

# Residential Subdivision: 50 Redstone Hill Road, Sunbury

CHMP No. 15699

6 April 20



Heritage Advisor: Karen Kapteinis

Author: Karen Kapteinis

Sponsor: 50 Redstone Hill Road Pty Ltd

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Cover Photograph: The activity area (facing south west).

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# Wurundjeri Woi-wurrung

Cultural Heritage  
Aboriginal Corporation

17<sup>th</sup> April 2020

File No. WT0931 CHMP No. 15699

Luke May  
50 Redstone Hill Rd Pty Ltd  
Level 1, 6 Riverside Quay  
Southbank, VIC 3006

Dear Luke May,

## **Cultural Heritage Management Plan 15699 – Residential Subdivision: 50 Redstone Hill Road, Sunbury**

I refer to your application to the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation dated 13<sup>th</sup> February 2020 seeking approval of the Cultural Heritage Management Plan 15699 entitled *Residential Subdivision: 50 Redstone Hill Road, Sunbury* (6<sup>th</sup> April 2020).

With reference to s.53(1) and s.61(a)-(e), and in accordance with s.63(1) of the *Aboriginal Heritage Act 2006* (the Act), the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation have considered and have approved this plan.

If you require any additional information about this advice, please contact me on the number below.

Yours sincerely,

Alex Parmington  
CEO, Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation

Cc. Karen Kapteinis, Ochre Imprints





## **RESIDENTIAL SUBDIVISION: 50 REDSTONE HILL ROAD, SUNBURY**

**Cultural Heritage Management Plan Number:** 15699

**Sponsor:** 50 Redstone Hill Road Pty Ltd (ABN 82 623 447 478)

**Heritage Advisor:** Karen Kapteinis

**Author:** Karen Kapteinis

**Issue Date:** 06/04/2020

**Assessment:** Desktop, Standard and Complex Assessments (in accordance with r. 74 of the Aboriginal Heritage Regulations 2018)

**Size of Activity Area:** Medium (in accordance with r. 81 of the Aboriginal Heritage Regulations 2018)

**Registered Aboriginal Places:** VAHR 7822-4422

**Copies Issued To:** Aboriginal Victoria

50 Redstone Hill Road Pty Ltd

Villawood Properties Pty Ltd

Mesh Planning

Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation

**Quality Control:** Petra Schell



## EXECUTIVE SUMMARY

### ***Compliance requirements are set out in Part 1 of the Cultural Heritage Management Plan***

#### **Background**

This Cultural Heritage Management Plan (CHMP) has been prepared in advance of the proposed residential subdivision at 50 Redstone Hill Road, Sunbury. The CHMP was commissioned by Villawood Properties on behalf of the Sponsor. The Sponsor for the CHMP is 50 Redstone Hill Road Pty Ltd.

This CHMP was a mandatory requirement of the *Aboriginal Heritage Act 2006*. Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCHAC) is the Registered Aboriginal Party (RAP) for the region and elected to evaluate the CHMP. No Activity Advisory Group (AAG) was appointed by the Secretary in relation to the CHMP.

#### **Activity Area Location and Description**

The activity area comprises an approximately 8.1 ha property at 50 Redstone Hill Road, Sunbury. The activity area consists of a sloping volcanic plain, with a north west aspect on the mid and lower slopes of Redstone Hill, a lava hill / eruption point. The land is characterised by cleared and lightly grassed land that has been utilised for agricultural purposes (grazing & cropping) and for a residence.

#### **Assessment Type & Results**

The Desktop Assessment established that no registered Aboriginal places occur in the activity area. It found that the activity area had not been subject to previous archaeological assessment. Previous assessments in the geographic region emphasised the cultural heritage sensitivity of the Jacksons Creek corridor, with Aboriginal places decreasing in density with distance from Jacksons Creek. Diffuse occurrences of stone artefacts had been registered in similar contexts to the activity area, that is on adjacent mid and lower slopes of Redstone Hill.

The Standard Assessment assessed the entire activity area. Two landforms characterised the activity area comprising the lower and mid slopes of Redstone Hill. Ground surface visibility was moderate, ranging from 30% to 90%, and 46% of the activity area was effectively surveyed. Evidence of disturbance due to house and driveway construction, ploughing on the lower slope, and field stone removal was visible. Seven stone artefacts were identified on the lower and mid slope landforms on erosion scars, stock tracks, and in areas subject to past ploughing. Both the lower and mid slope landforms were identified as having archaeological potential.

The Complex Assessment involved the excavation of three 1m x 1m excavation pits (EPs), nine mechanical excavation pits (MEPs), and eight shovel test pits (STPs) throughout the activity area. The soil profile comprised a thin horizon of red brown and brown silty clay over brown and red brown sterile clay to depths ranging from 40 mm to 100 mm, with an average of 60 mm. Two subsurface stone artefacts were identified in one MEP (MEP 1) during the Complex Assessment. No further cultural material was identified in radial extents around MEP 1.

#### **Aboriginal Cultural Heritage in the Activity Area**

The cultural heritage identified during the preparation of the CHMP was registered as one place: VAHR 7822-4422, an LDAD in surface and subsurface contexts occurring on the lower and mid slopes of Redstone Hill.

## Contents

<b>PART 1 – CULTURAL HERITAGE MANAGEMENT CONDITIONS</b>	<b>1</b>
<b>1. CULTURAL HERITAGE MANAGEMENT</b>	<b>1</b>
1.1 Introduction	1
1.2. Specific Cultural Heritage Conditions	1
1.2.1. Condition 1: Status and Distribution of CHMP	1
1.2.2. Condition 2: Access to Approved CHMP	1
1.2.3. Condition 3: Surface Salvage of VAHR 7822-4422	1
1.2.4. Condition 4: Cultural Heritage Induction	4
1.2.5. Condition 5: RAP Inspections	4
1.2.6. Condition 6: Custody and Management of Aboriginal Cultural Heritage	5
1.3. Contingency Plans and Other Matters	6
1.3.1. Contingency 1: Discovery of Unexpected Aboriginal Cultural Heritage During Construction	6
1.3.2. Contingency 2: Unexpected Discovery of Human Remains	8
1.3.3. Contingency 3: Future Changes to the Activity	9
1.3.4. Contingency 4: Communication Between Parties	10
1.3.5. Contingency 5: Dispute Resolution	10
1.3.6. Contingency 6: Compliance Review	12
1.3.7. Contingency 7: Use of Lots	14
1.3.8. Compliance Checklist	15
<b>PART 2 – ASSESSMENT</b>	<b>21</b>
<b>2. INTRODUCTION</b>	<b>21</b>
2.1. Background	21
2.2. Legislative Context	22
2.2.1. Aboriginal Heritage Act 2006	22
2.2.2. Other Relevant Legislation	25
2.2.3. Why Was A CHMP Undertaken For The Activity?	26
2.3. Location And Extent Of Activity Area	27
2.4. Description of Proposed Activity	30
2.5. Registered Aboriginal Party (RAP)	33
2.5.1. Communication with the RAP	33
2.5.2. Summary of Meetings	37
2.5.3. Participation in Standard and Complex Assessments	40
2.5.4. Views of the RAP	40
<b>3. DESKTOP ASSESSMENT</b>	<b>41</b>
3.1. Introduction	41
3.2. Environmental Context	41
3.2.1. Geographic Region	41

3.2.2.	<i>Landforms and Underlying Geology</i> .....	43
3.2.3.	<i>Climate</i> .....	44
3.2.4.	<i>Flora and Fauna</i> .....	46
3.3.	Post-Contact Land Use History .....	47
3.3.1.	<i>Introduction</i> .....	47
3.3.2.	<i>Historical Overview</i> .....	47
3.3.3.	<i>Activity Area Land Use History</i> .....	49
3.4.	Ethnohistory .....	54
3.4.1.	<i>Introduction</i> .....	54
3.4.2.	<i>Pre-Contact History</i> .....	54
3.4.3.	<i>Post-contact History</i> .....	61
3.5.	Search Of The Victorian Aboriginal Heritage Register.....	64
3.6.	Previous Archaeological Investigations .....	70
3.6.1.	<i>Introduction</i> .....	70
3.6.2.	<i>Regional Archaeological Studies</i> .....	71
3.6.3.	<i>Local Archaeological Assessments</i> .....	72
3.6.4.	<i>Summary &amp; Discussion</i> .....	82
3.7.	Implications.....	83
<b>4.</b>	<b>STANDARD ASSESSMENT</b> .....	<b>85</b>
4.1.	Introduction .....	85
4.2.	Aims Of The Standard Assessment .....	85
4.3.	Method And Coverage .....	85
4.3.1.	<i>Field Method</i> .....	85
4.3.2.	<i>Survey Coverage</i> .....	86
4.4.	Assessment Results .....	88
4.4.1.	<i>General</i> .....	88
4.4.2.	<i>Newly Identified Aboriginal Cultural Heritage</i> .....	90
4.4.3.	<i>Landforms &amp; Archaeological Sensitivity</i> .....	92
4.5.	Implications and Discussion.....	93
<b>5.</b>	<b>COMPLEX ASSESSMENT</b> .....	<b>95</b>
5.1.	Introduction .....	95
5.2.	Aims Of The Complex Assessment.....	95
5.3.	Method And Coverage .....	96
5.4.	Assessment Results .....	101
5.4.1.	<i>Stratigraphy of Landforms</i> .....	101
5.4.2.	<i>Aboriginal Cultural Heritage in the Activity Area</i> .....	102
5.5.	Conclusion .....	104
<b>6.</b>	<b>ABORIGINAL CULTURAL HERITAGE</b> .....	<b>107</b>

6.1.	Introduction .....	107
6.2.	Aboriginal Cultural Heritage .....	107
6.2.1	<i>Description of Aboriginal Places</i> .....	107
6.2.2.	<i>Stone Artefact Analysis</i> .....	112
6.3.	Information Provided By RAPs Or Other Persons .....	115
6.4.	Significance of Aboriginal Places .....	116
6.5.	Archaeological Sensitivity Of The Activity Area .....	117
6.6.	Areas Likely to Contain Aboriginal Cultural Heritage .....	118
6.7.	Conclusion .....	118
<b>7.</b>	<b>CONSIDERATION OF SECTION 61 MATTERS</b> .....	<b>119</b>
	<b>REFERENCES</b> .....	<b>125</b>
	<b>APPENDIX 1: COPY OF ‘NOTICE OF INTENT TO PREPARE A CHMP’ AND RESPONSE FROM WWCHAC</b> .....	<b>133</b>
	<b>APPENDIX 2: GLOSSARY</b> .....	<b>141</b>
	<b>APPENDIX 3: ABORIGINAL PLACE GAZETTEER</b> .....	<b>145</b>
	<b>APPENDIX 4: DETAILED DESCRIPTIONS OF EPs, MEPs &amp; STPs</b> .....	<b>147</b>
	<b>APPENDIX 5: STONE ARTEFACT CATALOGUE</b> .....	<b>155</b>
	<b>APPENDIX 6: CITY OF HUME PLANNING SCHEME – UGZ9</b> .....	<b>159</b>

## TABLES

Table 1:	Cadastral information for the activity area. ....	27
Table 2:	Communication with Aboriginal stakeholders. ....	33
Table 3:	Aboriginal places recorded within geographic region. ....	65
Table 4:	Summary of pre-2006 and non-CHMP Aboriginal archaeological assessments.....	80
Table 5:	Surface visibility and survey coverage .....	86
Table 6:	Surface artefact density by landform .....	92
Table 7:	Results of EP 1. ....	99
Table 8:	Results of EP 2. ....	100
Table 9:	Excavated area and volume by landform. ....	102
Table 10:	Description of VAHR 7822-4422.....	109
Table 11:	The primary form of artefacts identified in the VAHR 7822-4422 assemblage .....	114
Table 12:	Scientific significance of Aboriginal places in the activity area .....	117

## FIGURES

Figure 1:	Surface artefact associated with VAHR 7822-4422 subject to Condition 3.....	3
Figure 2:	Location of the activity area .....	28
Figure 3:	Existing conditions within the activity area. ....	29
Figure 4:	Development plan for the activity area. ....	32
Figure 5:	Geographic region showing geology and VAHR places.....	42
Figure 6:	1866 County Bourke survey plan showing Batey’s pre-emptive right and indicative location of the activity area in yellow. ....	50

Figure 7: 1915 topographic map showing indicative location of the activity area in yellow (Source: Trove) .....	51
Figure 8: 1919 valuers sketch of Redstone Hill property, showing indicative location of the activity area in yellow (VPRS 5714/P000/1440, file 4846/866).....	52
Figure 9: 1975 historical aerial showing location of activity area .....	53
Figure 10: Results of the field survey.....	87
Figure 11: Location of subsurface testing. ....	98
Figure 12: Location of VAHR place within the activity area. ....	108
Figure 13: Maximum dimension values of artefacts in the VAHR 7822-4422 assemblage.....	115
Figure 14: Location of VAHR 7822-4422 within the activity area in relation to the activity. ....	121

## PLATES

Plate 1: Aboriginal people fishing and camping on Merri Creek with Plenty Ranges in the distance. Tinted lithograph by Charles Troedel (1864) .....	58
Plate 2: View of lower slope landform (facing east). ....	88
Plate 3: View of mid slope landform of Redstone Hill (facing south east). ....	89
Plate 4: Location of dwelling surrounded by exotic and non-indigenous native trees (facing west).....	89
Plate 5: Exposure of red brown silty clay along north western fence line (facing south west). ....	89
Plate 6: Area of high visibility due to past ploughing (facing west). ....	90
Plate 7: Area of stockpiled field stone in south west corner of activity area (facing north).....	90
Plate 8: Location of surface stone artefact on an erosional scar on mid slope landform (facing north west).....	91
Plate 9: Silcrete complete flake identified on lower slope landform. ....	91



## **ABBREVIATIONS / ACRONYMS**

AAG – Activity Advisory Group

AHO – Aboriginal Heritage Officer

ASTT – Australian Small Tool Tradition

AV – Aboriginal Victoria

BP – Before Present (i.e. 1950)

CHMP - Cultural Heritage Management Plan

CHP – Cultural Heritage Permit

DPC – Department of Premier and Cabinet

EES – Environment Effects Statement

HA – Heritage Advisor

LDAD – Low Density Artefact Distribution

m asl – metres above sea level

NOI – Notice of Intent to Prepare a CHMP

OHS – Occupational Health & Safety

OI – Ochre Imprints

RAP – Registered Aboriginal Party

VAHR – Victorian Aboriginal Heritage Register

WWCHAC – Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation

## **PART 1 – CULTURAL HERITAGE MANAGEMENT CONDITIONS**

**These conditions and contingencies become compliance requirements once this Cultural Heritage Management Plan is approved. Failure to comply with a condition or contingency is an offence under section 67A of the *Aboriginal Heritage Act 2006*.**

**The Cultural Heritage Management Plan must be readily accessible to the Sponsor and their employees and contractors when carrying out the activity.**

### **1. CULTURAL HERITAGE MANAGEMENT**

#### **1.1 INTRODUCTION**

This Cultural Heritage Management Plan (CHMP) has been prepared in advance of ground disturbing works associated with residential subdivision at 50 Redstone Hill Road, Sunbury. The CHMP identified the presence of Aboriginal cultural heritage in the activity area. This section presents general conditions and contingencies that apply prior to, during and after the proposed activity. A total of six conditions and seven contingencies are presented here.

#### **1.2. SPECIFIC CULTURAL HERITAGE CONDITIONS**

##### **1.2.1. Condition 1: Status and Distribution of CHMP**

This approved CHMP is a legally binding document. Prior to the commencement of the activity, copies of the approved CHMP must be distributed to the following parties:

- Secretary, Department of Premier and Cabinet (DPC) (s.64(1)(b)) [by the Heritage Advisor (HA)];
- Registered Aboriginal Party (RAP) [by the HA];
- All owners/managers of land encompassed by the activity area [by the Sponsor].

The Sponsor may provide copies of the approved CHMP to the relevant planning authority and new land owners/managers as required.

##### **1.2.2. Condition 2: Access to Approved CHMP**

A hard copy of the CHMP must be kept on site during the conduct of the activity.

##### **1.2.3. Condition 3: Surface Salvage of VAHR 7822-4422**

This CHMP allows harm to VAHR 7822-4422 subject to the following surface salvage program.

1. Prior to the commencement of the activity, a qualified archaeologist and two RAP representatives must undertake an archaeological surface salvage program. This

salvage program will comprise a surface artefact collection of visible artefacts associated with VAHR 7822-4422. The location of the known surface artefacts that require salvage are shown in Figure 1.

2. The program must utilise the following methodology:
  - a. The location of each surface artefact must be re-visited using a dGPS and, if the artefacts can be re-identified, they must be collected;
  - b. If the artefact cannot be re-identified at the recorded location, a search must be made within a 10 m radius of that location, in case it has been displaced by vehicle movement which occurred since its identification;
  - c. If the artefact cannot be re-identified within a 10 m radius, then the artefact is considered displaced due to agricultural land use, and no further investigation is deemed necessary;
  - d. The salvaged surface artefacts must be bagged at a maximum of a single artefact per bag for each location;
  - e. The HA must establish the relationship of the salvaged stone artefacts with the artefact that the surface salvage has sought to target; and,
  - f. In the event that newly identified artefacts are located during the salvage program, the HA must notify Aboriginal Victoria (AV) about the Aboriginal cultural material by the submission of the appropriate Victorian Heritage Registry Forms.
3. The RAP must be notified via email of the completion of the surface salvage program.
4. A brief report outlining the results of the salvage program, including details of the collected Aboriginal cultural material must be completed. This can be prepared after the activity has commenced.
5. A copy of the salvage report is to be submitted by the HA to AV and the RAP. The salvage report should be finalised within 6 months of completion of the salvage program at VAHR 7822-4422.
6. The salvaged artefacts must be managed as outlined in Condition 6.
7. The HA must notify AV in relation to the location of any salvaged cultural material following completion of the salvage program and artefact cataloguing.



Figure 1: Surface artefact associated with VAHR 7822-4422 subject to Condition 3.

#### **1.2.4. Condition 4: Cultural Heritage Induction**

Prior to the commencement of the activity, a cultural heritage induction must be undertaken by all project workers undertaking ground disturbing works. This induction will be conducted by a representative of the RAP and a HA prior to any ground disturbing works within the activity area. The HA will ensure the relevant CHMP information is presented and will provide an induction booklet that summarises the key CHMP requirements.

The session must include:

- a brief history of the Aboriginal occupation of the activity area and broader region;
- a summary of the archaeological investigations conducted within the activity area;
- specific details of all Aboriginal places located during the CHMP assessment;
- a summary of the conditions and contingencies contained within the CHMP; and,
- the obligations of site workers/contractors and Sponsors under the Victorian *Aboriginal Heritage Act 2006*.

An important focus of the cultural heritage induction is to show project workers examples of Aboriginal cultural heritage that may occur in the activity area, and explain the contingency procedures required by the CHMP should as yet unidentified Aboriginal cultural heritage be found during the conduct of the activity.

This induction must be organised and paid for by the Sponsor. The HA can facilitate this booking, but the RAP must be given a minimum of 14 working days' notice.

#### **1.2.5. Condition 5: RAP Inspections**

Compliance inspections must be undertaken by the RAP during the conduct of the activity. A HA may also attend at the Sponsor's request. These compliance checks will be initiated by the Sponsor (or their contractor), at the cost to the Sponsor (or their relevant contractor). The RAP requires a minimum of three compliance inspections to occur at the following intervals:

- Prior to the activity commencing;
- During the activity, preferably when the maximum amount of soil has been exposed; and,
- Following completion of the activity.

The RAP must be given a minimum of 14 working days' notice. The RAP contact details are provided in Contingency 4.

**1.2.6. Condition 6: Custody and Management of Aboriginal Cultural Heritage**

It is the responsibility of the HA to ensure that Aboriginal cultural heritage recovered from the activity area is fully documented, bagged and labelled. AV will be advised of this through the completion and submission of relevant VAHR forms to the Heritage Registrar, AV, by the HA. Scientific analysis will be completed by the HA. Once scientific analysis of any cultural heritage is completed, it will be returned to the RAP. The RAP will be the caretaker of this material and has chosen to rebury it within the activity area.

Reburial of the Aboriginal cultural heritage will occur at the conclusion of the activity, and:

- Will be facilitated by the Sponsor where required;
- Where deemed appropriate by the RAP, the RAP will be permitted to carry out a cultural ceremony to mark the reburial process;
- The RAP will check the artefact catalogue against any returned artefacts, and if necessary, re-bag the artefacts prior to reburial; and
- Where deemed appropriate by the RAP, the cultural heritage, and any other cultural material and objects, will be placed in a container manufactured by the RAP for burial.

A HA must be involved in this process to:

- Consult with the RAP and Sponsor to identify a reburial location that is protected from future development and disturbance and complies with the CHMP conditions;
- Ensure that the Aboriginal cultural heritage is reburied in a durable container with a record of provenance and with the catalogue and assessment documentation on an archive-quality storage medium;
- Ensure that the reburial location is recorded to sub-metre accuracy; and
- Complete and submit relevant VAHR forms to the Heritage Registrar, AV.

Aboriginal cultural heritage from VAHR 7822-4422 is to be reburied within open space in the activity area in a location to be decided upon on the day of reburial by the RAP and the Sponsor.

The HA will manage and facilitate the implementation of these measures in consultation with the RAP and the Sponsor. The cost of implementing the requirements of this management measure will be borne by the Sponsor.

### **1.3. CONTINGENCY PLANS AND OTHER MATTERS**

#### **1.3.1. Contingency 1: Discovery of Unexpected Aboriginal Cultural Heritage During Construction**

If suspected Aboriginal cultural heritage is identified prior to and/or during the conduct of the activity, the following process applies:

##### **1. Isolation to Protect Cultural Heritage**

- a) Relevant works within 10 m of the discovery must be suspended immediately and the place extent must be isolated from further disturbance by safety webbing or other suitable above ground barriers/temporary fencing (i.e. no subsurface component). 'No-go' signage must be fixed to the fencing at all times. The suspected cultural material must not be removed.

##### **2. Notification and Inspection**

- a) The Site Supervisor must be notified immediately, and a HA and the RAP must be notified within one working day of the discovery.
- b) The HA, the RAP and the Sponsor will endeavour to inspect the site within two working days of being notified.
- c) During this inspection an appropriate course of action for the investigation and management of any Aboriginal cultural heritage will be discussed and agreed to.
- d) A written agreement regarding the process to be followed to manage the Aboriginal cultural heritage and how to proceed with works must be made within a period not exceeding two working days from the on-site inspection by the RAP, the HA and the Sponsor. This written agreement is to be made by the HA and distributed to the Sponsor and RAP, with all parties providing agreement upon receipt of the document. The management agreement must be signed by the Sponsor and the RAP.

##### **3. Investigation of Unexpected Cultural Heritage**

- a) The HA, in consultation with the RAP and Sponsor, shall determine the most appropriate course of action to investigate the nature of the cultural heritage. This should include establishing the nature and extent of the cultural heritage through the application of minimally intrusive archaeological techniques such as surface survey, cleaning back exposed sections and augering.
- b) Options for the implementation of *protection*, *impact mitigation* or *salvage* measures must:
  - 1) Be explored by the HA in consultation with the RAP and the Sponsor; and,



- 2) Consider the application of the General Principles outlined below.

**4. General Principles to apply upon discovery of unexpected cultural heritage:**

- a) **Investigation of cultural heritage** - further investigation may be required to confirm the nature and extent of the cultural heritage.
- b) **Protection of cultural heritage** - all attempts must be made to avoid harm to cultural heritage by the activity. This must include written agreement on:
  - 1) Management of the cultural heritage during the activity (e.g. with the installation of fencing to prevent disturbance);
  - 2) Management of the cultural heritage during the site remediation works at the end of the activity.
- c) **Impact minimisation** - If the protection of the cultural heritage is not possible then consideration must be given to minimising harm e.g. limiting impact on the cultural heritage so that a portion remains unaffected by the activity.
- d) **Salvage of cultural material and information** - If the cultural heritage cannot be protected then salvage of all or part of the Aboriginal place may be required prior to the activity resuming and the impact to cultural heritage proceeding. An appropriate salvage methodology must be agreed between the HA and the RAP. The agreement must be documented in writing and signed by both parties. The following parameters must be considered during the salvage process:

For Surface Cultural Heritage

- 1) Recording spatial characteristics (e.g. Differential GPS records of artefact locations, mapping the place boundary, drawing detailed plans of place extent and features);
- 2) Documenting fabric/raw materials (e.g. earth feature, silcrete quarry; shell types in shell midden);
- 3) Creating a photographic record;
- 4) Collecting cultural heritage.

For Subsurface Cultural Heritage

- 1) Controlled excavation of cultural deposits; and,
- 2) Salvage excavation must be carried out in accordance with proper archaeological practice and standards, and an archaeological report detailing the methods, analysis and results of the excavation must be prepared.

If appropriate material suitable for radiometric dating or residue and use wear analysis is retrieved (i.e. *in situ* organic material associated with cultural material and *in situ* cultural material respectively) then this material will be subject to these procedures. The cost of this process will be borne by the Sponsor.

## **5. Works Proceeding**

- a) The HA (with the approval of the RAP) will advise the Sponsor's representative when suspended construction works can proceed.
- b) In general, works may recommence:
  - 1) When the appropriate site minimisation or mitigation measures have been undertaken;
  - 2) Where the relevant Aboriginal cultural heritage records have been updated and/or completed;
  - 3) Where all parties agree there is no prudent or feasible course of action; or
  - 4) Once any existing dispute has been resolved.

## **6. Notification to Aboriginal Victoria**

Aboriginal Victoria (AV) will be notified about the Aboriginal place via the submission of the appropriate Victorian Aboriginal Heritage Registry forms and spatial data.

If a salvage excavation has been conducted, a salvage report must be submitted to AV and the RAP within 6 months of the completion of the salvage program and/or receiving results of any radiometric dates.

### **1.3.2. Contingency 2: Unexpected Discovery of Human Remains**

If any suspected human remains are found prior to and/or during the conduct of the activity works must cease. The Victoria Police and the State Coroner's Office (1300 309 519) should be notified immediately. If there are reasonable grounds to believe that the remains are Aboriginal, the State Control Centre must be contacted immediately on 1300 888 544. This advice has been developed by AV and is described in the following five 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 the Victoria Police must be notified immediately;
- If there are reasonable grounds to believe that the remains could be Aboriginal, the State Control 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 Victorian Aboriginal Heritage Council in accordance with s.17 of the *Aboriginal Heritage Act 2006*.

## 3. Impact Mitigation or Salvage:

- The Victorian Aboriginal Heritage Council, 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; and,
- An appropriate impact mitigation or salvage strategy as determined by the Victorian Aboriginal Heritage Council 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 Victorian Aboriginal Heritage Council.

## 5. Reburial:

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

### **1.3.3. Contingency 3: Future Changes to the Activity**

Future changes to the activity can be made prior to and/or during the conduct of the activity, so long as they are confined to the activity area and are associated with residential

subdivision. If changes require development outside of this area or are for a different activity, then a new or amended CHMP may be required.

#### 1.3.4. Contingency 4: Communication Between Parties

Notification of the following parties to the CHMP by the means as indicated is deemed to comply with the requirements for notice to be given under this CHMP.

Each party is to ensure that there is an electronic means of confirmation of notification. Telephone notification is to be confirmed by email within one working day of the telephone conversation.

Party to Agreement	Name of Delegate	Phone	Email
<b>Sponsor</b>	Luke May	03 9695 3016	luke.may@villawoodproperties.com
<b>Site Supervisor</b>	TBA	TBA	TBA
<b>RAP</b>	Matthew Chamberlain	03 9416 2905	matthew@wurundjeri.com.au
<b>HA</b>	TBA	TBA	TBA

#### 1.3.5. Contingency 5: Dispute Resolution

Clause 13(1) Schedule 2 of the Regulations requires that the CHMP must contain a contingency plan for the resolution of any disputes between the Sponsor and relevant RAPs in relation to the implementation of an approved CHMP or the conduct of the activity. Disputes may occur at various stages during the activity. Investigation of a dispute will be jointly investigated by the RAP, the HA and the Sponsor. Procedures for dispute resolution aim to ensure that all parties are fully aware of their rights and obligations, that full and open communication between parties occurs and those parties conduct themselves in good faith.

If a dispute arises that may affect the conduct of the activity, resolution between parties using the following Informal Dispute Resolution guidelines is recommended.

#### Informal Dispute Resolution

The following steps have been designed to guide the dispute resolution process:

- The party raising the dispute will complete a Dispute Resolution Notification Form (included below) and email a copy to all parties listed in Contingency 4.

- Project delegates (as listed in Contingency 4) of each party (RAP and Sponsor) will attempt to negotiate a resolution to any dispute related to cultural heritage management of the activity area within two working days of written notice being received that a dispute between parties is deemed to exist.
- If the project delegates cannot reach an agreement, representatives of both parties will negotiate a resolution to an agreed schedule.
- If representatives of the relevant parties fail to reach an agreement, an independent mediator should be initially sought to assist in resolving the dispute.
- Both parties must agree upon a timeframe for the independent mediator.
- If an independent mediator cannot be agreed on or fails to resolve the dispute within the allowed timeframe, the Victorian Aboriginal Heritage Council may be approached for their willingness to act in resolving the dispute.
- All disputes will be jointly investigated.
- Where a breach of a CHMP condition or contingency has been found to occur, AV must be notified. The RAP and the Sponsor will agree to the best method of correction or remediation.
- Any correction or remedial activities required (e.g. repairing damage to an Aboriginal place) will be overseen by a RAP representative and will take place in accordance with their instruction and at the cost of the Sponsor.
- The RAP will use their best endeavours to minimise delays to work schedules while not compromising cultural places or values.
- Only issues directly relating to cultural heritage management will be handled through the dispute resolution mechanism.
- If it is deemed that a cultural heritage audit is the most appropriate method of addressing a breach, the HA will contact AV regarding this process.
- If ordered by the Minister responsible for administering the *Aboriginal Heritage Act* 2006 a cultural heritage audit will be undertaken as per the requirements for such audits, outlined in s.83-86 of the *Aboriginal Heritage Act* 2006.
- These arrangements do not preclude any legal recourse open to the parties being taken but the parties agree that the above avenues will be exhausted before such recourse is made.

**DISPUTE RESOLUTION NOTIFICATION FORM****Cultural Heritage Plan No 15699****Relevant Party Raising the Dispute:**

Contact Person:

Date:

**Nature of the dispute:****Proposed Meeting Time/Date and Place:****Relevant parties who have been sent email this notification (tick box):**

Party to Agreement	Name of Delegate	Email	Contacted (√)
RAP	Matthew Chamberlain	matthew@wurundjeri.com.au	
The Sponsor	Luke May	luke.may@villawoodproperties.com	
Site Supervisor	TBA	TBA	
HA	TBA	TBA	

**1.3.6. Contingency 6: Compliance Review**

Review of this plan can be undertaken at any time (prior to, during and/or at the conclusion of the activity) by a project delegate(s) representing the Sponsor, a HA, an Authorised Officer or an Aboriginal Heritage Officer to ensure compliance with the management measures outlined in the plan. If concerns are raised by the RAP, AV, HA, an Authorised Officer or another party, a project delegate(s) will review CHMP compliance within 7 working days of such concerns being raised by completing the checklist provided.

The project delegate will submit the completed checklist to the RAP, Sponsor, Site Supervisor and HA within 7 working days of the compliance review being undertaken.

If a compliance check or review identifies any areas of non-compliance with the CHMP:

- AV must be notified of any non-compliance.

- A meeting will be required between the HA, Sponsor and the RAP to establish actions to address non-compliance. AV must be given the opportunity to participate at the meeting.
- The meeting should be undertaken within 7 working days, or as soon as is practical, from the completion of the 'CHMP Compliance Checklist'.
- Agreed actions must be implemented by the Sponsor.

It is noted that under Part 6 of the *Aboriginal Heritage Act 2006* the Minister may order a cultural heritage audit if:

- The Sponsor of an approved CHMP has contravened, or is likely to contravene, the requirements in the plans (s.81a); or,
- The impact on Aboriginal cultural heritage of an activity to which an approved CHMP applies will be greater than that determined at the time the plan was approved (s.81c).

The Minister can also issue a stop order (s.87) to a person carrying out, or proposing to carry out, works that might harm Aboriginal cultural heritage. This might apply to circumstances within the context of a CHMP, such as where activities not sanctioned by the CHMP will, or have a risk of, harming Aboriginal cultural heritage (see Text Box for further information).

#### Authorised Officers

Under Section 160 the Minister of Aboriginal Victoria may appoint an Authorised Officer to:

- Monitor compliance with the Act;
- Investigate suspected offences against the Act;
- Direct the conduct of a cultural heritage audit;
- Issue and deliver stop orders;
- Report to the Secretary in relation to these matters. (s. 159)

An authorised officer must produce his or her identity card for inspection before exercising powers under the Act and when asked to do so (s.165).

#### Aboriginal Heritage Officer

Under Section 165a the functions of an Aboriginal Heritage Officer under the Act include-

- Monitoring compliance of cultural heritage plans, cultural heritage permits and Aboriginal cultural heritage land management agreements; and
- Issuing and delivering 24 hour stop orders under Part 6

#### Stop Orders

Under Section 87 of the AHA 2006 the Minister or an authorised officer can issue a stop order to a person if the person is carrying out, or proposes to carry out an act for which the Minister or authorised officer believe that the act will harm Aboriginal cultural heritage and that the Aboriginal cultural heritage could not be properly protected unless the stop order is issued (s.87 (1) (a-c)).

#### Effect of a Stop Order

The stop order may require the person to stop immediately the act specified in the order; or prohibit the person from doing the act specified in the order (s.89(1) (a-b)).

#### How Long Does a Stop Order Operate?

A stop order can last up to 30 days and can be extended by the Minister for an additional 14 days only (s.91 and s.92).

A stop order for an act can be issued again if the circumstances relating to that act have substantially changed (s.94).

#### Offence to Contravene a Stop Order

It is an offence under the AHA 2006 to contravene a stop order. A person who contravenes a stop order can be fined up to \$279,828; a body corporate \$1,554,600. Any such offence is an indictable offence (s95 (1 & 2)).



Maximum penalties for breaching the *Aboriginal Heritage Act 2006* are more than \$280,000 for an individual or more than \$1.5 million for a company.

#### **1.3.7. Contingency 7: Use of Lots**

If the activity is a subdivision referred to in regulation 49, a Management Plan must also include specific contingency plans [Clause 13(2) Schedule 2 of the Regulations] for:

- a) How each lot is intended to be used or developed by the Sponsor; or
- b) If a lot is not intended to be used or developed by the Sponsor; the use or development of the lot permitted by the relevant planning scheme.

