, furniture, and a range of implements for cultivation and dairying. By 1924 Jones was listed in the electoral roll in Thomas Street, Dandenong while his son, Arthur was recorded as a farmer on Belmont , Cranbourne [Australian Electoral Rolls, Flinders division, Cranbourne subdivision, 1924, www.ancestry.com.au, accessed online 20 June 2013]. John Henry Jones died in 1925 and probate was granted to his widow, Helen and spinsters Florence Helen and Eva Alice Jones. Probate records noted that Jones's estate included the property on Crown Portion 6

but does not record any structures on the allotment [PROV, VPRS 28/P3, Unit 1614, File 206/260]. By 1930 Arthur Ernest Jones of Thompsons Road, Cranbourne was registered as the proprietor.

Belmont continued to be run as a dairy property. Ordnance survey maps dated 1924 and 1938 show two buildings, a couple of waterholes and a wind pump in Crown Portion 6 west of the railway line. At least one of these buildings and a waterhole may have been located in the activity area [see Figures 5 & 6]. By 1944 Arthur Jones was said to be giving up dairying and a clearing sale was advertised for the dairy herd and associated farming equipment [*Argus* 1 April 1944]. In 1950 part of the allotment on the east side of the railway line was transferred to a George Thomas Maughan, while the balance including the activity area was transferred in 1953 to Raymond and Ernest Marriott, who were market gardeners living in Moorabbin [Vol. 7998 Folio 098]. By 1963 electoral rolls record Ernest Marriott living at a property on Thompsons Road known as Rangebank, but further research is needed to determine if this property included the activity area [Australian Electoral Rolls, Bruce division, Cranbourne subdivision, 1963, www.ancestry.com.au, accessed online 4 July 2013]. In 1970 Crown Portion 6 was subdivided, and in 1977 Rangemar Nominees Pty Ltd & John Charles Marriott were recorded as the proprietors.

[Figure 5: Victoria, Cranbourne [cartographic material] / prepared by Australian Section, Imperial General Staff. Great Britain. War Office. General Staff. Australian Section Australia 1:63,360 topo series Melbourne : H.J. Green, Govt. Printer] 1924, State Library of Victoria, accessed online 21 August, 2012]



[Figure 6: Victoria, Cranbourne [cartographic material] / prepared by Australian Section, Imperial General Staff, Great Britain. War Office. General Staff. Australian Section, Australia 1:63,360 topo series [Melbourne: H.J. Green, Govt. Printer], 1938, State Library of Victoria, accessed online 10 Feb 2012]

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VPRS 7591, Wills, Master in Equity, Supreme Court

State Library of Victoria

Maps Collection
Images Collection

5. APPENDIX

5.1 Title History Search

Crown Portion 6, Parish of Lyndhurst

Date	Name	Comments	Reference
1844	Samuel Webster	Webster takes up Towbeet run, which had been part of the Ruffy brothers Tomaque run. Webster died in 1847	Gunson 1968: 38
1848	Hugh Glass	Glass acquires Towbeet from Francis Webster and James McConnell	Gunson 1968: 38
14.7.1852	William Toner	Parish of Lyndhurst surveyed in 1852. Activity area part of Crown Portion 6 granted to Toner.	PROV, VPRS 460/P0, Unit 2810, File 27511
April 1853	James Rodgers	Conveyance for part of Portion 6 between Toner by direction of Richard Palmer and James Rodgers. Remainder of Portion 6 conveyed to James Rodgers 31 March 1853.	PROV, VPRS 460/P0, Unit 2810, File 27511
1867-1869	Josiah Allen	Recorded as the tenant of Crown Portion 6, n.a.v £33 in 1867-68, £34 in 1869	Shire of Cranbourne rate book
29.6.1880	Ellen Rodgers	Deed of gift between James Rodgers, Hector Mackenzie Sutherland, and Ellen Rodgers. Ellen Rodgers died 27 Jan 1882.	PROV, VPRS 460/P0, Unit 2810, File 27511
8.8.1882	Thomas Rogers	Conveyance between executors of Ellen's will to Thomas Rodgers.	PROV, VPRS 460/P0, Unit 2810, File 27511
1885	Thomas Rodgers	Recorded as owner and occupant of 156 acres on B6 with a dwelling, n.a.v. £35	Shire of Cranbourne rate book
1887	Thomas Rodgers	Recorded as owner and occupant of 152 acres, n.a.v. £45	Shire of Cranbourne rate book, 1887
1890	Richard Butler George	Recorded as the occupant of 152 acres on B6,	Shire of Cranbourne rate

