

# Proposed Residential Development at 37 Graham Road, Highett

## Cultural Heritage Management Plan



**Aboriginal Victoria Management Plan Identifier: 17089**

**Sponsor: Sunkin Projects Pty Ltd**

**Heritage Advisor: Kathleen Hislop**

**Authors: Vanessa Beasley and Kathleen Hislop**

**December 18, 2020**

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Pty Ltd



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# Title Page

TITLE:	Proposed Residential Development at 37 Graham Road, Highett
ACTIVITY:	Dwellings 3+ (Residential development)
LOCATION:	37 Graham Road, Highett
LEVEL OF ASSESSMENT:	Desktop, standard
SIZE OF ACTIVITY:	Medium (9.33ha)
ABORIGINAL HERITAGE PRESENT:	Yes
AV PLAN IDENTIFIER:	17089
DATE OF COMPLETION:	December 18, 2020
SPONSOR:	Sunkin Projects Pty Ltd
ABN:	21 635 064 112
HERITAGE ADVISOR:	Kathleen Hislop
AUTHORS:	Vanessa Beasley and Kathleen Hislop

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*Aboriginal Heritage Act 2006*  
Section 65

## Cultural Heritage Management Plan – Notice of Approval

**CHMP Name:** Proposed Residential Development at 37 Graham Road Highett

**CHMP Number:** 17089

**Sponsor:** Sunkin Projects Pty Ltd

**ABN:** 32 615 160 015

**Heritage Advisor(s):** Kathleen Hislop

**Author(s):** Vanessa Beasley and Kathleen Hislop (Heritage Insight Pty Ltd)

**Cover date:** 18 December 2020

**Pages:** i-vii, 1-154

**TO BE COMPLETED BY THE SECRETARY (OR DELEGATE)**

**Yes**

**No**

**I have considered the Evaluation Report for this CHMP and:**

*I am satisfied that the CHMP has been prepared in accordance with the standards prescribed for the purposes of section 53 of the Aboriginal Heritage Act 2006.*

✓

*I am satisfied that the CHMP adequately addresses the matters set out in section 61.*

✓

*In considering this application, I consulted with and considered the views of Aboriginal persons or bodies I considered relevant to the application.*

✓

*I have given proper consideration to any relevant human rights*

✓

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

Signed:



**JANA BOULET**

Dated: 6 January 2021

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

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## **Executive Summary**

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

This Cultural Heritage Management Plan (CHMP) has been undertaken at the request of the Sponsor, Sunkin Projects Pty Ltd, for a proposed residential development at 37 Graham Road, Highett. There are two registered Aboriginal Places (VAHR 7922-1406 and VAHR 7922-1408) within the activity area (*Aboriginal Heritage Regulations 2018* (r. 25)). The activity area is also located on inland dune deposits (Qd1; *Aboriginal Heritage Regulations 2018* (r. 41)). The proposed activity is for a residential development. The construction of three or more dwellings on a lot or allotment is a high impact activity as defined by the *Aboriginal Heritage Regulations 2018* (r. 48). This CHMP comprises desktop and standard assessments.

The activity area is located at 37 Graham Road, Highett (Lots 1\TP223183 and 172\LP9880; Map 1) within the City of Bayside (Parish of Moorabbin, County of Bourke) and is approximately 16.5km south east of the Melbourne CBD and 3km east of Port Phillip Bay.

The proposed activity is for a residential development comprising multi-level and multi-density residential units with basement car parks, community centre, associated infrastructure and an open parkland reserve (Map 3). The southern region of the activity area is to be retained as a conservation area.

### **Results of the Assessment**

A search of the VAHR identified 66 registered Aboriginal Places within the geographic region, comprising a total of 105 components. Low density artefact distributions and artefact scatters are found along the sand sheets (inland dune deposits (Qd1)) across the coastal hinterland. Of the 43 Aboriginal Places within the geographic region (excluding object collection components), 30 (70%) are located along the coastline. There are two previously registered Aboriginal Places within the activity area (VAHR 7922-1406 and VAHR 7922-1408). Extensive soil remediation works have occurred since 2012, following the archaeological excavation undertaken by Rowney (2012) under a permit to uncover/discover (CHP 11/005618). The previous land owner undertook extensive soil remediation works following this excavation due to soil contamination throughout the central and northern regions of the activity area.

A standard assessment was undertaken on November 20, 2020 and included excavation of six augers within the northern and central regions of the activity area. The registered locations of VAHR 7922-1406 and VAHR 7922-1408 were relocated. No Aboriginal cultural heritage was identified. No caves, rock shelters, or cave entrances were noted within the activity area. No mature trees displayed cultural scarring. No areas of potential archaeological sensitivity were identified in the augers.

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

VAHR 7922-1406 comprised five artefacts within three shovel test pits. VAHR 7922-1406-1–3 were located in one shovel test pit in the southern region of the activity area and VAHR 7922-1406-4 and -5 were located in separate shovel test pits in the central region where soil remediation has subsequently been undertaken. VAHR 7922-1406-1–3 were found at a depth of 150-300mm in minimally disturbed soils and VAHR 7922-1406-4 and -5 were found at depths of between 550-700mm in disturbed soils. The assemblage comprises three angular fragments, a distal flake and a complete flake and are made from light grey chert (n=4) and light brown quartzite (n=11). VAHR 7922-1408 is approximately 13m west of VAHR 7922-1406-1 to -3. The Place comprises the reburial location for the five artefacts from VAHR 7922-1406.

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## **Abbreviations**

AAG – Activity Advisory Group
ACHRIS – Aboriginal Cultural Heritage Register and Information System
ACM – Asbestos containing material
AID – Aeronautical Inspection Directorate
ASL – Above Sea Level
AV – Aboriginal Victoria
BLCAC – Bunurong Land Council Aboriginal Corporation
BLSA – Boonwurrung Land and Sea (Aboriginal Corporation)
BP – Before Present
BWFL – Boon Wurrung Foundation Limited
CBD – Central Business District
CHMP – Cultural Heritage Management Plan
CSIRO – Commonwealth Scientific and Industrial Research Organisation
dGPS or differential GPS – Differential Global Positioning System
DPC – Department of Premier and Cabinet
EVC – Ecological Vegetation Class
GDA94 – Geocentric Datum of Australia 1994
GMU_T3 – Geomorphological Unit - Tier 3
ICOMOS – International Council on Monuments and Sites
LDAD – Low Density Artefact Distribution
LGA – Local Government Area
MGA – Map Grid of Australia
NOI – Notice of Intent to Prepare a CHMP
OHS – Occupational Health and Safety
PAS – Potential Archaeological Sensitivity

RAP – Registered Aboriginal Party

STP – Shovel Test Pit

TO – Traditional Owner

TP – Test Pit

VAHC – Victorian Aboriginal Heritage Council

VAHR – Victorian Aboriginal Heritage Register

WWCHAC – Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation

**Please note that all maps and plans in this CHMP are prepared using Victorian Government Standard GDA94 MGA coordinates (Zone 55).**

**A glossary of terms is provided in Appendix 8.**

## **Part One: Cultural Heritage Management Conditions**

These conditions become compliance requirements once the Cultural Heritage Management Plan is approved. Failure to comply with a condition 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.

### **1.0 Cultural Heritage Management Conditions**

It is the responsibility of the Sponsor to ensure that the management conditions in Section 1 of the CHMP are implemented as required.