Development of the lots within the subdivision will be compliant with the permitted uses required for the Urban Growth Zone 9 (UGZ9) within the City of Hume planning scheme (see Appendix 6). All lots within the residential subdivision will be residential allotments.

**1.3.8. Compliance Checklist****CHMP 15699 COMPLIANCE CHECKLIST****Date:****Checklist completed by:**

Conditions	Before Works	During Works	After Works	Date Completed	Attendees (HA & RAP)	Inductees	Notes	Complete?
<b>Condition 1 (Status and distribution of CHMP)</b>								
Copies of the approved CHMP must be distributed to the parties specified in CHMP	x							
<b>Condition 2 (Access to Approved CHMP)</b>								
A hard copy of the CHMP must be kept on site during the conduct of the activity		x						
<b>Condition 3 (Surface Salvage of VAHR 7822-4422)</b>								
Surface artefact collection of artefacts associated with VAHR 7822-4422 to conducted prior to development proceeding by a QA and two RAP representatives using methodology outlined in CHMP	x							
Salvage report to be submitted by the HA to AV and RAP within 6 months of completion of salvage program	x	x						

Conditions	Before Works	During Works	After Works	Date Completed	Attendees (HA & RAP)	Inductees	Notes	Complete?
<b>Condition 4 (Cultural Heritage Induction)</b>								
RAP and a HA to deliver an induction to all contractors and subcontractors undertaking ground disturbing works prior to commencement of activity	x							
<b>Condition 5 (RAP Inspections)</b>								
RAP inspection undertaken <b>before</b> the activity	x							
RAP inspection undertaken <b>during</b> the activity		x						
RAP inspection undertaken <b>after</b> the activity			x					
<b>Condition 6 (Custody and management of Aboriginal cultural heritage)</b>								
Reburial of Aboriginal cultural heritage facilitated by the sponsor in consultation with RAP and HA will occur at the conclusion of the activity.			x					

Contingencies	Before Works	During Works	After Works	Date Completed	Attendees (HA & RAP)	Inductees	Notes	Complete?
<b>Contingency 1: Unexpected discovery of Aboriginal cultural heritage</b>								
Follow process in CHMP should cultural heritage be identified during construction works.	x	x						
<b>Contingency 2: Unexpected discovery of suspected human remains</b>								
Follow process in CHMP should suspected human remains be identified during construction works.	x	x						
<b>Contingency 3: Future Changes to the Activity</b>								
Specifies circumstances in which changes to the activity can be made and associated requirements.	x	x						
<b>Contingency 4: Communication between Parties</b>								
Meet communication requirements specified in CHMP.	x	x	x					

Contingencies	Before Works	During Works	After Works	Date Completed	Attendees (HA & RAP)	Inductees	Notes	Complete?
<b>Contingency 5: Dispute Resolution</b>								
Follow process in CHMP should a dispute between relevant parties arise.	x	x	x					
<b>Contingency 6: Compliance Review</b>								
Complete checklist <b>before</b> construction	x							
Complete checklist <b>during</b> construction		x						
Complete checklist <b>after</b> construction			x					
Contact HA and RAP in the event of non-compliance	x	x	x					
Contact AV if a remedy cannot be achieved.	x	x	x					
<b>Contingency 7: Use of Lots</b>								
Development of the lots within the subdivision is compliant with permitted uses specified by UGZ9 within the City of Hume planning scheme.	x	x	x					
All lots are residential subdivision lots.	x	x	x					

OTHER								
Works need to be contained to the activity area.	x	x						





## PART 2 – ASSESSMENT

### 2. INTRODUCTION

#### 2.1. BACKGROUND

This CHMP has been prepared in advance of ground disturbing works associated with the residential subdivision of 50 Redstone Hill Road, Sunbury. The CHMP was commissioned by Villawood Properties who is acting as development manager on behalf of the Sponsor. The Sponsor for the CHMP is 50 Redstone Hill Road Pty Ltd (ABN 82 623 447 478). Land in the activity area is owned by the Sponsor.

This CHMP was a mandatory requirement of the *Aboriginal Heritage Act 2006*. The RAP for the activity area is Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCHAC). WWCHAC elected to evaluate the CHMP. No Activity Advisory Group (AAG) was appointed by the Secretary in relation to the Management Plan.

The aims of the CHMP were to:

- Identify the location, nature and significance of Aboriginal places within the activity area;
- Assess whether harm to Aboriginal places can be avoided by the proposed activity; and,
- Develop a framework for managing Aboriginal places, prior to, during and subsequent to the activity taking place.

#### Terminology

Aboriginal cultural heritage and Aboriginal places are terms used throughout this report and their meanings are taken as follows from the *Aboriginal Heritage Act 2006*:

Aboriginal cultural heritage means 'Aboriginal places, Aboriginal objects and Aboriginal human remains' (s.4).

An Aboriginal place is 'an area in Victoria or the coastal waters of Victoria that is of cultural heritage significance to the Aboriginal people of Victoria' (s.5).

All known Aboriginal places in Victoria are recorded on the Victorian Aboriginal Heritage Register (s.145).

Karen Kapteinis acted as the Heritage Advisor for this CHMP. Karen meets the requirements for a Heritage Advisor under Section 189 of the *Aboriginal Heritage Act 2016* as she has a Bachelor of Conservation Biology and Ecology with a major in south eastern Australian geomorphology and Honours in geoarchaeology gained from the School of Environmental Geoscience at La Trobe University in 2010 and a Diploma in Indigenous Archaeology from the Department of Archaeology at the University of New England in 2017.

In addition to this, Karen draws on over 8 years of consulting experience in the assessment and management of Aboriginal cultural heritage and is an Associate Member of the Australian Association of Consulting Archaeologists (AACAI).

Krista Whitewood (Field Archaeologist, Ochre Imprints) supervised the Standard Assessment and the Complex Assessment. Krista meets the requirements for a supervisor as she has a Bachelor of Arts in Anthropology (Honours) gained from the Fordham University, New York, USA, in 2014. Krista draws on over 4 years of consulting experience.

## **2.2. LEGISLATIVE CONTEXT**

### **2.2.1. Aboriginal Heritage Act 2006**

The *Aboriginal Heritage Act* 2006 provides blanket protection for Aboriginal cultural heritage in Victoria. This means that Aboriginal cultural heritage is protected from harm and it is illegal to carry out an activity that can disturb Aboriginal places without the appropriate authorities under the Act (and the associated Aboriginal Heritage Regulations 2018). There are two principal mechanisms under the Act that remove the risk of illegal harm to Aboriginal cultural heritage, namely:

- A Cultural Heritage Management Plan, and
- A Cultural Heritage Permit.

These are briefly discussed below.

#### Cultural Heritage Management Plan

A CHMP is a report recommending measures to be taken to protect Aboriginal cultural heritage affected by a development or use of land. It must include requirements for measures to be taken before, during and after a relevant activity. The underlying philosophy of the CHMP is to minimise harm to Aboriginal cultural heritage, however it is the document through which provisions can be made to harm Aboriginal places legally. A CHMP must be approved by the appropriate RAP or where no RAP exists for the area, the Secretary DPC before the activity may commence.<sup>1</sup>

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

- Desktop Assessment;

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<sup>1</sup> The DPC replaced the Department of Victorian Communities, as referred to in the *Aboriginal Heritage Act* 2006. AV carries out the day-to-day administrative functions on behalf of the Secretary.

- Standard Assessment (Field Survey);
- Complex Assessment (Subsurface Testing; Controlled Excavation).

The Sponsor (usually the proponent) of a CHMP must ensure that the plan is prepared in accordance with the prescribed standards outlined in the Act, their associated regulations, and approved forms. The CHMP must consider the following matters:

- a) Whether the activity will be conducted in a way that avoids harm to Aboriginal cultural heritage;
- b) If it does not appear to be possible to conduct the activity in a way that avoids harm to Aboriginal cultural heritage, whether the activity will be conducted in a way that minimises harm to Aboriginal cultural heritage;
- c) Any specific measures required for the management of Aboriginal cultural heritage likely to be affected by the activity, both during and after the activity;
- d) Any contingency plans required in relation to disputes, delays and other obstacles that may affect the conduct of the activity;
- e) Requirements relating to the custody and management of Aboriginal cultural heritage during the course of the activity.

It is an offence under the Act for a Sponsor to fail to comply with an approved CHMP (s. 67A).

Section 46 of the Act specifies the circumstances in which preparation of a CHMP is mandatory:

- When required by the Regulations;
- When the Minister directs a CHMP to be prepared for an activity; or
- When an EES is required for an activity.

Regulation 7 states that a CHMP is required when:

- All or part of the activity is a high impact activity;

and

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

‘High impact activities’ and ‘areas of cultural heritage sensitivity’ are defined in the Regulations. For activities which trigger a CHMP, a statutory authorisation cannot be granted for the activity without an approved CHMP.

A CHMP may be prepared voluntarily even when not required by the Act (s.45). It is illegal to carry out works that require a mandatory CHMP, without an approved CHMP in place (s. 46 (2-7)).

### Cultural Heritage Permit

A Cultural Heritage Permit (CHP) is issued by either a RAP, or where there is no RAP, the Secretary DPC, to “carry out an activity that will, or is likely to harm Aboriginal cultural heritage”.

A CHP is sought for those instances where there is a known Aboriginal place that will be harmed by an activity. The permit outlines the measures that must be taken in order to disturb that place lawfully. Archaeological investigations are often required to inform a CHP application.

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

- The creation of the Victorian Aboriginal Heritage Council to provide a state-wide voice for Aboriginal people and to advise the Minister for Aboriginal Affairs on issues relating to the management of Aboriginal cultural heritage.
- A system of Registered Aboriginal Parties – approved by the Victorian Aboriginal Heritage Council – to be involved in cultural heritage decision making processes, and in particular CHMPs.
- The capacity of the Secretary to establish an Activity Advisory Group (AAG) of Traditional Owners for a project/CHMP in an area where there is no appointed RAP, to advise on the proposed activity and its impact on Aboriginal cultural heritage.
- The preparation of Preliminary Aboriginal Heritage Tests (PAHTs) if it is unclear whether a mandatory CHMP is required for an activity.
- Aboriginal Cultural Heritage Agreements to support the development of partnerships around the protection and management of Aboriginal cultural heritage.
- Provisions relating to enforcement including: cultural heritage audits, protection declarations and stop orders, inspection arrangements and penalties. Maximum penalties for breaching the Act are more than \$280,000 for an individual or more than \$1.5 million for a company.

### **2.2.2. Other Relevant Legislation**

#### *Commonwealth Aboriginal and Torres Strait Islander Heritage Protection Act 1984*

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* is intended to provide additional protection from injury or desecration of artefacts and areas which are of particular significance to Aboriginal peoples and traditions.

The Act provides for emergency declarations to be made for the protection of significant Aboriginal areas or objects which are under 'serious or immediate threat of injury or desecration'.

The Act protects 'significant Aboriginal areas' and 'significant Aboriginal objects'. A 'significant' area or object is one of particular significance to Aboriginal people in accordance with Aboriginal or Torres Strait Islander tradition.

An application for protection of a specified area or object under threat can be made orally or in writing by an Aboriginal or Torres Strait Islander person.

The Minister for Families, Housing, Community Services and Indigenous Affairs can make declarations to protect areas and objects if the area or object is under threat of injury or desecration (used, treated or affected in a manner inconsistent with Aboriginal tradition) and State law does not effectively protect the area.

The Minister may make emergency declarations or long-term declarations. Emergency declarations last for thirty days but may be extended for a further thirty days. The Minister may not make a declaration in relation to an area or object located in a State, the Northern Territory or Norfolk Island unless he or she has consulted with the appropriate Minister of that State or Territory. These declarations may "contain provisions for and in relation to the protection and preservation of the area from injury or desecration".

Officers authorised by the Minister under the Act may also make emergency declarations, lasting up to 48 hours in relation to Indigenous heritage areas and objects.

#### *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*

The *Environment Protection and Biodiversity Conservation Act 1999* provides protection for the following types of heritage places and items:

- World Heritage;
- National Heritage; and
- Commonwealth Heritage.

Any action that is likely to have a significant impact on heritage properties and places must be referred to the Minister for the Environment and undergo an environmental assessment and approval process.

There are provisions for emergency listing of the national heritage values of a place if the Minister believes that those heritage values are under threat. The Minister can list the place before referring it to the Heritage Council and must take reasonable steps to advise any owners or occupiers of the place. Any person may request that a place be included on the National Heritage List under the emergency listing provision, and, if the Minister does not list the place within ten business days after receiving the request, the Minister must:

- Publish notice of that on the internet; and
- Provide to the person who made the nomination and anyone else who requests them, reasons why the Minister has not listed the place.

### **2.2.3. Why Was A CHMP Undertaken For The Activity?**

The proposed activity triggered the requirement for a mandatory CHMP as the activity is defined as high impact (under r.49) under the Aboriginal Heritage Regulations 2018, and the activity is being undertaken in an area of Cultural Heritage Sensitivity (under r.25). The regulations that apply are described below:

- *r. 49(1) The subdivision of land into three or more lots is a high impact activity if—*
  - a) *the planning scheme that applies to the activity area in which the land to be subdivided is located provides that at least three of the lots may be used for a dwelling or may be used for a dwelling subject to the grant of a permit.*
  - b) *the area of each of at least three of the lots is less than eight hectares.*
- *r.25 (2) Subject to sub regulation (3), land within 50 metres of a registered cultural heritage place is an area of cultural heritage sensitivity [this refers to land within 50 m of components of VAHR 7822-3876].*

Ochre Imprints Pty Ltd, on behalf of the Sponsor 50 Redstone Hill Road Pty Ltd submitted a Notice of Intent to Prepare a CHMP (NOI) to the Deputy Director of AV dated 1 May 2018. This CHMP has been issued with the identification No. 15699 by AV. The NOI was provided to WWCHAC and City of Hume on 1 May 2018. A copy of the NOI and a response from WWCHAC informing the Sponsor of their intent to evaluate the CHMP is provided in Appendix 1.

### 2.3. LOCATION AND EXTENT OF ACTIVITY AREA

The activity area is a an approximately 8 ha allotment of land at 50 Redstone Hill Road, Sunbury, approximately 35 km north west of Melbourne CBD. The activity area consists of sloping land on the north western middle and lower slopes of Redstone Hill, an extinct volcano. It is bound to the north west, south, and south east by agricultural land, and to the north east by Redstone Hill Road.

The activity area is characterised by cleared and grassed agricultural land with an existing residence in the centre of the activity area, accessed by a gravel driveway from Redstone Hill Road. A detailed description of the existing conditions is provided in Section 4.4.

The location and existing conditions of the activity area are shown in Figure 2 and Figure 3, while cadastral details are provided in Table 1.

A review of the Victorian Aboriginal Heritage Register (VAHR) undertaken during the Desktop Assessment (see Section 3.5) revealed that there are no registered Aboriginal places present within the activity area. There is one Aboriginal place within 50 m of the activity area (components of VAHR 7822-3876) and a further Aboriginal place is located within 200 metres of the activity area (VAHR 7822-4171). These results are visually depicted in Figure 2 and Figure 3.

Table 1: Cadastral information for the activity area.

Category	Details
<b>Parish</b>	Bulla Bulla
<b>County</b>	Bourke
<b>Local Government Area</b>	City of Hume
<b>Map Sheet (1:25,000)</b>	7822
<b>Property Address</b>	50 Redstone Hill Road, Sunbury 3429
<b>Property Identifiers (Lot/Plan or Crown Description)</b>	2\LP88415

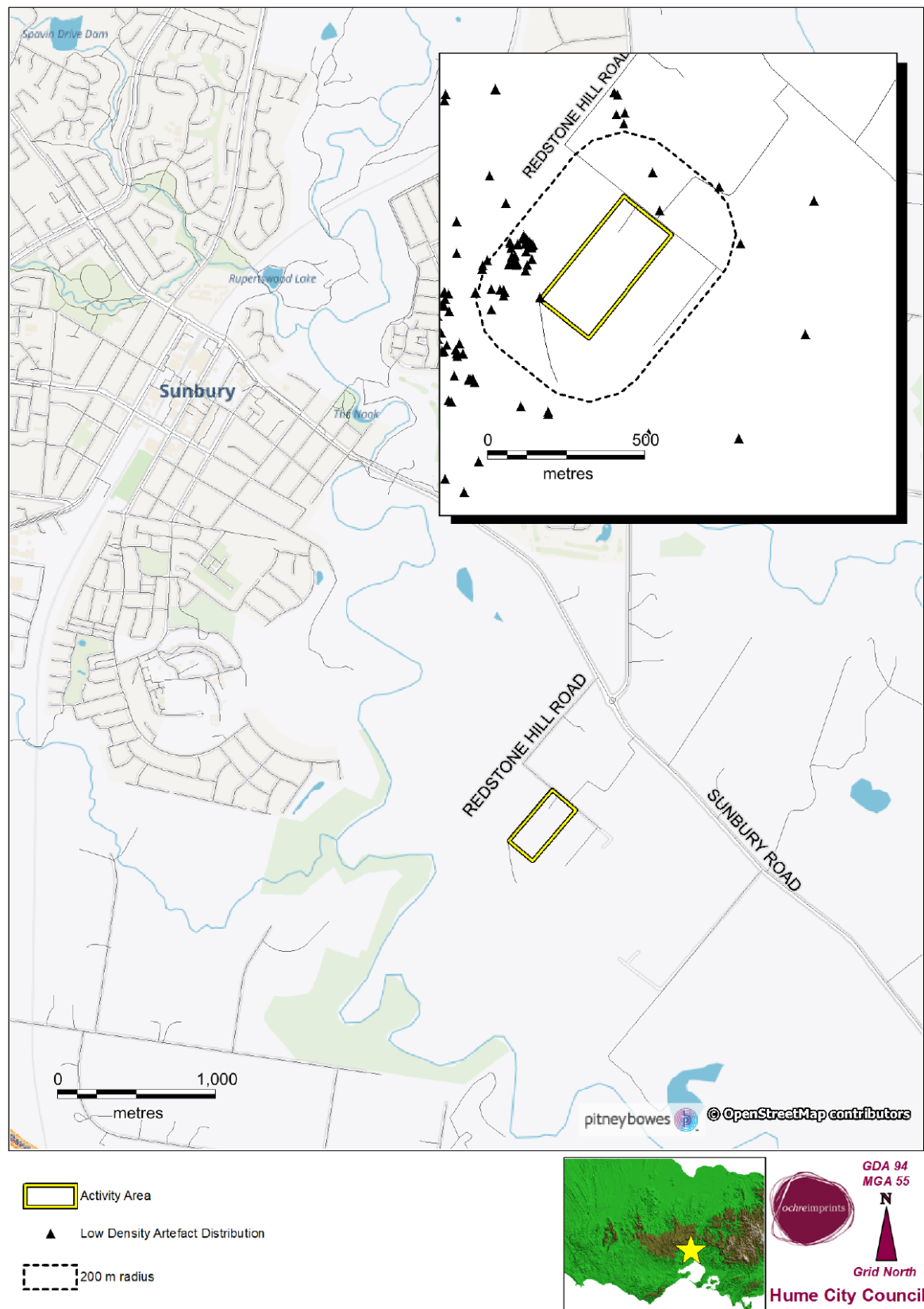


Figure 2: Location of the activity area



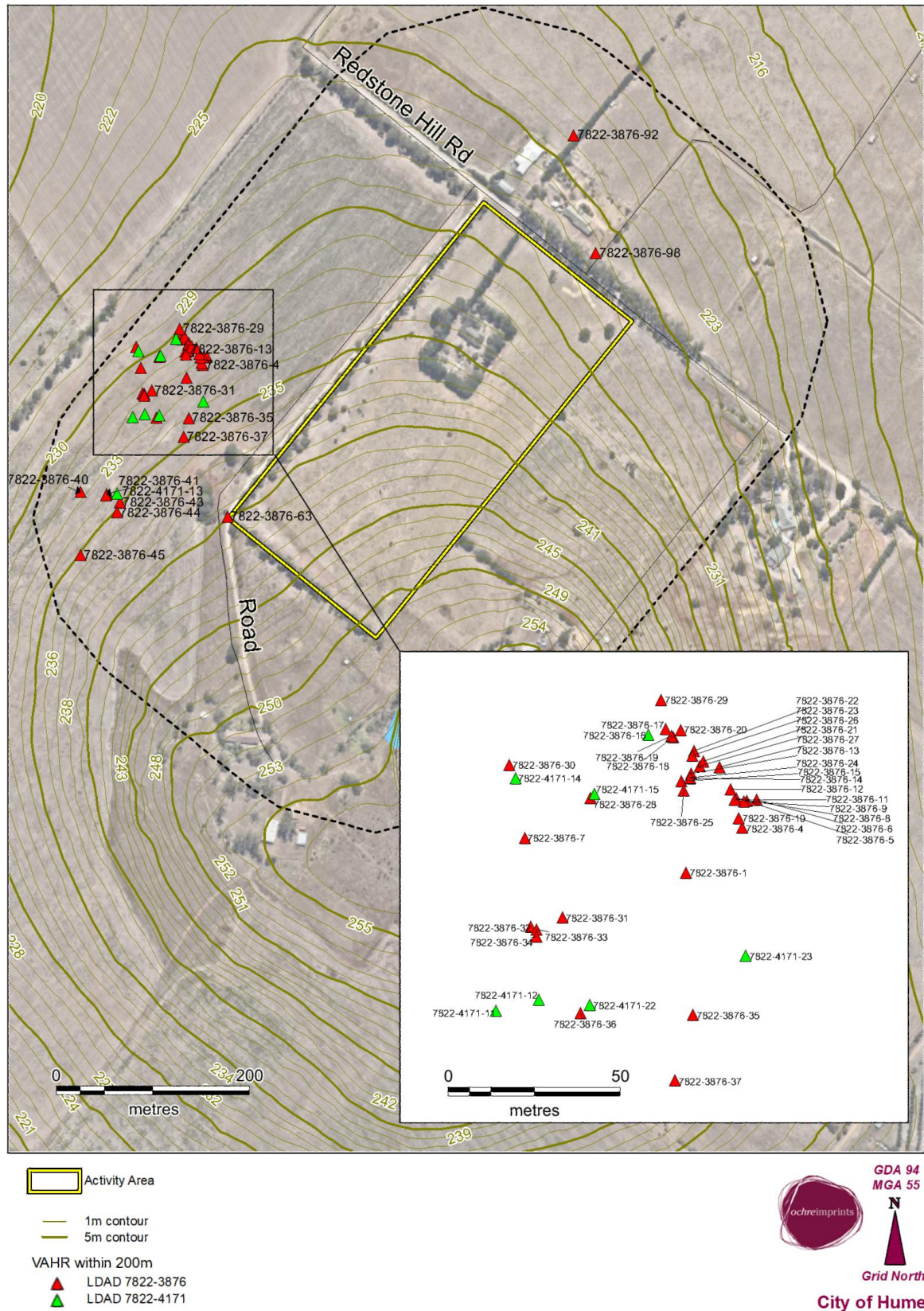


Figure 3: Existing conditions within the activity area.

## **2.4. DESCRIPTION OF PROPOSED ACTIVITY**

The activity involves the subdivision of c. 8 ha of the subject land into residential allotments as part of the larger Redstone Hill residential development. Development of the lots within the subdivision will be compliant with the permitted uses required for the Urban Growth Zone 9 (UGZ9) within the City of Hume planning scheme (see Appendix 6). Roads will be built throughout the activity area to connect to the surrounding development and to Redstone Hill Road. The development footprint covers the entire activity area. The layout of the proposed subdivision is shown in Figure 4.

The development plan includes:

- Land subdivision into approximately 120 residential allotments (with an average of 450 m<sup>2</sup> per lot);
- Construction of connector roads to surrounding Redstone Hill development;
- Construction of pedestrian footpaths; and,
- Construction of open space as part of the Redstone Hill Reserve and passive open space (measuring 4,383 m<sup>2</sup>).

Activities that will occur during the course of the works include, but are not limited to:

- Geotechnical testing;
- Site preparation, including clearance of vegetation and fencing;
- Demolition of the existing dwelling;
- Earthworks, including stripping and removal of topsoil for the construction of residential dwellings;
- Soil excavation and the grading of soil during road construction;
- Signage;
- Erection of new fencing/gates and driveways; and,
- Soil excavation for service trenches (e.g. gas, electricity, water, drainage, and telecommunications).

The above activity will involve disturbance to both surface and subsurface parts of the activity area. The depth of the above works is not known as a detailed design phase has not been undertaken. However, in all cases the works will impact soils to at least 100 mm, which is the maximum depth of artefact bearing soils, with sterile clay occurring below this soil horizon.

In addition, the standard depth of excavation (to the base of the trench) for pipes and services are:

- 1,200 mm for water and gas;

- 1,000 mm for electricity and telecommunications;
- 1,000 mm minimum for drainage; and,
- 1,500 mm for sewerage.

However, as above, these may vary but will always occur to a depth of greater than 100 mm, and so will entirely impact artefact bearing soils.

No prior land surfaces (i.e. previous surfaces of the ground which have been buried in the past by natural processes such as flood-borne material, or by anthropogenic influences such as laying down of fill over a natural surface) will be impacted, as none were identified during the assessment. The activity will involve the removal of soil horizons, and in some instances, underlying clay. Soil horizons, in which Aboriginal cultural heritage occurs, range in depth across the activity area from 40 mm to 100 mm. It is expected that all soil horizons throughout the activity area above the clays will be impacted by the proposed work. Therefore, the proposed works have the potential to impact on Aboriginal cultural heritage where it occurs in these soil horizons.



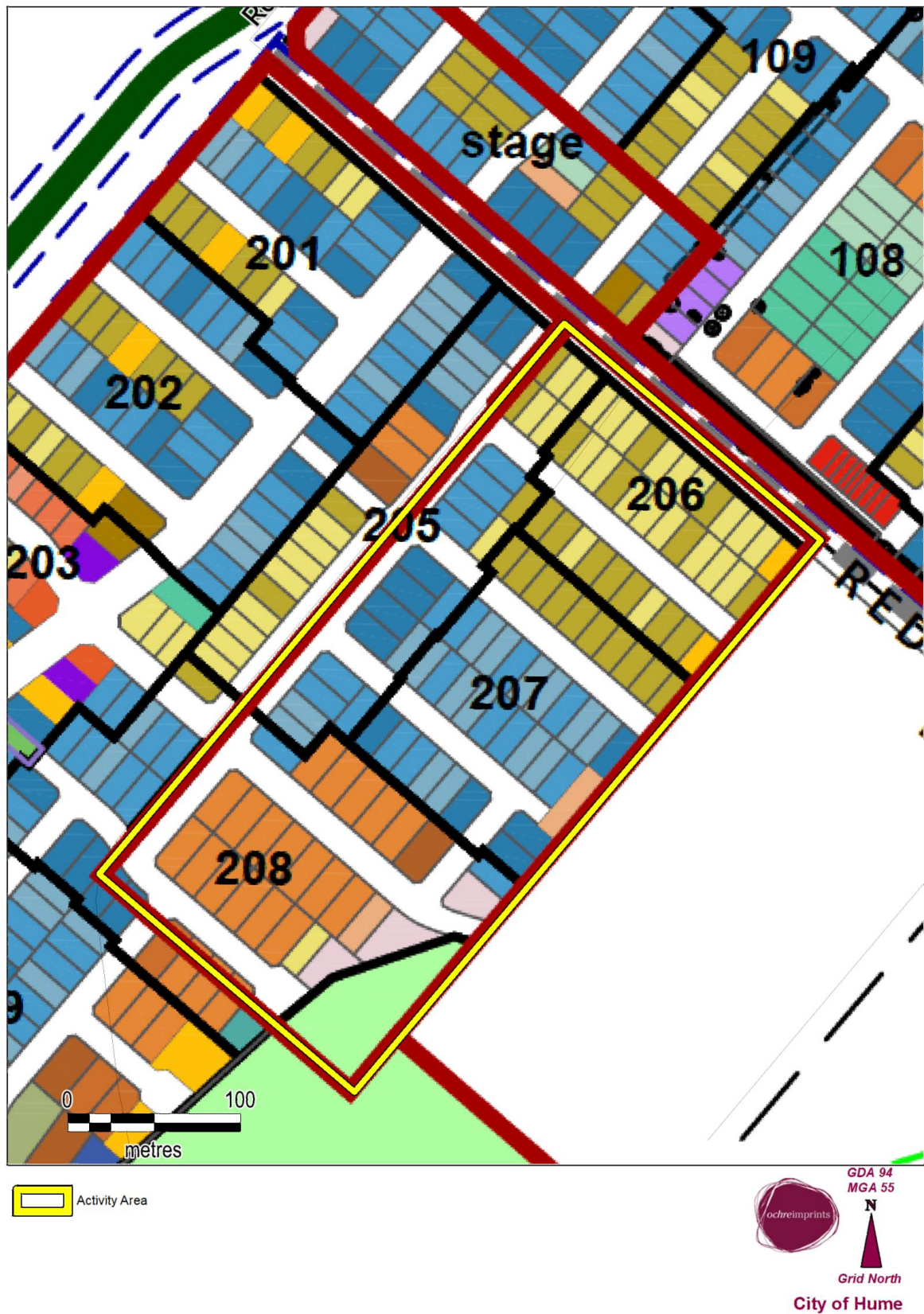


Figure 4: Development plan for the activity area.

## 2.5. REGISTERED ABORIGINAL PARTY (RAP)

### 2.5.1. Communication with the RAP

The Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCHAC) are the Registered Aboriginal Party (RAP) for the activity area. WWCHAC were consulted throughout the preparation of this CHMP.

Communication with WWCHAC is summarised in Table 2.

Table 2: Communication with Aboriginal stakeholders.

Date	Group/Person	Nature of Contact	Reason
24/04/18	Karen Kapteinis (Project Archaeologist – Ochre Imprints) to Helen Officer (RAP Administration Officer - WWCHAC)	Phone call	Requested availability of field work and meeting allocations
24/04/18	Karen Kapteinis (Project Archaeologist – Ochre Imprints) to Helen Officer (RAP Administration Officer - WWCHAC)	Email	Requested options for project establishment meeting and field work bookings
27/04/18	Helen Officer (RAP Administration Officer - WWCHAC) to Karen Kapteinis (Project Archaeologist – Ochre Imprints)	Email	Provided confirmation of meeting and field work bookings
01/05/18	Karen Kapteinis (Project Archaeologist – Ochre Imprints) to Helen Officer (RAP Administration Officer - WWCHAC), City of Hume and VAHR (AV)	Email	Submitted Notice of Intent (NOI) to undertake CHMP
01/05/18	Fjorn Butler (Admin - Ochre Imprints) to Helen Officer (RAP Administration Officer - WWCHAC)	Email	Requested to postpone field work booking

## WWCHAC)

01/05/18	Helen Officer (RAP Administration Officer - WWCHAC) to Fjorn Butler (Admin - Ochre Imprints)	Email	Confirmed cancellation of meeting and field work bookings
02/05/18	Helen Officer (RAP Administration Officer - WWCHAC) to Karen Kapteinis (Project Archaeologist – Ochre Imprints)	Email	Responded that WWCHAC had received the NOI and would evaluate the CHMP
02/05/18	Helen Officer (RAP Administration Officer - WWCHAC) to Karen Kapteinis (Project Archaeologist – Ochre Imprints)	Email	Requested a map of activity area
02/05/18	Karen Kapteinis (Project Archaeologist – Ochre Imprints) to Helen Officer (RAP Administration Officer - WWCHAC)	Email	Provided activity area map to WWCHAC
02/05/18	Karen Kapteinis (Project Archaeologist – Ochre Imprints) to Helen Officer (RAP Administration Officer - WWCHAC)	Email	Requested a time for project establishment meeting
02/05/18	Helen Officer (RAP Administration Officer - WWCHAC) to Karen Kapteinis (Project Archaeologist – Ochre Imprints)	Email	Provided the availability of dates and times for project establishment meeting
03/05/18	Karen Kapteinis (Project Archaeologist – Ochre Imprints) to Helen Officer (RAP	Email	Requested date and time for project establishment meeting

	Administration Officer - WWCHAC)		
03/05/18	Helen Officer (RAP Administration Officer - WWCHAC) to Karen Kapteinis (Project Archaeologist – Ochre Imprints)	Email	Confirmed project establishment meeting had been booked in
08/05/18	Fjorn Butler (Admin - Ochre Imprints) to Helen Officer (RAP Administration Officer - WWCHAC)	Email	Requested to cancel project establishment meeting booking and availability of other meeting dates
08/05/18	Helen Officer (RAP Administration Officer - WWCHAC) to Fjorn Butler (Admin - Ochre Imprints)	Email	Confirmed cancellation of project establishment meeting
09/05/18	Helen Officer (RAP Administration Officer - WWCHAC) to Fjorn Butler (Admin - Ochre Imprints)	Email	Provided availability of project establishment meeting dates
09/05/18	Fjorn Butler (Admin - Ochre Imprints) to Helen Officer (RAP Administration Officer - WWCHAC)	Email	Requested project establishment meeting date and time
10/05/18	Helen Officer (RAP Administration Officer - WWCHAC) to Fjorn Butler (Admin - Ochre Imprints)	Email	Confirmed project establishment meeting booking
28/08/19	Hanna Chetwin (Admin - Ochre Imprints) to Manjusha Manjusha (RAP Administration Officer - WWCHAC)	Email	Requested availability for Standard and Complex Assessment field work

03/09/19	Manjusha Manjusha (RAP Administration Officer - WWCHAC) to Hanna Chetwin (Admin - Ochre Imprints)	Email	Confirmed field work booking
13/09/19	Hanna Chetwin (Admin - Ochre Imprints) to Manjusha Manjusha (RAP Administration Officer - WWCHAC)	Email	Requested available dates for a post- Complex Assessment meeting
16/09/19	Manjusha Manjusha (RAP Administration Officer - WWCHAC) to Hanna Chetwin (Admin - Ochre Imprints)	Email	Provided times and dates for post- Complex Assessment meeting
20/09/19	Hanna Chetwin (Admin - Ochre Imprints) to Manjusha Manjusha (RAP Administration Officer - WWCHAC)	Email	Provided booking form for post- Complex Assessment meeting
23/09/19	Manjusha Manjusha (RAP Administration Officer - WWCHAC) to Hanna Chetwin (Admin - Ochre Imprints)	Email	Confirmed field representatives for Standard and Complex Assessments
07/10/19	Manjusha Manjusha (RAP Administration Officer - WWCHAC) to Hanna Chetwin (Admin - Ochre Imprints)	Email	Confirmed which field representatives worked each day for field work
16/10/19	Manjusha Manjusha (RAP Administration Officer - WWCHAC) to	Email	Confirmed booking for post-Complex Assessment meeting



	Hanna Chetwin (Admin - Ochre Imprints)		
04/02/20	Karen Kapteinis (Project Archaeologist – Ochre Imprints) to Matthew Chamberlain (Project Manager – WWCHAC)	Email	Provided draft CHMP conditions for endorsement by WWCHAC Elders
07/02/20	Matthew Chamberlain (Project Manager – WWCHAC) to Karen Kapteinis (Project Archaeologist - Ochre Imprints)	Email	Confirmed that the CHMP conditions were endorsed by WWCHAC Elders
05/03/20	Kate Connell (Heritage Advisor – WWCHAC) to Karen Kapteinis (Project Archaeologist – Ochre Imprints)	Email	Provided comments on the CHMP to be addressed
25/03/20	Karen Kapteinis (Project Archaeologist - Ochre Imprints) to Kate Connell (Heritage Advisor – WWCHAC)	Email	Requested clarification on comments on the CHMP
02/04/20	Kate Connell (Heritage Advisor – WWCHAC) to Karen Kapteinis (Project Archaeologist – Ochre Imprints)	Email	Provided clarification of comments on the CHMP, and confirmed changes made were acceptable

## 2.5.2. Summary of Meetings

### **Project Establishment Meeting** – 8 July 2018

**Attendees:** Karen Kapteinis and Petra Schell (Ochre Imprints), Catherine La Puma (Manager, Heritage Unit, WWCHAC), Ron Jones (Elder, WWCHAC), Allan Wandin (Elder, WWCHAC), Bobby Mullins (Elder, WWCHAC), Luke May (Villawood Properties).