Date	Name	Comments	Reference
		together with part of B5 and B7	book, 1890
1892	William Butterfield	Recorded as the occupant of 152 acres on B6, together with part of B5 and B7, n.a.v of B6 till £45	Shire of Cranbourne rate book, 1892
1893	Thomas Rodgers	Recorded as the owner and occupant of B6, n.a.v £45, together with other land listed above	Shire of Cranbourne rate book, 1893
1896	John Henry Jones	Recorded as the owner and occupant of B6, n.a.v. £45. Jones died in 1925. Probate granted to wife and children	Shire of Cranbourne rate book, 1896; Vol. 2340 Folio 906
1899	John Henry Jones	Recorded as the owner and occupant of B6, n.a.v. £50.	Vol. 2340 Folio 906
1911	John Henry Jones	Recorded as the owner and occupant of 154 acres & weatherboard building on B6, n.a.v. £57.	Shire of Cranbourne rate book, 1911
1917	John Henry Jones	Recorded as the owner and occupant of 154 acres & building on 6, n.a.v. £65	Shire of Cranbourne rate book, 1917
1926	Helen Jones, Florence Helen Jones & Eva Alice Jones	John Henry Jones died on 1 October 1925.	Vol. 2340 Folio 906
6.2.1930	Florence Helen Jones & Eva Alice Jones	Surviving proprietors	Vol. 2340 Folio 906
8.2.1930	Arthur Ernest Jones	Proprietor by transfer. Six acres of allotment east of railway line transferred to George Thomas Maughan in 1950	Vol. 2340 Folio 906
9.10.1953	Raymond Leslie Marriott & Ernest James Marriott	Balance of Crown Portion 6 transferred to Marriott. Tenants in common in equal shares. In 1970 the allotment was subdivided. An SEC easement was also created in 1970 that passes through the south-west corner of the activity area.	Vol. 2340 Folio 906; Vol. 7998 Folio 098
1977	Rangemar Nominees	Tenants in common of	Vol. 9201 Folio

Date	Name	Comments	Reference
	Pty Ltd & John Charles Marriott	activity area. In 1978 an SEC easement created along part of the eastern boundary of the activity area.	988
20.2.1986	Rangemar Nominees Pty Ltd	Registered as proprietor	Vol. 9201 Folio 988
11.6.1987	Julie Ann Meagher & Brendan John Meagher	Registered as joint proprietors	Vol. 9201 Folio 988

APPENDIX 11 – GLOSSARY

TYPES OF ABORIGINAL CULTURAL HERITAGE PLACES

Artefact Scatter: A surface scatter of stone artefacts is defined as being the occurrence of five (5) or more items of cultural material within an area of about 100m^2 (OAAV 1993). Artefact scatters are often the only physical remains of places where Aborigines have camped, prepared and eaten meals and worked stone material.

Burials: Burial sites may occur in association with campsites, in mounds or shell middens or in specific burial grounds that lack any other cultural material. Softer ground was chosen for burials, and any sandy area can be expected to contain burials. Burial sites can contain one or a number of individuals. Burials sites and cemeteries are a common archaeological site type in the sand country adjoining the Murray River, though are a rare feature in the southern part of Victoria.

Ceremonial Site: An area used as a meeting place where large groups gathered for feasts, ceremonies or settlement of disputes, but they are difficult or impossible to identify from material evidence. In some instances they are mentioned in historical sources, or may be known to Aboriginal people through oral tradition. These sites will be highly significant to Aboriginal communities.

Contact Site: These are sites relating to the period of first contact between Aboriginal and European people. These sites may be associated with conflict between Aborigines and settlers, mission stations or reserves, or historic camping places. The artefact assemblage of contact sites will often include artefacts manufactured from glass.

Grinding Grooves: These sites generally occur on sandstone outcrops and to a lesser extent granite outcrops and result from the sharpening of ground stone hatchets/axe heads. Grinding grooves are often located on prominent hilltops.

Hearth: Usually a sub-surface feature found eroding out of a river or creek bank or in a sand dune – it indicates a place where Aboriginal people cooked food. The remains of a hearth are usually identifiable by the presence of charcoal and sometimes clay balls (like brick fragments) and hearth stones. Remains of burnt bone or shell are sometimes preserved within a hearth.