#### **1.1 General Cultural Heritage Management Conditions**

##### **Condition 1: Approved CHMP to be Kept On-site**

1. A hard copy of the approved CHMP must be held on-site at all times for the duration of the activity:
  - a. the hard copy of the approved CHMP must be readily accessible on-site to the Sponsor, all site supervisors, workers and contractors.

##### **Condition 2: Cultural Heritage Induction**

1. A cultural heritage induction must be conducted for all site supervisors, workers and contractors by a heritage advisor, with invited participation of representatives of the Traditional Owners (or RAP, if one has been appointed), prior to the commencement of any ground disturbing works within the activity area;
2. The heritage advisor must prepare an induction booklet containing Part 1 of this CHMP;
3. The cultural heritage induction must:
  - a. explain the conditions and contingency procedures set out in Part 1 of the CHMP;
  - b. show the site supervisors, workers and contractors examples of the most likely Aboriginal cultural heritage material to be located within the activity area;
  - c. include a brief history of the Aboriginal occupation of the activity area and broader region;
  - d. include a summary of the archaeological investigations conducted within the activity area; and
  - e. specify details of all Aboriginal Places and heritage located during the CHMP assessment.
4. Two weeks' notice must be provided to the heritage advisor and Traditional Owners (or RAP, if one has been appointed);
5. The Sponsor must keep a record of inducted individuals; and
6. The cultural heritage induction must be organised and paid for by the Sponsor.

### **Condition 3: Contingency Plans**

1. The contingency plans in Section 2 must be incorporated into the development documentation and risk assessment for the project; and
2. It is the responsibility of the Sponsor to ensure that the contingencies in Section 2 of the CHMP are implemented as required. Failure to comply with the contingencies is an offence under Section 67A of the *Aboriginal Heritage Act 2006*.

## **1.2 Specific Cultural Heritage Management Conditions**

### **Condition 4: Protection of VAHR 7922-1406-1 to -3 and VAHR 7922-1408**

The following protection measures are required for the future management of VAHR 7922-1406-1 to -3 and VAHR 7922-1408:

1. A protection zone around the stand of vegetation associated with VAHR 7922-1406-1 to -3 and VAHR 7922-1408 must form part of the ongoing maintenance plan within the conservation reserve (Condition Map 1):
  - a. The protection zone must extend at least 10m from the registered coordinates;
  - b. The registered coordinates (GDA94 Zone 55) are:
    - i. VAHR 7922-1406-1 to -3: 327828.001E / 5797411.950N
    - ii. VAHR 7922-1408: 327815.602E / 5797409.604N
2. Above-ground temporary fencing must be installed around the protection zone boundary prior to the commencement of activity works and signage identifying the area as a ‘no go zone’ must be attached to the fencing:
  - a. The above-ground temporary fencing and ‘no go zone’ signage must remain in place until the activity works are completed;
  - b. The fencing must be regularly checked and any faults repaired promptly; and
  - c. Following completion of the activity works, the above-ground temporary fencing and ‘no go’ signage must be removed.
3. A heritage advisor must be engaged to assist with on-site identification of the protection zone boundary;
4. Ground disturbing works are not permitted within the protection zone;
5. General lawn maintenance in the form of mowing is permitted within the protection zone; and
6. The above procedures must be organised and paid for by the Sponsor.

### **Condition 5: Harm is Permitted to VAHR 7922-1406-4 and -5**

1. Harm to VAHR 7922-1406-4 and -5 is permitted under the conditions of this CHMP.



Condition Map 1: Location of protection zone around VAHR 7922-1406-1-3 and VAHR 7922-1408

## **2.0 Contingency Planning**

### **2.1 Changes to the Section 61 Matters or the Activity**

1. Activities will be undertaken in accordance with the requirements of Development Planning Overlay – Schedule 2 (DPO2) and Residential Growth Zone – Schedule 3 (RGZ3) for the City of Bayside (Appendix 2):
  - a. should changes to the activity or actions be required that are inconsistent with this CHMP, an application to amend the CHMP must be made.

### **2.2 Dispute Resolution**

1. Contingencies relating to Dispute Resolution have no application where the Secretary is evaluating the Management Plan.

### **2.3 Discovery of Aboriginal Cultural Heritage During Works**

#### **2.3.1 Unexpected Discovery of Human Remains**

If any suspected human remains are found during any activity, works must cease. The Victoria Police and the State Coroner's Office should be notified immediately. If there are reasonable grounds to believe the remains are Aboriginal, the Coronial Admissions and Enquiries hotline must be contacted immediately on 1300 888 544. This advice has been developed further and is described in the following 5-step contingency plan.

Any such discovery at the activity area must follow these steps.

1. Discovery:
  - a. If suspected human remains are discovered, all activity in the vicinity must stop; and
  - b. The remains must be left in place, and protected from harm or damage.
2. Notification:
  - a. If suspected human remains have been found, the State Coroner's Office and the Victoria Police must be notified immediately;
  - b. If there is reasonable grounds to believe the remains are Aboriginal Ancestral Remains, the Coronial Admissions and Enquiries hotline must be immediately notified on 1300 888 544;
  - c. All details of the location and nature of the human remains must be provided to the relevant authorities;
  - d. If it is confirmed by these authorities the discovered remains are Aboriginal Ancestral Remains, the person responsible for the activity must report the existence of them to the Victorian Aboriginal Heritage Council in accordance with section 17 of the *Aboriginal Heritage Act 2006*.
3. Impact Mitigation or Salvage:
  - a. The Victorian Aboriginal Heritage Council, after taking reasonable steps to consult with any Aboriginal person or body with an interest in the Aboriginal Ancestral Remains, will determine the appropriate course of action as required by section 18(2)(b) of the *Aboriginal Heritage Act 2006*;

- b. An appropriate impact mitigation or salvage strategy as determined by the Victorian Aboriginal Heritage Council must be implemented by the Sponsor.
4. Curation and Further Analysis:
  - a. The treatment of salvaged Aboriginal Ancestral Remains must be in accordance with the direction of the Victorian Aboriginal Heritage Council.
5. Reburial:
  - a. Any reburial site(s) must be fully documented by an experienced and qualified archaeologist, clearly marked and all details provided to Aboriginal Victoria;
  - b. Appropriate management measures must be implemented to ensure the Aboriginal Ancestral Remains are not disturbed in the future.

**Note:**

- do not take any photographs without the express request of the Coroners Office; and
- do not contact the media.