### **Meeting Record:**

- General discussion about the triggers for the CHMP – residential subdivision is a high impact activity, and two components of an Aboriginal place occur within 50 m of the activity area (VAHR 7822-3876);
- The proposed activity would comprise a residential subdivision of a c. 8.1 ha property into 100-120 residential allotments, and would be added to the surrounding Redstone Hill development, which had previously been assessed by CHMP 13370. Roads, parks and services would also be constructed as part of the subdivision works; however, plans had not been finalised at the time of the meeting;
- Karen outlined the environment and landforms (north western slopes of extinct volcano Redstone Hill on Newer Volcanic Group basalt) and archaeology of the area, including registered Aboriginal places and previous archaeological investigations. There is one registered Aboriginal place which occurs within 50 m of the activity area (two components of VAHR 7822-3876), an LDAD identified during CHMP 13370 which was prepared for the larger Redstone Hill development. Jacksons Creek was located approximately 500 m from the activity area. The geographic region comprised a 1.5 km radius around the activity area, within which 29 previously recorded Aboriginal places were identified. Artefact scatters and LDADs dominated the archaeological assemblage of the geographic region, with lower numbers of quarries. Previous assessment CHMP 13370 which surrounded the activity area identified good ground surface visibility and a predominance of surface stone artefacts, and soil deposits measuring 100-300 mm depth;
- Petra proposed that the Standard Assessment and Complex Assessment be conducted back to back. Excavation methodology agreed with Wurundjeri to involve 1 x 1 m manually excavated excavation pits (EPs) on each landform, the number and location of which would be determined in the field, and a series of 5 x 1 m mechanical excavation pits (MEPs) excavated along a 50 m grid. In the event that high visibility or no (or very little) soil deposits were identified, the 50 m grid would increase to a 100 m grid. Subsurface testing was to avoid disturbance associated with the house and planted trees.

#### **Post-excavation and Conditions Meeting** – 18 October 2019

**Attendees:** Karen Kapteinis and Petra Schell (Ochre Imprints), Matthew Chamberlain (Project Manager, Heritage Unit, WWCHAC), Ron Jones (Elder, WWCHAC), Allan Wandin (Elder, WWCHAC). Robert Mullins (Elder, WWCHAC) was unavailable to attend the meeting.

#### **Meeting Record:**

- Karen outlined the results of the Standard and Complex Assessments. The Standard Assessment identified two landforms comprising the lower and middle slopes of Redstone Hill. Visibility ranged from 30% to 90%, with lower visibility due to pasture grass, while areas of higher visibility occurred mostly beneath trees and along fence lines on stock tracks and areas of erosion and ploughing. Some evidence of ploughing and field stone removal were identified in parts of the activity area, and construction of the dwelling and a driveway had also contributed to disturbance of the topsoil;
- Seven surface stone artefacts were identified during the Standard Assessment in surface exposures, and comprised silcrete and quartzite stone artefacts;
- The Complex Assessment excavated a total of three EPs (1m x 1m), nine MEPs (5m x 1m) and eight shovel test pits (STPs) (0.5m x 0.5m), resulting in an excavated area measuring 50 m<sup>2</sup>. The soil profile typically comprised mid brown and red brown silty clay overlying clay to depths ranging from 40-100 mm, although soil profiles were generally very shallow (~50 mm). As a result of shallow soil profiles, excavation of MEPs occurred mostly on a 100 m grid, with excavation of three MEPs occurred on a 50 m grid when MEP 3 contained soils measuring 100 mm deep. Two subsurface stone artefacts were identified in MEP 1, but no further cultural material was identified in the surrounding STPs. The proposed activity included some open space in the south eastern corner; however, no stone artefacts were identified in this area. It was agreed by the Elders that the testing for the CHMP had been sufficient;
- It was agreed that the stone artefacts would be registered as one Aboriginal place comprising an LDAD;
- A request for any oral history was made; however, no specific oral history associated with the activity area was available;
- The cumulative impacts were discussed for the local area, which showed that some LDAD registrations had been protected within open space associated with the greater Redstone Hill residential development as reflected in CHMP 13370.

The CHMP management conditions that would apply were discussed with WWCHAC and confirmed as follows:

- A hard copy of the CHMP is to be kept on site at all times during the conduct of the activity;
- All contractors and subcontractors performing ground disturbance work in the activity area are to participate in a cultural heritage induction prior to the initiation of the activity, to be delivered by the RAP and a HA. The HA was to prepare an induction booklet;

- A surface collection of the surface stone artefacts is required to occur prior to the initiation of the activity;
- Compliance inspections should be undertaken by the RAP as follows: one prior to initiation of the activity, one during the activity, and one at the completion of the activity; and,
- Reburial of all cultural material, including any salvaged material, is to occur following completion of the activity. The cultural material is to be reburied within the open space in the south eastern corner of the activity area.

### **2.5.3. Participation in Standard and Complex Assessments**

The following WWCHAC field representatives participated in the field survey carried out on the 1 October 2019 and the Complex Assessment carried out on 1-3 October 2019:

- Gary Hansen – 1 & 3 October 2019;
- Justin Entwhistle – 1-2 October 2019;
- Naomi Zukanovic – 2 October 2019;
- John Xiberras – 3 October 2019.

### **2.5.4. Views of the RAP**

No oral history in relation to the activity area was provided by the Aboriginal field representatives who were present during the assessment, nor was any provided by the WWCHAC Elders during the post-excavation and conditions meeting held on 18 October 2019. The views of the RAP on the CHMP process is reflected in the meeting summaries provided in Section 2.5.2. A copy of the draft management conditions was sent through to the RAP for comment and endorsement. No comments were provided by the RAP on the draft management conditions.

### **3. DESKTOP ASSESSMENT**

#### **3.1. INTRODUCTION**

This section fulfils the CHMP requirements for a Desktop Assessment. It provides contextual geographical, environmental, historical and archaeological information for the activity area and the region surrounding it. The focus of the Desktop Assessment is on placing the activity area in a regional context to inform the expected nature of Aboriginal cultural heritage in the activity area. This enables a predictive model to be established to inform the rationale behind, and methodology for, the Standard and Complex Assessments, should they be required, and allows for a comparative analysis and significance assessment to be undertaken if Aboriginal places are present in the activity area.

#### **3.2. ENVIRONMENTAL CONTEXT**

##### **3.2.1. Geographic Region**

The *Aboriginal Heritage Act* 2006 requires a Desktop Assessment to include ‘an identification and determination of the geographic region of which the activity area forms a part that is relevant to the Aboriginal cultural heritage that may be present in the activity area’ (Section 57).

The geographic region chosen for this CHMP was a 1.5 km radius from the centre of the activity area. The geographic region was selected in this way in order to incorporate a representative sample of the registered Aboriginal places most relevant to the current activity area. This area encompasses the slopes of Redstone Hill and the Jacksons Creek valley. This region is considered relevant as it contains geological and geomorphological characteristics, and associated soil profiles that are represented in the activity area, but also contextualises the activity area within a wider environment, specifically Jacksons Creek and the surrounding volcanic plains. The geographic region is depicted in Figure 5.

The activity area is located within the Western Plains geomorphological division in a diverse geomorphic area described as containing eruption points, terraces and floodplains, dissected plains, and stony rises.

The Desktop Assessment, particularly the review of registered Aboriginal places and previous archaeological research, focuses on the geographical region. However, environmental and ethnographic sections of this report examine a wider area. This is because the available information for these fields was too limited for the geographic region to provide enough information to assist in the development of predictive statements regarding the likely Aboriginal place distribution in the activity area.

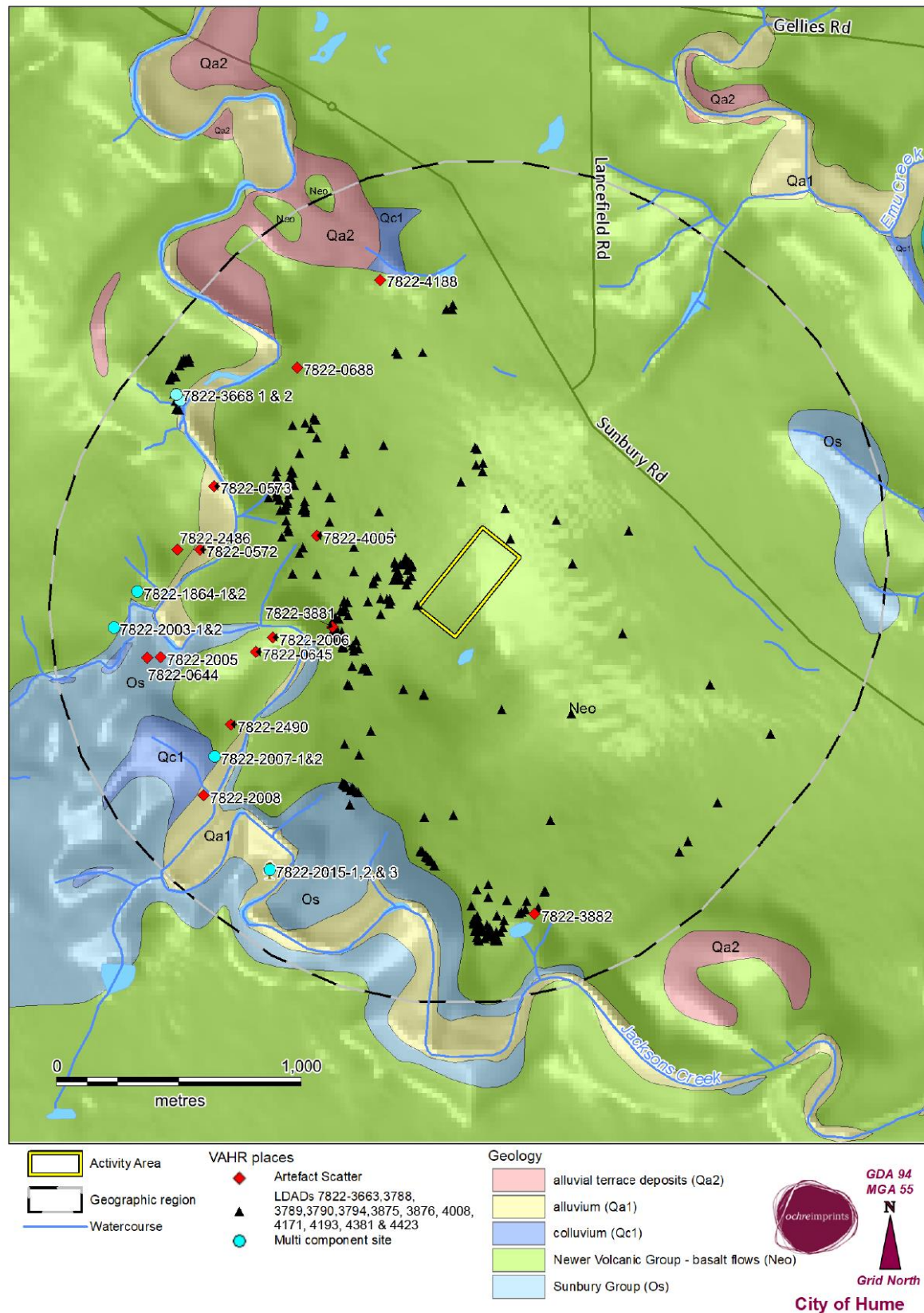


Figure 5: Geographic region showing geology and VAHR places.

### 3.2.2. Landforms and Underlying Geology

The activity area is located on the Western Plains of Victoria which are dominated by a Pliocene-Pleistocene (5-0.001 Ma BP) surface of Newer Volcanic Group basalt sheet flows (Neo) (see Figure 5) (Gray & McDougall 2009: 246). Eruption points of lava hills and scoria cones occur sporadically within the landscape, the closest of which is Redstone Hill, a lava hill of local geological significance (Rosengren 1994). The activity area is located on the lower to middle slopes of Redstone Hill (Figure 5).

The activity area is dominated by Newer Volcanic Group basalt flood flows which were erupted between approximately 4 and 1 million years before present (Gray & McDougall 2009). These flows covered the landscape with numerous sheets of lava with each new eruption, filling the valleys of the Pliocene-age (~5-3 Ma BP) surface (Hare & Cas 2005). These valley-filling lava flows disrupted the drainage system, damming and diverting streams from their previous alignments (Hills 1975). Following eruption of the basalt, there followed a significant period of subaerial weathering and intermittent uplift across most of south eastern Australia.

The onset of arid conditions of the Last Glacial Maximum from the Late Pleistocene onward resulted in the lowering of global sea levels, a decrease in weathering, and an increase in dust deposition (Hare & Cas 2005; White & Mitchell 2003). The lowered sea levels during the Last Glacial Maximum combined with ongoing intermittent tectonic uplift in the uplands to the west and north resulted in the acceleration of incision by existing regional streams such as Jacksons and Deep Creeks (Cupper *et al.* 2003; White & Mitchell 2003). The incision of Jacksons and Deep Creeks eventually created narrow, deep valleys, approximately 50-90 metres below the level of the surrounding volcanic plain.

Sea levels recovered following the end of the Last Glacial Maximum, in the period between 18ka BP and 8ka BP. By the Mid-Holocene (~6ka BP), sea levels rose to approximately 1.7m above current levels (Sloss *et al.* 2007). This rise in base level prompted the widespread deposition of alluvial material along the channels of regional streams, including Jacksons and Deep Creeks. Higher average rainfall during this period also facilitated increased vegetation growth, which stabilised the dust deposits at the surface of the volcanic plains and incorporated them into the topsoil profile (Jackson *et al.* 1972). These basalt flows typically contain gilgai plains with cracking clay soils, and in some areas contain silty topsoils that grade to silty clay overlying clay (Northcote *et al.* 1975: 59-61).

The Late Holocene was characterised by an increase in aridification, whereby average rainfall and temperatures decreased, leading streams to incise into their previous channels (White & Mitchell 2003). This created a series of unpaired alluvial terraces along bends in

streams. Combined with the arrival of Europeans and their agricultural practices, erosion and sedimentation cycles changed dramatically (Dodson & Mooney 2002).

The geomorphology of the activity area has been largely categorised as Stony Rises (Mt Eccles, Pomborneit, Mt Rouse; 6.1.2), however this category doesn't provide any relevant information for the activity area, which does not appear to contain 'stony rises' (as defined by 6.1.2; VRO 2019). The south east part of the activity area has also been defined as part of the Eruption Points: maars, scoria cones and lava shields including associated ash and scoria deposits (Lake Purumbete, Mt Elephant, Mt Cottrell) of the Western Plains geomorphic division. Redstone Hill is characterised as a lava hill with low-gradient slopes formed by the eruption of relatively viscous lava and contains a very degraded vent at the peak.

Suitable stone for the manufacture of stone artefacts was abundant in the near vicinity, with numerous silcrete quarries registered along Jacksons Creek within 2 km of the activity area (e.g. VAHR 7822-0641; 7822-1864; 7822-2003; 7822-2004; 7822-2007; 7822-2015 & 7822-3668). These quarries commonly occur where streams have incised through the basalt to expose the underlying sedimentary material. Over time, the weathering of the basalt mobilised silica which accumulated at the interface between the basalt and the underlying material, hardening to form silcrete (Webb & Golding 1998). This material was then exposed at the surface following stream erosion. The catchment area of Jacksons Creek includes source rocks of raw materials including quartz, quartzite, silcrete, and chert. Therefore, there is potential for this material to have been eroded from outcrops along the stream channel and transported downstream during periods of higher flows.

### **3.2.3. Climate**

In its c. 50-60,000 years of human habitation, Australia's climate has undergone a series of fluctuations, and at times quite dramatic changes. These fluctuations have affected sea levels, geomorphological processes, flora and fauna communities and hydrology. While over larger time scales glacial-interglacial cycles dominate broader scale changes, significant decadal to centennial timescale climatic variations occur, in part due to atmospheric, oceanic and terrestrial interactions. These are known to have had a significant impact on vegetation, hydrology etc – which in turn has been attributed to changes in the archaeological record - but this information has not been systematically collated or validated over larger spatial scales (Mills *et al.* 2013; Williams *et al.* 2010: 831).

During the Pleistocene period, at the time of the last glacial maximum (approximately 21,000-15,000 years BP), temperatures would have been an average of 6-10°C lower than presently experienced (Mulvaney & Kamminga 1999: 115-116). The colder temperatures



influenced sea levels and at this time the coast extended much further southward, joining Tasmania to the mainland as part of one larger landmass (Mulvaney & Kamminga 1999). Conditions were notably drier around this time, with less than half of today's annual rainfall falling across the region. This reduced rainfall meant that forested areas were scant across southern Victoria, with the region dominated by grasses (Kershaw 1995: 664). The decreased vegetation facilitated the mobilisation of large volumes of dust, which was deposited across the region.

Between 12,000 and 9,000 years BP, warmer temperatures and increased precipitation encouraged the expansion of eucalypts, and forested areas became more common with the grasses surviving 'as the dominant understorey' (Kershaw 1995: 666). Sea levels also began to rise at this time, separating Tasmania from the mainland. Sea levels in Victoria stabilised around 1.0-1.5 m above today's levels between 7,700-7,400 BP, before reaching current levels approximately 2,000 years BP (Lewis *et al.* 2008: 74; Lewis *et al.* 2013: 128). There is evidence that Port Phillip Bay becoming an estuarine-marine environment at c. 8,200 BP, although it dried out for a period of time 2,800-1,000 years ago. The later was likely caused by sediment blocking the channel entrance coupled with high evaporation rates (Nunn & Reid 2016: 18; Holdgate *et al.* 2011: 157, 167-168)

There is evidence for the onset of the El Niño-Southern Oscillation phenomenon c. 6,000 to 5,500 years BP and this may relate to subsequent drier and variable climatic conditions (Mills *et al.* 2013: 8). An analysis of vegetation patterns in the mid Holocene and last glacial maximum found that differences between mid Holocene and modern vegetation patterns are comparatively small and reflect changes in moisture availability rather than temperature (Pickett *et al.* 2004: 1381). However, these changes would have nevertheless had an impact on the distribution of subsistence resources utilised by Aboriginal people, and the way they interacted with the landscape. This is supported by an analysis of radiometric dates across northern and central Australia which identified 'notable declines' in the archaeological record over ca. AD 700 and 1,000 and post-AD 1,500. This decline, measured by a reduced number of radiometric dates at archaeological sites, broadly correlate with transitions of the El Niño-Southern Oscillation (Williams *et al.* 2010: 831).

The current climate of the region is generally described as temperate with warm, dry summers and cool winters with a mean maximum temperature of 19.9°C and a mean minimum temperature of 9.6°C. Average annual rainfall in the region is recorded as 586.5 mm (Bureau of Meteorology: August 2019).

### 3.2.4. Flora and Fauna

The vegetation of the geographic region prior to European arrival was varied, with the activity area characterised by the Plains Grassy Woodland (EVC 055) ecological vegetation class (DEWLP NVIM: August 2019).

Plains Grassy Woodland, common across the poorly drained volcanic plains and covering most of the geographic region, was characterised by an open eucalypt woodland with a sparse understory 'over a species-rich grassy and herbaceous ground layer' (DSE 2004: n.p.). The woodland included tree species including River Red Gum (*Eucalyptus camaldulensis*), shrubs such as Golden (*Acacia pycnantha*) and Hedge Wattle (*Acacia paradoxa*), and grasses and herbs including Kangaroo Grass (*Themeda triandra*), Wallaby Grass (*Austrodanthonia setacea* and *racemose*) and Grassland Wood-sorrel (*Oxalis perennans*). Hills Herb-rich Woodland, similarly, was characterised by an open woodland containing a 'carpet of herbs and grasses' (DSE 2004: n.p.). Species present in this vegetation community included Box trees (Grey and Yellow – *Eucalyptus melliodora* and *microcarpa*), Sheoak (*Allocasuarina verticillata*) and Wattle (*Acacia*) species.

Species present within the above which were known to be used by Aboriginal people include River Red Gum, whose bark was used to manufacture vessels such as dishes, shields and canoes (SoBS 2010: 17), Black Wattle, whose gum was eaten and bark used for medicinal purposes, Box trees whose wood was used 'for implements and weapons (SoBS 2010: 5, 17), as well as fruits such as the Common Apple Berry, which were eaten.

Plant resources present at the ground layer would have included the roots of lilies, orchids and *murnong*. The latter is also known as Yam Daisy (*Microseris scapigera*) a staple food of the Aboriginal people of Victoria at the time of contact, which was collected in large quantities and roasted in fires. Other plant resources of the plains included Kangaroo Grass (*Themeda triandra*), which was common on the plains and was used for fibre to make fishing nets - and the seeds may also have been ground and baked (Zola & Gott 1990: 58). Native tussock grass (*Poa sp.*) fibres were also used for string, nets, baskets and bags (Zola & Gott 1990: 12).

The geographic region would have once been home to a diverse range of native fauna that would have provided a valuable resource to local Aboriginal people. Mammals in the area would likely have included the Eastern Grey Kangaroo, Wombat and the Fat Tailed Dunnart as well as a variety of snakes and lizards. The nearby waterways of Jacksons and Deep Creek would have supported a range of aquatic animal species such as the Southern Pigmy Perch, Flat Headed Gudgeon, eel and fresh water mussel, as well birdlife likely including species of snipe, plover and quail (Presland 1983: 34).

The activity area appears to have been largely cleared of native vegetation.

### **3.3. POST-CONTACT LAND USE HISTORY**

#### **3.3.1. Introduction**

The post-contact land use history of the activity area has resulted in a degree of modification to its character over time, and almost certainly will have had an impact on its pre-contact archaeological record. This section discusses the history of the activity area and its surrounds through a review of the history of the local area as well as a review of historical documents, maps, plans and aerial photography. This review is undertaken in order to predict the type of modifications that are likely to have occurred within the activity area, which may in turn have had an impact on the Aboriginal archaeological record.

The historical overview provides a broad outline of the post-contact history of the local region, with a focus on the type of land use practices likely to have had a direct impact on the activity area. The land use history proper discusses historical use of the activity area specifically.

#### **3.3.2. Historical Overview**

The first European exploration to the north of Port Phillip Bay occurred in 1824 and was led by Hume and Hovell who described the panoramic views across the volcanic plains to the location of present-day Melbourne. Following these favourable reports John Batman explored the area in 1835 and ascended a hill he called Mt Iramoo to view the extensive grasslands surrounding the area. The precise location of Mt Iramoo has not been established; however, it has been suggested that Batman's Mt Iramoo corresponds to Redstone Hill (Moloney & Johnson 1998: CL9-3). From the summit of this hill, Batman described the "view all round, I think I may say 40 miles or so each way, of beautiful plains of the best description of grass" (Moloney & Johnson 1998: CL9-3).

The Jacksons Creek waterway (along with Maribyrnong River and Deep Creek waterways), formed part of the area between Keilor and Sunbury that was among the first settled by Europeans migrating from Tasmania in 1836 (Moloney & Johnson 1998 vol 2: 12). The Sunbury region has been described (Moloney & Johnson 1998 vol 2: 12) as 'particularly important as the nucleus of pastoral settlement by prominent Port Phillip founders' such as Aitken, Evans and Jackson, and that:

The Jacksons Creek waterway near Sunbury – with its rich flats, good water, grasslands, woodlands, and sheltered topography – was probably an especially attractive area to pioneer European settlers. The plateau on the western side of Jacksons Creek is drained by tributary streams which have helped formed alluvial

flats near their junctions with the main watercourse. ... The sites which provided shelter, plenty, and ceremony for Aboriginal people were also preferred sites for the homesteads and sheep stations of the European occupiers (Moloney & Johnson 1998 vol. 2: 14).

### Squatting and first settlement

The wider region was first settled by groups of squatters known as 'overstraiters' (Moloney & Johnson 1998 vol 2: 20), who arrived oversea from Launceston. John Aitken, who brought 600 sheep to an area of land between what is now Sunbury and Gisborne in 1836 (Moloney & Johnson 1998 vol 2: 15) is considered the earliest of these overstraiters to arrive and settle in the region. A successful pastoral enterprise followed, and 'for several decades Aitken was revered as the colony's leading flockmaster' (Moloney & Johnson 1998 vol 2: 15). Nearer to the activity area, Evans and Jackson brought their sheep to the region around the same time, and 'settled at the site of the future town of Sunbury' (Moloney & Johnson vol 2: 17) in July of 1836. A number of others were also occupying land in the vicinity at the time, with fewer head of stock.

Settlement by pastoralists preceded the establishment of the town of Sunbury by several years – it wasn't until September of 1851 that a proclamation in the Government Gazette announced the creation of the village reserve, set out by surveyors Foot and Urquhart, 'at Jackson's Ford on the Mt Macedon Road', and three years later that the township of Bulla, to the south, was marked out. It wasn't until the early 1850s that the pastoral runs were divided up and sold off in Crown Land sales.

### Grazing, Cropping & Dairying

Sheep grazing was among the earliest uses of the Sunbury landscape by European settlers. From the 1850s onward, gold rushes drove an increased demand for farming land, and properties began to be subdivided and used for agricultural as well as pastoral purposes (Moloney & Johnson 1998 vol 2: 48-52). Wheat crops enjoyed brief popularity in the 1850s before poor soils, pest infestations and falling boom prices meant that 'many impoverished farmers were forced to leave their properties' (Moloney & Johnson 1998 vol 2 :52) in the 1860s and 1870s. This failure led to a shift away from wheat production to dairying and the cultivation of hay, among other endeavours. Smaller more intensive farms often combined these activities with other means of earning an income such as poultry, pig or bee keeping, and wineries were also introduced around Sunbury in the 1860s (Moloney & Johnson 1998 vol 2: 56).

In the early 20<sup>th</sup> century the region experienced a dramatic increase in population, and large areas of land formerly put to pastoral use were divided up and allocated to mixed-use

farming. 'Creameries and butter factories...replaced the farm dairies' (Moloney & Johnson 1998: 70) at this time, and the introduction of new technologies to the farming industry meant that production could be scaled up in a way not possible in the past.

### 3.3.3. Activity Area Land Use History

This section reviews historical maps, plans and aerial photography of the activity area in order to predict the type of modifications that are likely to have occurred within it, which may in turn have had an impact on its Aboriginal archaeological record.

According to Moloney and Johnson (1998: CL9-4) the earliest documented occupation of the activity area dates to 1836 when John Brock established a pastoral run in the area. The run appears to have included land from Emu Creek in the northeast to Jacksons Creek in the southwest (Spreadborough & Anderson 1983: 164). Isaac Batey, son of Martin Batey, the last leaseholder of Redstone Hill and the eventual owner of the 640 acre Redstone Hill pre-emptive right, recorded that Brock's first huts were located on the Redstone Hill run. According to Batey:

Mr John Brock temporarily settled in a beautiful circular depression known to us under the designation of Brock's Bottom...Mr Martin Batey said Mr Brock informed him that he built his huts on the hill in order to observe the approach of aboriginals [sic] from all points<sup>2</sup> The only signs of occupation were mounds of two turf built huts...[Brock later moved] up Emu Creek [and] formed Bolinda Vale Station (Batey SLV MS 14397, p 69).

Billis and Kenyon (1974: 269) agree that Redstone Hill was taken up in 1836, but list Henry Howey as the first pastoralist, followed by Edward Dunn (1840-41), J. and R. Bakewell and Shaw (1841-46) and Flintoff and Batey<sup>3</sup> (1846-74) as the subsequent proprietors of the run. Batey took sole possession of it in the late 1840s (Context 2014: 17).

Early Bulla Bulla parish plans show that the activity area was located within the Redstone Hill 640 acre pre-emptive right (originally lot 1, section 25), purchased by Martin Batey<sup>4</sup>, the

<sup>2</sup>It appears unlikely that the location referred to here is inside the current activity area. Elsewhere Isaac Batey described the ploughing of the turf mounds by employees of the then landholder Martin Dillon (Batey SLV MS 14397, p 3). Martin Dillon held property at lot 2, section 27 in the Bulla Bulla Parish – this block is immediately adjacent to property purchased by Martin Batey east of the Redstone Hill pre-emptive right (Fanning family history website, accessed 29/8/19)

<sup>3</sup>According to Isaac Batey, when he and his family first arrived in Victoria, Martin Batey worked as an overseer on Edward Flintoff's property on the Plenty River and the partnership between Batey and Flintoff was not formed until after the initial occupation of Red Stone Hill by Flintoff. He also asserts that Flintoff purchased the leasehold from William Postlethwaite, who acquired it from Shaw and Bakewell (Batey SLV MS14397), which doesn't entirely accord with information in Billis and Kenyon (1974).

<sup>4</sup>Several plans show this property labeled as 'Mr Batty's pre-emptive right' and show the adjacent (eastern) property (lot 1 of section 27) as having been purchased by M. Batey. Plans in Public Records Office land files (VPRS 5714/P/P000/1440, file 4864/86.6) show 'M. Batty' as the original holder of both properties, suggesting that Martin Batey likely held both properties. This accords with Batey's status as the, or one of the, final leaseholder(s) of the Redstone Hill pastoral lease.

last leaseholder of the run (Figure 6). Batey also purchased just over 273 acres of land to the immediate east of the pre-emptive block in the 1854 sales.



Figure 6: 1866 County Bourke survey plan showing Batey's pre-emptive right and indicative location of the activity area in yellow.

The activity area has been predominantly utilised for grazing and possibly cropping over time and did not contain any structures in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, with the land described as being very stony in a 1919 valuers map (Figures 7-8). At the time, it was partially fenced by stone wall post and wire fencing on two sides (VPRS 5714/P000/1440, file 4846/866).

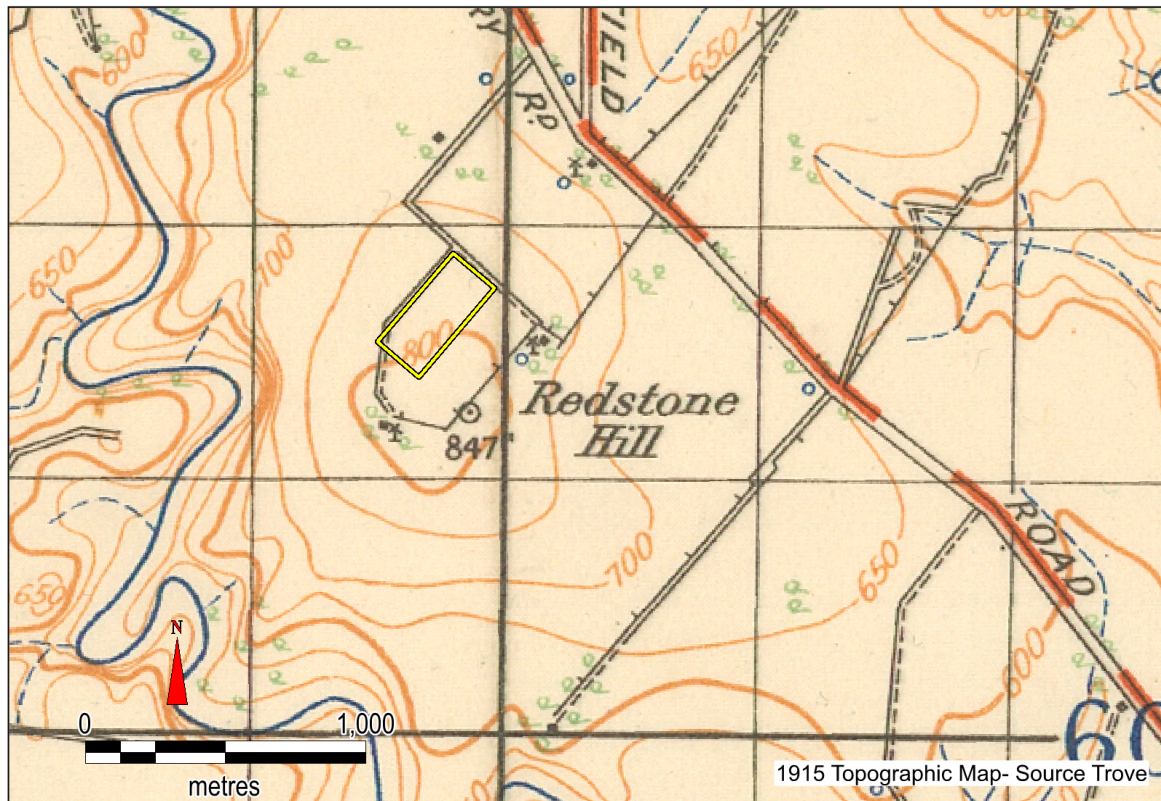
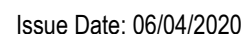


Figure 7: 1915 topographic map showing indicative location of the activity area in yellow (Source: Trove)





More recent aerial imagery shows that construction of the current residence occurred between 1975 and 1991. Prior to this, the land was vacant and largely covered with pasture, although the northern portion of the land appears to have been subject to ploughing (Figure 9). Following construction of the residence, the land immediately surrounding it was planted with trees, which still stand at present creating a yard (Figure 3).