In Situ: Refers to cultural material that is discovered as being undisturbed and considered to be in its original context. That is, material which, when identified is considered to be in the same location when the site was abandoned.

Isolated Artefact Occurrence: An isolated artefact is defined as being the occurrence of four (4) or less items of cultural material within an area of about 100m (OAAV 1993: 1). It/they can be evidence of an ephemeral (or one off) activity location, the results of an artefact being lost or discarded during travel or evidence of an artefact scatter which is otherwise obscured by poor ground surface visibility.

Midden Sites: 'Midden' is a term borrowed from the Danish. It originally applied to the accumulations of shell and other food remains left by Mesolithic man in that country. Australian Midden sites are an accumulation of hearth and food debris, which has built up a deposit on the ground surface over a length of time. Middens are generally comprised of charcoal and either freshwater or coastal shell species, depending on the site's location. Midden sites may also contain stone artefacts, and the food refuse of other native animals such as small mammals. Their thick deposit of burnt shells and dark grey/black deposit can distinguish midden sites within the landscape. Coastal shell middens are often found in close association

with rock platforms. Freshwater shell middens are found in close proximity to areas that provided freshwater mussels.

Mound Sites: Mound sites are accumulation of hearth (fire place) debris, which has over time built a thick deposit on the ground's surface. Mounds are generally comprised of charcoal; burnt clay balls and burnt food refuse such as native animal bones. Mound sites may also contain stone artefacts. On rare occasions mound sites may also contain human burial remains. Mound sites can be distinguished in the landscape by their characteristic dark grey/black deposit and height above surrounding land. Mounds that have been utilised over long periods can obtain dimensions of over 100m in length and 1m in height. Mound sites are generally situated close to major streams, and large water bodies. In times of flood, mound sites are often become marooned, and provide dry land points from which surrounding resources could have been exploited.

Rock Shelter/Cave: These are sites that are located within a rock shelter/overhang or caves. The archaeological deposits within such sites can vary considerably but are often predominantly lithic. Depending on their location, the archaeological deposit may also include midden deposits of shellfish, fish or terrestrial fauna. Due to the often undisturbed deposits at these sites, they are potentially very valuable sites and are generally considered of high scientific significance. Instances where rock shelter sites also possess art work on the stone walls are considered as rock shelter/art site combined.

Rock Wells: Rock Wells are natural cavities in rock outcrops that hold water. They are characterised by relatively narrow openings that limit evaporation. These water sources were commonly known to Aboriginal people and were kept clean and maintained by them. Since they are natural features, they are difficult to identify as Aboriginal sites. The most reliable indicator is the existence of a strong local oral tradition of Aboriginal use.

Scarred Tree: Scars on trees may be the result of removal of strips of bark by Aborigines for the manufacture of utensils, canoes or for shelter; or resulting from small notches chopped into the bark to provide toe and hand holds for climbers after possums, koalas and/or views of the surrounding area. A scar made by humans as opposed to naturally made by branches falling off, *etc.* is distinguished by the following criteria: symmetry and rounded ends, scar does not extend to the ground, some re-growth has occurred around the edges of the scar, and no holes or knots present in the heartwood.

Stone Arrangements: These sites are specifically patterned rocks located on the ground's surface. It is often difficult to identify these sites within the field and even more difficult to define their function unless Aboriginal oral tradition exists.

ABORIGINAL ARTEFACT TYPES

Anvil: A portable flat stone, usually a river pebble, which has been used as a base for working stone. Anvils that have been used frequently have a small circular depression in the centre where cores were held while being struck. An anvil is often a multifunctional tool used also as a grindstone and hammer stone.

Artefact: Any product made by human hands or caused to be made through human actions.

Axe: A stone artefact that has been ground on one or more sides to produce a sharp edge.

Backed Blade (Geometric Microlith): A blade flake that has been abruptly retouched along one or more margins opposite an acute (sharp) edge. Backed pieces include backed blades and

geometric microliths. Flakes that have been backed along one lateral margin and that come to a point at their distal end; they have a length of less than 80mm and are asymmetrical around the longitudinal axis. They are thought to have been hafted onto wooden handles to produce composite cutting tools or spears. Backed blades are a feature of the 'Australian Small-Tool Tradition' dating from between 5,000 and 1,000 years ago in southern Australia (Mulvaney 1975).

Bipolar: A core or a flake, which, presumably, has been struck on an anvil. That is, the core from which the flake has been struck has been rotated before the flake has been struck off. Bifacial platforms tend to indicate that the flake has come off a heavily worked core.