**2.3.2 Unexpected Discovery of Aboriginal Cultural Heritage (excluding Aboriginal Ancestral Remains)**

1. Secret/Sacred Objects:
  - a. Any suspected Secret/Sacred Objects must be reported to the Victorian Aboriginal Heritage Council, as per Part 2, Division 3 (sections 21-3) of the *Aboriginal Heritage Act 2006*.
2. Discovery:
  - a. If any other suspected Aboriginal cultural heritage, excluding Aboriginal Ancestral Remains and suspected Secret/Sacred Objects, is uncovered or identified:
    - i. all works must cease within 10m of the location of the suspected Aboriginal cultural heritage. Work may continue in other parts of the activity area away from the buffer zone;
    - ii. temporary webbing or fencing must be erected without ground disturbance at a distance of 10m (buffer zone) around the location of the suspected Aboriginal cultural heritage;
    - iii. signage must be displayed at all times clearly identifying the location as a ‘no-go zone’;
    - iv. a suitably qualified heritage advisor must be appointed within two working days;
    - v. a suitably qualified heritage advisor must inspect the suspected Aboriginal cultural heritage within three working days after notification;
    - vi. relevant Traditional Owner groups must be invited to participate in the inspection; and
    - vii. if the find is determined to not be Aboriginal cultural heritage, works at the location may recommence and temporary fencing and signage must be removed.
3. Notification:
  - a. The VAHR must be notified of the discovery of any Aboriginal cultural heritage excluding Aboriginal Ancestral Remains by the Sponsor/Heritage Advisor within two working days to discuss appropriate management outcomes (see Section 2.3.3).
4. All reasonable costs arising from the above process and any agreed management actions must be borne by the Sponsor.

### **2.3.3 Management of Aboriginal Cultural Heritage Discovered During the Activity**

1. Aboriginal cultural heritage which is associated with an existing registered Aboriginal Place
  - a. If the Heritage Advisor determines the discovery is Aboriginal cultural heritage and is associated with an existing registered Aboriginal Place:
    - i. the Aboriginal cultural heritage must be managed in accordance with any Conditions relating to that Place;
    - ii. the relevant VAHR records and spatial data must be updated within three weeks in accordance with VAHR standards.
2. Aboriginal cultural heritage which is not associated with an existing registered Aboriginal Place
  - a. If the Heritage Advisor determines that the discovery is Aboriginal cultural heritage, has not previously been registered, and meets the definition of a Low Density Artefact Distribution (LDAD):
    - i. the Sponsor must consider whether it is possible to avoid harm to the Aboriginal cultural heritage, and if harm cannot be avoided, whether harm can be minimised;
    - ii. if harm cannot be avoided or minimised, the Heritage Advisor must record the Aboriginal cultural heritage in accordance with VAHR standards;
    - iii. once the Place has been recorded, and the artefacts collected, works can continue.
  - b. If the Heritage Advisor determines that the discovery is Aboriginal cultural heritage, has not previously been registered, and exceeds the threshold defining an LDAD:
    - i. the Sponsor must consider whether it is possible to avoid harm to the Aboriginal cultural heritage, and if harm cannot be avoided, whether harm can be minimised;
    - ii. if harm cannot be avoided or minimised, the Heritage Advisor must arrange a meeting between the Sponsor, the relevant Traditional Owner groups (or RAP, if one has been appointed) and Aboriginal Victoria, as soon as practicable, to discuss and agree an appropriate way of managing the Aboriginal cultural heritage.
  - c. All reasonable costs arising from the meeting and any agreed management actions must be borne by the Sponsor; and
  - d. The temporary fencing around the suspected or identified Aboriginal cultural heritage may be removed, and works re-commence in the “no-go zone”, when the suspected or identified Aboriginal cultural heritage has been investigated and managed appropriately, in accordance with the *Aboriginal Heritage Act 2006* and as agreed in discussions with Aboriginal Victoria.

### **2.3.4 Protocol for Handling Sensitive Information**

The Secretary and the Traditional Owners consider all Aboriginal Places, objects and Ancestral Remains to be culturally sensitive. Therefore,

1. there must not be any contact with the media, including the use of social media, photography, film and digital images in relation to any aspect of Aboriginal cultural heritage without the written permission of the Secretary and the Traditional Owners (or RAP, if one has been appointed).

## **2.4 Custody and Repatriation of Aboriginal Cultural Heritage Collected During Works**

1. Sponsors must consider the willingness and the capacity of the proposed custodian to adequately and appropriately manage salvaged Aboriginal cultural heritage material;
2. Where the Secretary determines the approval of a Management Plan, the custody of Aboriginal cultural heritage (with the exception of Aboriginal Ancestral Remains, or secret or sacred objects) discovered during or after an activity must comply with the requirements of the *Aboriginal Heritage Act 2006* and be assigned according to the following order of priority, as appropriate:
  - a. any relevant RAP for the land from which the Aboriginal heritage is salvaged;
  - b. any relevant registered native title holder for the land from which the Aboriginal heritage is salvaged;
  - c. any relevant native title party (as defined in the Act) for the land from which the Aboriginal heritage is salvaged;
  - d. any relevant Traditional Owner or Owners of the land from which the Aboriginal heritage is salvaged;
  - e. any relevant Aboriginal body or organisation which has historical or contemporary interests in Aboriginal heritage relating to the land from which the Aboriginal heritage is salvaged;
  - f. the owner of the land from which the Aboriginal heritage is salvaged;
  - g. Museum Victoria.
3. Final management arrangements, such as repatriation and/or reburial, must occur within six months of the completion of the activity;
4. If the relevant Traditional Owners (or RAP, if one has been appointed) request, and if it is practical, provisions should be made to re-bury artefacts within the activity area, in a place which will not be disturbed by future works; and
5. Any reburial must be documented by a suitably qualified Heritage Advisor and the relevant forms and spatial data provided to the VAHR, as soon as practicable.

## **2.5 Removal of Temporary Fencing**

1. Temporary fencing must be removed once all required matters in relation to Aboriginal cultural heritage have been addressed.

## **2.6 Reviewing Compliance with the Plan**

1. The Sponsor must ensure that compliance with this CHMP is regularly reviewed:
  - a. A compliance checklist is provided below in Contingency Table 1;
  - b. The record of compliance must be available for inspection by either an Authorised Officer under the *Aboriginal Heritage Act 2006* or other representative of the Secretary.

**Contingency Table 1: Checklist for reviewing compliance with CHMP 17089\***

	Yes	No	Date
<b>Prior to works occurring</b>			
1. Has a cultural heritage induction been completed by a heritage advisor, with invited participation of representatives of the Traditional Owners (or RAP, if one has been appointed), prior to the commencement of any ground disturbing works required in the activity area?			
2. Have the contingency plans contained in Section 2 of this report been incorporated into the development documentation and risk assessment for the project?			
3. Has the location of the protection zone been established with the assistance of a heritage advisor as per Condition 4?			
4. Has the above-ground fencing and 'no go zone' signage been installed around the boundary of the protection zone			
<b>During works</b>			
1. Is a hard copy of this approved CHMP readily accessible and kept on-site at all times during the activity works?			
2. Is the above-ground fencing and 'no go zone' signage still installed?			
3. Has the above-ground fencing and 'no go zone' signage been inspected for faults and repaired (if necessary) as per Condition 4 (2)(b)?			
<b>After works</b>			
1. Has the above-ground fencing and 'no go zone' signage been removed as per Condition 4 (2)(c)?			
<b>Identification of human remains during works</b>			
1. Has <b>all</b> work ceased and has webbing or fencing been erected with 'no-go zone' signage displayed at all times?			
2. Have Victoria Police and the Coroner's Office (and the Coronial Admissions and Enquiries on 1300 888 544 for suspected Aboriginal Ancestral Remains) been notified?			
3. Has a suitably qualified heritage advisor been engaged to document the find?			
4. If the remains are confirmed as Aboriginal Ancestral Remains, has the VAHC been notified?			
5. Have the VAHC management measures for the Aboriginal Ancestral Remains been implemented?			
<b>Identification of Aboriginal cultural heritage during works</b>			
1. Has all activity within 10m ceased and has webbing or fencing been installed with 'no-go zone' signage displayed at all times?			