Figure 9: 1975 historical aerial showing location of activity area

### **3.4. ETHNOHISTORY**

#### **3.4.1. Introduction**

The following section reviews the available ethnohistorical data relevant to the Aboriginal people who occupied the wider region at the time of European contact. This type of review aims to identify ways in which Aboriginal people interacted with, and may have left archaeologically detectable traces on, their environment. Although the ethnohistorical record has the potential to provide useful information about Aboriginal society at contact, it should be noted that the information it does provide is, of necessity, incomplete, has no significant time-depth, and describes a society that even in the earliest observations had already undergone an unknown degree of social change.

It should also be noted that not all sources of information are equal, that information has been gathered from both trained and untrained observers, and that all documentation consulted here has been subject to a degree of bias. The ethnohistorical record presents a European perspective of Aboriginal society at a time when traditional lifestyles were being severely disrupted, and conclusions drawn from this record should be treated with the appropriate level of caution.

A wide variation exists in the nomenclature of Aboriginal clans. In this ethnography, quotes retain the original authors spelling; however, commonly used spelling is generally used throughout (with common variations included in brackets).

The lives of Aboriginal groups in the wider region were severely disrupted by European settlement and the gold rushes that followed. As a result, very little information is available regarding the pre-contact lifestyle of Aboriginal people in the geographic region. A full ethnographic search was outside the scope of this assessment. The following section broadly summarises major synthesis previously undertaken on Aboriginal associations with the geographic region in the pre-contact and post-contact period. No Aboriginal oral history has been gathered during this research.

#### **3.4.2. Pre-Contact History**

The basic unit of Aboriginal social organisation in Victoria was the clan: a group based on kinship through the male line with a shared historical, religious and genealogical identity (Barwick 1984: 105-6). The clan was a land-owning unit whose territory was defined by ritual and economic responsibilities (Barwick 1984: 106). Groups of neighbouring clans speaking the same dialect and sharing political and economic interests identified themselves by a language name. In many cases, this name used the suffix *(w)urrung*, meaning 'mouth or way of speaking' (Barwick 1984: 105).

The activity area is located within the traditional language boundary of the *Woi wurrung* (Wurundjeri) people who occupied the watershed bounded on the north by the Great Dividing Range from Baw Baw west to Mt Macedon and by the Werribee River (Clark 1990: 380). Numerous *Woi wurrung* clans existed, the most relevant for the activity area being the *Marin Balug* clan, who were thought to be based at Jacksons Creek, in the vicinity of Sunbury (Clark 1990: 364).

The *Woi wurrung* were one of several language groups that made up the Kulin Nation. The *Woi wurrung*, and neighbouring groups, *Bun wurrung* (Bunurong), *Daung wurrung* (Taungurung), and *Ngurai-illam-wurrung* shared over 70% common language, while the neighbouring groups to the west, *Wada wurrung* (Wathaurung) and *Dja Dja wurrung*, spoke language belonging to the Western Kulin language groups (Clark 1990: 19; Ellender & Christiansen 2001: 16, 36). In early references, language groups were often referred to by geographic identifiers: *Woi wurrung* (Wurundjeri) were known as the Yarra people, *Bun wurrung* (Bunurong) the Western Port people, *Daung wurrung* (Taungurung) the Goulburn people and *Wada wurrung* (Wathaurung) were known as the Geelong or Barrabool people.

The Kulin groups intermarried and traded allowing marriages to be of distant blood and 'safe travel' areas to be wide-spread (Barwick 1998: 13, 28). However, the relations between East and West Kulin clans was often hostile. According to William Buckley 'the contests between the 'Watourings of Geelong' (*Wada wurrung*) and the 'Wawarongs' (*Woi wurrung*) of the Yarra were fierce and bloody (Buckley cited in Cannon 1982: 182) and violence between the two clans was noted in 1839 at ceremonial gatherings on the Yarra (Cannon 1983: 454). Thomas noted in 1839 that the 'Goulburn' (*Daung wurrung*), 'Waverongs' (*Woi wurrung*) and 'Bunurongs' had a 'kind of confederacy' against the Geelong clans (Thomas cited in Cannon 1982: 612).

Many references suggest strong ties between the *Daung wurrung* (Taungurung) and *Wurundjeri willam* (Ellender & Christiansen 2001: 71; Cannon 1982: 612).

### **Seasonal Movements**

Various observers noted Aboriginal travel to the mountain ranges in summer and winter. Smyth (cited in Ellender 1997: 14) noted that in winter when the plains were wet, Aboriginal people moved north to the ranges and caught koalas, wombats, wallaby, ants and grubs until the warmer months arrived when they returned to the plains to hunt waterfowl and collect eggs. Smyth also noted that during the summer the most common vegetable food in the Yarra district was the heart of the tree fern (1878: vol. 1, 140-1), and it is likely that this was the time when Aboriginal groups would have visited mountain environments to obtain

this resource. Smyth (1878: Vol. 1, 33-4) observed the nature of Aboriginal use of mountain ranges as follows:

It is certain that the blacks in the proper season occasionally visited the glens and ravines on both sides of the chain, but they did not live there. They visited them for the purpose of obtaining woods suitable for making weapons, feathers for ornament, birds and beasts for food and for the tree fern, the heart of which is good to eat, and for other vegetable products.

Langhorne (Cannon 1982) noted in December 1838 that the 'blacks of the district about the latter end of the month left for the mountainous parts, taking with them all our boys'. In January he noted that most of the Aboriginal people were camped along the sea coast about Arthur's Seat in *Bun wurrung* (Bunurong) territory (Cannon 1982: 234). Smyth (cited in Ellender 1997: 14) suggested summer saw the local Aboriginal people settled on the rivers and coast, fishing, eeling, hunting kangaroo, echidna, possum, burning the grass, collecting grass seed and resins, plant food and bark. A squatter on the Merri Creek near its confluence with the Yarra River noted that 'as the marshes dried up in summer, the 'blacks' repaired thither in quest of eels, which were embedded in great numbers in the mud....for this purpose they used a long slender spear with attached a pointed piece of iron' (Kerr 1872: 20).

Thomas (cited in Bride 1969: 399) noted that the warmer months were the time for travelling and that the average travelling distance for a group was 9.5-14.5 km per day. The clan chief or headman directed the movements and knew the location of clan members at all times. Summertime camps were quickly established using a few boughs as windbreaks. Winter camps were more permanent: huts were made from a few sheets of bark and in this manner large villages of up to 150 huts could quickly be established.

### **Trade and Exchange**

The Mount William stone axe quarry, located approximately 40 km to the north of the activity area, was an important source of stone axe heads which were traded over a wide area of south-east Australia and would have passed along the waterways of the Merri Creek, Deep Creek and the Plenty River as the stone made its way to important ceremonies on the Yarra River (McBryde 1978). Although there are no first-hand descriptions of the operations of Mount William, in 1882 and 1884 William Barak, a *Woi wurrung* man who witnessed the final operations of the quarry, described aspects of the custodial control over this resource to Alfred Howitt (1904: 311) in the following way:

There were places ... in which the whole tribe had a special interest. Such a place was the 'stone quarry' at Mount William... When neighbouring tribes wanted stone for

tomahawks they usually sent a messenger for Billibellary [he acted as the quarry's guardian]. When they arrived, they camped around about the place. Billibellary's father when he was alive split up the stones and gave it away for presents such as 'rugs, weapons, ornaments, belts, necklaces.

Soon after European settlement, lyrebird tails became a valued export item. European traders gave guns to a number of Aboriginal people to enable them to shoot lyrebirds (Cannon 1983: 518). Thomas reports that in October 1839 'Seven blacks (Yarra tribe) return from seeking bullen-bullen...They had no less than 17 pheasant tails and many white people were about till dark trying to get the tails from them' (Cannon 1983: 550).

### **Traditional Life**

There is very little documented information regarding specific *Marin Balug* activities in the Sunbury region. An 1864 lithograph of Aboriginal people on the Merri Creek presents a (romanticised) scene from daily life (Plate 1). The exact location of this image is unknown, except for the proximity of the 'Plenty Ranges' in the background. Accounts of *Woi wurrung* Aboriginal people in the wider area are presented here as they provide insights into likely Aboriginal life in the region.

Harrison (1923), who resided at Yan Yean (c. 15 km east-northeast of the activity area) during the period c. 1837–1844, provides some information on Aboriginal people living in the Plenty River area (the Plenty River is located c. 12 km east of the activity area). His description of 'diet, housing and clothing' provides some information on subsistence strategies (Harrison 1923: 20):

Aboriginal diet - chiefly of fish (caught by spearing) also: iguana, possum, kangaroo, grubs (from roots of wattle trees) and the bulb-like roots of yams and murnongs...

Housing 'nuamas' - strips of bark or long branches of trees, supported at an angle against a fallen log of a tree, away from the weather side...

Clothing - (in winter) opossum skins joined together by the sinews of kangaroos and other animals... Men carried spears, boomerangs; women, yam sticks.



Plate 1: Aboriginal people fishing and camping on Merri Creek with Plenty Ranges in the distance.  
Tinted lithograph by Charles Troedel (1864)

Personal adornments of the *Woi wurrung* noted by Thomas included impressive patterned scarring on the skin, tooth avulsion and nose piercing (Thomas cited in Cotter 2005: 9-10).

Other general observations of the *Woi wurrung* provided by Smyth and Howitt (cited in Ellender & Christiansen 2001: 40-50) reveals the resources utilised by Aboriginal people for a wide range of daily activities. Wooden drinking containers made from tree burls were common. Large containers were left at permanent campsites, filled with water and flowering plants placed in the water to form a sweet drink. Eucalyptus gum was collected in season, rolled into balls, wrapped in fibre bags and then hung in a tree. These balls could become very heavy, weighing up to 20 kilograms and were used as a medicine.

The *Woi wurrung* used slow baking to cook both meat and roots. A hole was excavated in the ground, a fire was built up and stones were added. If no suitable stones were available near the campsite, lumps of clay were used. When hot, the stones were covered with green boughs stripped from trees. Meat and roots were placed on this mat and then covered with another layer of green branches followed by bark topped with some soil or sand. A number of observations from the 1830s about the plains north of Melbourne noted the abundance and popularity of 'rats' (presumably the kangaroo rat) and yams known as *murnong* (Gellibrand cited in Bride 1969: 31).

Smyth noted the remains of large *murnong* cooking mounds on the banks of the Plenty River, and the Darebin and Merri Creeks. He observed that their locations were generally in proximity to water – and that they were used repeatedly 'by generation after generation'. The

*murnong* mounds were also found near or lightly within the margin of a forest, with the position nearly always well sheltered (Smyth 1878: 239).

Grasslands fringing the Merri Creek west of the activity area would have been good hunting grounds for kangaroo, possum and emu and were managed using traditional 'firestick' burning (Ellender & Christiansen 2001: 114). Hume and Hovell allude to this practice many times on their 1824-5 journey. At Broadford (c. 45 km north of the activity area) in December 1824 they stated, 'we could see that the country is on fire in all directions, this appears to be the season for their [Aboriginal] burning the old grass to get new' (cited in Andrews 1981).

Thomas (cited in Bride 1969: 399) noted that:

once in about three months the whole tribe unite, generally at a full moon, when they have a few dances, and again separate into three or more bodies, as they cannot get food if they move en masse. They seldom camp more than three nights in one place, oftener but one, arriving at the camp about an hour before sundown. In their migratory move all are employed: children in getting gum, knocking down birds, &c; women in digging up roots, killing bandicoots, getting grubs, &c; the men in hunting kangaroos and scaling trees for opossums. There is a great harmony that exists among them when none of another tribe is in the group.

## Creation of Lands

Many Aboriginal stories relate how ancestor beings created the landscape. A *Woi wurrung* (Wurundjeri) creation story describes how many landscape features within the wider region were formed, and highlights the connection of Aboriginal people to the waterways that crossed through their lands:

Once the water of the Yarra was locked in the mountains. This great expanse of water was called Moorool, or Great Water. It was so large that the 'Woiwurong' (Woi wurrung) had little hunting ground. This was in contrast with the 'Wothowurungs' (Wada wurrung) and the 'Bunurongs', whose hunting ground was the lovely flat which is now Port Phillip Bay. Mo-yarra, slow-and-fast-running, was the headman of the 'Woiwurong'. He decided to free the country of the water. So he cut a channel through the hills, in a southerly direction, and reached Western Port. However only a little water followed him and the path cut for it gradually closed up and the water again covered the land of the 'Woiwurrung'. At a later time the headman of the tribe was Bar-wool. He remembered Mo-yarra's attempt to free the land. He knew that Mo-yarra still lived on the swamps beside Western Port (Koo-wee-rup). Each winter he saw the hill tops covered with the feather down which Mo-yarra plucked from the water birds sheltering on the swamps. Bar-wool resolved to free the land. He cut a channel up the valley with his stone axe. But he was stopped by Baw-baw, the Mountain. He decided to go northwards but was stopped by Donna Buang and his brothers. Then he went westwards and cut through the hills to



Warr-an-dyte. There he met Yan-yan, another 'Woiwurong', who was busily engaged in cutting a channel for the Plenty River in order to drain Morang, the place where he lived. They joined forces, and the waters of Moorool and Morang became Moo-rool-bark, the Place-where-the-wide-waters-were. They continued their work and reached the Heidelberg-Templestowe Flats, or Warringal, Dingo-jump-up, and there they rested while the waters formed another Moorool. Bar-wool and Yan-yan again set to work, but this time they had to go much slower because the ground was much harder. They were also using up too many stone axes. Between the Darebin and the Merri Creeks they cut a narrow, twisting track, looking for softer ground. At last they reached Port Phillip and the waters of Moorool and Morang rushed out. The country of the Woiwurong was freed from water but Port Phillip was inundated (Massola 1968).

### Customs and Rituals

Large ceremonies and group gatherings were called on a regular basis to facilitate certain unions. Marriage was sought from the *Bunjil* moieties of the *Bun wurrung* (Bunurong) to the south, the *Daung Wurrung* (Taungurong) to the north, and a clan near Mount Macedon and Lancefield (Barwick 1984: 104). Marriage was a means of promoting alliances and gaining access to food supplies and products of a neighbouring territory. *Woi wurrung* frequently married *Kulin* people from the upper Goulburn region (Ellender & Christiansen 2001: 36). Thomas noted that sacred corroborees were kept well hidden from European eyes (Ellender & Christiansen 2001: 57-58) so the gatherings discussed below are likely to represent a fraction of the ceremonial and other gatherings that took place.

Prior to European contact, the Yarra River, particularly at the confluence with the Merri Creek in the Melbourne area, was said to have been a favoured location for large gatherings of clans from different Aboriginal language groups who met for social, ceremonial and trade purposes. According to Thomas neighbouring clans united once a year (cited in Bride 1969: 401) and it was not uncommon for large numbers of people to be seen camped beside the Yarra. In 1840 (Thomas in Ellender & Christiansen 2001: 101) he noted that:

By what I can learn, long ere the settlement was formed the spot where Melbourne now stands and the flats on which we are now camped [on the south bank of the Yarra] was the regular rendezvous for the tribes known as Warorangs, Boonurongs, Barrabools, Nilunguons, Gouldburns twice a year or as often as circumstances and emergencies required to settle their grievances, revenge deaths.

The confluence of the Merri Creek and the Yarra River was known to be an important ceremonial ground (Ellender 1997: 18). Many *Woi wurrung* customs have been recorded particularly by Smyth (1878), Howitt (1884; 1904) and Thomas although it is outside the scope of this report to describe them in detail. Thomas describes several ceremonies on the



Merri Creek. These included male and female initiation ceremonies (Ellender & Christiansen 2001: 53-56). On Saturday March 22, 1843, at an encampment near the Merri Creek, nearly two hundred Kulin people came together in the ceremony of *Tanderrum* which Thomas recorded. They had travelled from their own territories along the Delatite River (near Bonnie Doon/Mansfield), to make a special visit to the land of the *Woi wurrung*. Visiting country belonging to another group was dangerous and required strict precautions. *Tanderrum* established and strengthened bonds of friendship between different Aboriginal clans. The newcomers carried torches or burning boughs in their hands which they used to purify the air. Water was brought to the newcomers, but the locals drank first to show that there was no danger. An observation documented the experience of a young man visiting the *Wurundjeri willam* for the first time who stopped to drink from the Yarra without observing any preliminary ritual; he immediately lost the use of his voice (Ellender & Christiansen 2001: 55).

Garryowen, a newspaper chronicler travelled with Thomas to Yan Yean (then known as Ryders Swamp). According to Thomas, Yan Yean was Aboriginal for 'young boys', and Garryowen hypothesised that the area may have been used for the initiation of young boys (Garryowen 1888: 562).

The *Woi wurrung* believed that the *wirrap* (medicine man) could kill people, far or near, by means of *Mung*, or evil magic, through the agency of many substances including the *Thundal*, or quartz crystals, which was favoured (Howitt 1884: 445). The death of an Aboriginal person was treated with ceremony and superstition. Thomas noted several instances of Aboriginal burial in the ground close to the Yarra River and Merri Creeks (Cannon 1983: 526,535).

Clark (1990: 381) mentions the existence of sacred sites near Gisborne as being important to many neighbouring clans but provides few details. Five earthen rings identified at Sunbury are believed to be associated with ceremonial activity, however there is very little information regarding their use in Victoria (Sutherland & Richards 1994).

### **3.4.3. Post-contact History**

One of the first recorded contacts between Aboriginal people and Europeans occurred in 1801 when an exploration party aboard the *Lady Nelson* entered Port Phillip Bay (Broome 2005: 3). Since 1798, *Woi wurrung*, *Bun Wurrung* and *Wathaurung* people around Westernport encountered European sealers and whalers. By 1812, sealers were visiting the region on a periodic seasonal basis. Aboriginal life was severely disrupted by contact with settlers, sealers and whalers to the Port Phillip region. European diseases such as influenza

and smallpox decimated local populations, who were often affected by these diseases before they ever encountered a European (Broome 2005: 7).

In 1824-5, the European explorers Hume and Hovell with a party of convicts, bullock carts and horses crossed *Woi wurrung* territory. No contact was recorded between the Europeans and the *Woi wurrung* people, who repeatedly fired the country ahead of the explorers. In 1835, John Batman arrived from Tasmania to survey and acquire land on behalf of the Port Phillip Association declaring land on the banks of the Yarra as 'the place for a village' (Barwick 1998:19-21).

By 1840, *Woi wurrung* land throughout the Port Phillip District had largely been claimed by European colonists with settlement particularly concentrated in the 'settled district' encompassing the Melbourne region. Around Sunbury, there was some brief interaction between the local Aboriginal people and the white settlers, with Aboriginal people working as shepherds and servants from the mid-1830s onward (Context 2013: 15). Some settlers even maintained 'friendly' relations with the local Aboriginal people; John Aitken noted that he provided provisions when they visited his station, The Gap (Bride 1898: 203). However, Aboriginal resources were being rapidly depleted through grazing and clearing, and access to traditional lands was frequently prevented by settlers (Barwick 1998: 31). This dispossession resulted in Aboriginal people increasingly camping on the fringes of Melbourne where there were still patches of remnant vegetation (Presland 1997: 47). As settlement throughout Victoria severely disrupted Aboriginal lifestyles conflict was inevitable and the Government struggled with how to protect both Aboriginal people and European settlers.

The Government realised quite early the need for a safe refuge for Aboriginal people and the first attempt to provide such assistance was initiated in 1837. A Government mission was built on an 895-acre site south of the Yarra River (east of Melbourne Botanic Gardens), with George Langhorne responsible for the running of the mission. The closest Protectorate to the activity area was a short lived one at Jackson's Creek, near Gisborne. However, its precise location is unknown and there is very little information regarding this Protectorate (Historical Place Report 5:1-7, Aboriginal Victoria; Morrison 1971: 19-23). The objective of the mission system was to 'civilise' Aboriginal people and those who decided to live at the mission were provided with rations in exchange for agricultural endeavours. Children were also provided with rations for attending school classes. *Woi wurrung* (Wurundjeri) people were mainly associated with the mission although a few *Bun wurrung* (Bunurong) individuals and members of other language groups also attended the mission in 1838 (Clark & Heydon 1998: 27; Cannon 1982: 153-236).

In 1838, the Port Phillip Aboriginal Protectorate was established as a direct response to the pressures on Aboriginal people as a result of European settlement. George Augustus Robinson was appointed as Chief Protector along with four Assistant Protectors, James Dredge, Charles Sieviewright, Edward Stone Parker and William Thomas. William Thomas was appointed Assistant Protector of the central district which included Melbourne, Westernport and Gippsland. Thomas believed that the best solution was to encourage Aboriginal people away from the township of Melbourne. In September 1840, Governor La Trobe gave approval for Thomas to establish a reserve at the site of the former Native Police Corps at Narre Warren. By 1842, it was clear that the reserve was a failure with the average number of Aboriginal people living on the station recorded as eleven. Following the closure of the reserve Thomas had no official station, only an unofficial camp of approximately 80 Aboriginal people on a government reserve at the confluence of the Yarra River and Merri Creek (Wiencke 1984: 34, 42).

One reserve was established briefly at Yerrip Hills, located just north of Sunbury along Jacksons Creek, also known as the Mt Macedon Protectorate Station (Canning & Thiele 2010: 18). This protectorate was managed by Assistant Protector Edward Stone Parker. Shortly after establishing the protectorate, Parker established a protectorate further into his protectorate near the Loddon River at Larnebarramul (near Daylesford) at the encouragement of Chief Protector George Robinson (Canning & Thiele 2010: 18).

Unfortunately, the protectorate did not receive adequate funding and the infrastructure at this location was never as substantial as other protectorate reserves. A school was functioning from July 1842 to 1851 for children of the families who frequented the encampment. The school had the support of Billibellary and for a short while was successful, however Billibellary's death in August 1846 saw many Aboriginal people leave the Merri Creek confluence for much of the rest of that year (Clark & Heydon 2004: 2). In October 1848, the killing of an Aboriginal pupil from Port Fairy (purportedly by local boys who were former pupils) because he was '*mainmait*' (foreign) had a profound effect on the remaining pupils who were primarily from distant '*mainmait*' clans. The number of *Woi wurrung* (Wurundjeri) children was very low. Declining attendance and floods saw the school and protectorate disband in 1851 (Clark & Heydon 2004: 2, 3).

Aboriginal people continued to visit the township of Melbourne where they had once traditionally camped. Mostly they were Aboriginal people belonging to *Woi wurrung* (Wurundjeri) and *Bun wurrung* (Bunurong) clans, and their preferred camping places were along the south bank of the Yarra River, opposite the settlement of Melbourne, and Government Paddocks (between Princess Bridge and Punt Road) (Clark & Heydon 1998: 25). *Woi wurrung* (Wurundjeri) and *Bun wurrung* (Bunurong) people camped from the falls

(near Princess Bridge) for approximately 1.5 km south east along the river (Thomas cited in Cannon 1983: 438).

In 1839 a census requested by George Robinson, the Chief Protector of Aborigines in the Port Phillip Protectorate, of Aboriginal people living in and around Melbourne found that the probable Aboriginal population at this time consisted of 140 *Woi wurrung*, 50 *Wada wurrung* and 12 *Bun wurrung* (Bunurong) people (Lakic & Wrench 1994: 110, 113). The population of *Woi wurrung* (Wurundjeri) people declined steeply in 1847, caused by an influenza epidemic, leading to deaths and the dispersal of Aboriginal people from camps by the Yarra River (Clark & Heydon 1998). By 1853 the numbers of 'Yarra' people was 36, and only one of these was a child (Thomas cited in Bride 1969: 415). However, it is likely that the numbers of Aboriginal people in Melbourne varied greatly throughout this period and was subject to the influx of various groups and individuals.

Despite efforts from both sides, and for many complex reasons, the protectorate system failed, and it was abolished in 1849 (Woolmington 1973: 126). However, Aboriginal people continued to occupy the region.

In 1859 the *Daung wurrung* (Taungurong) and *Woi wurrung* men made their first formal move to reclaim land by asking Thomas to secure them a block at the junction of the Acheron and Goulburn Rivers. The reserve had Government support but was not gazetted and toward the end of 1860 the people who had moved to the reserve and cultivated its land were forced off. The majority of *Woi wurrung* people moved to Coranderrk, an Aboriginal mission, from 1863 to the early 1900s. The introduction of the *Aborigines Protection Act* in 1886 required all 'half castes' under the age of 35 to leave stations. The Act resulted in split families and uncertain futures and in 1924 the remaining Aboriginal people at Coranderrk were transferred to another reserve at Lake Tyers. Descendants of the *Woi wurrung* (Wurundjeri) and *Marin balug* people are today represented by the Wurundjeri Tribe Land and Compensation Cultural Heritage Council Incorporated.

### **3.5. SEARCH OF THE VICTORIAN ABORIGINAL HERITAGE REGISTER**

A review of the Victorian Aboriginal Heritage Register (VAHR) maintained by AV was undertaken on 18 June 2018 and on 15 August 2019. This review found that 31 previously registered Aboriginal places occur within the geographic region for this CHMP. The distribution of these places within the geographic region is shown in Figure 5. No previously registered Aboriginal places are located within the activity area itself, although there is one registered Aboriginal place located within 50 m (an LDAD; VAHR 7822-3876) and a further Aboriginal place (an LDAD; VAHR 7822-4171) located within 200 m of its boundary. No

Preliminary Reports, and no historical references have been registered in the geographic region<sup>5</sup>.

The frequency of Aboriginal place types within the geographic region is as follows:

- **Artefact Scatters (n=14):** artefact scatters are locations where stone artefacts and other cultural material (such as hearth stones, ochre, charcoal and bone) are present on the ground surface and/or in subsurface deposits. Three artefact scatters within the geographic region are associated with quarries, while one artefact scatter is associated with a quarry and a scarred tree.
- **Low Density Artefact Scatters (LDADs; n=12):** LDADs are locations where stone artefacts occur at a density of less than 10 artefacts per 10 square meters and are present on the ground surface and/or in subsurface deposits.
- **Multi-component sites (n=5):** A multi-component site is where multiple components have been incorporated into the same Aboriginal place registration. This can involve the registration of an artefact scatter, a quarry and a scarred tree (e.g. VAHR 7822-2015) as one Aboriginal place.

A summary of Aboriginal places recorded within the geographic region is provided in Table 3 below.

Table 3: Aboriginal places recorded within geographic region.

VAHR No	Place Type	Place Contents	Surface / Subsurface	Place Context
<b>7822-0572</b>	Artefact Scatter	6 stone artefacts manufactured on silcrete & greenstone, including an axe blank	Surface	Surface stone artefact scatter located on a floodplain of Jacksons Creek, approximately 50 m west of the channel. Place extent measured 94 m x 25 m in size and may have been affected in the past by flooding and erosion.
<b>7822-0573</b>	Artefact Scatter	27 stone artefacts manufactured on silcrete & quartz	Surface	Surface stone artefact scatter located on a terrace and floodplain, approximately 30 m west of Jacksons Creek. Place extent measured 100 m x 17 m in size.
<b>7822-0644</b>	Artefact Scatter	Unspecified number of flaked stone artefacts, including a hammerstone and a flaked outcrop of	Surface	Surface stone artefact scatter located at the top of an escarpment, approximately 60 m south of Jacksons Creek. Place extent measured approximately 970 m <sup>2</sup> in size.

<sup>5</sup> 'Historical references' are listed on the Victorian Aboriginal Heritage Registry and comprise locations where Aboriginal people are known to have associations in the post-contact period (i.e. locations where Aboriginal people lived, worked, gathered traditional resources, etc.). The information used to list and map historical references is derived from historical records and Aboriginal oral history. Preliminary Reports on the Victorian Aboriginal Heritage Registry are locations where suspected Aboriginal cultural heritage has been identified but not registered.

VAHR No	Place Type	Place Contents	Surface / Subsurface	Place Context
		silcrete.		
<b>7822-0645</b>	Artefact Scatter	Unspecified number of silcrete stone artefacts	Surface	Surface stone artefact scatter located on a slope, approximately 100 m south of Jacksons Creek. The site extent was noted to have been disturbed by erosion.
<b>7822-0688</b>	Artefact Scatter	14 flaked stone artefacts of silcrete & quartz	Surface	Surface stone artefacts located along the upper escarpment overlooking Jacksons Creek, approximately 80 m east of the channel. Place extent measured 300 m x 20 m in size.
<b>7822-1864</b>	Artefact Scatter / Quarry	9 silcrete & quartzite stone artefacts & exposed silcrete, quartz, quartzite & basalt blocks	Surface	Surface stone artefact scatter and associated quarry on an escarpment overlooking Jacksons and Harpers Creeks, approximately 5 m north of Harpers Creek. Quarry comprised a range of materials. Place extent measured 350 m x 55 m in size and had been affected by a landslip in the past.
<b>7822-2003</b>	Artefact Scatter / Quarry	10 silcrete stone artefacts & exposed silcrete blocks	Surface	Aboriginal place located on a narrow spur overlooking Jacksons Creek, approximately 70 m west of the channel. Quarry comprised of fine- to coarse-grained silcrete exposed blocks with evidence of battering, crushing and flake scars. Although a sample of surface stone artefacts were recorded, hundreds more were estimated to occur in surface and subsurface contexts. Place extent measured 25 m x 10 m in size, and average density calculated as 0.04 artefacts per m <sup>2</sup> .
<b>7822-2005</b>	Artefact Scatter	10 silcrete stone artefacts	Surface	Surface artefact scatter located at the top of an escarpment overlooking Jacksons Creek approximately 80 m south of the channel. Material located on a track and was subject to disturbance from erosion and vehicle movement. Place extent measured 30 m x 10 m in size, and average artefact density calculated at 0.03 artefacts per m <sup>2</sup> .
<b>7822-2006</b>	Artefact Scatter	1 quartz flake	Surface	Isolated surface stone artefact located on an escarpment, approximately 10 m south of Jacksons Creek. Stone artefact had been disturbed by rabbit burrowing. Place extent measured 3 m x 3 m in size, and average artefact density calculated at 0.1 artefacts per m <sup>2</sup> .
<b>7822-2007</b>	Artefact Scatter / Quarry	10 stone artefacts manufactured on silcrete & chert. Flaked silcrete &	Surface	Aboriginal place located on a lower slope, approximately 75 m west of Jacksons Creek. Surface stone artefacts were exposed by erosion

VAHR No	Place Type	Place Contents	Surface / Subsurface	Place Context
		tachylite boulders		along a vehicle track, with additional subsurface material was expected to be present. Flaked boulders of fine- and medium-grained silcrete and basalt located adjacent to the vehicle track. Place extent measured 20 m x 20 m in size. Average artefact density calculated as 0.025 artefacts per m <sup>2</sup> .
<b>7822-2008</b>	Artefact Scatter	8 stone artefacts manufactured on silcrete, quartzite & chert	Surface	Surface stone artefacts located on a terrace and levee bank, approximately 40 m west of Jacksons Creek. The place extent measured 200 m x 10 m and had been disturbed by construction of a vehicle track. More stone artefacts were identified, but only a sample of 8 was recorded. Average density measured 0.04 artefacts per m <sup>2</sup> .
<b>7822-2015</b>	Artefact Scatter / Quarry / Scarred Tree	50 stone artefacts manufactured on silcrete, quartz, chert & volcanic rock. Exposures of quarried silcrete. Dead scarred tree of unknown species with 1 scar, 1.8 m in length	Surface	Aboriginal place located on an escarpment and terrace overlooking Jacksons Creek, approximately 70 m west of the channel. Surface stone artefacts and quarried stone spread across an area measuring 200 m x 60 m. Quarry comprised of fine- and medium-grained silcrete exposed blocks and nodules with evidence of battering, crushing and flake scars. The scarred tree contained possible axe marks near the top of the scar.
<b>7822-2486</b>	Artefact Scatter	5 silcrete stone artefacts	Surface	Surface stone artefacts located on an escarpment overlooking Jacksons Creek, approximately 80 m west of the channel. A vehicle track bisected the Aboriginal place. Place extent measured 42 m <sup>2</sup> in size.
<b>7822-2490</b>	Artefact Scatter	1 silcrete backed blade	Surface	Surface stone artefact located on a steep escarpment, approximately 70 m west of Jacksons Creek. Stone artefact located on the edge of a vehicle track.
<b>7822-3663</b>	LDAD	27 silcrete stone artefacts	Surface	Surface stone artefacts located on an escarpment, approximately 10-100 m west of Jacksons Creek. Stone artefacts were located in close proximity to a silcrete quarry (VAHR 7822-3668).
<b>7822-3668</b>	Quarry	Exposure of quarried fine- & coarse-grained silcrete	NA	Large exposure of quarried silcrete on an escarpment overlooking Jacksons Creek, approximately 20 m west of the channel. Two locations with evidence of quarrying were identified, comprising negative flake scars interpreted as evidence of stone extraction. Place extent measured 7,400 m <sup>2</sup> in size.