Blade: A long parallel sided flake from a specially prepared core. Blade flakes are twice as long as they are wide.

Broad Platform: This a term used to describe the shape of the platform on a flake. A broad platform is wider than the body of a flake. Broad platform flakes are produced when flakes are struck off back from the edge of the platform on a core.

Broken Flake: Defined by the part of the flake remaining, i.e. proximal (where the platform is present), medial (where neither the platform nor termination is present), or distal (where the termination is present).

Bulb of Percussion: This is the conchoidal protuberance (percussion rings) formed under the point of impact when a flake is struck off the core.

Burin: A truncated flake (truncated either by snapping or retouch) whose resulting flat end is used as a platform from which to strike a single flake from one of its corners, forming a triangular scar that runs down the margin of the original flake. This forms a chisel-like working edge.

Complete Flake: An artefact exhibiting a ventral surface (where the flake was originally connected to the core), dorsal surface (the surface that used to be part of the exterior of the core, platform, termination and bulb of percussion.

Core: An artefact from which flakes have been detached using a hammer stone. Core types include blade, single platform, multiplatform and bipolar forms. These artefacts exhibit a series of negative flake scars, each of which represents the removal of a flake.

Core Types:

Unidirectional cores – These cores have scars originating from a single platform, and all the flakes struck from the core have been struck in the same direction from that platform.
Bidirectional cores – These cores have two platforms, one opposite the other; flakes have been struck from each of the platforms, and thus from opposite directions.
Bifacial cores – These kinds of core have a single platform, but the flakes struck from it have been detached from two core faces.
Multidirectional cores – These cores have two or more platforms and there is no clear pattern, either in the orientation of the platforms or in the orientation of the scars resulting from the striking of flakes from those platforms.
Bipolar Core – Nodules or cobbles that are flaked using an anvil. The resulting artefacts exhibit crushing on their proximal, distal and often their lateral margins, where they have been rotated.

Cortex: Original or natural (non-flaked) surface of a stone.

Flaked Piece/Waste Flake/Debitage: A piece of stone with definite flake surfaces that cannot be classified as a flake or core. These artefact types are generally refuse materials discarded during the working of stone material.

Focal Platform: This is a term used to describe the shape of the platform on a flake. A focal platform is narrower than the body of the flake. Focal platform flakes are produced when flakes are struck off near the edge of the platform on a core.

Geometric Microlith: Artefacts less than 80mm in maximum dimension which are backed at one or their end, sometimes at both ends, and sometimes on one lateral margin as well, the result being a form that is symmetrical around its transverse axis.

Hammerstone: A cobble or cobble fragment exhibiting pitting and abrasion as a result of percussion.

Implement: A general term for tools, weapons, *etc*. made by people.

Lithic: Anything made of stone.

Microlith: Small (1-3cm long) stone tools with evidence of retouch that includes 'Bondi Points', segments, scrapers, backed blades, triangle and trapezoid.

Mortar: The lower stone associated with grinding plants for food and medicine and/or ochre for painting. These stones are usually large and flat, and when well used show deep grooves from repeated grinding.

Notched tool: Flakes that exhibit a small area of retouch, forming a concave edge, on their lateral or distal margins.

Pestle: The 'upper stone', used to grind plants for food and medicine and/or ochre for painting. A pestle stone often doubles as a hammer stone and/or anvil

Piercer: Artefacts with projections that have been created by retouch and extend up to 15mm beyond the body of the flake.

Primary Flake: The first flakes struck off a core in order to create a platform from which other flakes can then be struck.

Scraper: A flake with one or more margins of continuous retouch used as a tool for scraping.

Secondary Flaking/Retouch: Secondary working of a stone artefact after its manufacture. This was often done to re-sharpen stone tools after use, or in the production of formal tool types such as blade flakes and scrapers.

Thumbnail Scraper: A small flake with a convex scraper edge shaped like a thumbnail and located opposite the flake's platform.

GEOMORPHOLOGICAL TERMS

Aeolian Sediments: Wind-borne, wind-blown or wind-deposited material, usually sand, but also silt and clay.

Alluvium: Sedimentary unconsolidated deposits lain down through the action of running water. Usually found in or near rivers and floodplains. It is usually applied to coarser sediments such as sands and gravels, but sometimes to finer particles such as silt and clay.

Basalt: Fine-grained, hard, but easily weathered dark-grey igneous rock formed by the cooling of lava.