2. Has a suitably qualified heritage advisor and the Traditional Owners (or RAP, if one has been appointed) been notified?			
3. Has an on-site investigation of the suspected Aboriginal cultural heritage taken place?			
4. Has harm to Aboriginal cultural heritage occurred?			
5. Has the VAHR been notified as per Section 2.3.2 (3)(a)?			
6. Has an appropriate management strategy been developed and implemented in consultation with Aboriginal Victoria and the relevant Traditional Owner groups (or RAP, if one has been appointed)?			
<b>Reburial Procedure for Aboriginal cultural heritage</b>			
1. Once a reburial site has been agreed upon with the Traditional Owners (or RAP, if one has been appointed), has a suitably qualified heritage advisor been engaged to fully document the location when the reburial takes place?			
2. Has the reburial location been clearly marked, accurately recorded and details provided to the VAHR?			
3. Has a strategy been developed to ensure no future disturbance?			

\*Review of this CHMP can be undertaken at any time by project delegates representing the Sponsor, or by an agreed independent reviewer to ensure that the Sponsor and heritage advisor are complying with the terms of this CHMP.

Date Reviewed	Name	Signature	Position/Job Title

## **2.7 Resolution of Non-Compliance with the Plan**

1. In the event of suspected non-compliance:
  - a. All relevant works must stop;
  - b. The Sponsor must contact Aboriginal Victoria's Statewide Compliance and Enforcement Coordinator (see Section 3) within two working days to review the suspected non-compliance and agree any required remedies;
  - c. If agreement cannot be reached by all parties, the Minister may order an audit of the management plan; and
  - d. All reasonable costs arising from the meeting and any agreed remedies must be borne by the Sponsor.

### **3.0 Other Considerations**

#### **3.1 Communication**

The Sponsor and any personnel involved with supervision of future construction must read the CHMP and be aware of the legal requirements and contingency procedures concerning Aboriginal cultural heritage within the activity area. The Sponsor (or other relevant supervisory staff) must be responsible for implementing any conditions contained in the CHMP.

The Sponsor must set in place internal processes of communication to ensure that they are notified prior to any contractors conducting works (including archaeological contractors) on the property.

#### **Contact Details**

##### **The Sponsor**

Sunkin Projects Pty Ltd  
Attn: Mark Nutter

Phone: (03) 9886 8668  
Email: mark.n@sunkin.com.au

##### **Aboriginal Victoria**

GPO 2392  
Melbourne VIC 3001

Phone: 1800 762 003  
Email: aboriginal.heritage@dpc.vic.gov.au

##### **Statewide Compliance & Enforcement Unit, Aboriginal Victoria**

Phone: 1800 762 003  
Email: compliance.aboriginalvictoria@dpc.vic.gov.au

##### **Victorian Aboriginal Heritage Council**

GPO Box 2392  
Melbourne VIC 3001

Phone: (03) 8392 5392  
Email: vahc@dpc.vic.gov.au

## **Part Two: Assessment**

### **4.0 Introduction**

#### **Reasons for Preparing a Cultural Heritage Management Plan**

This Cultural Heritage Management Plan (CHMP) has been undertaken at the request of the Sponsor, Sunkin Projects Pty Ltd, for a proposed residential development at 37 Graham Road, Highett. A CHMP is a mandatory requirement for the proposed activity because:

- all or part of the activity area is an area of cultural heritage sensitivity (*Aboriginal Heritage Regulations 2018*, Division 1, 7(a)); and
- the proposed activity is a high impact activity (*Aboriginal Heritage Regulations 2018*, Division 1, 7(b)).

There are two registered Aboriginal Places (VAHR 7922-1406 and VAHR 7922-1408) within the activity area. These are defined as areas of cultural heritage sensitivity by the *Aboriginal Heritage Regulations 2018* (r. 25 (1) and (2)). The activity area is also located on inland dune deposits (Qd1). Inland dune deposits are defined as an area of cultural heritage sensitivity by the *Aboriginal Heritage Regulations 2018* (r. 41).

The proposed activity is for a residential development. The construction of three or more dwellings on a lot or allotment is a high impact activity as defined by the *Aboriginal Heritage Regulations 2018* (r. 48).

#### **Sponsor for the Cultural Heritage Management Plan**

The Sponsor for this CHMP is Sunkin Projects Pty Ltd (ABN 21 635 064 112).

#### **Notice of Intent to Prepare a CHMP**

In accordance with Section 54(1) of the *Aboriginal Heritage Act 2006*, a Notice of Intent to Prepare a CHMP (NOI; Appendix 1) was submitted on February 17, 2020 to Aboriginal Victoria (AV). AV replied to the NOI on February 17, 2020 and allocated the project number 17089. A copy of the NOI was also provided to Bayside City Council on February 18, 2020.

#### **Name, Qualifications and Experience of Heritage Advisor**

The heritage advisor who conducted this assessment was Kathleen Hislop.

Kathleen holds a Bachelor of Archaeology (Honours) from La Trobe University, Victoria (2008) with formal academic qualifications in pre-Contact Aboriginal archaeology and non-Aboriginal historic archaeology and a Master of Archaeological Science (Advanced) from the Australian National University, Australian Capital Territory (2017), specialising in zooarchaeology of Australian fauna. She has more than ten years' professional experience in connection with a range of development and research projects in Victoria and has conducted a wide range of archaeological and heritage assessments.

### **Location of the Activity Area**

The activity area is located at 37 Graham Road, Highett (Lots 1\TP223183 and 172\LP9880; Map 1). The activity area is within the City of Bayside (Parish of Moorabbin, County of Bourke) and is approximately 9.33ha (93 330m<sup>2</sup>) in size (Map 2). The activity area is approximately 16.5km south east of the Melbourne CBD and 3km east of Port Phillip Bay.

There are three previously registered Aboriginal Places within 200m of the activity area; two of the Aboriginal Places lie within the activity area boundary, while the third refers to the storage location of Aboriginal cultural heritage from a Place approximately 1.7km south east of the activity area (see Section 7.2.4.1).

### **Landowners**

The activity area is owned by Sunkin Projects Pty Ltd.

### **RAPs with Responsibility for the Activity Area**

At present there is no Registered Aboriginal Party (RAP) with the responsibility for the activity area. AV is currently administering the region until a RAP is appointed, in accordance with Section 54 of the *Aboriginal Heritage Act 2006*. The Secretary is evaluating the plan under s. 65(1)(b)(i).



Map 1: Location of the activity area – 37 Graham Road, Highett (Lots 1\TP223183 and 172\LP9880, City of Bayside, Parish of Moorabbin, County of Bourke)

## **5.0 The Activity Area and Proposed Works**

### **5.1 Extent of the Activity Area Covered by the Management Plan**

The activity area is located at 37 Graham Road, Highett (Lots 1\TP223183 and 172\LP9880; Maps 1 and 2). The activity area is within the City of Bayside (Parish of Moorabbin, County of Bourke) and is approximately 9.33ha (93 330m<sup>2</sup>) in size.