VAHR No	Place Type	Place Contents	Surface / Subsurface	Place Context
7822-3788	LDAD	10 stone artefacts manufactured on silcrete, quartzite & quartz	Surface	Surface stone artefacts located on the lower slopes of Redstone Hill near the escarpment overlooking Jacksons Creek, approximately 300 m north of the channel. The stone artefacts were identified on a vehicle track and had likely been disturbed by vehicle movement.
7822-3789	LDAD	1 quartz flake	Surface	Surface stone artefact located on the upper slope of Redstone Hill, approximately 500 m east of Jacksons Creek. Surface artefact was located on an informal track and had likely been disturbed by vehicle movement in the past.
7822-3790	LDAD	12 stone artefacts manufactured on silcrete & quartzite	Surface	Surface stone artefacts located on the lower slopes of Redstone Hill, approximately 500 m north of Jacksons Creek. The stone artefacts were noted to have undergone repeated ploughing and disturbance from an informal vehicle track.
7822-3794	LDAD	1 silcrete core	Surface	Isolated surface stone artefact located on the lower northern slopes of Redstone Hill, approximately 1.4 km north of Jacksons Creek. Surface artefact located on an exposure of ground along a fence line.
7822-3875	LDAD	79 stone artefacts manufactured on silcrete, quartz, quartzite, sandstone, basalt & an unknown material	Surface	Surface stone artefacts located on the slopes of Redstone Hill and at the top of the escarpment above Jacksons Creek, approximately 140 m-330 m north of the channel.
7822-3876	LDAD	99 flaked and ground stone artefacts of silcrete, quartz, quartzite & other material	Surface & subsurface	97 surface and two subsurface flaked and ground stone artefacts dispersed across the slopes of Redstone Hill. The majority of this LDAD is located in close proximity to Jacksons Creek, specifically the slopes immediately south west of the Redstone Hill summit. Subsurface stone artefacts located at a depth of 0-100 mm.
7822-3881	Artefact Scatter	10 stone artefacts manufactured on silcrete, quartz & sandstone	Surface	Surface stone artefact scatter located on mid to upper slopes of Redstone Hill, approximately 130 m north east of Jacksons Creek. Place extent measured 41.2 m <sup>2</sup> , with artefact density calculated at 1 artefact per 4.12 m <sup>2</sup> .
7822-3882	Artefact Scatter	17 stone artefacts manufactured on silcrete, quartz & quartzite	Surface	Surface stone artefact scatter located on a spur overlooking Jacksons Creek, approximately 270 m north west of the channel. Place extent measured 11 m <sup>2</sup> , and artefact density



VAHR No	Place Type	Place Contents	Surface / Subsurface	Place Context
				calculated at 1 artefact per 1.5 m <sup>2</sup> .
<b>7822-4005</b>	Artefact Scatter	13 stone artefacts manufactured on silcrete & quartzite	Subsurface	Subsurface stone artefact scatter located on a lower volcanic plain landform, approximately 320 m east of Jacksons Creek. Stone artefacts recorded at depths between 100 mm and 300 mm. Place extent measured approximately 70 m <sup>2</sup> in size.
<b>7822-4008</b>	LDAD	85 silcrete, quartz, quartzite & hornfels artefacts	Surface & subsurface	Surface and subsurface stone artefact scatter located on a lower plain volcanic landform east of Jacksons Creek. Subsurface stone artefacts identified at depths of up to 320 mm.
<b>7822-4171</b>	LDAD	27 flaked stone artefacts manufactured on quartz, silcrete & basalt	Surface	This LDAD comprises additional stone artefacts identified during the surface salvage of VAHR 7822-3788, 3790 and 3876 during compliance of CHMP 13370.
<b>7822-4188</b>	Artefact Scatter	16 silcrete, quartz & quartzite artefacts	Subsurface	Subsurface stone artefact scatter located on an escarpment approximately 470 m north east of Jacksons Creek. Stone artefacts located at depths of 1-200 mm. Place extent measured 40 m x 20 m in size.
<b>7822-4193</b>	LDAD	21 silcrete flaked stone artefacts	Surface & subsurface	Surface and subsurface stone artefacts located on the Jacksons Creek terrace and on the volcanic plain. One subsurface artefact located at a depth of 100 mm, while remaining artefacts located at the surface.
<b>7822-4381</b>	LDAD	13 flaked stone artefacts manufactured on silcrete & quartz	Surface	Surface stone artefacts located on a volcanic plain and terrace of Jacksons Creek, approximately 360-1600 m north of the channel.
<b>7822-4423</b>	LDAD	1 silcrete proximal flake	Surface	Surface stone artefact located on a motorcycle track on the lower slope of Redstone Hill, approximately 940 m north east of Jacksons Creek.

It should be noted that the known distribution of registered Aboriginal places within the geographic region is not an accurate representation of the actual distribution of Aboriginal places. Factors such as the quantity and type of cultural heritage research that has been undertaken, and fieldwork conditions, have influenced the result. Nevertheless, the following patterns are evident in the distribution of these Aboriginal places:

- Aboriginal places within the geographic region are predominantly characterised by both low- and moderate-density stone artefact scatters, registered as artefact scatters and LDADs;

- Of the stone artefact scatters, the majority comprise low density scatters of stone artefacts manufactured on silcrete, quartz or quartzite and located on escarpments and slopes surrounding Jacksons Creek and Redstone Hill. Subsurface cultural heritage has typically been identified at depths between 0 mm and 100 mm, however, stone artefacts have been recorded at depths of up to 320 mm;
- Aboriginal places on the wider plains away from Jacksons Creek comprise LDADs identified in surface contexts or very shallow subsurface soils. The density of stone artefacts associated with this place type decreases with distance from Jacksons Creek;
- Ground stone artefacts, hammerstones, and a greenstone axe blank have been found within the assemblages recorded in the geographic region;
- A number of quarries, largely comprising silcrete outcrops, but also of quarried blocks of quartz and quartzite, with evidence of quarrying activity, have been identified along the Jacksons Creek valley. This distribution is likely due to the exposure of sub-basaltic silcrete following incision of Jacksons Creek through basalt flows and into the underlying bedrock;
- Four of the 29 artefact scatters / LDADs have been found to contain 50+ stone artefact; however, only one of these places is an artefact scatter. The remaining Aboriginal places with greater than 50 stone artefacts comprise LDADs which cover large areas and are more diffuse in nature;
- Artefact scatter sites that have been recorded as surface sites only may be reflective of the recording strategy and methods rather than indicating the absence of a subsurface component to the sites; and,
- One scarred tree occurs within the geographic region, part of multi-component site VAHR 7822-2015, located on an escarpment overlooking Jacksons Creek. The absence of additional scarred trees could be attributed to the local land use history which favoured open pasture, or the natural low numbers of mature native trees across the Plains Grassy Woodland EVC within which the activity area is located.

### **3.6. PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS**

#### **3.6.1. Introduction**

This section summarises the results of relevant previous archaeological studies undertaken within the geographic region, and includes the following:

- Section 3.6.2 summarises a regional archaeological study of the Shire of Bulla (Sutherland & Richards 1994); and,

- Section 3.6.3 summarises a series of localised archaeological assessments that have been undertaken within the geographic region. CHMPs are discussed in text, whereas non-CHMP archaeological assessments are summarised in Table 4.

Collectively, a review of these studies aims to provide an indication of the nature and type of Aboriginal places likely to be present in the activity area and assists in developing an archaeological predictive model (as well as contextualising results).

### **3.6.2. Regional Archaeological Studies**

#### **Shire of Bulla Aboriginal Archaeological Study (Sutherland & Richards 1994)**

In 1994, the Shire of Bulla commissioned an archaeological study of the region in response to the ‘increasing impact of urban development on archaeological sites in and around Sunbury...[and]...the previous *ad hoc* approach to identification and management of sites’ (Sutherland & Richards 1994: iii), which was considered unsatisfactory. Among the aims of the study were to assess the Aboriginal archaeological potential of the study area and provide recommendations for its management (Sutherland & Richards 1994: 2). The assessment was undertaken by way of a desktop study, consultation with the appropriate Aboriginal community, and a systematic archaeological survey. A number of earth ring sites located within the study area were identified as areas of priority for both research and management, as follows (Sutherland & Richards 1994: 3):

Five earth ring sites were recorded in the vicinity of Sunbury prior to this project. As these represent some of the most significant sites in Victoria because of their probably Aboriginal ceremonial function, every effort was made to learn as much about them as possible. Much effort was expended in determining the most suitable management recommendations for these fragile sites and particular importance was attached to the views of the Wurundjeri Community in this regard.

The desktop review found that the distribution of Aboriginal places within the Shire of Bulla was closely related to the locations of waterways, and that ‘site density appears to be highest within 200 metres of rivers and creeks, i.e. Jacksons Creek’ (Sutherland & Richards 1994: 27). A total of 20 Aboriginal places were recorded during the subsequent archaeological survey, all of which were surface stone artefact scatters located within 500 m of Jacksons Creek or one of its tributaries. Half of these artefact scatters were very small (containing between one to four artefacts), while the other ten contained between five to 185 stone artefacts. A majority of the artefact scatters, particularly those with a higher density of stone artefacts, were recorded within the floodplains surrounding Jacksons Creek, with fewer on the hill slopes and surrounding plains (Sutherland & Richards 1994).

Based on the results of their survey, Sutherland and Richards (1994: 68-69) classified the study area into two zones of archaeological sensitivity, but were keen to point out that neither was more archaeologically significant than the other –

- **Zone 1: High Archaeological Sensitivity:** This zone includes a 200 m area around Jacksons Creek and surrounding tributaries, where it was determined that large to very large stone artefact scatters were very likely to occur. Other types of Aboriginal places within this zone include stone quarries, earth rings and scarred trees; average site density was estimated to be 25 sites per km<sup>2</sup>; and
- **Zone 2: Moderate Archaeological Sensitivity:** This zone incorporates the hill slopes and volcanic rises overlooking Jacksons Creek, where isolated artefacts, small artefact scatters and earth rings were very likely to occur.

### 3.6.3. Local Archaeological Assessments

Sunbury Recycled Water Plan Upgrade (amended), Sunbury CHMP 13033 (Green & Albrecht 2018)

Green and Albrecht (2018) were engaged in 2014 to prepare a CHMP for Western Water, ahead of the proposed Sunbury Recycled Water Plan Upgrade, which was amended in 2017, and again in 2018. The study area was located south of the current activity area on the slopes and flats adjacent to Jacksons Creek (Green & Albrecht 2018: 9). The Desktop Assessment found that two previously recorded Aboriginal places, VAHR 7822-3663 (an LDAD) and 7822-3668 (a quarry site) were located within the study area 'at the base of a moderate to steep slope adjacent to Jacksons Creek' (Green & Albrecht 2017: 30). The Desktop Assessment concluded that due to the presence of cultural heritage in the geographic region, and within the study area, there was moderate potential for additional cultural material to occur within the study area (Green & Albrecht 2018: 64).

The Standard Assessment identified widespread disturbance, including prior waste dump and sludge bays, an artificial embankment, and plant infrastructure, buildings and sheds within the study area (Green & Albrecht 2018: 69). Ground surface visibility was generally very poor, resulting in very low effective survey coverage across slope, terrace and plain landforms (Green & Albrecht 2018: 70-74). Despite the poor visibility, stone artefacts were identified in association with VAHR 7822-3668 and 7822-3663. In addition, seven stone artefacts were identified on a hill slope landform, away from previously registered Aboriginal places (Green & Albrecht 2018: 78).

A total of one 1 x 1 m test pit and 89 shovel test pits were excavated during the Complex Assessment within areas that were least disturbed (Green & Albrecht 2018: 84). The depths of excavation typically ranged between 100-250 mm, however depths of up to 600 mm were

reached on the terrace landform (Green & Albrecht 2018: 91). The soil profile typically comprised clayey silt overlying silty clay, before terminating at clay (Green & Albrecht 2018: 96). A total of four stone artefacts were recovered from one test pit and three shovel test pits, at depths of between 0-100 mm (Green & Albrecht 2018: 97). Combined with the seven newly identified surface artefacts identified during the Standard Assessment, the 11 artefacts were registered as a LDAD (VAHR 7822-3823) (Green & Albrecht 2018: 112).

The results of the assessment were found to correlate with the results of the Desktop Assessment, 'which concluded that the probability of moderate to high density artefact scatters being retained within the activity area (assuming they once existed) is low, and that stone artefact densities are likely to be low away from waterways' (Green & Albrecht 2018: iii).

#### Residential subdivision, Redstone Hill, Sunbury CHMP 13370 (St George *et al.* 2015)

St George *et al.* (2015) prepared a CHMP for a proposed residential subdivision at Redstone Hill. The study area was located directly to the south north, south, and south east of the current activity area. The Desktop Assessment found that two previously recorded artefact scatters (VAHR 7822-3784 & 7822-3786) and six LDAD sites (VAHR 7822-3785; 7822-3787-90 & 7822-3794) were located within the study area (St George *et al.* 2015: viii). Further Aboriginal archaeological material in the form of surface and subsurface stone artefact scatters was predicted to occur within the study area.

The Standard Assessment identified the presence of eight landforms within the study area; the summit of Redstone Hill, upper slopes, mid slopes, lower slopes, a flat, a spur, escarpments, and terraces associated with Jacksons Creek which formed the southern boundary of the study area (St George *et al.* 2015: 61). Only areas located within the development footprint were surveyed, excluding the escarpment and terrace landforms (St George *et al.* 2015: 59). The study area visibility was predominantly moderate to high, ranging from 60-100%, resulting in a total of 55.96% effective survey coverage (St George *et al.* 2015: 60). Areas closest to the current activity area ranged greatly from 0-10% to 90-100% (St George *et al.* 2015: 61). Aboriginal cultural heritage material in the form of 203 stone artefacts were identified in the study area during the Standard Assessment, at a density of 1 per 5,243.95 m<sup>2</sup>. The spur landform, located in the south eastern extent of the development footprint adjacent to Jacksons Creek, was found to contain the highest density of artefacts (at 1 per 503.78 m<sup>2</sup>). The slopes of Redstone Hill had a lower artefact density of 1 per 8,888.23 m<sup>2</sup> (St George *et al.* 2015: 73).

The Complex Assessment involved excavation on only six of the eight identified landforms within the study area, excluding those which fell outside of the development footprint

(terraces and escarpments). A total of 15 m<sup>2</sup> and 6 m<sup>3</sup> of soil was excavated (St George *et al.* 2015: 81). The soil profile typically comprised silt, clayey silt and silty clay overlying sterile clay to depths ranging between 100 – 400 mm, although most commonly reaching depths of 100 mm (St George *et al.* 2015: 91). A total of two stone artefacts were recovered during the Complex Assessment, both located at a depth of 0-100 mm (St George *et al.* 2015: 92). The spur landform was interpreted as having an average subsurface artefact density of 0.33 artefacts per m<sup>2</sup>, and maximum density of four artefacts per m<sup>2</sup>, whereas the lower slope of Redstone Hill was found to contain average subsurface artefact density of 0.22 artefacts per m<sup>2</sup> (1.75 m<sup>3</sup>), and a maximum artefact density of 4 artefacts per m<sup>2</sup> (St George *et al.* 2015: 92). At the conclusion of the assessment, a total of four additional Aboriginal places had been recorded – two artefact scatters (VAHR 7822-3881 and 7822-3882), and two LDADs (VAHR 7822-3876 and 7822-3875). The places were described as follows (St George *et al.* 2015: 143-144):

- **VAHR 7822-3789** (an isolated surface artefact) located on the upper slope of Redstone Hill;
- **VAHR 7822-3788** (an LDAD) which contains ten surface artefacts located on the lower southern slopes of Redstone Hill c. 500 m north of Jacksons Creek;
- **VAHR 7822-3790** (an LDAD) which contains 12 surface artefacts located on the lower southern slopes of Redstone Hill c. 500 m north of Jacksons Creek, and 500 m east of VAHR 7822-3788;
- **VAHR 7822-3794** (an isolated surface artefact) located on the lower northern slopes of Redstone Hill (greater than 1 km north of Jacksons Creek);
- **VAHR 7822-3784** (an artefact scatter) located on a flat to gently sloping terrace 200 m north of the floodplains of Jacksons Creek. This Aboriginal place is composed of 150 surface stone artefacts at a density of one artefact per 8.8 m<sup>2</sup>;
- **VAHR 7822-3785** (an isolated surface artefact) located c. 50 - 100 m south of VAHR 7822-3784 on a flat to gently sloping terrace within 50 m to Jacksons Creek;
- **VAHR 7822-3786** (an artefact scatter) is located on a flat to gently sloping terrace 100 m north of Jacksons Creek. The Aboriginal place is composed of 150 surface stone artefacts at a density of 1 artefact per 23.33 m<sup>2</sup>. The scatter measures 10,500 m<sup>2</sup>.
- **VAHR 7822-3787** (an isolated artefact) situated on a flat to gently sloping terrace 25 m north of the floodplains of Jacksons Creek. This isolated surface stone artefact is situated c. 150 m south west of VAHR 7822-3786;
- **VAHR 7822-3876** (an LDAD) contains 99 stone artefacts (97 surface and two subsurface) dispersed across the slopes of Redstone Hill. A majority of this LDAD

is located in close proximity (c. 200 m) to Jacksons Creek, specifically the slopes immediately south west of the Redstone Hill summit;

- **VAHR 7822-3875** (an LDAD and secondary component of VAHR 7822-3876) contains 79 surface artefacts dispersed across the slopes of Redstone Hill. A majority of this LDAD is located in close proximity (c. 200 m) to Jacksons Creek;
- **VAHR 7822-3881** (an artefact scatter) contains 10 surface artefacts on the mid to upper slopes west of Redstone Hill. The artefact scatter is located in close proximity (c. 200 m) to Jacksons Creek; and,
- **VAHR 7822-3882** (an artefact scatter) contains 17 surface artefacts on the spur located south east of the summit of Redstone Hill. The artefact scatter is located in close proximity (c. 200 m) to Jacksons Creek near an escarpment overlooking the terraces of Jacksons Creek.

Cultural Heritage Management Plan for Sunbury Hills Residential Development, Sunbury Victoria CHMP 14077 (Verduci *et al.* 2017)

Verduci *et al.* (2017) prepared a CHMP for a proposed residential directly to the west of the activity area. The Desktop Assessment found that the study area comprised an upper and lower basalt plain to the north east of the Jacksons Creek escarpment and terraces (Verduci *et al.* 2017: 41). Due to the presence of the Jacksons Creek corridor and previously recorded Aboriginal places within 50 m of the study area, there was potential for Aboriginal cultural heritage to occur in the form of stone artefact scatters, particularly in areas closer to Jacksons Creek (Verduci *et al.* 2017: 45).

The Standard Assessment confirmed the presence of the three landforms within the study area with visibility ranging from 40-80% near the escarpment where the land was uncultivated to 100% in the ploughed land on the upper and lower volcanic plains (Verduci *et al.* 2017: 51; 53). A total of 55 surface stone artefacts, largely distributed near the Jacksons Creek escarpment, were located during the Standard Assessment, with densities decreasing with distance from the escarpment (Verduci *et al.* 2017: 55).

The Complex Assessment included the excavation of thirteen 1 x 1 m test pits in the ploughed sections of the upper and lower volcanic plains, and eighty-six shovel test pits excavated on a 50 x 50 m grid across the lower volcanic plain near the Jacksons Creek escarpment (Verduci *et al.* 2017: 56-58). Following the first two phases of testing, an additional ten 1m x 1m test pits and 83 radial shovel test pits were excavated around each previously excavated positive shovel test pit, and the original shovel test pits expanded into 1m x 1m test pits (Verduci *et al.* 2017: 75). The typical soil profile was described as mid to dark brown clayey silt overlying mid to dark brown silty clay, which had an increasing clay content with depth before terminating on sterile clay (Verduci *et al.* 2017: 57). A total of 44

stone artefacts were located in a subsurface context at depths ranging from 50-300 mm (Verduci *et al.* 2017: 81; 85). As a result of the Standard and Complex Assessments, one newly identified artefact scatter (VAHR 7822-4005) and one LDAD (VAHR 7822-4008) were recorded on the edge of the escarpment and on areas of the lower and upper plain (Verduci *et al.* 2017: 81-89).

The results of the assessment were found to support the predictions made by the desktop review, whereby the artefacts were recovered from landforms considered to be archaeologically sensitive, although historical land use practices likely had an impact on their condition and spatial integrity (Verduci *et al.* 2017: 86).

Vehicle Maintenance Track: Sunbury Music Festival Site, CHMP 14919 (Chamberlain 2017)

Chamberlain (2017) prepared a CHMP for a proposed 500 m long maintenance track from Duncans Lane to Jacksons Creek, located approximately 1.2 km south of the current activity area. The study area comprised a section of grassed road reserve on a slope, spur and floodplain associated with Jacksons Creek (Chamberlain 2017: 4-5). Part of one previously registered Aboriginal place was identified within the study area during the Desktop Assessment, comprising an artefact scatter (VAHR 7822-2011), and one LDAD (VAHR 7822-3875) was located within 200 m of the study area boundaries (Chamberlain 2017: 15). The Desktop Assessment highlighted the Jacksons Creek corridor as being sensitive for Aboriginal cultural heritage, and that artefact scatters would be likely to occur on the slopes, spurs, elevated ground overlooking Jacksons Creek, and along the floodplain (Chamberlain 2017: 30).

The ground surface visibility was largely poor across the study area during the Standard Assessment due to the presence of thick vegetation cover (Chamberlain 2017: 33). The study area was identified to occur on a spur that sloped toward a floodplain along Jacksons Creek from the edge of a volcanic plain (Chamberlain 2017: 33). Disturbance in the form of past ploughing activity and the construction of a large dam was identified within the study area (Chamberlain 2017: 33). Four auger holes were excavated during the Standard Assessment; the topsoil profile ranged in depth from 250 mm to 350 mm on the slopes, while the floodplain soil profile was augered to a depth of 800 mm where refusal was met at coarse gravel or rock (Chamberlain 2017: 34). A total of 30 surface stone artefacts were identified during the Standard Assessment, manufactured predominantly on silcrete and were considered to be associated with previously recorded Aboriginal place VAHR 7822-2011 (Chamberlain 2017: 37). The stone artefacts were predominantly located on the gentle slopes near the floodplain (Chamberlain 2017: 37).



The Complex Assessment excavated a total area measuring 16.5 m<sup>2</sup> and a volume of 1.65 m<sup>3</sup> and identified 40 subsurface artefacts at depths between 0 mm and 100 mm (Chamberlain 2017: 43-53). The average artefact density was calculated as 2.58 artefacts per m<sup>2</sup>, with higher artefact densities identified near the top of the slope (Chamberlain 2017: 55). The depth of excavation was limited to the upper 100 mm due to the depth of impact of the proposed activity being 50 mm; therefore, the nature of deeper soils and cultural heritage was not investigated (Chamberlain 2017: 43). Although not investigated during this CHMP, Chamberlain (2017: 56) predicted that artefact densities would be much higher in subsurface contexts. Foreign inclusions such as fill, plastic, ceramic and glass were common throughout the topsoils of the study area indicating some degree of past disturbance (Chamberlain 2017: 43, 47). In addition to the surface artefact identified during the Standard Assessment, the subsurface artefacts were registered as part of VAHR 7822-2011 (Chamberlain 2017: 55).

Road Safety Works, Melbourne-Lancefield Road (Section 2A), CHMP 15313 (Brooke *et al.*, 2019)

Brooke *et al.* (2019) prepared a CHMP for safety upgrades along a 22 km stretch of Melbourne-Lancefield Road between Sunbury Road, Sunbury and Kettlewells Road, Monegeetta North, located approximately 700 m to the north of the current activity area on undulating volcanic plains landforms dissected by creeks, slopes and terraces. Six previously Aboriginal places were identified within the study area during the Desktop Assessment, comprising isolated stone artefacts or LDADs (VAHR 7822-0242; 7822-0243; 7822-0257; 7822-0258; 7822-0259; 7822-0260). A further two Aboriginal places were located within 50 m of the study area boundaries (Brooke *et al.*, 2019: 39). It was predicted that there was a low-moderate likelihood of Aboriginal places occurring within the study area where there had been little past ground disturbance, in particular within 200 m of waterways (Brooke *et al.*, 2019: 55). If present, any subsurface material was unlikely to be *in situ* due to disturbance from road construction (Brooke *et al.*, 2019: 55).

Ground surface visibility was very low during the Standard Assessment, largely due to thick grass cover and gravel and road fill which obscured much of the surface (Brooke *et al.*, 2019: 56-57). One surface stone artefact associated with VAHR 7822-0243 was identified during the Standard Assessment comprising a complete silcrete flake within an excavated drainage culvert (Brooke *et al.*, 2019: 75). The remaining Aboriginal places within the study area were inspected, however had been destroyed by road works permitted by a previous CHMP, and one (VAHR 7822-0242) was not reidentified (Brooke *et al.*, 2019: 75). Three areas of archaeological sensitivity were identified, each comprising undisturbed areas of an undulating volcanic plain (Brooke *et al.*, 2019: 76).

Subsurface testing was focused in the areas of archaeological sensitivity and in areas where the proposed works extended into the road reserve unoccupied by road surfaces (Brooke *et al.*, 2019: 79). An area measuring 30.5 m<sup>2</sup> was excavated during the Complex Assessment, resulting in the identification of one subsurface stone artefact at a depth of 0-100 mm on an undulating volcanic plain (Brooke *et al.*, 2019: 96). This stone artefact was registered as an LDAD (VAHR 7822-4209) (Brooke *et al.*, 2019: 104). The soil profile within the study area varied little, generally comprising brown clayey silt overlying brown plastic clay to a depth of ~300 mm (Brooke *et al.*, 2019: 84). Evidence of disturbance (i.e. road base gravel, glass & plastic) was often encountered in the soil profile.

Sunbury Road, Sunbury: Road Duplication, CHMP 15853 (Kapteinis *et al.*, 2019)

Kapteinis *et al.* (2019) prepared a CHMP for the proposed duplication and upgrade of Sunbury Road, Sunbury between Bulla-Diggers Rest Road, Bulla in the east and Aitken Street, Sunbury in the west. The study area comprised a 7.5 km length of road which crossed the top of the Deep Creek escarpment in the east, an undulating volcanic plain in the central parts of the study area, the escarpment of Jacksons Creek, and the Jacksons Creek terrace in the west (Kapteinis *et al.*, 2019: 25). No previously registered Aboriginal places were identified within the study area; however, one Aboriginal place was identified within 50 m (VAHR 7822-2106), and a further two identified within 200 m of the study area boundaries (VAHR 7822-3266; 7822-4193), comprising stone artefact scatters (Kapteinis *et al.*, 2019: 25-26). It was predicted that stone artefact scatters in surface and shallow subsurface contexts were the most likely place type to occur within the study area, with higher densities occurring adjacent to Jacksons and Deep Creeks, while lower densities would occur along the volcanic plain (Kapteinis *et al.*, 2019: 85). However, due to construction of Sunbury Road and installation of adjacent underground services within the road reserve, it was likely that any existing Aboriginal cultural material would be disturbed (Kapteinis *et al.*, 2019: 86).

The Standard Assessment identified low ground surface visibility across most of the study area, which averaged 3%, resulting in a low effective survey coverage (4.2%) (Kapteinis *et al.*, 2019: 88). This was due to a combination of thick grass cover and the presence of the Sunbury Road asphalted surface and adjoining roads (Kapteinis *et al.*, 2019: 89). Three landforms were identified comprising a terrace, two escarpments, and a volcanic plain (Kapteinis *et al.*, 2019: 95). Evidence of disturbance in the form of construction of three bridges over Jacksons Creek, installation of underground services (telecommunications, gas, electricity, sewer, water & recycled water), adjoining driveways and roadside drainage infrastructure was observed within the study area (Kapteinis *et al.*, 2019: 95). In addition to these, the road reserves were noted to be relatively wide, however had been subject to road

realignment, grading, cutting into and elevation of the surface in the past in association with road construction and upgrade (Kapteinis *et al.*, 2019: 95). A total of 50 surface stone artefacts were identified during the survey, located on the Jacksons Creek terrace in an area of high ground surface visibility in a roadside park (Kapteinis *et al.*, 2019: 105). Stone artefact densities were calculated as being 1 artefact per 51 m<sup>2</sup> on this landform (Kapteinis *et al.*, 2019: 105).

A total area measuring 30.25 m<sup>2</sup> and a volume of 6.9 m<sup>3</sup> was excavated during the Complex Assessment across all three landforms, and 19 subsurface stone artefacts were identified on the terrace at depths between 0-400 mm (Kapteinis *et al.*, 2019: 121-122). In addition, one subsurface stone artefact was identified in a geotechnical test pit on the Jacksons Creek escarpment at a depth of 200 mm in fill (Kapteinis *et al.*, 2019: 122)<sup>6</sup>. Artefact density averaged 0.6 artefacts per m<sup>2</sup> (or 2.75 per m<sup>3</sup>) across the whole study area, but within the terrace landform, where all artefacts were identified, was calculated as being 2.11 artefacts per m<sup>2</sup> (4.74 per m<sup>3</sup>) (Kapteinis *et al.*, 2019: 122). The soil profiles observed within the study area differed across the landforms, with the volcanic plain and escarpment landforms comprising shallow dark grey brown silty clay overlying dark brown to black clays, while the terrace landform ranged from dark grey brown silt overlying mid grey brown clayey silt overlying dark brown mottled clays to red brown silt overlying red brown silty clay overlying red and yellow brown mottled clay (Kapteinis *et al.*, 2019: 120-121). Fill in the soil profiles was common which in some cases directly overlay sterile clay, particularly on the Jacksons Creek escarpment (Kapteinis *et al.*, 2019: 120). The presence of fill was interpreted as indicating substantial disturbance in the past from soil stripping and earthworks, likely in association with construction and upgrade of Sunbury Road and installation of underground services (Kapteinis *et al.*, 2019: 122). The presence of stone artefacts on the Jacksons Creek terrace highlighted the archaeological sensitivity of the landform, while the remainder of the study area was considered to have low archaeological sensitivity (Kapteinis *et al.*, 2019: 149).

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<sup>6</sup> During the Complex Assessment undertaken during CHMP 15853, a silcrete core was identified in a geotechnical test pit within the study area during the monitoring of a geotechnical works program. The artefact was integrated into the overall artefact assemblage for CHMP 15853.

Table 4: Summary of pre-2006 and non-CHMP Aboriginal archaeological assessments

Author/s	Landforms	Type and Coverage of Assessment	Results	Archaeological Sensitivity / Interpretation
<b>du Cros 1995</b>	Hill.	Preliminary archaeological survey and subsurface testing.	Stone artefact scatter (VAHR 7822-0575) was found to be contained within 20m of a basalt outcrop. The area of low sensitivity near artefact scatter VAHR 7822-0576 was found not to be archaeologically sensitive.	Aim was to assess the boundaries of a previously recorded Aboriginal place (VAHR 7822-0575) and to assess whether the area near VAHR 7822-0576 'contained any significant material despite its disturbed context' (du Cros 1995: i).
<b>du Cros &amp; Porch 1996</b>	Hill.	Subsurface testing.	65 subsurface artefacts identified.	Investigation based on area near VAHR 7822-0577, previously identified as archaeologically sensitive. The area in the vicinity of this site was found to have 'several dense concentrations of artefacts' (du Cros 1996: 16) in a subsurface context including backed blades, and it was considered likely that this pattern would continue across the area.
<b>Long <i>et al.</i> 2005</b>	Creek, Plains and Ridges.	Archaeological survey.	Two previously recorded Aboriginal places (stone artefact scatters; VAHR 7822-0688 and 7822-0689) re-identified and dimensions and contents updated.	Areas of archaeological sensitivity were identified within 50 m of Jacksons Creek, an area 'containing elevated terrace and creek bank landforms' (Long <i>et al.</i> 2005: 36), along escarpment cliffs (both high) and on the valley floor (moderate). The surrounding volcanic plain was considered to have low archaeological potential.
<b>Freslov &amp; Chandler 2006</b>	Escarpments, terraces, slopes, gullies, riverbanks	Archaeological survey.	Six previously recorded Aboriginal places re-identified, and thirteen new Aboriginal places recorded. Two Aboriginal places (VAHR 7822-2012; 7822-2008) contained <i>in situ</i> stone artefacts.	Aboriginal places were recorded on a range of landforms such as the Jacksons Creek escarpment, surrounding slopes and spurs, and terraces and riverbanks. The Aboriginal places largely comprised stone artefact scatters, however multi-component sites which included quarries and a scarred tree were also identified. The density of Aboriginal places within the study area indicated that the whole study area likely had a low density distribution of stone artefacts, within which were higher density nodes on more level landforms.

<b>Matthews et al. 2006</b>	Slopes and spur.	Archaeological survey and subsurface testing.	One new Aboriginal place comprising a surface artefact scatter and a silcrete outcrop (VAHR 7822-1864).	Investigation focused on a c. 5 ha area west of Jacksons Creek and directly north of Harpers Creek. One new Aboriginal place (VAHR 7822-1864) was identified at the top of the Jacksons Creek escarpment and along a spur. This land was seen to be archaeologically sensitive given its elevated nature above Jacksons Creek. The absence of surface and subsurface stone artefacts on the upper slopes indicated that these areas were unlikely to have been utilised for occupation; instead the flatter areas along spurs were more likely to be utilised.
<b>Chamberlain 2015</b>	Various	Aboriginal Heritage Impact Assessment (Desktop and targeted survey)	14 artefact scatters and LDAD identified during survey.	Study of the potential impact that the Sunbury South Precinct Structure Plan may have on Aboriginal cultural heritage. Survey was undertaken across sample section of different landform types. Aboriginal places identified on landforms including valley slope, floodplain, escarpment, volcanic hill. All sites identified during the survey were located within 200 m of a waterway (Chamberlain 2015: 45).

### 3.6.4. Summary & Discussion

The Desktop Assessment has established that no previously recorded Aboriginal places are present within the activity area but that it is possible that unrecorded Aboriginal cultural heritage material is present. Although the activity area has not been subject to previous assessment, one CHMP (St George *et al.*, 2015), covered land immediately to the north east, north west and south west on a similar landform, being the slopes of Redstone Hill. St George *et al.* (2015) identified the presence of surface and shallow subsurface stone artefact scatters and LDADs, with the density of cultural heritage decreasing with distance from Jacksons Creek. Stone artefacts were most commonly found on spurs and the western and southern slopes of Redstone Hill directly adjacent to the Jacksons Creek escarpment, whereas the upper and middle slopes of Redstone Hill such as those which characterise the activity area and the surrounding volcanic plain, contained a highly diffuse scatter of stone artefacts.

A total of 31 Aboriginal places have been recorded within the geographic region, located predominantly along the margins of Jacksons Creek. Fewer Aboriginal places were located away from the creek and decreased in density with distance from watercourses. The Aboriginal places within the geographic region comprised a combination of stone artefacts in surface and subsurface contexts, stone quarries, and a scarred tree. Away from the Jacksons Creek corridor, Aboriginal places identified to date comprise diffusely scattered stone artefacts registered as LDADs.

Drawing on the results of previous archaeological assessments carried out within the geographic region as well as the distribution of registered Aboriginal places and the environmental context of the activity area, the following predictive statements have been formulated:

- the Aboriginal place types most likely to exist within the activity area are stone artefacts in surface exposures or in shallow subsurface contexts;
- the slope landform that dominates the activity area is associated with low density surface and shallow subsurface deposits of stone artefacts in the wider region;
- the presence of mature trees in the activity area indicates that scarred trees may be present within the activity area;
- it is unlikely that other Aboriginal place types will be located within the activity area (i.e. quarries, freshwater shell middens, hearths, human remains), however their presence should not be ruled out; and,
- isolated stone artefacts may be found anywhere across the landscape.

The land use history of the activity area has involved clearing of vegetation and surface stone, ploughing, grazing, fencing, and construction of a dwelling. These activities may have caused a degree of disturbance to the upper soil horizons of the activity area which may, in turn, have disturbed any Aboriginal archaeological material present in these locations.

### **3.7. IMPLICATIONS**

The Aboriginal Heritage Regulations 2018 (r.62) state that a Standard Assessment is required in circumstances where a Desktop Assessment shows that it is reasonably possible that Aboriginal cultural heritage is present in the activity area. Further, the Aboriginal Heritage Regulations 2018 (r.64) state that a Complex Assessment is required in circumstances where a Desktop Assessment or Standard Assessment show that Aboriginal cultural heritage is, or is likely to be, present in the activity area, and it is not possible to identify the extent, nature and significance of the Aboriginal cultural heritage in the activity area unless a Complex Assessment is carried out.