Bedrock: Solid rock at the surface or rock at depth that has been undisturbed by weathering.

Calcareous: A sediment containing calcium carbonate in concentrations of up to 50%.

Coffee Rock: A term used to describe a hardened iron- and organic-rich cemented deposit that when wet, resembles coffee grains. It is usually found in sandy soils that have a source of iron and organic matter.

Colluvium: An unconsolidated mixture of weathered material (gravel, sand, silt and clay) transported downslope by the force of gravity.

Dune: A mound or ridge of wind-blown granular material (usually sand) that is partially, fully or bare of vegetation, and capable of being moved from one location to another while still retaining its characteristic shape.

Ferruginous: Rocks or soils containing a large percentage of iron.

Ferruginisation: The process by which iron minerals move in the sediment and/or regolith, staining and cementing the substrate to form a hard, iron-rich layer.

Fluvial: Referring to rivers and their processes. E.g. stream erosion and deposition.

Gilgai: An undulating surface of mounds and depressions resulting from the uneven shrinking and swelling of the soil. Usually present on basalt soils, but also on alluvial soils.

Granite: A coarse-grained intrusive igneous rock, usually comprised of quartz, feldspar and micas.

Groundwater: Water that lies within the saturated zone of rock and soil. It moves between pore spaces, cavities and fractures in the sediment and rock under the influence of gravity. Groundwater can transport trace minerals and elements dissolved in the water.

Igneous: Rocks that have formed through the crystallisation of magma.

Intrusion: The act of an intrusive igneous rock rising up through the Earth's crust and breaking through the lower levels of the bedrock.

Iron Staining: Where a crust of iron oxide enriched clay coating precipitates on the surfaces of individual sediment grains, giving an orange-red-yellow stain to the sediment or soil as a whole.

Last Glacial Maximum: A period of cold, dry conditions on Earth when the ice caps on the polar regions were at their largest extent. This period lasted between approximately 18-24 ka BP.

Lava: Molten material extruded from a volcano or fissure in the Earth's surface.

Metamorphism: The process by which rocks are transformed by recrystallisation due to increased heat and/or pressure in the Earth's crust. Metamorphism can be either on a regional scale or on a contact scale.

Pisolith: Hard, iron-cemented spherical particles of sediment (usually sand). These range in size from 3mm to 6mm.

Regolith: An incoherent mantle of varying thickness that lies above fresh rock. This is usually the decomposed, weathered and broken up derivative of the fresh bedrock. The soil profile lies above this layer.

Sand Sheet: A thin, continuous deposit of sand with no large topographic features on the surface.

Scoria: Pyroclastic volcanic rock containing numerous gas pockets and spaces. Colour ranges from red-brown to black.

Siliceous: Rocks and sediments that contain an abundance of silica.

Stony Rise: Irregular, hummocky and stony ground formed on younger lava flows. Caused by uneven cooling and slumping of basalt flows.

Swale: A linear depression that runs between two ridges. This is usually applied to dune environments where the swale is located between two dune ridges and is occupied by a swampy environment.

Terrace: A gently sloping or flat step-like structure usually associated with a fluvial environment and bounded by steeper slopes on the outer margins. Streams commonly flow along terraces. Terraces can be paired or unpaired according to the depositional environment.

Uplift: Upward surface movement attributed to faulting or movement of the continental plates.

Weathering: The process by which fresh rock degrades/breaks down at or near the surface. This process modifies rock chemically, organically, and/or physically, whereby a mantle of waste known as regolith will remain *in situ* until it is eroded away.

OTHER TERMS

Archaeological Site: A place/location of either Aboriginal or non-Aboriginal origin. Aboriginal archaeological sites have been formed prior to the European settlement of Australia, and may be in any of the forms outlined in section 1.

Artefact Horizon: A discernible horizontal distribution of artefacts within an environmental deposit. An artefact horizon has generally suffered a degree of post depositional disturbance that has affected the spatial and temporal integrity of the deposits and associated artefact assemblage.

BP: Before present. The 'Present' is defined as 1950.

Continuous Monitoring: Continuously on site during clear, cut, grade and level to record sites.

Cultural Heritage: Something that is inherited or passed down because it is appreciated and cherished. Categories of cultural heritage include; built structures and their surrounds, gardens, trees; cultural landscapes; sites; areas; precincts; cemeteries; ruins and archaeological sites; shipwrecks; sites of important events; commemorative sites; contents of buildings and significant relics, objects artefacts and collections of objects.