The activity area is bounded by Graham Road and residential allotments to the east and residential allotments and Middleton Street to the west. Commercial development is situated along the southern boundary and a mixed use commercial and residential development is located to the north of the activity area boundary facing onto Highett Road. The activity area formerly housed the Highett laboratories of the CSIRO. The activity area is currently cleared of structures, with only the CSIRO laboratory road infrastructure and established trees still present. Approximately 75% of the activity area (north and central regions) has undergone extensive soil removal due to soil contamination associated with previous construction and land use activities.

The activity area is approximately 16.5km south east of the Melbourne CBD and 3km east of Port Phillip Bay.

### **5.2 Activity Description**

The proposed activity is for a residential development comprising multi-level and multi-density residential units with basement car parks, community centre, associated infrastructure and an open parkland reserve (Map 3). Under the recommendations of the Environmental Audit North (Throssell 2020a) further soil testing for contaminants will be required in the basement areas. The southern region of the activity area is to be retained as a conservation area under the ultimate management of the City of Bayside. The proposed activity includes scope for works, such as footpath construction and the installation of park furniture and lighting within the conservation area. Three vehicle entrance points to the development are proposed: one from Middleton Street and two from Graham Road (north eastern and central regions). The Middleton Street entrance and the central Graham Road entrance were previous entry points from the CSIRO occupation of the activity area.

Activities will be undertaken in accordance with the requirements of Development Planning Overlay – Schedule 2 (DPO2) and Residential Growth Zone – Schedule 3 (RGZ3; Appendix 2).

### **5.3 Statement of Potential Impacts**

The proposed activities outlined above will involve soil disturbance to both surface and buried land surfaces. Excavation will be required where the residential development is to be constructed but will be minimal within the conservation area. Activities which will occur during the course of the proposed works are:

- site preparation, which will include site clearance of unwanted rubbish, vegetation and rocks which will be removed from the site;
- site cut and fill to adjust current ground levels to the proposed development ground floor level, utilising heavy machinery. This will include stripping/removal of current topsoil, where required;
- excavation for utilities, services and footings;
- excavation and preparation of open reserve surface within the residential development;

- excavation for basement and entrance to basement, including preceding soil contaminant testing;
- excavation/installation for footpaths, park furniture and lighting within the conservation area; and
- landscaping works.

Table 1 provides a list of the expected maximum depth of excavation required for the activities.

**Table 1: Maximum depth of potential impacts**

<b>Activity</b>	<b>Maximum Depth (m)</b>
<b>Topsoil removal</b>	0.2
<b>Basement</b>	4
<b>Underground utilities/services</b>	0.6
<b>Roadways</b>	0.4
<b>Open reserve within the residential development</b>	0.5
<b>Site cut to establish proposed development ground floor level</b>	1.5
<b>Footpaths/park furniture/lighting</b>	0.2–2.0



Map 2: Aerial image showing the current (28/01/2020) conditions in the activity area



Map 3: Indicative development plan. Pathways shown in the conservation area are for illustrative purposes only (provided by the Sponsor)

## **6.0 Documentation of Consultation**

A Notice of Intent to Prepare a CHMP (Appendix 1) was submitted to Aboriginal Victoria (AV), pursuant to Section 54 of the *Aboriginal Heritage Act 2006* on February 17, 2020. AV replied to the NOI on February 17, 2020 and allocated the project number 17089. At present there is no Registered Aboriginal Party (RAP) with the responsibility for the activity area. AV is currently administering the region until a Registered Aboriginal Party (RAP) is appointed, in accordance with Section 54 of the *Aboriginal Heritage Act 2006*. The Secretary is evaluating the plan under s. 65 (1)(b)(i).

### **6.1 Consultation in Relation to the Assessment**

No RAPs have yet been appointed for the region in which the activity area is situated. No Activity Advisory Group (AAG) was appointed by AV. Three Traditional Owner (TO) organisations currently have an interest in the region where the activity area is situated. One of these TO organisations is a RAP applicant, the Bunurong Land Council Aboriginal Corporation (BLCAC). The Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCHAC) is a Native Title applicant under the *Traditional Owner Settlement Act 2010*. The Boon Wurrung Foundation Limited (BWFL; also known as the Boon Wurrung Land and Sea Aboriginal Corporation)<sup>1</sup> are recognised as having Traditional Owner interest in the region where the activity area is located.

An initial meeting was held between Kathleen Hislop (Senior Project Archaeologist, Heritage Insight Pty Ltd), Vanessa Beasley (Project Archaeologist, Heritage Insight Pty Ltd), Megan McCormick (Assistant Development Manager, Sunkin Projects Pty Ltd), Scott McIntosh (Development Director, Gallagher Jeffs), Courtney Hipperson (Assistant Development Manager, Gallagher Jeffs) and Dr David Thomas (Manager, Metropolitan Heritage Programs) on March 4, 2020. The project history, background research, previous works within the activity area and current conditions within the activity area were discussed and a proposal was put forward for the CHMP to be a desktop level assessment only. This proposal was considered to be a reasonable approach for the CHMP based on the presented information.

Consultation with the three TO organisations was undertaken through email correspondence. A project outline comprising background research, Aboriginal cultural heritage within and near the activity area, previous works undertaken in the activity area and the proposed management conditions for the CHMP assessment was forwarded to the TO organisations on May 12, 2020. An invitation to provide any oral history regarding the activity area and/or feedback on the proposed management conditions was also extended via this correspondence.

The WWCHAC Elders responded by email from Kate Connell (Heritage Advisor - Cultural Heritage Unit, WWCHAC) on May 14, 2020 that they did not wish to provide any oral history for the activity area and requested additional information about the depths of soil removed from the location of VAHR 7922-1406-4 and -5. Additional information was provided via email on May 14, 2020. No further correspondence was received from the WWCHAC.

No correspondence was received from the BLCAC or BWFL.

A second meeting was undertaken with was held between Kathleen Hislop (Senior Project Archaeologist, Heritage Insight Pty Ltd), Vanessa Beasley (Project Archaeologist, Heritage Insight Pty Ltd), Bianca Di

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<sup>1</sup> This CHMP will refer to the organisation as the Boon Wurrung Foundation Ltd rather than the Boon Wurrung Land and Sea Aboriginal Corporation.

Fazio (Director, Heritage Insight Pty Ltd), Annie Zhu (Assistant Development Manager, Sunkin Projects Pty Ltd), Scott McIntosh (Development Director, Gallagher Jeffs), Courtney Hipperson (Assistant Development Manager, Gallagher Jeffs), Dr Diana Smith (Manager, Loddon Mallee Heritage Programs) and Liz Kilpatrick (Manager, Heritage Assessments Major Projects) on December 1, 2020. The purpose of this meeting was to discuss the results of the standard assessment and the detailed land-use history associated with prior disturbance within the activity area.

## **6.2 Participation in the Conduct of the Assessment**

Input was invited from the three TO organisations via email regarding any oral history for the activity area they would like included and feedback on the proposed management conditions. The three TO organisations were invited to participate in the standard assessment field survey. Minta Franks (BLCAC), Kerrie Broomfield (WWCHAC) and Ricky Abrahams (BWFL) participated in the field survey on November 20, 2020.

## **6.3 Consultation in Relation to the Conditions**

As no RAP has been appointed for the region containing the activity area, no formal meeting consultation was undertaken with the BLCAC, BWFL or WWCHAC in relation to the management conditions contained within this CHMP. However, a summary of the assessment and the proposed management conditions was provided by email to the BLCAC, BWFL and WWCHAC on May 12, 2020 with an invitation to provide feedback. The proposed management condition to protect the Aboriginal cultural heritage within the southern conservation region of the activity area did not change following the standard assessment and further consultation with AV. No further feedback was requested from the TO organisations.