While the Desktop Assessment established that no previously registered Aboriginal places occur in the activity area, an analysis of archaeological reports and registered Aboriginal places found that surface and subsurface cultural heritage in the form of low density stone artefact occurrences are likely to occur within the activity area, which can only be investigated by both Standard and Complex Assessments.





## **4. STANDARD ASSESSMENT**

### **4.1. INTRODUCTION**

The Standard Assessment undertaken as part of the preparation of this CHMP involved a pedestrian archaeological field survey. The aims, method, coverage, and results of the field survey are presented in this section.

The field survey was carried out on 1 October 2019. The archaeological field program was supervised by Krista Whitewood (Archaeologist) with assistance from Catherine Harvey (Archaeologist). The following WWCHAC field workers participated in the field survey:

- Gary Hansen;
- Justin Entwhistle.

### **4.2. AIMS OF THE STANDARD ASSESSMENT**

The aims of the field assessment were to determine the presence, nature, distribution, and significance of Aboriginal cultural heritage in the activity area. The Standard Assessment was undertaken to establish:

- Whether any Aboriginal cultural heritage was visible in the activity area; and,
- The nature and distribution of landforms in the activity area and assess their archaeological sensitivity.

### **4.3. METHOD AND COVERAGE**

#### **4.3.1. Field Method**

The field survey involved an examination of the activity area by four people using the following method:

- a survey of the activity area in a c. 20 m wide transect with four people spaced 4-5 m apart;
- the inspection of mature native trees, if present, for signs of Aboriginal bark removal and/or other cultural scarring practices;
- the examination and recording of all Aboriginal cultural heritage (if present) at its identified location (no material was to be removed from the original find location); and,
- the use of a differential GPS (Topcon GMS-2) to record the location of any identified Aboriginal cultural heritage.

Caves and rock shelter features were not present in the activity area, and therefore were not examined.

#### 4.3.2. Survey Coverage

Survey coverage is shown in Figure 10 with ground surface visibility conditions and coverage summarised in Table 5 (as per Witter 1990).

In general, the ground surface visibility across most of the activity area was moderate (30-90%), due to the presence of large areas of low grass cover and erosional surfaces (Table 5). Smaller exposures with high ground surface visibility (90%) were present along the boundary fences, on stock tracks, erosion scars and beneath mature trees. An analysis of the survey coverage results reveals that 46% (37,374.90 m<sup>2</sup> out the total 80,970 m<sup>2</sup>) was effectively surveyed (Table 5). The dwelling within the activity area was the only location not subject to the field survey (Figure 10).

The presence of a dwelling in the centre of the activity area and thick pasture grass in places were identified to be obstacles during the Standard Assessment.

Table 5: Surface visibility and survey coverage

Landform	Exposure Type	Area Surveyed (a) (m <sup>2</sup> )	Visibility (%)	Effective Survey Coverage (ESC) (m <sup>2</sup> )	ESC % of Area Surveyed
Lower Slope	Eroded surface	5,201	90%	4,680.90	<b>90.00%</b>
Lower Slope	Lightly grassed	6,761	50%	3,380.50	<b>50.00%</b>
Lower Slope	Grassed	7,786	30%	2,335.80	<b>30.00%</b>
Mid Slope	Eroded surface	11,928	90%	10,735.20	<b>90.00%</b>
Mid Slope	Lightly grassed	7,936	50%	3,968.0	<b>50.00%</b>
Mid Slope	Grassed	40,915	30%	12,274.50	<b>30.00%</b>
Mid Slope	Unsurveyed structure	434	0%	0	<b>0.00%</b>
<b>Total</b>		<b>80,970 m<sup>2</sup></b>		<b>37,374.90 m<sup>2</sup></b>	<b>46.16%</b>



Figure 10: Results of the field survey.

## **4.4. ASSESSMENT RESULTS**

### **4.4.1. General**

The activity area was found to cover two landforms; the lower and mid slope of Redstone Hill. The mid slope dominated the activity area, while the lower slope was confined to the northern part of the activity area (Figure 10; Plates 2-3). The majority of the activity area was characterised as pasture, with a dwelling and surrounding garden (introduced and non-indigenous native species) located in the north-central part of the activity area (Plate 4). A gravel driveway connected the dwelling to Redstone Hill Road and was flanked by pine trees. Native, non-indigenous sugar gum trees lined the south western and north western boundary fence lines of the activity area, beneath which areas of high ground surface exposure occurred (Plate 5). Further areas of high ground surface exposure occurred along stock tracks and in areas which had been ploughed in the recent past (Plate 6). Where exposed at the surface, the topsoil comprised mid brown and red brown silty clay, and had been disturbed in places by ploughing, stock movement, and surface erosion (Plates 5-6). Basalt field stone was common at the surface, in particular in the south western corner of the activity area where basalt rocks appeared to have been stockpiled following clearance of stone from the paddocks (Plate 7).



Plate 2: View of lower slope landform  
(facing east).





Plate 3: View of mid slope landform of Redstone Hill (facing south east).



Plate 4: Location of dwelling surrounded by exotic and non-indigenous native trees (facing west).



Plate 5: Exposure of red brown silty clay along north western fence line (facing south west).





Plate 6: Area of high visibility due to past ploughing (facing west).



Plate 7: Area of stockpiled field stone in south west corner of activity area (facing north).

#### 4.4.2. Newly Identified Aboriginal Cultural Heritage

A total of seven surface stone artefacts were identified in the activity area during the Standard Assessment. All identified artefacts were manufactured through flaking. The assemblage was comprised of silcrete (n=4) and quartzite (n=3). The stone artefacts were concentrated in three distinct areas; four surface stone artefacts were identified in the northern corner of the activity area on the lower slope, two in the north eastern part of the lower slope, and one on the mid slope near the southern boundary of the activity area (Figure 10). All surface artefacts were identified in areas of high ground surface visibility (90%). The surface stone artefacts were exposed in areas which contained evidence of



ploughing, stock movement, and erosional scars (Plates 8-9). As a result, it is possible the stone artefacts may have been transported from further upslope.



Plate 8: Location of surface stone artefact on an erosional scar on mid slope landform (facing north west).



Plate 9: Silcrete complete flake identified on lower slope landform.

The effective survey coverage results indicate that the surface stone artefact densities are low across both landforms in the activity area. The stone artefact densities for each landform were calculated as follows:

- the lower slope had an artefact density of 1 artefact per 1,733 m<sup>2</sup>; and,
- the mid slope had an artefact density of 1 artefact per 26,978 m<sup>2</sup>.

The results suggest that the slopes of Redstone Hill were unlikely to be a focus of occupation by Aboriginal people. The activity area is located north of the summit of Redstone Hill, and over 700 m north of the Jacksons Creek valley. While the mid slopes provide an elevated vantage point to the north west, the summit of Redstone Hill which occurs 150 m to the south east provides 360 degree views over the surrounding landscape.

Table 6: Surface artefact density by landform

Landform	Effective Survey Coverage m <sup>2</sup>	Number of Artefacts	Area (m <sup>2</sup> ) per artefact
Lower Slope	10,397.20	6	1,733
Mid Slope	26,977.70	1	26,978
<b>Total</b>	<b>37,374.90</b>	<b>7</b>	<b>5,339</b>

#### 4.4.3. Landforms & Archaeological Sensitivity

As a whole, the activity area was found to cover two landforms comprising the lower and mid slopes of Redstone Hill (Figure 10). The archaeological sensitivity of these landforms were rated as follows:

- Lower Slope:** The Desktop Assessment found that this landform had low potential to contain Aboriginal cultural heritage. Six surface stone artefacts were identified on this landform during the Standard Assessment. This landform has been subject to varying levels of disturbance due to the construction of a driveway, ploughing of the surface, and erosion along stock tracks and beneath trees. This landform was rated as having **low archaeological sensitivity**. Additional Aboriginal cultural heritage, if present, will most likely be in the form of diffuse stone artefact scatters that occur in surface and shallow subsurface contexts; and,
- Mid Slope:** The Desktop Assessment found that this landform had low potential to contain Aboriginal cultural heritage. One surface stone artefact was identified on this landform during the Standard Assessment. This landform has been subject to varying levels of disturbance due to the construction of a dwelling, field stone removal, and erosion along stock tracks and beneath trees. This landform was rated as having **low archaeological sensitivity**. Additional Aboriginal cultural heritage, if present, will



most likely be in the form of diffuse stone artefact scatters that occur in surface and shallow subsurface contexts.

#### **4.5. IMPLICATIONS AND DISCUSSION**

Aboriginal cultural heritage in the form of seven surface stone artefacts were identified in the activity area during the Standard Assessment. The stone artefacts were identified on the lower slope landform (n=6) along stock tracks and beneath trees in areas of high visibility, and on the mid slope landform (n=1) on an erosional scar. The effective survey coverage results indicate that artefact densities encountered were low, at 1 per 1,733 m<sup>2</sup> on the lower slope and 1 per 26,978 m<sup>2</sup> on the mid slope landform. No other Aboriginal cultural heritage was identified.

The Standard Assessment identified that the activity area contained Aboriginal cultural heritage, with potential to contain further Aboriginal cultural heritage, most likely in the form of diffuse stone artefacts. This cultural heritage was expected to occur in surface and shallow subsurface contexts, that have been impacted by a range of activities related to dwelling and driveway construction, ploughing, field stone removal, stock movement, and surface erosion.

The Desktop Assessment had identified that the lower slope and mid slope landforms had low archaeological potential. The results of the Standard Assessment supported this finding. This result is primarily due to the context of the study area which is some distance from Jacksons Creek, which appears to have been a focus of Aboriginal occupation. Vantage points are also known to have been important locations in relation to Aboriginal occupation. While the activity area provides a vantage point to the north west, better views were available from the summit of Redstone Hill which occurs outside of the activity area.

The Aboriginal Heritage Regulations 2018 (r. 64) state that a Complex Assessment is required in circumstances where a Standard Assessment determines that Aboriginal cultural heritage is, or is likely to be, present in the activity area; and it is not possible to identify the extent, nature and significance of the Aboriginal cultural heritage unless a Complex Assessment is carried out. The CHMP was progressed to a Complex Assessment to determine the potential for Aboriginal cultural heritage in the form of diffuse artefacts to occur in subsurface deposits within the activity area.



## **5. COMPLEX ASSESSMENT**

### **5.1. INTRODUCTION**

A Complex Assessment was undertaken as part of this CHMP because the Standard Assessment found that Aboriginal cultural heritage was present within the activity area, but the nature and significance of any potential cultural heritage could not be fully assessed through a field survey alone. The aims, method, coverage, and results of the Complex Assessment are presented in this section.

The subsurface investigation was carried out between 1-3 October 2019. Krista Whitewood supervised the archaeological field program. Krista meets the requirements for a supervisor as she has a Bachelor of Arts in Anthropology (Honours) gained from the Fordham University, New York, USA, in 2014. Krista was assisted by Catherine Harvey and Craig Lee (Field Assistants). The following WWCHAC representatives participated in the subsurface testing program:

- Gary Hansen – 1 & 3 October 2019;
- Justin Entwhistle – 1-2 October 2019;
- Naomi Zukanovic – 2 October 2019;
- John Xiberras – 3 October 2019.

### **5.2. AIMS OF THE COMPLEX ASSESSMENT**

The Aboriginal Heritage Regulations 2018 (r. 64) state that a Complex Assessment is required in circumstances where a Desktop Assessment or Standard Assessment show that Aboriginal cultural heritage is, or is likely to be, present in the activity area; and it is not possible to identify the extent, nature, and significance of that Aboriginal cultural heritage unless a Complex Assessment is carried out. In this instance, subsurface testing (Complex Assessment) of the construction footprint was required to:

- Determine whether any subsurface cultural heritage is associated with surface stone artefacts identified during the Standard Assessment;
- Assess the extent and nature of any subsurface Aboriginal cultural heritage (if present); and,
- Test the archaeological sensitivity of the mid and lower slopes landforms and the context of any subsurface cultural heritage (if present).

### **5.3. METHOD AND COVERAGE**

#### Subsurface Testing Methodology

The subsurface testing method was developed in consultation with WWCHAC (see Section 2.5) and utilised excavation pits (EPs), mechanical excavation pits (MEPs) and shovel test pits (STPs). Three EPs were excavated manually in order to determine the stratigraphy of the landforms in a controlled manner. MEPs were excavated in order to determine the archaeological sensitivity of the activity area as a whole. In the event Aboriginal cultural heritage was located, STPs were to be excavated around EPs and MEPs containing Aboriginal cultural material in order to define the extent of the cultural heritage.

The following methodology was applied to the subsurface testing program:

- 1 x 1 m EPs excavated on each landform, the location to be decided by local conditions, by shovel to an underlying culturally sterile deposit, proceeding in 100 mm spits until Aboriginal cultural heritage was located, thereafter (if present) proceed by trowel in 50 mm spits;
- 5 x 1 m MEPs excavated by machine within the activity area. Excavation to be conducted on a 50 m grid. However, if little or no topsoil was identified in the activity area, the 50 m grid was to be expanded to a 100 m grid. Excavation occurred to an underlying culturally sterile deposit, proceeding in 100 mm spits until Aboriginal cultural heritage was located, thereafter (if present) proceed by trowel in 50 mm spits;
- 0.5 x 0.5 m STPs excavated by shovel using the above method at all cardinal points of EPs and MEPs containing Aboriginal cultural heritage (if present) at 5 m intervals until two negative pits have been excavated to determine the extent of identified cultural heritage;
- All excavated sediments were sieved through 5 mm mesh;
- Written and photographic documentation was prepared for each EP, MEP and STP. This included the taking of pH readings to test for the acidity of the deposits (the greater the acidity, the lower the chances of bone preservation) and Munsell chart readings of the deposits to standardise colour descriptions;
- The locations of all Aboriginal cultural heritage (if present) identified during excavation was to be documented prior to its removal for further analysis and cataloguing; and,

- A dGPS was used to record EP, MEP and STP locations and the location of any identified Aboriginal cultural heritage (if present).

### Coverage

A total of three EPs, nine MEPs and eight STPs were excavated during the subsurface testing program. The locations of EPs, MEPs and STPs are shown in Figure 11. A description of EPs 1 and 2, which are considered representative of the lower and mid slope landforms are provided in Tables 7-8. A detailed description of all EPs, MEPs and STPs is provided in Appendix 4. The presence of a dwelling and driveway in the north central part of the activity area were an obstacle identified during the Complex Assessment however, the excavation grid was arranged in order to avoid these features.

During the project establishment meeting with the RAP held on 8 July 2018 (see Section 2.5.2), it was agreed that mechanical excavation would be conducted in either a 50 m or 100 m grid across the activity area, depending on the depth of soils. Specifically, if soils were absent or very shallow (<100 mm) a 100 m grid was considered sufficient, while a 50 m grid would be required if deeper soils were present. The mechanical excavation commenced in a 50 m grid, which confirmed that soils were generally <90 mm deep, which led to the grid being expanded to 100 m, with the exception of the area surrounding MEP 3, where soils were 100 mm depth.

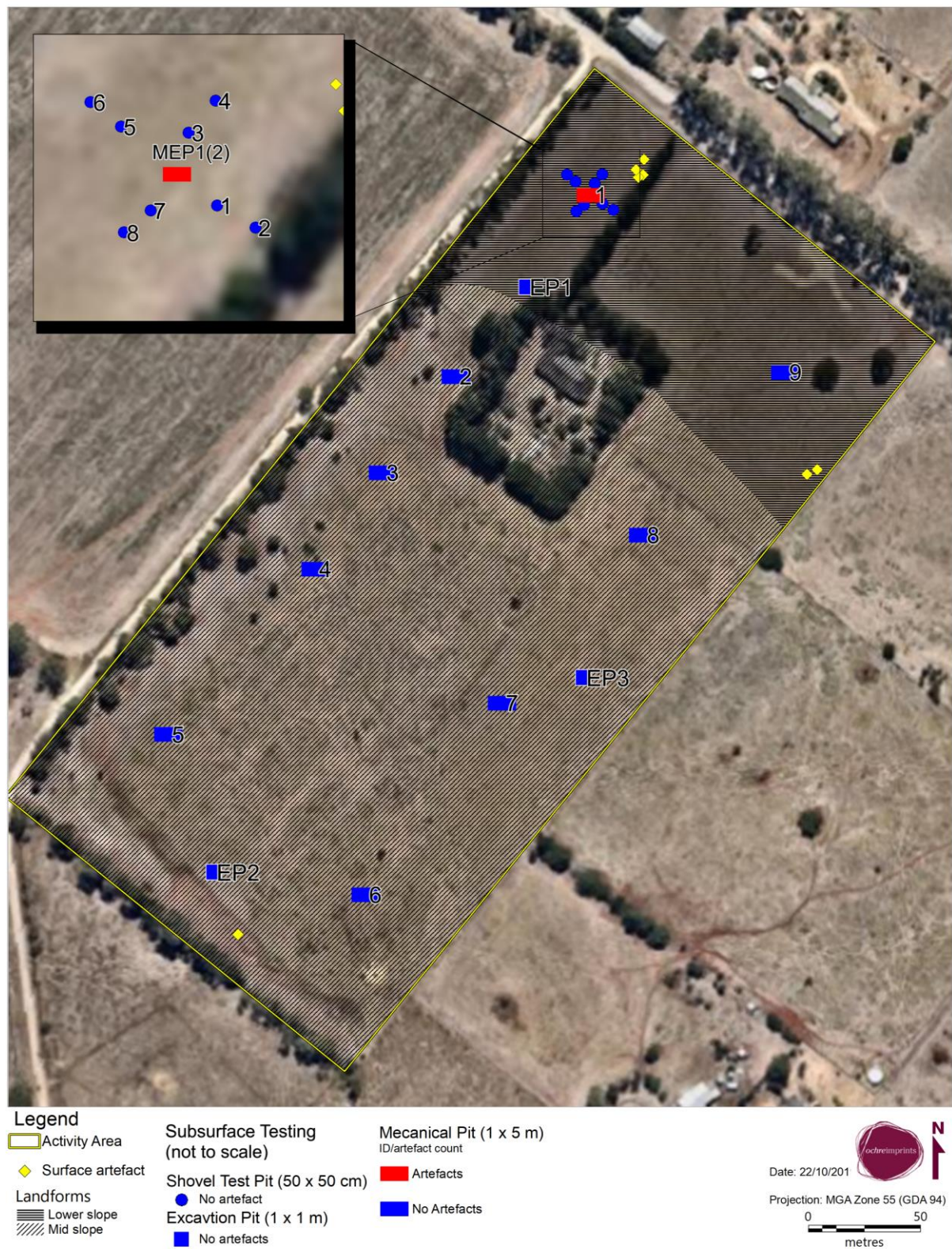


Figure 11: Location of subsurface testing.



Table 7: Results of EP 1.


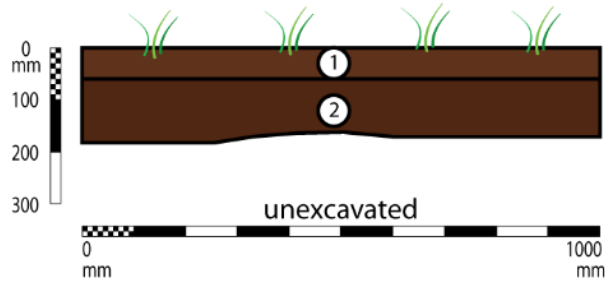

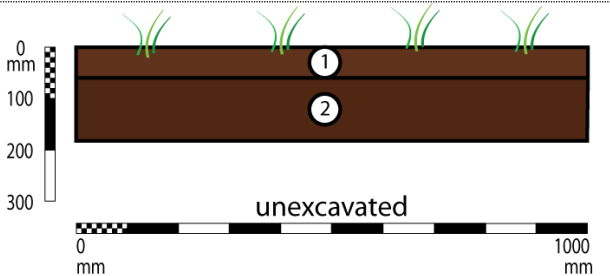
<b>Excavation Pit 1 (1X1 m)</b>	<b>Grid Reference GDA 94 MGA Zone 55</b>
Lower Slope.	E 301618 N 5835602
<b>Soil Horizons</b>	<b>Maximum Depth:</b>
<u>0-50 mm:</u> Munsell 5YR 4/3 pH 6.0	North west: 180 mm
Mid red brown silty clay, friable, dry, grass roots.	North east: 80 mm
<u>50-180mm +:</u> Munsell 5YR 4/3 pH 6.5	South east: 120 mm
Mid red brown clay, compact, dry.	South west: 60 mm
	<b>Disturbance:</b> Grass roots, bioturbation.
	<b>Obstacles:</b> None.
<b>Aboriginal Cultural Heritage:</b> None.	
 <p>EP1 South West Section</p>	 <p>EP1 North Baulk</p>

Table 8: Results of EP 2.

<b>Excavation Pit 2 (1X1 m)</b> Mid Slope.	<b>Grid Reference GDA 94 MGA Zone 55</b> E 301757 N 5835862
<b>Soil Horizons</b> <u>0-80 mm</u> : Munsell 5YR 4/4 pH 6.0 Mid red brown silty clay, friable, dry, grass roots. <u>80-120mm ±</u> : Munsell 5YR 4/4 pH 6.0 Mid red brown clay, compact, dry.	<b>Maximum Depth:</b> North west: 100 mm North east: 100 mm South east: 80 mm South west: 80 mm <b>Disturbance:</b> Grass roots, bioturbation. <b>Obstacles:</b> None.
<b>Aboriginal Cultural Heritage:</b> None.	
 <p>EP2 North East Section</p>	 <p>EP2 North Baulk</p>



## **5.4. ASSESSMENT RESULTS**

### **5.4.1. Stratigraphy of Landforms**

During the Complex Assessment, a total of three EPs, nine MEPs and eight STPs were excavated across the two landforms (lower and mid slope) within the activity area, representing the excavation of a total of 50 m<sup>2</sup> area and a volume of 3.9 m<sup>3</sup> (Table 9). A detailed description of all EPs, MEPs and STPs is provided in Appendix 4. The stratigraphy of these landforms is discussed below.

#### Lower Slope

The soil profile of the lower slope landform generally comprised brown to red brown silty clay overlying brown to red brown clay. Depths of the topsoil were generally shallow, ranging from 40 mm to 90 mm, averaging approximately 60 mm depth. Basalt floaters were identified throughout the soil profile, ranging in size from small (<20 mm) to large (>400 mm). No evidence of a thin silt A1 horizon was identified in the soil profiles; if present in the past, it is likely that a combination of past land use (ploughing, grazing) and erosion by slope wash has removed this horizon. All basal clay horizons were considered to be pre-Aboriginal occupation soil layers.

#### Mid Slope

The soil profile of the mid slope landform was similar to that of the lower slope. The soil profile generally comprised compact brown to red brown silty clay overlying brown to red brown clay. These soil horizons were generally thin, variably rocky, and ranged in depth from 40 mm to 100 mm, averaging approximately 60 mm in depth. One MEP (MEP 3) contained a deeper soil profile (100 mm depth) when compared to other pits on the same landform, and this was likely due to a localised area of flatter topography where slope wash had deposited eroded topsoil from upslope. Across the landform, no evidence of a thin silt A1 horizon was identified, indicating the potential for this horizon to have been eroded from the mid slope in the past due to natural processes such as slope wash, and from field stone clearing in the post-contact period. All basal clay horizons were considered to be pre-Aboriginal occupation soil layers.

Table 9: Excavated area and volume by landform.

Landform	Excavated Sediment Volume (m <sup>3</sup> )	Excavated Area m <sup>2</sup>	Number of Artefacts	Average Artefact Density per m <sup>2</sup> (m <sup>3</sup> )	Maximum Artefact Density per m <sup>2</sup> (m <sup>3</sup> )
Lower Slope	1.7	18	2	0.03 (0.28)	0.40 (3.33)
Mid Slope	2.3	32	0	-	-
Total	3.9	50	2	0.02 (0.14)	0.40 (3.33)

#### 5.4.2. Aboriginal Cultural Heritage in the Activity Area

Aboriginal cultural heritage in the form of two subsurface stone artefacts were identified in one MEP during subsurface testing (see Figure 11). These stone artefacts comprised a silcrete angular fragment and a crystal quartz longitudinally split bipolar flake. Each pit containing stone artefacts is described in Appendix 4.

A detailed description of the Aboriginal places recorded, including a significance assessment, analysis of the stone artefacts and a site plan are provided in Section 6. An Aboriginal place gazetteer is provided in Appendix 3.

This section presents information on the density and distribution of subsurface stone artefacts by landform.

##### Artefact Density and Distribution

The density of stone artefacts for each landform is presented in Table 10. This information is presented as both m<sup>2</sup> and m<sup>3</sup> for comparative purposes. The average subsurface artefact density for the entire activity area, as determined by the Complex Assessment, was 0.02 per m<sup>2</sup> (or 0.14 per m<sup>3</sup>). However, this result is misleading as the subsurface stone artefacts were solely identified on the lower slope landform, which had a density of 0.03 artefacts per m<sup>2</sup> (or 0.28 per m<sup>3</sup>), representing an artefact density of 1 artefact per 9 m<sup>2</sup>. The maximum recorded density was 0.4 artefacts per m<sup>2</sup> (or 3.33 per m<sup>3</sup>) on the lower slope landform.

Aboriginal stone artefacts identified on the lower slope landform ranged in depth from the ground surface to 50 mm (maximum depth). No Aboriginal cultural heritage was identified on the mid slope landform during the Complex Assessment. There were several notable features in the spatial distribution of cultural heritage:

- The distribution of subsurface stone artefacts was limited to one location on the lower slope landform, with only one of the total 20 pits containing cultural material;
- The location of subsurface Aboriginal cultural heritage was identified within 25 m of the cluster of four surface stone artefacts found during the Standard Assessment; however, no additional material was identified in the surrounding eight STP extents.
- The presence of shallow subsurface cultural heritage in thin topsoil deposits on the lower slope could potentially be due to ploughing in the past on this landform which transferred surface artefacts to a subsurface context. As a result, the subsurface cultural heritage on the lower slope is unlikely to be *in situ*. Furthermore, ploughing would have disturbed the entire shallow topsoil above clay, and therefore, any subsurface artefacts which had previously been in a subsurface context have likely been disturbed and are unlikely to be *in situ*;
- The absence of subsurface Aboriginal cultural heritage on the mid slope landform despite a greater amount of subsurface testing carried out on this landform could be either due to the low sensitivity of this landform or the increased potential for cultural material and topsoil to be eroded by a combination of natural processes and past field stone removal; and,
- The vertical distribution of the subsurface stone artefacts is likely due to post-depositional natural processes such as bioturbation from insects and plants, from ploughing in the past, and from the downward movement of soil on the slope.

### Archaeological Sensitivity

The results of the Complex Assessment provided insights into the subsurface distribution of Aboriginal cultural heritage, finding that the subsurface artefact density is overall low in the activity area. All artefacts were located on the lower slope landform. A number of observations were made about the archaeological testing of the landforms:

- The lower slope landform contained subsurface stone artefacts in low densities averaging 0.03 artefacts per m<sup>2</sup> (0.28 per m<sup>3</sup>) or 1 artefacts for every excavated 9 m<sup>2</sup>. The presence of isolated and low density stone artefacts on this landform was anticipated by the Desktop and Standard Assessments given the presence of a widespread, low density scatter across the volcanic plains above Jacksons Creek, with densities decreasing with distance from the creek (e.g. St George *et al.* 2015);
- Both the lower and mid slope landforms contained evidence of disturbance in the form of natural disturbances (e.g. slope wash and bioturbation) and past land use processes (e.g. ploughing and field stone removal). Due to the thin nature of the topsoil, these disturbances likely impacted the soils where Aboriginal cultural heritage

was identified. Therefore, the localised spatial nature of the Aboriginal cultural heritage is considered to reflect the post-depositional processes acting on the landscape and the land use history of the activity area; and,

- The absence of Aboriginal cultural heritage on the mid slope landform despite a greater amount of subsurface testing carried out on this landform could be either due to the low sensitivity of this landform or the increased potential for cultural material and topsoil to be eroded and transported downslope by a combination of natural processes and past field stone removal. Either way subsurface artefacts are anticipated to occur at a density 1 artefact per excavated  $>32 \text{ m}^2$ .

The archaeological sensitivity of the activity area is discussed in greater detail in Section 6.5.

## 5.5. CONCLUSION

A total of two stone artefacts were identified within the activity area during the Complex Assessment in addition to the seven surface stone artefacts identified during the Standard Assessment. Three EPs, nine MEPs and eight STPs were excavated across the two landforms in the activity area during the Complex Assessment representing a spatial area of  $50 \text{ m}^2$  and a volume of  $3.9 \text{ m}^3$ . The Complex Assessment results indicate:

- The stratigraphy of the two landforms present in the activity area contain evidence of disturbance from a combination of natural processes such as slope processes and bioturbation, and by post-contact land uses such as ploughing and field stone removal. As a result, no *in situ* deposits were identified;
- The subsurface stone artefacts are clustered in one location on the lower slope landform; no subsurface stone artefacts were identified on the mid slope landform;
- The distribution of subsurface stone artefacts on the lower slope was anticipated by the Desktop and Standard Assessments, as isolated and low density stone artefact occurrences are commonly found on this landform in the geographic region. It also points to subsurface stone artefacts reflecting the similar low density of surface stone artefacts; and,
- The absence of subsurface stone artefacts on the mid slope landform indicates that if Aboriginal cultural heritage occurs on this landform, it is at such low densities (1 artefact per  $>32 \text{ m}^2$ ) that it could not be detected during the Complex Assessment; that any material had been transported downslope over time due to natural soil movement; or the mid slope landform was not as heavily utilised by Aboriginal people in the past due to the nature of the slope or its distance from other more sensitive landforms such as the Jacksons Creek valley.

Overall, the results support previous findings in the region (i.e. CHMP 13370; CHMP 13033; CHMP 14077) which indicated that the focus of Aboriginal occupation in the local area was not located on the volcanic plains and slopes of Redstone Hill, but rather closer to environments Jacksons Creek, with evidence of Aboriginal occupation of the volcanic plains and slopes of Redstone Hill characterised by fairly diffuse stone artefacts, particularly at greater distances from Jacksons Creek.



## **6. ABORIGINAL CULTURAL HERITAGE**

### **6.1. INTRODUCTION**

This section provides a full description of Aboriginal places in the activity area including a significance assessment and an analysis of the lithic assemblage. The archaeological sensitivity of the activity area is also assessed in this section.

### **6.2. ABORIGINAL CULTURAL HERITAGE**

The details of the assessment of the Aboriginal cultural heritage that informed an analysis of the nature, extent and scientific significance of Aboriginal places in the activity area are provided in Sections 4 and 5. A lithic analysis is presented below. A full significance assessment is provided in Section 6.4. No radiometric or OSL dating has been undertaken as part of the CHMP as no datable material was identified during the assessment.

Following discussions with RAP (see Section 2.5.2.) it was agreed that the surface and subsurface stone artefacts identified during the field assessment were to be registered as an LDAD. The artefacts were subsequently registered as VAHR 7822-4422.

The Aboriginal place is described in Section 6.2.1 below.

Krista Whitewood (Ochre Imprints) catalogued the surface stone artefacts identified during CHMP 15699. An analysis of the stone artefacts was undertaken by Caroline Spry and is presented in Section 6.2.2 below. A full artefact catalogue is provided in Appendix 5.

#### **6.2.1 Description of Aboriginal Places**

VAHR 7822-4422 is described in Table 10 and Figure 12 shows the location of the Aboriginal place in the activity area.



Figure 12: Location of VAHR place within the activity area.