Cultural Landscape Integrity: The level of which the local landscape reflects the environment in which pre-contact Aboriginal people or early European settlers lived. The integrity includes all relevant aspects such as level and type of vegetation cover, hydrology, landforms and structures. A site located in a landscape of high cultural integrity has greater heritage value as it remains in context, and is therefore able to impart a greater level of information to the broader community.

Environmental Deposit: A stratigraphic layer formed by the laying down of deposits by environmental agents such as wind and water. These may bury human artefacts to form stratigraphic layers but do not form occupation deposits.

Ethnography: The scientific description of living cultures.

Heritage Place/Site: An area or region of land that represents a particular focus of past human activity or concentration of *in situ* cultural material. A place includes any structures, buildings or works upon or integral with the land, and any artefacts or other physical relic associated with the land, or it may have no visible evidence of human activity, being rather the site of a past event of importance or the embodiment of a particular belief or legend. Examples might range from an Aboriginal ceremonial ground, a pioneers house and contents, a shop, the remains of an early whaling station or a recent fish farm, Captain Cook's landing place, a 40,000 year old Aboriginal campsite or a 1990s brick-veneer house, a shipwreck, an industrial or mining landscape, a bus stop, a Macassan trepanger campsite or the Surfer's Paradise Caravan Park, a garbage dump, the local war memorial, a garden, an Aboriginal rock painting or a band rotunda.

Historic Archaeological Site: These are places where non-Aboriginal activities have occurred, and which little extant (standing) features remain. The bulk of evidence for historic occupation/utilisation is comprised of remains (artefacts/foundations etc) that are located on the ground's surface or in a sub-surface context. The primary heritage value of an archaeological site is scientific.

Historic Site: Sites/Areas that contain extant (standing) remains of pre-1950 non-Aboriginal occupation. Historic sites may or may not also contain archaeological remains (Aboriginal and/or historic).

Holocene, Recent or Postglacial Period: The time from the end of the Pleistocene Ice Age (c. 10,300 BP) to the present day.

Horizon: A term used to describe a layer of archaeological material that is *in situ*.

Integrity: The completeness of the place or site. Sites/places of high integrity will adequately demonstrate the significance of a place/site. Integrity is reduced by the disturbance of fabric/deposits or the introduction of unrelated materials/sediments.

0%	No Integrity
0-10%	Very Poor
11-30%	Poor
31-50%	Fair
51-75%	Good
76-95%	Very Good
96-100%	Excellent

Mechanical Salvage: Controlled mechanical removal of ground surface by excavator and trimming bucket in 5 to 10cm layers to record sites using at a minimum a handheld GPS.

Obtrusiveness: refers to how conspicuous a site is within a particular landscape, and thus the possibility of positive identification within a field environment. Some site types are more conspicuous than others are. Thus a surface stone artefact scatter is generally not obtrusive, especially in areas of low ground surface visibility, while a scarred tree is (Bird 1992).

Occupation Deposit: The laying down of deposits (artefacts and/or sediments) by human activities that bury artefacts to form distinct stratigraphic entities such as layers (e.g. dense lens of stone artefacts & bone between environmental deposits, stratified shell deposits) or features (hearths, occupation mounds). Occupation deposits have a high degree of spatial and temporal integrity.

Occupation Surface: A distinct layer or interface between depositional strata upon which human activities were carried out and artefacts/features deposited. Most commonly this may be a prior land surface (e.g. soil horizon) that has been subsequently buried by later environmental deposits (e.g. dune deposits).

Ordovician: The geological time period dating from 439-510 million years ago.

Pleistocene: The geological period corresponding with the last or Great Ice Age. The onset of the Pleistocene is marked by an increasingly cold climate, by the appearance of *Calambrian mollusca* and *Villafranchian* fauna with elephant, ox, and horse species, and by changes in foraminifera. The oldest form of man had evolved by the Early Pleistocene, and in archaeological terms the cultures classed as Palaeolithic all fall within this period. The date for the start of the Pleistocene is not well established, and estimates vary from 3.5 to 1.3 million years ago. The period ends with the final but gradual retreat of the ice sheets, which reached their present conditions around 10,300 BP.

Post-Contact Aboriginal Site: Also referred to as Historic Aboriginal Site. These area sites/places/localities that indicate contact has been made with European culture during the period of initial European settlement (glass in tool assemblage, massacre sites), or where activities culturally significant to Aboriginal people has occurred (camping, employment, travelling routes).