The field representative from the WWCHAC suggested during the standard assessment that consideration be given to Traditional Owner participation in the ongoing maintenance and management of the trees in the conservation area following the completion of the proposed activity.

## **6.4 Summary Outcomes of Consultation**

Consultation with the Traditional Owners took the form of a summary document outlining the assessment and the proposed management conditions and was provided by email to the BLCAC, BWFL and WWCHAC on May 12, 2020 with an invitation to provide feedback. No feedback was received from the Traditional Owners regarding the proposed management conditions. The proposed management condition to protect the Aboriginal cultural heritage within the southern conservation region of the activity area did not change following the standard assessment and further consultation with AV. No further feedback was requested from the TO organisations.

## **7.0 Report on the Desktop Assessment**

In accordance with Clause 8, Schedule 2 of the *Aboriginal Heritage Regulations 2018*, this section contains the results of the desktop assessment.

### **7.1 Aims and Methodology for the Desktop Assessment**

The aim of the desktop assessment was to produce an archaeological site prediction model to identify the likelihood of Aboriginal cultural heritage to be located within the activity area. In turn, this assists in the design of fieldwork (survey and/or subsurface testing) and subsequent management conditions.

The desktop assessment involved a review of:

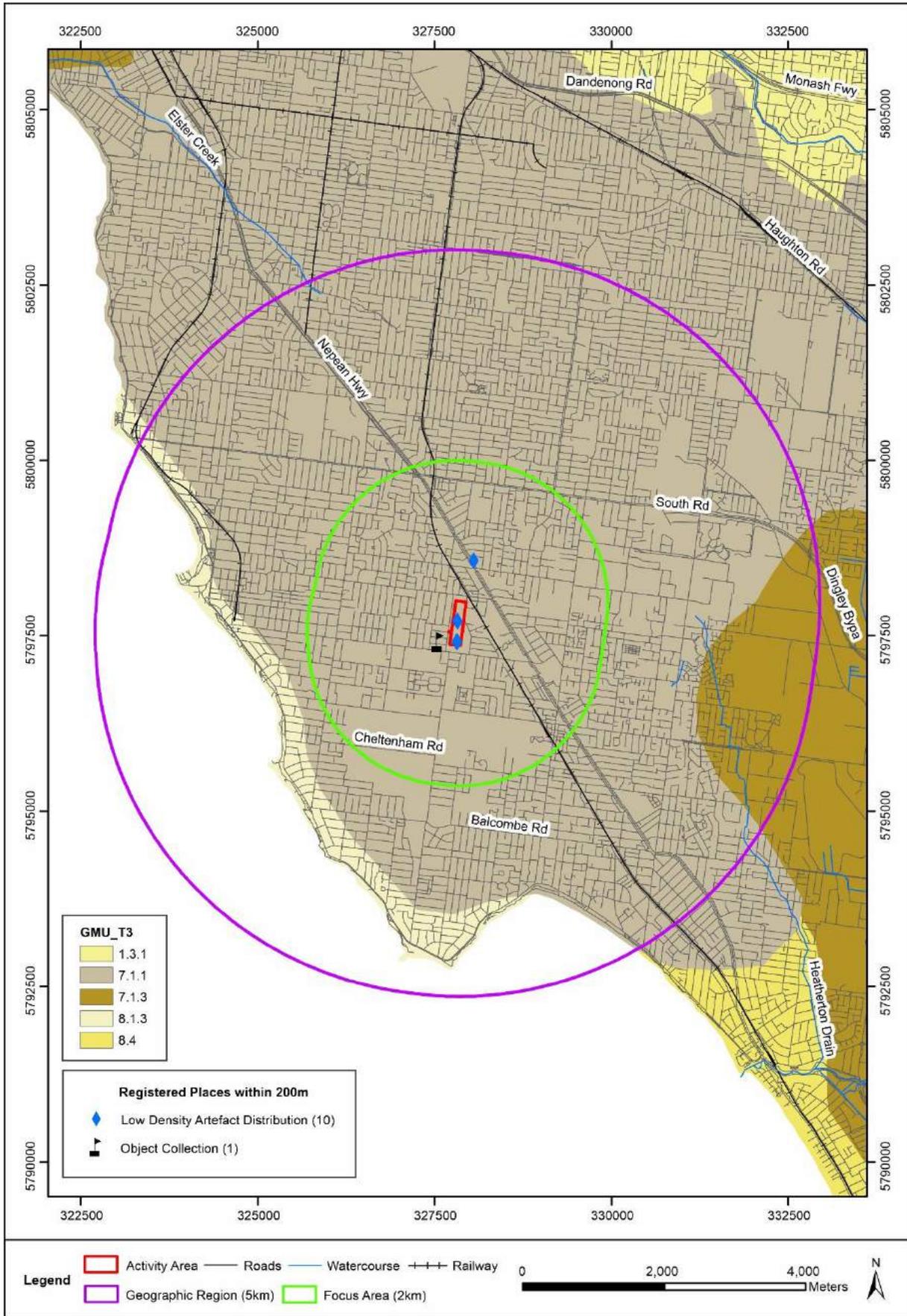
- historical and ethno-historical accounts of Aboriginal occupation of the geographic region and a review of any written and oral local history relevant to the activity area;
- environmental resources available to Aboriginal people within the region of the activity area;
- the site registry at AV and previous archaeological studies to identify any previously registered Aboriginal archaeological sites either within or surrounding the activity area and the results of previous archaeological assessments;
- the land-use history of the activity area, particularly evidence for the extent and nature of past land disturbance; and
- the landforms or geomorphology of the activity area and 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.

This information was used to produce an archaeological site prediction model. The site prediction model assists in determining the type of archaeological sites which may potentially occur within the activity area, the possible contents of these sites, the possible past use of the landscape by Aboriginal people and the likely extent of ground disturbance to archaeological sites.

### **7.2 Results of the Desktop Assessment**

#### **7.2.1 The Geographic Region**

The activity area is broadly situated within the Gippsland Plain bioregion and falls under the jurisdiction of the Port Phillip and Westernport Catchment Management Region. This bioregion is characterised by low-lying coastal and alluvial plains, with gentle undulations dominated by barrier dunes, flood plains and swampy flats. The geographic region lies within the wider Western Port region but has been specifically defined by an arbitrary 5km buffer from the 37 Graham Road, Highett activity area due to the extensive nature of the Western Port region. This buffer provides a suitable sample size for the landforms and landscape features that are characteristic of the broader region in which the activity area is located. The location of the activity area within the geographic region is shown in Map 4.



Map 4: Geographic region in relation to the activity area

## 7.2.2 Landforms and Geomorphology of the Activity Area

### Description of Geology, Landforms and Soils

The activity area is located on the geomorphic unit ‘Sand and Clay Plains – Moorabbin’, which forms part of the larger unit known as the South Victorian Coastal Plains that stretches from Melbourne southwards towards Frankston (Rowan, Russell & Ransom 2000, p.25). The Sand and Clay Plains – Moorabbin formed as dune ridges with intervening clay swamps across the south eastern suburbs as a result of the retreating sea levels in the late Pleistocene (Cochrane, Quick & Spencer-Jones 1995, p.86).