Table 10: Description of VAHR 7822-4422

<b>VAHR No.</b>	<b>Cadastral Description:</b>
VAHR 7822-4422	Parish of Bulla Bulla, County of Bourke, City of Hume
50 Redstone Hill Road LDAD	SPI: 2\LP88415
<b>Type:</b>	<b>Context and Condition:</b>
Low Density Artefact Distribution (LDAD)	This LDAD comprises seven stone artefacts identified in a surface context on the lower and mid slope landforms and two subsurface stone artefacts identified on the lower slope landform of Redstone Hill during subsurface testing. The subsurface stone artefacts were recorded at a depth of 50 mm in mid brown silty clay in a single MEP (MEP 1). The shallow nature of the topsoil (90 mm) and the presence of ploughing in the past indicates that the subsurface stone artefacts are unlikely to be <i>in situ</i> . The surface stone artefacts were recorded in three locations in areas of 90% ground surface visibility on stock tracks and erosion scars.
<b>Context:</b>  Surface and subsurface material	
<b>Density:</b>  Not applicable	
<b>Primary Grid Coordinate:</b>	<b>Contents/Stone Artefact Assemblage and Archaeological Significance:</b>
MGA 55 GDA 94	VAHR 7822-4422 is of high cultural significance to the RAP and was rated as having low scientific significance (see Section 6.4 for further details).
E 301810	The lithic assemblage comprised:
N 5835919	<u>Raw material</u> : silcrete (n=5), quartzite (n=3) and crystal quartz (n=1)  <u>Primary Forms</u> : angular fragment (n=2), flake – complete (n=2), flake – distal (n=3), flake – longitudinal split (n=1), flake – proximal (n=1)

**Representative Photo:**

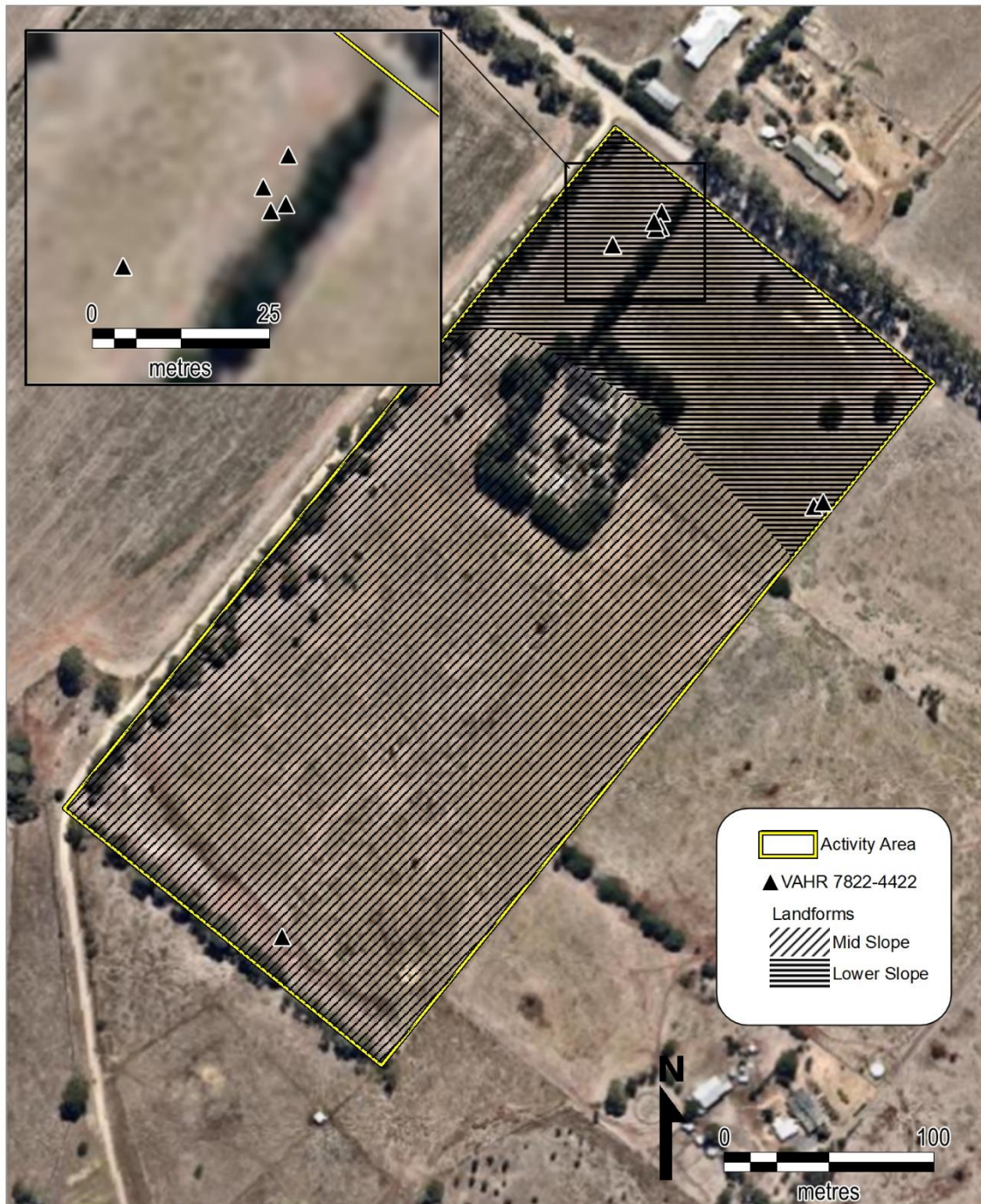


Subsurface stone artefacts



Surface stone artefact



**Site Plan:**

### **6.2.2. Stone Artefact Analysis**

This section details the results of the analysis of the nine flaked stone artefacts that were identified during the field investigations for CHMP 15699. The stone artefacts were registered as VAHR 7822-4422 (LDAD). Stone artefacts were primarily identified on the lower slope landform in both surface and subsurface contexts. One surface artefact was identified on the mid slope landform.

#### ***Recorded artefact attributes***

The recorded artefact attributes are based on those outlined in the *AV Standards for Recording Victorian Aboriginal Heritage Places and Objects* (DPC 2008) and guidelines for recording *Low Density Artefact Distributions* (DPC 2013).

All stone artefacts were measured to the nearest hundredth of a millimetre using electronic callipers. A 20x magnification hand lens was used to identify the presence of macroscopic edge modification.

#### ***Limitations in analysis***

Stone artefact assemblages are the most durable remains of past human activity, and often form the basis of our understanding of archaeological sites. However, there are limitations in their study to understand human behaviour. Over decades of research, including careful observation of, and collaboration with, Indigenous stone workers, archaeologists have demonstrated that much of the variation in Australian stone tool assemblages can be explained by the proximity to and availability of raw materials, and their original form and flaking properties. In other words, there is no clear link between assemblage composition and site function (Holdaway & Stern 2004: 71).

The way a site forms, and the physical impacts to the site over time ('post-depositional processes'), also influences the composition of stone artefact assemblages. The abandonment, loss or discard of stone artefacts results in their falling out of a system (Ammerman & Feldman 1974; Schiffer 1972, 1976, 1996) and the creation of archaeological sites. However, it also means that the archaeological record only contains the parts of a living system that were disconnected and subsequently preserved at a particular location (Binford 1980: 5). Post-depositional processes, such as wind and water erosion, can remove items subsequently from an assemblage – or introduce them. In general, a lack of fine-grained contextual information (e.g. X, Y and Z co-ordinates for individual artefacts) precludes a detailed spatial analysis to investigate whether disturbance to the site has moved artefacts vertically or horizontally. Lastly, strategies for the recovery of material – that is, how stone artefacts are collected in the field – also affect assemblage composition.

What stone artefact analysis can tell us, when field methods are rigorous, is how certain raw materials were exploited, what type of stone-working techniques were employed, and which kinds of tools were made. Intact archaeological deposits provide a tangible link to a discrete moment in the distant past when a person used his or her skills to knap a piece of stone, to make workable stone tools for use in everyday life. This tangible link holds great value to both Indigenous and non-Indigenous people.

### ***Age estimates***

Unless dated material can be unequivocally associated with stone artefacts or used to generate bracketing age estimates for the stratigraphic unit from which the artefacts originated, no age estimates can be generated for an assemblage. In some instances, the geological feature with which the assemblage is associated can indicate the time period of discard. No material suitable for dating was identified during the Standard and Complex Assessments for CHMP 15699.

A stratified deposit provides a good basis for investigating technological change over time. In the past, the presence of certain types of cores and tools was used to denote the age of an assemblage in Australia. For example, backed blades and geometric microliths were ascribed to the Australian Small Tool Tradition (ASTT; Gould 1969), which was thought to date to the last 5,000 years. However, more recent studies have identified backed artefacts in much older deposits, reinforcing the notion that tool typologies are not reliable indicators of the age of Australian assemblages<sup>8</sup>. Furthermore, no backed artefacts were identified during the Standard and Complex Assessments for CHMP 15699.

### **Analysis Results**

The LDAD VAHR 7822-4422 comprises nine flaked stone artefacts. Seven of these were identified on the ground surface during the Standard Assessment, and the remaining two artefacts were excavated at depths between 0-50 mm during the Complex Assessment. Most of the artefacts were situated on the lower slope (n=8), and one artefact was identified on the mid slope.

Silcrete artefacts dominate the assemblage, followed by quartzite or crystal quartz artefacts (Table 12). As discussed previously, the catchment area of Jacksons Creek includes source rocks of raw materials including quartz, quartzite, silcrete, and chert, and there is potential for this material to have been eroded from outcrops along the stream channel and

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<sup>8</sup> Backed artefacts from Walkunder Arch in Queensland, Mussel Shelter on the Hawkesbury River catchment in NSW, and at two sites adjacent to the Gregory River in Queensland have age estimates of  $16,090 \pm 700$  yr cal BP (Campbell 1982), between  $6,100 \pm 110$  and  $9,340 \pm 260$  yr cal BP (Hiscock and Attenbrow: 1998: 59), and between  $15,370 \pm 750$  and  $19,350 \pm 660$  yr cal BP (Slack *et al.* 2004), respectively.

transported downstream during periods of higher flows (see Section 3.2.2). Numerous silcrete quarries have been registered along Jacksons Creek within 2 km of the activity area. While no sourcing studies were undertaken as part of this study, it is likely that the raw materials used to make the artefacts in the LDAD VAHR 7822-4422 assemblage came from one of these sources – or other unidentified sources that occur along Jacksons Creek.

Most of the artefacts in the assemblage are flaking debris (n=6), comprising angular fragments and complete, broken or split flakes, which typically forms the greatest component of an intact stone-knapping assemblage (Andrefsky 2001: 2; Johnson 2001: 16). Three artefacts contain edge modification (retouch and/or edge damage) that is visible without a microscope and is likely related to tool use. No cores were identified in the assemblage. The single quartz crystal artefact was made when a piece of this material was rested on a stone anvil and flaked with a hammerstone (bipolar reduction).

Primary form	Silcrete	Quartzite	Crystal Quartz	Total
Angular Fragment	2			<b>2</b>
Flake - Complete	1	1		<b>2</b>
Flake - Distal	1	2		<b>3</b>
Flake - Longitudinal Split			1	<b>1</b>
Flake - Proximal	1			<b>1</b>
<b>Total</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>9</b>

Table 11: The primary form of artefacts identified in the VAHR 7822-4422 assemblage

The maximum dimension values of the artefacts in the assemblage range between 14-53 mm (Figure 13). Most of the artefacts have maximum dimension values between 10-30 mm. Experimental studies have demonstrated that artefacts with a maximum dimension less than 10 mm ('microdebitage') are the most common size category in an intact stone-knapping assemblage (Fladmark 1982; Schick 1989; Toth 1982). However, this size class is not represented in the assemblage. This probably relates to several factors, including the removal of smaller artefacts by post-depositional processes, a bias towards identifying larger artefacts on the ground surface during the Standard Assessment, and smaller artefacts slipping through the 5 mm sieves used during the Complex Assessment.

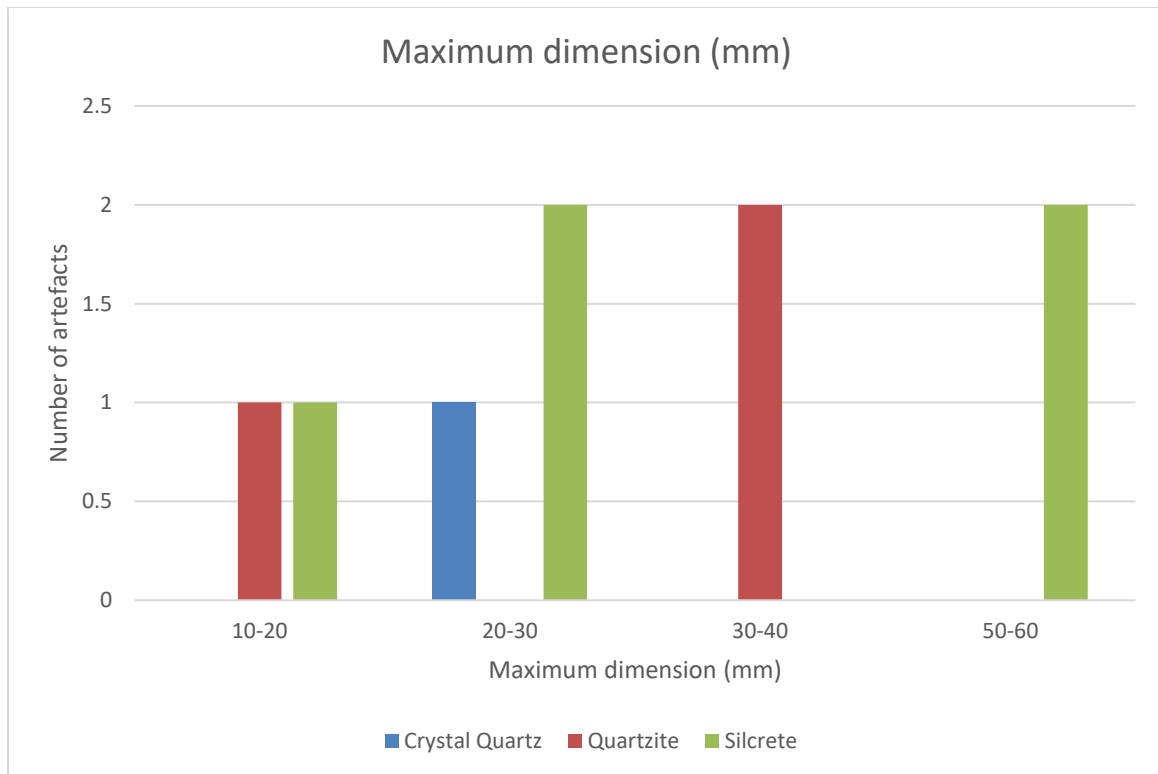


Figure 13: Maximum dimension values of artefacts in the VAHR 7822-4422 assemblage

Overall, the assemblage is relatively small, suggesting the occasional production, or loss/discard, of silcrete, quartzite and crystal quartz artefacts within the activity area over long periods of time.

### 6.3. INFORMATION PROVIDED BY RAPs OR OTHER PERSONS

WWCHAC provided a statement about Aboriginal cultural heritage values which are provided below.

#### WWCHAC Statement

*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.*

*There are other values that the Wurundjeri people connect to in landscapes such as the activity area and surrounding area. The natural values, such as remnant vegetation, eucalypts, and the landscape views from the activity area are all integral to the cultural*

*landscape in which Woiwurrung ancestors lived for many thousands of years. These landscape characteristics are therefore significant in accordance with Aboriginal tradition.*

*Best practice heritage management, in terms of avoidance of harm to cultural heritage and where harm cannot be avoided, proper management of the disturbance of those values, is integral in the management of these significant cultural places.*

#### **6.4. SIGNIFICANCE OF ABORIGINAL PLACES**

The significance of Aboriginal cultural heritage in the activity area is described within a framework provided by 'The Burra Charter' (Australia ICOMOS Burra Charter 2013), which defines aesthetic, historic, scientific, social and spiritual values. A general statement of the significance for each value is presented below. This is based on the results of the assessment undertaken as part of this CHMP and should be considered in tandem with the significance statement provided by WWCHAC in Section 6.3.

*Aesthetic values:* while the aesthetic value of the activity area has been altered by European land use practices it is likely to retain some important aesthetic values to Aboriginal people.

*Historic values:* The activity area is important as a place which has evidence of Aboriginal occupation and where aspects of Aboriginal people's association with the area have been clearly demonstrated.

*Social values:* Landforms in the activity area and associated flora and fauna resources have value to Aboriginal people.

*Spiritual values:* Aboriginal people continue to have spiritual connections to their country and Aboriginal places that occur within it.

*Scientific values:* Bowdler (1984) developed a method for the assessment of scientific significance through ranking the contents, condition, and representativeness of individual Aboriginal places. This method has been used as a basis – although it has been slightly modified – for assessing the scientific significance of VAHR 7822-4422.

The results of the scientific significance assessment are presented in Table 13. The significance determination may change on the basis of future research and analysis.

VAHR 7822-4422 was rated as having **low** scientific significance based on the diffuse nature of stone artefacts, the apparent displacement of cultural material from its original context, and the relatively common occurrence of this type of Aboriginal place in the region.



Table 12: Scientific significance of Aboriginal places in the activity area

VAHR No.	Place Type	Place Contents	Place Condition	Representativeness	Scientific Significance
7822-4422	LDAD	1	1	1	3 (low)

**Key:**

Place Contents: 0 – No remnant cultural material; 1 – Limited range and / or low number (e.g. 0-10 stone artefacts) of cultural material; 2 – Moderate range and/or density of cultural material; 3 – High density and diverse range of cultural material and/or presence of rare artefact types.

Place Condition: 0 – Place destroyed; 1 – Place displaced / eroded from original context; 2 – Place contains some remnant *in situ* or intact components (surface or subsurface); 3 – Place is predominantly *in-situ* or intact (surface or subsurface).

Representativeness: 1 – Common occurrence; 2 – Occasional occurrence; 3 - Rare occurrence.

Scientific Significance: 1-4 Low scientific significance; 5-7 Moderate scientific significance; 8-9 High scientific significance.

## 6.5. ARCHAEOLOGICAL SENSITIVITY OF THE ACTIVITY AREA

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

An area of Aboriginal archaeological sensitivity potentially contains Aboriginal cultural heritage. Areas of archaeological sensitivity are rated from low to high, depending on the relative probability that archaeological deposits will be present. The known registered Aboriginal place distribution and the types of landforms present influence the end rating. The conditions that *generally* apply for each rating level that is used in the report are described below, though it is stressed that other factors may come into play depending on the individual area.<sup>9</sup>

Low: No registered Aboriginal places are present or Aboriginal places are confined to single stone artefacts or Low Density Artefact Distributions (LDAD). Landforms in the activity area are not known to be associated with Aboriginal places (aside from isolated stone artefacts) in the wider region.

Moderate: No registered Aboriginal places or registered Aboriginal places of low-moderate significance are present. Landforms in the activity area are not known to be associated with Aboriginal places in the wider region.

<sup>9</sup> For instance, an area may contain registered Aboriginal scarred tree places, but the potential for any other places to occur in the area may be non-existent due to the absence of further mature trees.

High: No registered Aboriginal places or registered Aboriginal places of moderate to high significance are present. Landforms in the activity area are known to be associated with significant Aboriginal places in the wider region.

The archaeological sensitivity of the activity area is rated as *low*. This includes both the lower and mid slope landforms of Redstone Hill where VAHR 7822-4422 was identified. These landforms were rated as having low archaeological sensitivity, as they have undergone low to moderate levels of ground disturbance and are not known to be associated with Aboriginal places (aside from isolated stone artefacts or LDADs) in the wider area. If Aboriginal cultural heritage is present it will most likely comprise diffuse stone artefacts in surface or subsurface contexts.

## **6.6. AREAS LIKELY TO CONTAIN ABORIGINAL CULTURAL HERITAGE**

No part of the activity area that has increased potential to contain Aboriginal cultural heritage and that will not be impacted by the proposed activity occurs within the activity area.

## **6.7. CONCLUSION**

This CHMP identified Aboriginal cultural heritage material associated with one registered Aboriginal place in the activity area: VAHR 7822-4422. This Aboriginal place is an LDAD that comprises seven surface stone artefacts and two subsurface stone artefacts identified on the lower and mid slope landforms of Redstone Hill.

Based on the Desktop, Standard and Complex Assessments, the Aboriginal archaeological sensitivity of the activity area was rated as being low.

## 7. CONSIDERATION OF SECTION 61 MATTERS

CHMPs are required to address matters raised in Section 61 of the *Aboriginal Heritage Act 2006*. These matters concern the management of Aboriginal cultural heritage prior to, during, and after the activity. A discussion of these matters is provided below in relation to VAHR 7822-4422. The location of this Aboriginal place in relation to the development plan is shown in Figure 14.

### **Section 61a whether the activity will be conducted in a way that avoids harm to Aboriginal cultural heritage.**

VAHR 7822-4422: This LDAD is diffuse surface and subsurface stone artefact scatter that is located on the lower and mid slope landforms of Redstone Hill. The stone artefacts associated with this Aboriginal place are located within areas that will be impacted by ground disturbing works associated with subdivision works such as housing and road construction. The activity cannot be conducted in a way that entirely avoids harm to this Aboriginal place. The proposed works are constrained by a number of factors, including the small activity area size, the layout of surrounding parcels of development, the layout of road connections from surrounding development, and the layout of open space from surrounding development. The protection of four surface artefacts that occur within a single lot was not raised by the RAP as requiring protection<sup>10</sup>. Rather, surface salvage was advocated likely due to the low number of artefacts involved.

### **Section 61b if it does not appear to be possible to conduct the activity in a way that avoids harm to Aboriginal cultural heritage, whether the activity will be conducted in a way that minimises harm to Aboriginal cultural heritage.**

VAHR 7822-4422: As stated above, this Aboriginal place cannot be avoided by the activity and the stone artefacts associated with this place occur within parts of the activity area that will be impacted by subdivision works such as housing and road construction.

### **Section 61c any specific measures required for the management of Aboriginal cultural heritage likely to be affected by the activity, both during and after the activity.**

VAHR 7822-4422: specific measures are required to manage this Aboriginal place at specific times throughout the project. These include requirements for the salvage of the surface stone artefacts and the appropriate treatment of collected cultural material.

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<sup>10</sup> See Section 2.5.2. for the summary of the meeting held on 18 October 2019.

**Section 61d any contingency plans required in relation to disputes, delays and other obstacles that may affect the conduct of the activity.**

Processes to be followed in relation to delays, disputes, communication and other matters are outlined in the management contingencies (Section 1.3). Procedures are also outlined for other factors that may affect the conduct of the activity, such as contingency measures to deal with the discovery of previously unidentified Aboriginal cultural heritage and suspected human remains.

**Section 61e requirements relating to the custody and management of Aboriginal cultural heritage during the course of the activity.**

The custody and management of Aboriginal cultural heritage that may be uncovered during the activity is addressed in Section 1.3.

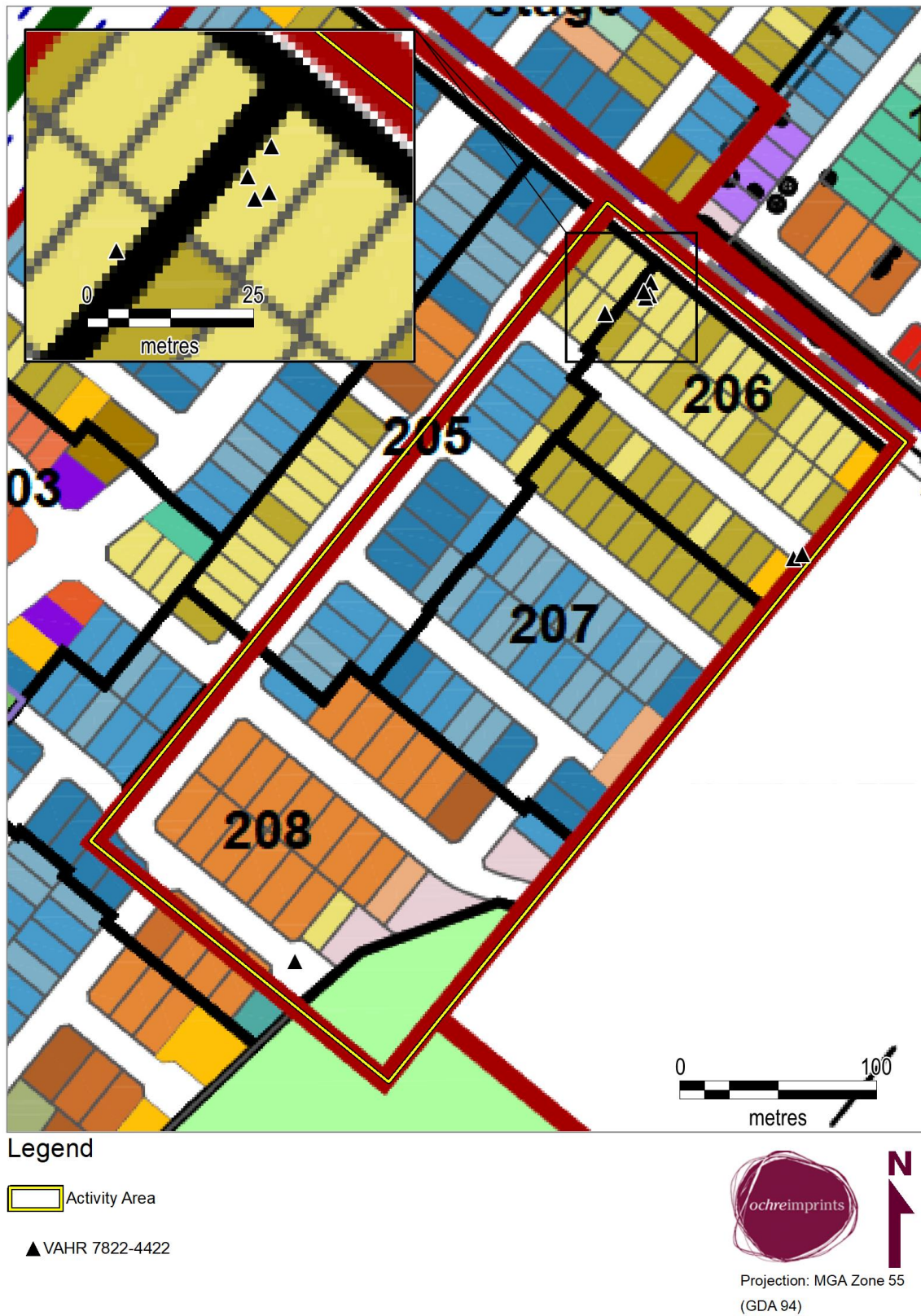


Figure 14: Location of VAHR 7822-4422 within the activity area in relation to the activity.

### **Other Considerations**

CHMPs are required to consider the 'cumulative impact of the activity on Aboriginal cultural heritage in the activity area [and] in relation to the Aboriginal cultural heritage of the region.' This is discussed in relation to a series of points/questions considered by WWCHAC when evaluating CHMPs:

#### **Discuss the previous harm to heritage in the region by other developments.**

Aboriginal cultural heritage in the geographic region has been previously impacted by agricultural practices, the development of infrastructure (i.e. Sunbury Road) and subdivision relating to the wider residential development at Redstone Hill and its surrounds. Impacts to Aboriginal cultural heritage from agricultural activities and early infrastructure such as roads and underground services that occurred prior to the *Aboriginal Heritage Act 2006* are not well documented. Since 2006, several CHMPs have been conducted within the geographic region, with most of those activities yet to formally commence. In terms of the harm that is permitted to Aboriginal cultural heritage in the geographic region by CHMPs, the archaeological reports reviewed in the geographic region reflect a mix of site mitigation responses. For instance, CHMPs prepared for surrounding properties ahead of development<sup>11</sup> have:

- Required the protection of all of VAHR 7822-3789; 7822-3881 and 7822-3882.
- Permitted partial harm to VAHR 7822-3663; 7822-3668; 7822-3788; 7822-3790; 7822-3875 and 7822-3876.
- Permitted harm to VAHR 7822-3794; 7822-3823; 7822-4005; 7822-4008.

Overall, this reflects that harm is permitted to many Aboriginal places in the surrounding area (i.e. the entire extents of VAHR 7822-3794; 7822-3823; 7822-4005; and, 7822-4008), which is contributing to the cumulative harm to Aboriginal places in the region as land around Redstone Hill is being subdivided for development. Nevertheless, a large number of Aboriginal places will be either entirely protected, or partially protected from harm, including 7822-3789; 7822-3881; 7822-3882; 7822-3663; 7822-3668; 7822-3788; 7822-3790; 7822-3875; and, 7822-3876.

It is highly likely that many as yet unidentified Aboriginal places have also been protected from development by requirements to protect large areas of the landscape, particularly along Jacksons Creek adjacent to Redstone Hill, for environmental reasons (i.e. see St George *et al.* 2015), which were then not fully investigated by CHMPs.

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<sup>11</sup> see St George *et al.* 2015; Verduci *et al.* 2017; Chamberlain 2017; Green & Albrecht 2018.

As such, while many Aboriginal places have been destroyed or impacted in some way by development, a sample of Aboriginal cultural heritage is being protected from development, including much that sits in open space around Jacksons Creek.

Discuss the impact on the type and significance of heritage of previous developments.

This is discussed in relation to known Aboriginal places where impacts by proposed development is known due to the previous preparation of CHMPs. Existing and anticipated impacts from imminent subdivision and other planned works show that a range of low- and high-density stone artefact scatters and stone quarries will be impacted by development to various degrees. Of the eight stone quarries in the geographic region, one (VAHR 7822-3668) will be partially impacted by works, while the remaining seven are located within reserves and will be protected from harm. Aboriginal places that have been or will be protected from harm, or partially protected from harm, tend to be located on archaeologically sensitive landforms such as along the Jacksons Creek corridor, and generally comprise stone artefact scatters and LDADs (i.e. VAHR 7822-3663; 7822-3668; 7822-3788; 7822-3789; 7822-3790; 7822-3789; 7822-3875; 7822-3876; 7822-3881; 7822-3882).

Has the cumulative impact of regional development been discussed with TO's?

The impact of residential development on Aboriginal cultural heritage in the geographic region was discussed with the WWCHAC Elders at a meeting on 18 October 2019. The HA presented information on the cumulative impact of development within the geographic region. A particular focus was the impacts and site avoidance measures by the greater Redstone Hill subdivision as reflected by CHMP 13370 which was approved by the RAP. Elders were provided with the opportunity to provide feedback in relation to this.

Is there a consideration of future regional development and the impact of the current CHMP on retention of heritage in the region over time?

As this CHMP is development specific and the activity area is relatively small in size (c. 8 ha), there is no scope in the CHMP to provide guidance in relation to the longer-term management of Aboriginal places in the region by the appropriate land managers.

Are there recommendations for future CHMPs in the area?

There is a contingency in the CHMP that flags the possible need for future CHMPs in the event that there are changes to the activity or activity area.

Are the CHMP conditions consistent with the assessment of cumulative impacts?

The RAP considered cumulative impact when assessing management measures for VAHR 7822-4422. This Aboriginal place represents one of several Aboriginal places that occur on



the lower and mid slopes of Redstone Hill in the surrounding area that will be affected by residential development (e.g. VAHR 7822-3788; VAHR 7822-3794; VAHR 7822-3875; VAHR 7822-3876). While VAHR 7822-4422 will be impacted by the proposed activity, cultural heritage (VAHR 7822-3789; VAHR 7822-3876) and a portion of this landform, is protected from development in the area surrounding the activity area by CHMP 13370.

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**APPENDIX 1: COPY OF 'NOTICE OF INTENT TO PREPARE A CHMP' AND  
RESPONSE FROM WWCHAC**

Premier  
and Cabinet

## 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: 50 Redstone Hill Road Pty Ltd  
 ABN/ACN: 82623447478  
 Contact Name: Luke May  
 Postal Address: Level 1, 6 Riverside Quay, Southbank VIC 3006  
 Business Number: 03 9695 3016 Mobile: \_\_\_\_\_  
 Email Address: luke.may@villawoodproperties.com

### 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: Residential Subdivision: 50 Redstone Hill Road, Sunbury  
 Municipal district: Hume City Council

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

Subdivision

### SECTION 3 - Cultural Heritage Advisor

Karen Kapteinis	Ochre Imprints	karen@ochreimprints.com.au
Name	Company	Email address

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

Start Date: 01-May-2018 Finish Date: 03-Sep-2018

Submitted on: 01 May 2018

Premier  
and Cabinet**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 Environment Effects Statement is required
- ☐ A Cultural Heritage Management Plan is required by the Minister for Aboriginal Affairs.
- ☐ An Impact Management Plan or Comprehensive Impact Statement is required for the activity

**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.*  
 Wurundjeri Land & Compensation Cultural Heritage Council Inc

**SECTION 7A - List the relevant Aboriginal groups or Aboriginal people with whom the Sponsor intends to consult (if any)**

*This section is to be completed only if the proposed activity in the management plan is to be carried out in an area where there is no Registered Aboriginal Party.*

**SECTION 7B - Describe the intended consultation process (if any)**

*This section is to be completed only if the proposed activity in the management plan is to be carried out in an area where there is no Registered Aboriginal Party.*

**SECTION 8 – State who will be evaluating this plan (mandatory)**

*The plan is to be evaluated by:*

- ☒ A Registered Aboriginal Party AND / OR  
 If checked, list the relevant Registered Aboriginal Party Evaluating: Wurundjeri Land & Compensation Cultural Heritage Council Inc
- ☐ The Secretary AND / OR
- ☐ The Council

**SECTION 9 – Preliminary Aboriginal Heritage Tests (PAHTs)**

*List the Reference Number(s) of any PAHTs conducted in relation to the proposed activity:*

**SECTION 10 - Notification checklist**

Ensure that any relevant registered Aboriginal party/ies 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.)

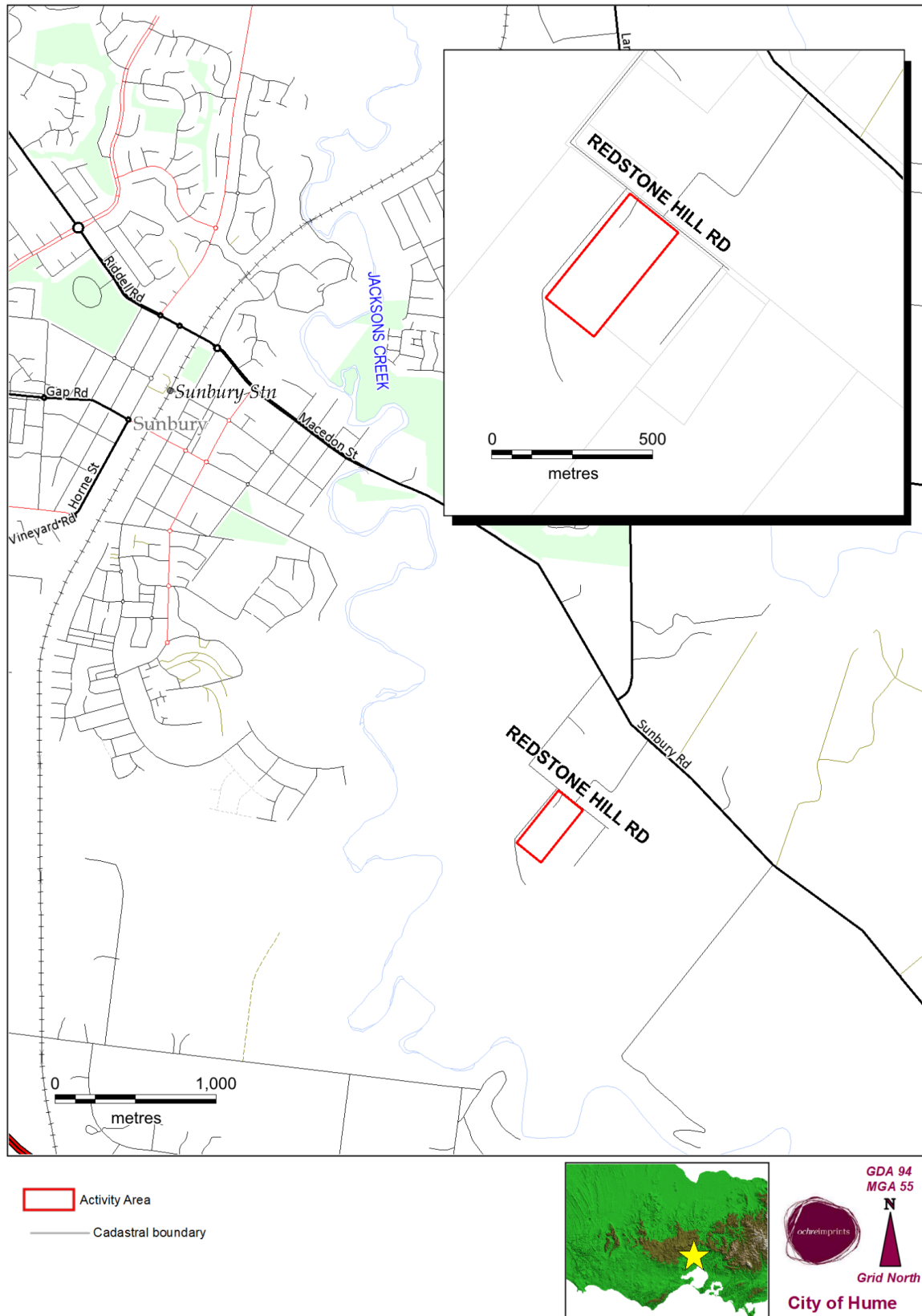
Submitted on: 01 May 2018



In addition to notifying the Deputy Director and any relevant registered Aboriginal parties, 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.