Potential: Based on collated existing data and site inspection an area or specific site may contain the potential for extant or archaeological deposits. Background research will present the most likely site types, contents and state of preservation. Relative levels of potential are described as Low (10-30% probability), Moderate (40-60% probability) and High (70% and above probability).

Raw Material: Organic or inorganic matter that has not been processed by people.

Retain Site: Site is to be retained in open space with strict management controls on the future use of the land to prevent damage to subsurface archaeological deposits. For sites rated moderate to high some of the less significant portions of the site may be destroyed in conjunction with continuous monitoring, mechanical salvage and salvage excavation.

Salvage Excavation: Salvage excavation involves controlled hand excavation to recover a representative sample of sites.

Silurian: A geological time period from 408 to 439 million years ago.

Site Inspection: Weekly or fortnightly site visits during clear, cut, grade and level.

Slope Wash: A term used to describe a specific process of re-deposition of cultural material. Cultural material (most often stone artefacts) that is situated on any sloping land is vulnerable to the effects of slope wash. The term relates to the downward movement of cultural material primarily due to erosion of their original context. This downward movement is most often caused by clearing of vegetation that exposes the ground surface to the effects of water erosion. The result is that cultural material will move down the slope over a period of time. How far material may move is dependent on the gradient and the intensity of the erosion.

Stratigraphy: Layering

Use Wear: Tiny flakes or chips that have been broken off the edges of a stone artefact during use.

Visibility: Refers to the degree to which the surface of the ground can be observed. This may be influenced by natural processes such as wind erosion or the character of the native vegetation, and by land use practices, such as ploughing or grading. It is generally expressed in terms of the percentage of the ground's surface visible for an observer on foot (Bird 1992). For example 10% visibility equates to 10cm^2 per 1m^2 of ground surface that is not covered by vegetation or soil deposit. The following applies to descriptions of ground surface visibility within this report.

0%	No visible ground surface
0-10%	Very Poor
11-30%	Poor
31-50%	Fair
51-70%	Good
71-90%	Very Good
91-100%	Excellent

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APPENDIX 12 – WTLCCHC CULTURAL SIGNIFICANCE STATEMENT

The process for establishing cultural heritage significance is outlined in the Australia ICOMOS Charter for the Conservation of Places of Cultural Significance, otherwise known as 'The Burra Charter' (Marquis-Kyle and Walker, 1992 - Marquis-Kyle, P., and Walker, M. (1992) The Illustrated Burra Charter. Australia ICOMOS. Sydney). The Burra Charter is based on preceding international charters formulated by ICOMOS (the International Council on Monuments and Sites).

The recently revised Burra Charter defines cultural heritage significance as the aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Social value embraces the qualities for which a Place has become a focus of spiritual, political, national or other cultural sentiment to a majority or minority group (Guidelines to the Burra Charter: Cultural Significance, pg 11). This cultural sentiment therefore comes from the Aboriginal peoples themselves in relation to the Aboriginal Place(s) that is being assessed. These principles are also reflected in the Victorian *Aboriginal Heritage Act* 2006, which states (Section 4) that the definition of cultural heritage significance includes archaeological, anthropological, contemporary, historical, scientific, social or spiritual significance and significance in accordance with Aboriginal tradition.

Therefore in addition to the archaeological (scientific) significance of a Place, a CHMP must incorporate the aesthetic, historic, social and/or spiritual value of that Place in order to arrive at an overall statement of significance. When considering the overall Aboriginal cultural heritage significance of Aboriginal Places in Victoria a more holistic approach, which includes all of the above categories, would be more appropriate to determine cultural heritage significance. As stated in the Guidelines to the Burra Charter regarding Cultural Significance (pg 13): 'Whatever may be considered the principal significance of a place, all other aspects of significance should be given consideration.' Intangible values have rarely been incorporated in to the significance assessment of Aboriginal Places in Victoria; however this is common practice in other parts of Australia. These intangible values should be incorporated as part of the cultural significance of an Aboriginal Place to Aboriginal peoples.

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 on a case-by-case basis with the Aboriginal community. As there has not been the opportunity to record the specific Aboriginal cultural values of the Activity Area for this CHMP, the statement below is a general statement of cultural significance that the Wurundjeri Council has provided for their RAP area, which includes the greater Melbourne region.