Geological mapping (Map 5) shows that the activity area is characterised by ‘inland dune deposits (Qd1)’ dating to the Quaternary period, and ‘Red Bluff Sandstone’ dating to the Miocene to Pliocene. The geology of the inland dune deposits is described as ‘sand, silt, clay: friable to consolidated, well sorted’ (Department of Jobs, Precincts and Regions ‘Earth Resources – GeoVic’, 2020). This geology can often be seen through lunette deposits or longitudinal dunes. The Red Bluff Sandstone geology is described as ‘sandstone, conglomerate: pale yellow and brown; fine to coarse-grained...local ironstone’ (Department of Jobs, Precincts and Regions ‘Earth Resources – GeoVic’, 2020).

Overlying the geology is the landform plain above flood level (relative relief <9m), which describes the wider region (Department of Jobs, Precincts and Regions ‘Earth Resources – GeoVic’, 2020). Plains are classified as a very gently inclined or level landform of extremely low relief (<9m), and no specific geomorphological agent (McDonald et al. 1984, pp.32, 55). Previous reports undertaken within the activity area (Barker 2008; Rowney 2012) have identified that the Highett CSIRO facility is located within a swale and sand dune system present throughout the coastal hinterland. Quartzose sand dunes and sand sheets, 15m deep and elevated 4–6m, formed during the Pleistocene and extend to the east across the coastal hinterland in a north west to south east pattern (Douglas and Fergusson 1993; Bird 1993 and Cochrane *et. al* 1998 cited in Barker 2008). Large corridors of damp, swampy swales are located between the dunes (Rowney 2012, p.28). The landform across the activity area is low relief, rising from north to south with the southern end a flat crest of a sand dune approximately 5m higher than the northern end. Rowney (2012) observed that the southern end of the activity area was positioned within a large dune swale, and a sand dune ridge extended across the northern end of the activity area (Figure 1).

The most common soils overlying the inland dune deposits, Red Bluff Sandstone and plains are mottled duplex soils with pale sands, often characterised by high compaction and soil leaching (Department of Jobs, Precincts and Regions ‘Earth Resources – GeoVic’, 2020). The soil profiles in this area are typically either acidic sandy texture contrast soils (Chromosols), or deep, acidic sand with bleached subsoils and dark B horizons of “coffee rock”<sup>2</sup> at about 0.8m (Department of Jobs, Precincts and Regions – Victorian Resources Online, 2020b).

The assessor for the environmental audit reporting (Guy et al. 2020) indicated that the on-site soils consisted of:

- fill material to approximately 1m in depth comprising reworked natural soils containing some inert waste such as brick, concrete, glass, bonded ACM and metal fragments. Additionally, fill in some localised areas extended to a maximum depth of 3.7m and was associated with underground infrastructure such as basements and utility services; and

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<sup>2</sup> A compacted, cemented or indurated layer within the profile that is comprised of humus and iron oxides (Department of Jobs, Precincts and Regions ‘Agriculture Victoria – Victorian Resources Online’, 2020a).