Ensure any municipal council, whose municipal district includes an area to which the cultural heritage management plan relates, is also notified. A copy of this notice, with a map attached, may also be used for this purpose.

Submitted on: 01 May 2018



## Karen Kapteinis

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**From:** Rapofficer <Rapofficer@wurundjeri.com.au>  
**Sent:** Wednesday, May 2, 2018 9:04 AM  
**To:** Luke May  
**Cc:** Karen Kapteinis; Petra Schell; Fjorn; Alex Parmington; Catherine La Puma; Deltalucille Freedman  
**Subject:** Wurundjeri Notice of Intent Response: CHMP 15699 - Residential Subdivision: 50 Redstone Hill Road, Sunbury  
**Attachments:** CHMP\_Evaluation\_Checklist 2017.docx; Detail regarding to avoid avoidance or minimisation harm to Aboriginal cultural heritage.pdf; Payment to Wurundjeri for Applications for Approval of CHMPs.pdf; Request for Wurundjeri Council Field Representative 2017.doc; Request for Wurundjeri Council Heritage Meeting 2017.docx; Wurundjeri Artefact Repatriation Policy 2017.pdf; Wurundjeri Council Cultural Heritage Management Plan Consultation Flowchart - 2017.pdf; Wurundjeri Council Management Policies ~ Update 2018.pdf; Wurundjeri Cultural Heritage Unit- Fieldwork Cancellation Timeframe 2017.pdf; Wurundjeri Rain and Heat Policy 2018.pdf; Wurundjeri RAP Fees ~ Sept 2017.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Dear Luke,

### CHMP 15699 - Residential Subdivision: 50 Redstone Hill Road, Sunbury

Your notification has been accepted and the Wurundjeri Council advises that it intends to evaluate this plan when complete, in accordance with Division 4, Section 55 of the *Aboriginal Heritage Act 2006*. We also advise that during the preparation of this plan, the Wurundjeri Land & Compensation Cultural Heritage Council Aboriginal Corporation wishes to:

- Consult with you in relation to the assessment of the area for the purposes of the plan
- Participate in the conduct of the assessment
- Consult with the sponsor in relation to the conditions to be included in the plan.

Please note that before any fieldwork program commences it will be necessary for your heritage advisor to participate in a Project Establishment Meeting at the Wurundjeri Council office to discuss the project. It is preferable for the project sponsor to attend the Project Establishment Meeting as well. As the Project Establishment Meeting provides an opportunity for all parties to clarify the aims of the CHMP and methodology for any fieldwork program, it is helpful if you and/or your heritage advisor can bring along the following information to expedite these discussions:

- Aerial photo of the Activity Area
- A clear map of the Activity Area
- Aboriginal site location data within the geographic region
- Site cards of any sites already recorded in the Activity Area.

If you require any additional information about this advice, please contact Alexander Parmington by telephone on 03 9416 2905 or by email: [alex@wurundjeri.com.au](mailto:alex@wurundjeri.com.au)

We look forward to meeting with you soon to discuss the project.

Yours sincerely,

Helen Officer  
RAP Administration Officer  
Cultural Heritage Unit  
Wurundjeri Land & Compensation Cultural Heritage Council Aboriginal Corporation  
1st Floor Providence Building | Abbotsford Convent  
1 St Heliers Street | Abbotsford VIC 3067



Ph: 03 9416 2905

Email: [helen@wurundjeri.com.au](mailto:helen@wurundjeri.com.au)

Notice of Intents & Evaluations: [rapofficer@wurundjeri.com.au](mailto:rapofficer@wurundjeri.com.au)

Heritage Meetings & Fieldwork Bookings: [heritagebookings@wurundjeri.com.au](mailto:heritagebookings@wurundjeri.com.au)



*This email together with any attachments is confidential and may be the subject of legal privilege. Please delete this email immediately if you are not the intended recipient. It is the recipients responsibility to check the email and any attached files for viruses. Thank You.*



## **APPENDIX 2: GLOSSARY**

This glossary utilises definitions taken from the following reference books:

- Bahn, P. 2004. *The New Dictionary of Archaeology*. Penguin Books, London.
- Holdaway, S. and N. Stern. 2004. *A Record in Stone: The Study of Australia's Flaked Stone Artefacts*. Museum Victoria, Melbourne.

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<b>ASSTT</b>	Australian Small Stone Tool Tradition
<b>Backed / Backing</b>	Any stone artefact on which one (usually) or more margins contains consistent retouch, opposite a sharp working edge.
<b>Blade</b>	<p>Blade: Any stone artefact retaining observable and complete fracture planes, platform, lateral margins and termination and has a length more than twice its width.</p> <p>Broken Blade: Any stone artefact retaining partial diagnostic features of a blade.</p>
<b>BP</b>	Before Present
<b>Chalcedony</b>	Very fine grained cryptocrystalline silica quartz found in a range of colours from transparent to opaque. Branded forms include agate, jasper and onyx.
<b>Chert</b>	Very fine grained siliceous rock of organic and inorganic origin with no macroscopic visible grains.
<b>Core</b>	Any stone artefact retaining more than two negative scars of previous flakes struck from the piece.
<b>Cortex</b>	The original surface of the stone prior to the flaking episode. This may be further divided into nodule, pebble and terrestrial cortex indicating the original source of the material (i.e. pebble indicates a river or beach source).
<b>Flaked Piece/ Angular Fragment</b>	Any stone artefact retaining evidence of cultural modification (i.e. fracturing consistent with stone tool manufacture) but no diagnostic features associating it to other artefact class categories.
<b>Edge Damage</b>	Minor retouch or use-wear that is unable to be described as formal retouch. May also be a result of post deposition breakage.
<b>Flake</b>	<p>Broken flake: Any stone artefact retaining partial diagnostic features of a flake.</p> <p>Complete/Whole flake: Any stone artefact retaining observable and complete fracture planes, platform, lateral margins and termination.</p> <p>Distal Flake: Any flake on which the breakage removes the platform but</p>

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	retains the termination.
	Left Split Flake: Any flake on which the breakage removes the right portion of the flake (the left is retained) when oriented platform down and dorsal surface exposed.
	Proximal Flake: Any flake on which the breakage removes the termination but retains the platform.
	Right Split Flake: Any flake on which the breakage removes the left portion of the flake (the right is retained) when oriented platform down and dorsal surface exposed.
<b>Flint</b>	A member of the chalcedony group of silica minerals characterised by its dark (black, grey or brown) colour resulting from included organic matter.
<b>Geometric Microlith</b>	A piece on which at least one end and sometimes one lateral margin is backed forming a tool that is 'symmetrical around its transverse axis' (e.g. triangles, trapezoids) (Holdaway and Stern 2004: 262).
<b>Manuport</b>	Any object, generally stone material, transported and deposited by humans.
<b>Platform</b>	<p>Cortical Platform: A platform retaining cortex.</p> <p>Crushed Platform: A platform which retains the diagnostic features of a proximal flake but on which too much damage has occurred to identify its features.</p> <p>Facetted Platform: A platform on which negative flake scars (<math>\geq 1</math>) are present.</p> <p>Plain Platform: A platform surface that shows no evidence of preparation, cortex, or negative scars.</p> <p>Overhung Platform: A platform surface that shows evidence of overhang removal prior to being struck.</p>
<b>Quartzite</b>	A metamorphic rock; 'a quartz-rich sandstone that has been recrystallised by heat, by pressure, or by both... [it is] granular (or sugary) in texture and varies in grain size' (Holdaway and Stern 2004: 24).
<b>Quartz</b>	A mineral that, while not ideal for flaking due to its irregularity (difficult to predict fracturing behaviour), was often utilised for artefact production.
<b>Tool</b>	Complete Tool: Any piece retaining edges modified by use or consistent retouch.

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	<p>Broken Tool: Any piece retaining a partial edge modified by use or consistent retouch.</p> <p>Formal Tool: Any tool that is unambiguously a known tool type (cf. artefact type Holdaway and Stern 2004).</p>
<b>Tachylite</b>	A fine grained grey to black volcanic material, often with a thin grey weathered cortex.
<b>Scraper</b>	<p>Scraper: Any piece with systematic retouch along part of its margin.</p> <p>Thumbnail Scraper: Small semi-discoidal flake with unifacial and systematic steep retouch around a curved margin.</p>
<b>Stone Artefact Dimensions</b>	<p>Oriented Length: In this case, the distance from the impact point to the distal margin in the direction of flaking.</p> <p>Maximum Dimension: The largest measurement possible to take on a stone artefact.</p> <p>Oriented Thickness: In this case, measured at right angles to the oriented width and oriented length.</p> <p>Oriented Width: In this case, the width of the artefact at the mid-point at right angles to the oriented length.</p> <p>Quadrants: artefact is oriented with proximal end down and dorsal side facing observer.</p>
<b>Retouch</b>	<p>Scalar: Shallow scale like scars on margin with feather terminations. Usually small rounded scars.</p> <p>Step: Small, abrupt flake scars on margin, with step terminations.</p>
<b>Silcrete</b>	A sedimentary rock; 'formed through the impregnation of a sedimentary layer with silica [consisting] of quartz grains in a matrix of either amorphous or fine-grained silica' (Holdaway and Stern 2004: 24).
<b>Stone Artefact</b>	<p>A piece of stone that has been formed by Aboriginal people to be used as a tool or is the bi-product of Aboriginal stone tool manufacturing activities. Stone artefacts can be flaked (i.e. to make points and scrapers) or ground (i.e. ground-edge axes, grinding stones).</p>
<b>VAHR</b>	Victorian Aboriginal Heritage Register

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## **APPENDIX 3: ABORIGINAL PLACE GAZETTEER**

VAHR NO.	Place Name	Place Type	Place Content	Grid Coordinates	
				MGA 55/GDA 94	
				Easting	Northing
7822-4422	50 Redstone Hill Road LDAD	LDAD	9 stone artefacts in a surface and subsurface context. Stone artefacts were manufactured on silcrete, quartzite and quartz	301810	5835919

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## **APPENDIX 4: DETAILED DESCRIPTIONS OF EPs, MEPs & STPs**

EP/ MEP /STP	GPS coordinates (MGA 55 GDA 94)  Easting Northing	Size / Depth	Landform	Artefacts /Depth	Stratigraphy
EP 1	301618 5835602	1 x 1 m 180 mm	Lower slope	-	0-50 mm: Munsell 5YR 4/3 pH 6.0 Mid red brown silty clay, friable, dry, grass roots. 50-180mm +: Munsell 5YR 4/3 pH 6.5 Mid red brown clay, compact, dry.
EP 2	301757 5835862	1 x 1 m 100 mm	Mid slope	-	0-80 mm: Munsell 5YR 4/4 pH 6.0 Mid red brown silty clay, friable, dry, grass roots. 80-120mm +: Munsell 5YR 4/4 pH 6.0 Mid red brown clay, compact, dry.
EP 3	301783 5835688	1 x 1 m 90 mm	Mid slope	-	0-90 mm: Munsell 5YR 4/4 pH 6.5 Mid red brown silty clay, friable, dry, grass roots. 90mm +: Munsell 5YR 4/4 pH 6.5 Mid red brown clay, compact, dry.
MEP 1	301783 5835906	5 x 1 m 120 mm	Lower slope	2 artefacts: 0-50mm	0-70 mm: Munsell 7.5YR 4/4 pH 6.0 Mid brown, silty clay, compact, cemented, dry, grass roots, insects, occasional basalt floaters. 70-120 mm+: Munsell 7.5YR 4/4 pH 6.5 Mid brown, clay, highly compact, dry, grass roots, basalt floaters.
MEP 2	301722 5835824	5 x 1 m 100 mm	Lower slope	-	0-50 mm: Munsell 7.5YR 4/4 pH 6.0 Mid brown, silty clay, compact, cemented, dry, grass roots, insects, abundant basalt floaters. 50-100 mm+: Munsell 7.5YR 4/4 pH 6.5 Mid brown, clay, compact, dry, abundant basalt floaters.

EP/ MEP /STP	GPS coordinates (MGA 55 GDA 94)  Easting Northing	Size / Depth	Landform	Artefacts /Depth	Stratigraphy
MEP 3	301698 5835777	5 x 1 m 150 mm	Mid slope	-	0-100 mm: Munsell 7.5YR 4/4 pH 6.0  Mid brown, silty clay, compact, dry, grass roots, insects.  100-150 mm +: Munsell 7.5YR 4/4 pH 6.5  Mid brown, clay, compact, grass roots.
MEP 4	301668 5835735	5 x 1 m 40 mm	Mid slope	-	0-40 mm: Munsell 2.5YR 3/4 pH 6.0  Dark red brown, silty clay, compact, dry, grass roots, insects.  40 mm+: Munsell 2.5YR 3/4 pH 6.5  Dark red brown, clay, compact, dry, grass roots.
MEP 5	301595 5835667	5 x 1 m 50 mm	Mid slope	-	0-50 mm: Munsell 2.5YR 3/4 pH 6.0  Dark red brown, silty clay, compact, dry, grass roots, insects, occasional basalt floaters.  50 mm +: Munsell 2.5YR 3/4 pH 6.5  Dark red brown, clay, compact, dry, grass roots.
MEP 6	301681 5835595	5 x 1 m 40 mm	Mid slope	-	0-40 mm: Munsell 7.5YR 4/4 pH 6.0  Mid brown, silty clay, compact, dry, grass roots, occasional basalt floaters.  40 mm +: Munsell 7.5YR 4/4 pH 6.5  Mid brown, clay, compact, dry, grass roots.
MEP 7	301741 5835679	5 x 1 m 100 mm	Mid slope	-	0-50 mm: Munsell 5YR 4/3 pH 6.0  Mid red brown silty clay, loose, friable, dry, grass roots, abundant basalt floaters.  50-100 mm +: Munsell 5YR 4/3 pH 6.0  Mid red brown clay, compact, dry.

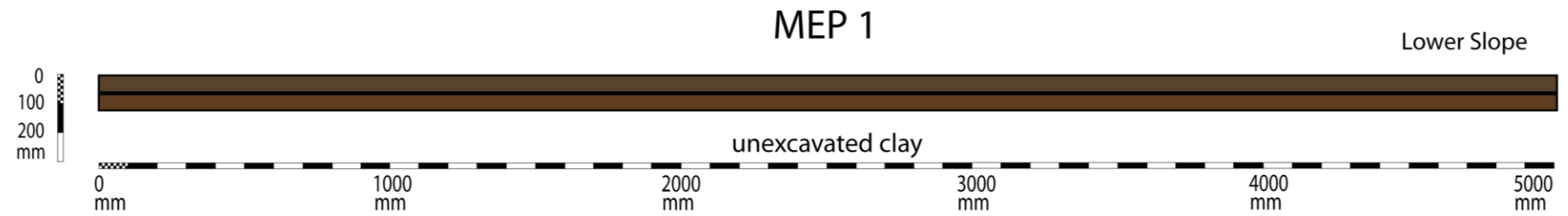
EP/ MEP /STP	GPS coordinates (MGA 55 GDA 94)  Easting Northing	Size / Depth	Landform	Artefacts /Depth	Stratigraphy
MEP 8	301805 5835754	5 x 1 m 40 mm	Mid slope	-	0-40 mm: Munsell 5YR 4/3 pH 6.5 Mid red brown, silty clay, compact, dry, grass roots, abundant basalt floaters. 40 mm +: Munsell 5YR 4/3 pH 7.0 Mid red brown, clay, compact, dry.
MEP 9	301872 5835828	5 x 1 m 50 mm	Lower Slope	-	0-50 mm: Munsell 5YR 4/3 pH 6.5 Mid red brown, silty clay, compact, dry, grass roots. 50 mm +: Munsell 5YR 4/3 pH 6.0 Mid red brown, clay, compact, dry.
STP 1	301791 5835899	500 x 500 mm 80 mm	Lower Slope	-	0-40 mm: Munsell 5YR 3/4 pH 6.0 Dark red brown, silty clay, compact, dry, grass roots, insects. 40-80 mm +: Munsell 5YR 3/4 pH 6.5 Dark red brown, clay, compact, dry.
STP 2	301796 5835896	500 x 500 mm 90 mm	Lower Slope	-	0-40 mm: Munsell 10YR 4/3 pH 6.0 Mid brown, silty clay, compact, dry, grass roots. 40-90 mm +: Munsell 10YR 4/3 pH 6.5 Mid brown, clay, compact, dry.
STP 3	301788 5835908	500 x 500 mm 100 mm	Lower Slope	-	0-60 mm: Munsell 5YR 3/4 pH 6.0 Dark red brown, silty clay, compact, dry, grass roots, insects. 60-100 mm +: Munsell 5YR 3/4 pH 6.5 Dark red brown, clay, compact, dry.

EP/ MEP /STP	GPS coordinates (MGA 55 GDA 94)  Easting Northing	Size / Depth	Landform	Artefacts /Depth	Stratigraphy
STP 4	301791 5835912	500 x 500 mm 100 mm	Lower Slope	-	0-60 mm: Munsell 10YR 3/4 pH 6.0  Mid brown, silty clay, compact, dry, grass roots, insects.  60-100 mm +: Munsell 10YR 3/4 pH 6.5  Mid brown, clay, compact, dry.
STP 5	301779 5835909	500 x 500 mm 70 mm	Lower Slope	-	0-70 mm: Munsell 10YR 3/6 pH 6.0  Mid brown, silty clay, compact, dry, grass roots.  70 mm +: Munsell 10YR 3/6 pH 6.5  Mid brown, clay, compact, dry.
STP 6	301775 5835912	500 x 500 mm 80 mm	Lower Slope	-	Munsell 10YR 3/6 pH 6.0 0-60 mm: Mid brown, silty clay, compact, dry, grass roots.  60-80 mm +: Munsell 10YR 3/6 pH 6.0  Mid brown, clay, compact, dry.
STP 7	301783 5835899	500 x 500 mm 100 mm	Lower Slope	-	0-50 mm: Munsell 7.5YR 4/6 pH 6.0  Mid brown, silty clay, compact, dry, grass roots, insects.  50-100 mm +: 7.5YR 4/4 pH 6.5  Mid brown, clay, compact, dry.
STP 8	301779 5835896	500 x 500 mm 100 mm	Lower Slope	-	0-60 mm: Munsell 7.5YR 4/6 pH 6.0  Mid brown, silty clay, compact, dry, grass roots, insects.  60-100 mm +: 7.5YR 4/4 pH 6.5  Mid brown, clay, compact, dry.

## PHOTOGRAPHS & STRATS OF POSITIVE MEPs

### MEP 1









## **APPENDIX 5: STONE ARTEFACT CATALOGUE**



VAHR 7822-4422

<i>Easting</i>	<i>Northing</i>	<i>Zone</i>	<i>Depth (m)</i>	<i>Raw Material</i>	<i>Primary Form</i>	<i>Cortex %</i>	<i>% of edge with retouch/ usewear (flakes, blades and angular fragments only)</i>	<i>Flake Platform (complete and proximal flakes and blades only)</i>	<i>Flake Termination (complete, distal and longitudinal split flakes and blades only)</i>	<i>Number of complete scars (cores only)</i>	<i>Longest scar (axial mm) (cores only)</i>	<i>Formal Tool/ Core Type (if any)</i>	<i>Secondary Modification (if any)</i>	<i>Length - axial for flakes and blades (mm)</i>	<i>Width - axial for flakes and blades (mm)</i>	<i>Thickness (mm)</i>	<i>Maximum Dimension (mm)</i>	<i>PitID</i>	<i>Notes</i>
301810	5835919	55	0	Silcrete	Flake - Proximal	None	1-32%	Plain				Scraper - Flat-edged		27	20	3	29		
301809	5835912	55	0	Quartzite	Flake - Distal	None	None		Feather					13	13	3	14		
301807	5835911	55	0	Quartzite	Flake - Complete	None	1-32%	Plain	Feather					33	19	20	34		
301806	5835914	55	0	Silcrete	Angular Fragment	None	None							20	12	13	24		
301629	5835574	55	0	Quartzite	Flake - Distal	None	None		Feather					30	15	11	30		
301882	5835779	55	0	Silcrete	Flake - Distal	None	1-32%	Plain	Step					50	54	20	50		
301887	5835781	55	0	Silcrete	Flake - Complete	None	None	Plain	Feather					43	53	19	53		
301783	5835906	55	0.05	Silcrete	Angular Fragment	None	None							18.95	8.55	8.41	18.83	MEP 1	
301783	5835906	55	0.05	Crystal Quartz	Flake - Longitudinal Split	None	None	Crushed	Crushed					17.73	12.78	10.48	23.46	MEP 1	Bipolar flake

All coordinates are in MGA 55 GDA 94



## **APPENDIX 6: CITY OF HUME PLANNING SCHEME – UGZ9**

## VICTORIA PLANNING PROVISIONS

## 37.07

31/07/2018  
VC148

## URBAN GROWTH ZONE

Shown on the planning scheme map as **UGZ** with a number (if shown).

## Purpose

To implement the Municipal Planning Strategy and the Planning Policy Framework.

To manage the transition of non-urban land into urban land in accordance with a precinct structure plan.

To provide for a range of uses and the development of land generally in accordance with a precinct structure plan.

To contain urban use and development to areas identified for urban development in a precinct structure plan.

To provide for the continued non-urban use of the land until urban development in accordance with a precinct structure plan occurs.

To ensure that, before a precinct structure plan is applied, the use and development of land does not prejudice the future urban use and development of the land.

## Application of provisions

## Part A – No precinct structure plan applies

The provisions of Clauses 37.07-1 to 37.07-8 apply if no precinct structure plan applies to the land.

## Part B – Precinct structure plan applies

The provisions of Clauses 37.07-9 to 37.07-16 apply if a precinct structure plan applies to the land.

## Precinct structure plan provisions

A precinct structure plan applies to land when the precinct structure plan is incorporated in this scheme.

## 37.07-1

08/08/2018  
VC168

## Part A – Provisions For Land Where No Precinct Structure Plan Applies

## Table of uses

## Section 1 – Permit not required

Use	Condition
Agriculture (other than Animal production, Apiculture, Domestic animal husbandry, Racing dog husbandry, Rice growing and Timber production)	
Bed and breakfast	No more than 10 persons may be accommodated away from their normal place of residence.  At least 1 car parking space must be provided for each 2 persons able to be accommodated away from their normal place of residence.
Dependent person's unit	Must be the only Dependent person's unit on the lot.  Must meet the requirements of Clause 37.07-2.

## VICTORIA PLANNING PROVISIONS

Use	Condition
Dwelling (other than Bed and breakfast)	Must be the only dwelling on the lot. The lot must be at least 40 hectares. Must meet the requirements of Clause 37.07-2.
Grazing animal production	
Home based business	
Informal outdoor recreation	
Poultry farm	Must be no more than 100 poultry (not including emus or ostriches). Must be no more than 10 emus and ostriches.
Primary produce sales	Must not be within 100 metres of a dwelling in separate ownership. The area used for the display and sale of primary produce must not exceed 50 square metres.
Railway	
Rural industry (other than Abattoir and Sawmill)	Must not have a gross floor area more than 200 square metres. Must not be within 100 metres of a dwelling in separate ownership. Must not be a purpose shown with a Note 1 or Note 2 in the table to Clause 53.10. The land must be at least the following distances from land (not a road) which is in a residential zone or Rural Living Zone: <ul style="list-style-type: none"> <li>■ The threshold distance, for a purpose listed in the table to Clause 53.10.</li> <li>■ 30 metres, for a purpose not listed in the table to Clause 53.10.</li> </ul>
Rural store	Must be used in conjunction with Agriculture. Must be in a building, not a dwelling, and have a gross floor area of less than 100 square metres. Must be the only Rural store on the lot.
Tramway	
Any use listed in Clause 62.01	Must meet the requirements of Clause 62.01

## Section 2 – Permit required

Use	Condition
Abattoir	
Animal production (other than Broiler farm, Grazing animal production and Intensive animal production)	
Broiler farm - if the Section 1 condition to Poultry farm is not met	Must be no more than 10,000 chickens.
Camping and caravan park	

## VICTORIA PLANNING PROVISIONS

Use	Condition
Car park	Must be used in conjunction with another use in Section 1 or 2.
Cemetery	
Crematorium	
Dependent person's unit – if the Section 1 condition is not met	Must meet the requirements of Clause 37.07-2.
Display home centre	
Domestic animal boarding	
Domestic animal husbandry (other than Domestic animal boarding)	Must be no more than 5 animals.
Dwelling (other than Bed and breakfast) – if the Section 1 conditions are not met	Must be no more than 2 dwellings on the lot. Must meet the requirements of Clause 37.07-2.
Education centre (other than child care centre)	
Emergency services facility	
Freeway service centre	Must meet the requirements of Clause 53.05.
Industry (other than Rural Industry)	
Racing dog husbandry	Must be no more than 5 animals.
Trade supplies	
Utility installation (other than Minor utility installation and Telecommunications facility)	
Veterinary centre	
Warehouse (other than Rural store)	
Winery	
Any other use not in Section 1 or 3	

## Section 3 - Prohibited

Use
Accommodation (other than Bed and breakfast, Camping and caravan park, Dependent person's unit, Dwelling, Group accommodation, Host farm and Residential hotel)
Amusement parlour
Brothel
Child care centre
Cinema based entertainment facility
Intensive animal production



## VICTORIA PLANNING PROVISIONS

**Use**

Nightclub

Office (other than Medical centre and Real estate agency)

Renewable energy facility

Retail premises (other than Landscape gardening supplies, Manufacturing sales, Market, Primary produce sales, Restaurant and Trade supplies)

Saleyard

Timber production

**37.07-2**10/09/2008  
VC48**Use of land for a dwelling**

A lot used for a dwelling must meet the following requirements:

- Access to the dwelling must be provided via an all-weather road with dimensions adequate to accommodate emergency vehicles.
- The dwelling must be connected to a reticulated sewerage system or if not available, the waste water must be treated and retained on-site in accordance with the State Environment Protection Policy (Waters of Victoria) under the *Environment Protection Act 1970*.
- The dwelling must be connected to a reticulated potable water supply or have an alternative potable water supply with adequate storage for domestic use as well as for fire fighting purposes.
- The dwelling must be connected to a reticulated electricity supply or have an alternative energy source.

These requirements also apply to a dependent person's unit.

**37.07-3**19/04/2014  
VC111**Subdivision**

A permit is required to subdivide land.

Each lot must be at least 40 hectares.

A permit may be granted to create smaller lots if any of the following apply:

- The subdivision is to create a lot for an existing dwelling. The subdivision must be a two lot subdivision.
- The subdivision is the re-subdivision of existing lots and the number of lots is not increased.
- The subdivision is by a public authority or utility service provider to create a lot for a utility installation.

**37.07-4**21/09/2018  
VC160**Buildings and works**

A permit is required to construct or carry out any of the following:

- A building or works associated with a use in Section 2 of Clause 37.07-1. This does not apply to:
  - An alteration or extension to an existing dwelling provided the floor area of the alteration or extension is no more than 100 square metres.
  - An out-building associated with an existing dwelling provided the floor area of the out-building is not more than 100 square metres.
  - An alteration or extension to an existing building used for agriculture provided the floor area of the alteration or extension is no more than 200 square metres. The building must not be used to keep, board, breed or train animals.

## VICTORIA PLANNING PROVISIONS

- Earthworks which change the rate of flow or the discharge point of water across a property boundary.
- Earthworks which increase the discharge of saline water.
- A building which is within any of the following setbacks:
  - 100 metres from a Road Zone Category 1 or land in a Public Acquisition Overlay to be acquired for a road, Category 1.
  - 40 metres from a Road Zone Category 2 or land in a Public Acquisition Overlay to be acquired for a road, Category 2.
  - 20 metres from any other road.
  - 5 metres from any other boundary.
  - 100 metres from a dwelling not in the same ownership.
  - 100 metres from a waterway, wetlands or designated flood plain.
- Permanent or fixed feeding infrastructure for seasonal or supplementary feeding for grazing animal production constructed within 100 metres of:
  - A waterway, wetland or designated flood plain.
  - A dwelling not in the same ownership.
  - A residential zone or urban growth zone where a precinct structure plan applies.

37.07-5  
08/08/2018  
VC168

**Referral of applications**

An application of the kind listed below must be referred in accordance with section 55 of the Act to the referral authority specified in Clause 66.03.

- An application to use or develop land for any of the following:
  - Display home centre.
  - Education centre.
  - Hospital.
  - Industry.
  - Medical centre.
  - Place of worship.
  - Real estate agency.
  - Warehouse.
- An application to subdivide land to create a lot smaller than 40 hectares in area.

37.07-6  
28/10/2018  
VC162

**Environmental audit**

Before a pre-school centre or primary school commences on potentially contaminated land, or before the construction or carrying out of buildings and works in association with a pre-school centre or primary school commences on potentially contaminated land, either:

- A certificate of environmental audit must be issued for the land in accordance with Part IXD of the *Environment Protection Act 1970*, or
- An environmental auditor appointed under the *Environment Protection Act 1970* must make a statement in accordance with Part IXD of that Act that the environmental conditions of the land are suitable for the sensitive use.

## VICTORIA PLANNING PROVISIONS

In this clause, “potentially contaminated land” means land used or known to have been used for industry, mining, or the storage of chemicals, gas, wastes or liquid fuel (if not ancillary to another use of the land).

**37.07-7**31/07/2018  
VC148**Decision guidelines**

Before deciding on an application to use or subdivide land, construct a building or construct or carry out works, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

- The Municipal Planning Strategy and the Planning Policy Framework.
- The effect on the future urban development and use of the land, and adjacent or nearby land, having regard to:
  - Any relevant Growth Corridor Framework Plan.
  - Any precinct structure plan being prepared for the area.
  - Any comments or directions of the referral authority.
- Whether the proposal will prejudice the logical, efficient and orderly future urban development of the land, including the development of roads, public transport and other infrastructure.
- The capability of the land to accommodate the proposed use or development, including the disposal of effluent.
- How the use or development relates to sustainable land management.
- Whether the site is suitable for the use or development.
- The impact of the siting, design, height, bulk, colours and materials to be used on the natural environment, major roads, vistas and water features, future urban use of the land, and the measures to be undertaken to minimise any adverse impacts.
- The impact on the character and appearance of the area or features of architectural, historic or scientific significance or of natural scenic beauty or importance.
- The location and design of existing and proposed infrastructure including roads, public transport, walking and cycling networks, gas, water, drainage, telecommunications and sewerage facilities.
- Whether the use and development will require new or upgraded infrastructure, including traffic management measures.

**37.07-8**31/07/2018  
VC148**Signs**

Sign requirements are at Clause 52.05. The zone is in Category 3.

Despite the provisions of Clause 52.05-13, a permit may be granted, for a period of not more than 5 years, to display a sign that promotes the sale of land or dwellings.

**37.07-9**26/06/2017  
VC133**Part B – Provisions For Land Where A Precinct Structure Plan Applies****Use of land**

Any requirement in the Table of uses and any requirement specified in the schedule to this zone must be met.

A permit granted must be generally in accordance with the precinct structure plan applying to the land.

## VICTORIA PLANNING PROVISIONS

## Table of uses

## Section 1 – Permit not required

Use	Condition
Any use in Section 1 of a zone applied by the schedule to this zone	Must comply with any condition opposite the use in Section 1 of the applied zone.  Must comply with any condition or requirement specified in the schedule to this zone or in the precinct structure plan.
Any use specified in the schedule to this zone as a use for which a permit is not required	Must comply with any condition or requirement specified in the schedule to this zone or in the precinct structure plan.

## Section 2 – Permit required

Use	Condition
Any use in Section 2 of a zone applied by the schedule to this zone	Must comply with any condition opposite the use in Section 2 of the applied zone.  Must comply with any condition or requirement specified in the schedule to this zone or in the precinct structure plan.
Any use specified in the schedule to this zone as a use for which a permit is required	Must comply with any condition or requirement specified in the schedule to this zone or in the precinct structure plan.
Any other use not in Section 1 or 3	

## Section 3 – Prohibited

Use
Any use in Section 3 of a zone applied by the schedule to this zone
Any use specified in the schedule to this zone

## 37.07-10

23/08/2011  
VC77

## Subdivision of land

A permit is required to subdivide land. Any requirement in the schedule to this zone or the precinct structure plan must be met.

A permit granted must:

- Be generally in accordance with the precinct structure plan applying to the land.
- Include any conditions or requirements specified in the schedule to this zone or the precinct structure plan.

## 37.07-11

23/08/2011  
VC77

## Buildings and works

If the schedule to this zone specifies:

- That the provisions of a zone apply to the development of land, the provisions of the zone apply to land in the circumstances specified in the schedule.

## VICTORIA PLANNING PROVISIONS

- Provisions relating to the development of land, those provisions apply to land in the circumstances specified in the schedule.

If the schedule to this zone specifies that a permit is required to construct a building or construct or carry out works, a permit granted must:

- Be generally in accordance with the precinct structure plan applying to the land.
- Include any conditions or requirements specified in the schedule to this zone or the precinct structure plan.

**37.07-12**

10/08/2008  
VC48

**Application requirements**

An application to use or subdivide land, construct a building or construct or carry out works, must be accompanied by any information specified in the schedule to this zone.

**37.07-13**

26/05/2017  
VC139

**Exemption from notice and review**

An application under any provision of this scheme which is generally in accordance with the precinct structure plan applying to the land is exempt from the notice requirements of section 52(1)(a), (b) and (d), the decision requirements of section 64(1), (2) and (3) and the review rights of section 82(1) of the Act, unless the schedule to this zone specifies otherwise.

**37.07-14**

31/07/2018  
VC148

**Decision guidelines**

Before deciding on an application to use or subdivide land, construct a building or construct or carry out works, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

- The Municipal Planning Strategy and the Planning Policy Framework.
- Any relevant Growth Area Framework Plan.
- The precinct structure plan applying to the land, including the vision and objectives of the precinct structure plan.
- Any guidelines in the schedule to this zone.

**37.07-15**

10/08/2008  
VC48

**Inconsistencies between specific and applied zone provisions**

If there is an inconsistency between the specific provisions specified in the schedule to this zone and the provisions of a zone applied by the schedule to this zone, the specific provisions prevail to the extent of any inconsistency.

**37.07-16**

31/07/2018  
VC148

**Signs**

Sign requirements are at Clause 52.05. This zone is in the category specified in the schedule to this zone or, if no category is specified, Category 3.