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 the landscape of the Activity Area. In this instance, the natural values, including waterways and remnant vegetation, are all integral to the cultural landscape in which Wurundjeri society developed over many thousands of years. These landscape characteristics are therefore significant 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. The act of handling stone artefacts through the archaeological excavation and sieving process by Aboriginal peoples reconnects those peoples with their past and therefore creates a new cultural significance with those artefacts.

For the Wurundjeri community the natural world is a cultural world; therefore the Wurundjeri people have a special interest in preserving not just their cultural objects, but the natural landscapes of cultural importance. The acknowledgement of broader attributes of the landscape as cultural values that require protection (encompassing, among other things, a variety of landforms, ecological niches and habitats as well as reviving cultural practices) is essential to the identity and wellbeing of the Wurundjeri people. 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 in the Activity Area.

APPENDIX 13 – CREATION OF EASEMENT PLAN

PLAN OF CREATION OF EASEMENT

LV USE ONLY
EDITION

LOCATION OF LAND

PARISH: LYNDHURST
TOWNSHIP:
SECTION:
CROWN ALLOTMENT: 9A (PART)
CROWN PORTION: 6 (PART)
TITLE REFERENCES: VOL.09201 FOL.988
LAST PLAN REFERENCES: LOT 4 ON PS546430D
POSTAL ADDRESS: (At time of subdivision) 280 EVANS ROAD CRANBOURNE WEST, 3977
MGA Co-ordinates (of approx centre of land in plan) E 347330 N 5783440 ZONE: 55

CERTIFYING AUTHORITY REFERENCE City of Casey

NOTATIONS

Purpose of the Plan.
Creation of Easement E-1
Removal of S.E.C.V. Easement created by Instrument G987761 Shown as E-4 on PS546430D
Removal of S.E.C.V. Easement created by Instrument D866578 shown as E-3 on PS546430D
Grounds for Easement Removal and Creation.
Planning Permit No. .....

NOTATIONS

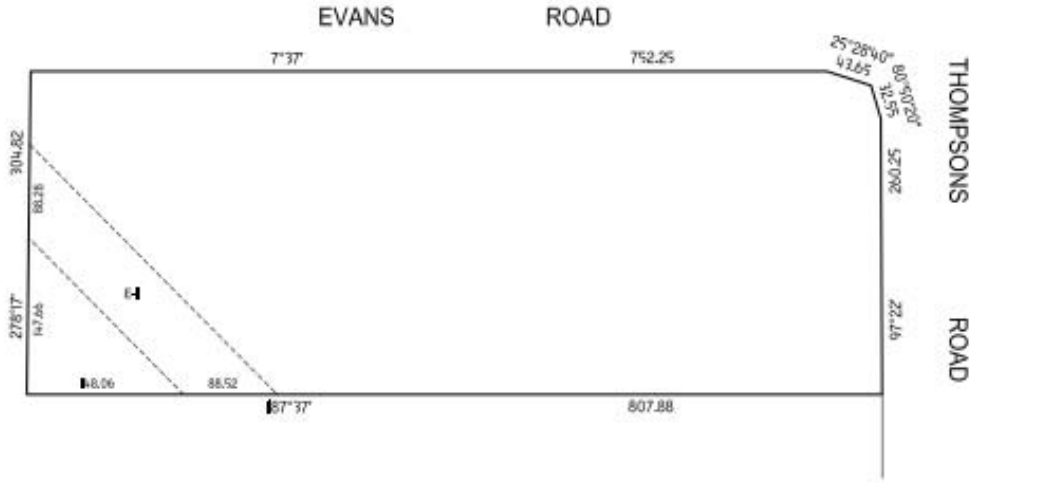
DEPTH LIMITATION DOES NOT APPLY.

SURVEY. THIS PLAN IS NOT BASED ON SURVEY

EASEMENT INFORMATION

LEGEND A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

Easement Reference	Purpose	Width (Metres)	Origin	Land Benefited/In Favour Of
E-1	POWER LINE	SEE PLAN	THIS PLAN (SEC 88 ELECTRICITY INDUSTRY ACT 2000)	SP POWERNET PTY. LTD.



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LAND DEVELOPMENT INTELLIGENCE

LENGTHS ARE IN METRES

LICENSED SURVEYOR JAMES CHARLES CANNING
DIGITALLY SIGNED

REF 5959.03 VERSION 2

ORIGINAL SCALE 1:1000 | ORIGINAL SHEET SIZE A3 | SHEET 1 OF 1 SHEETS