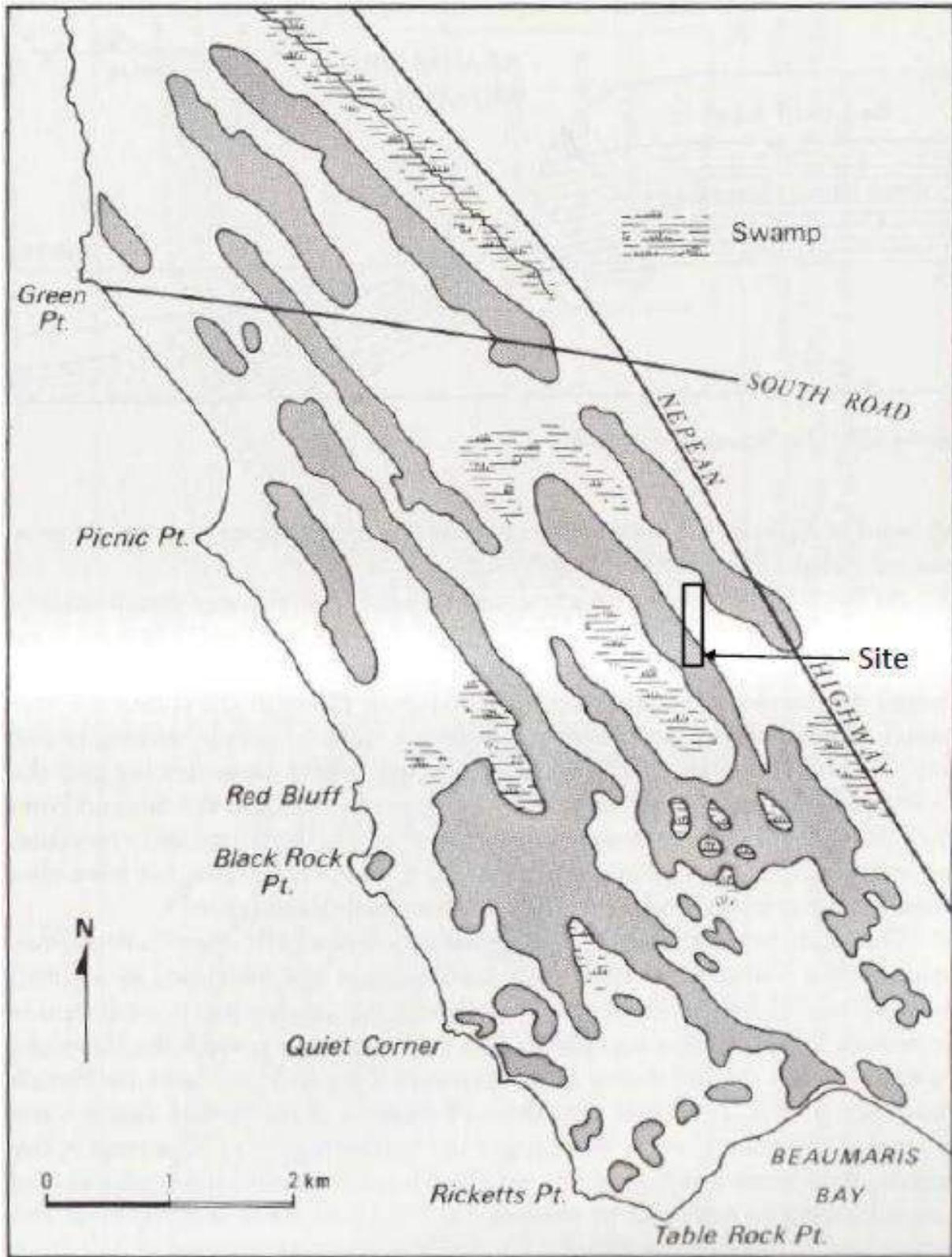


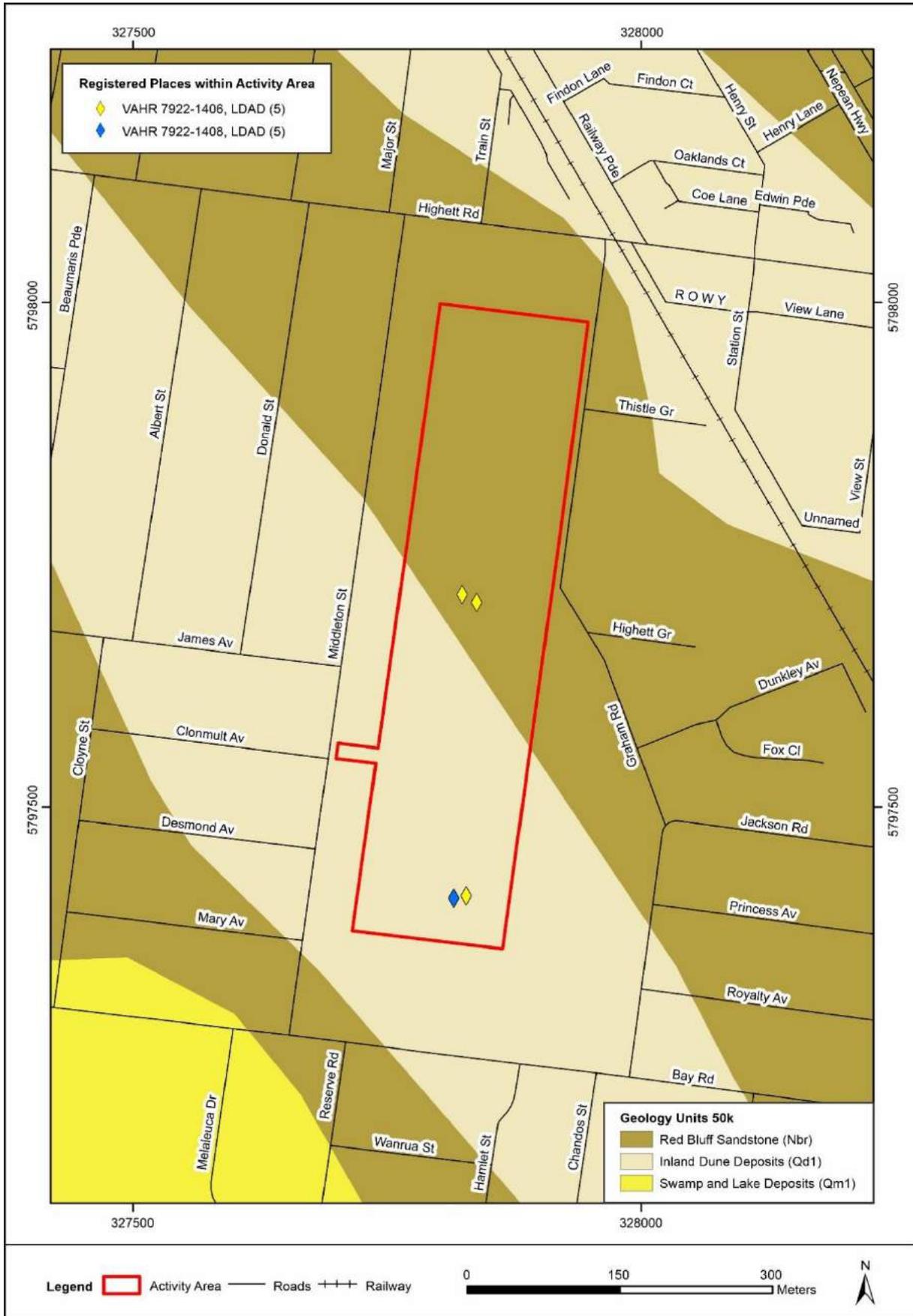
Figure 1: Mapped sand dunes and swamp zones along the Bayside area and hinterland (Bird, C 1993, Fig. 109, p.164 and GML reproduced from Rowney 2012, p.10)

- natural soils comprised silty sands and sandy silts grading into alluvial gravels and iron stone in a sandy matrix, with mottled sandy clay at depth. The assessor interpreted this soil profile to be typical of soils derived from the Brighton Group sands.

Table 2 summarises the land system information for the region containing the activity area.

**Table 2: Summary of land system data encompassing the activity area**

<b>Land System Code – Land Systems of Victoria at 1: 250 000</b>	<b>Land System Summary Description</b>
8.3PfcC6-1	<b>Geomorphic Unit:</b> Sand and Clay Plains - Moorabbin
	<b>Landform:</b> Plain above flood level (relative relief <9m)
	<b>Lithology:</b> N/A
	<b>Soils:</b> Mottled duplex soils, Pale sands
	<b>Pre-1750 EVCs:</b> 892 – Heathy Woodland/Sand Heathland Mosaic 719 – Grassy Woodland/Damp Sands Herb-rich Woodland Mosaic
	<b>Nearest Water Sources:</b> Port Phillip Bay, approximately 2.7km west of activity area



### 7.2.3 Resources Available to Aboriginal People within the Activity Area

#### Plant Resources and Pre-Contact Vegetation

The activity area falls within the Gippsland Plain bioregion (Department of Jobs, Precincts and Regions 'Earth Resources – GeoVic', 2020). The Gippsland Plain bioregion is characterized by low-lying coastal and alluvial plains, gently undulating topography, barrier dunes, floodplains and swampy flats (Department of Environment, Land, Water and Planning 'Bioregions and EVC Benchmarks', 2020).

There are a number of plant species that would have been present across the region which would likely have been utilised by Aboriginal people. Pre-1750s Ecological Vegetation Class (EVC) mapping in the activity area aligns with the sand dunes in the region that run north west to south east, and indicates that the activity area would have been characterised by Heathy Woodland/Sand Heathland mosaic (EVC 892) in the south west of the activity area with Grassy Woodland/Damp Sands Herb-rich Woodland mosaic (EVC 719) in the swales between the dunes which were poorly drained and subsequently supported a wetter plant community (Map 6; Department of Environment, Land, Water and Planning 'NatureKit', 2020).

Heathy Woodland/Sand Heathland Mosaic (EVC 892) comprised either one or both Heathy Woodland (EVC 48) and Sand Heathland (EVC 6). Heathy Woodland is characterised by low woodland, dominated by Eucalyptus species with an understory of small to medium shrub and sparse ground cover. Some of the species found across the Heathy Woodland include *Eucalyptus obliqua* (Messmate Stringybark), *Eucalyptus radiata s.l.* (Narrow-leaf peppermint) and *Eucalyptus viminalis ssp. Pyrroiana* (Rough-barked Manna Gum), *Leptospermum continentale* (Prickly tea-tree), and *Xanthorrhoea minor ssp. lutea* (Small grass-tree). Sand Heathland (EVC 6) is characterised by low, dense heathy shrub-dominated mostly tree-less (except for occasional mallee-form eucalypts and/or Banksias) heathland and includes species such as *Pteridium esculentum* (Austral Bracken), *Leptospermum continentale* (Prickly tea-tree), *Lepidosperma laterale var. laterale* (Variable Sword Sedge) and *Xanthorrhoea minor ssp. lutea* (Small grass-tree; Department of Environment, Land, Water and Planning 'Bioregions and EVC Benchmarks', 2020).

The north eastern portion of the activity area supported Grassy Woodland/Damp Sands Herb-rich Woodland Mosaic (EVC 719) and comprised either one or both of Grassy Woodland (EVC 175) and Damp Sands Herb-rich Woodland (EVC 3). Grassy Woodland (EVC 175) is characterised by open eucalypt or Sheoak woodland supported by a diverse ground layer of grasses and herbs, with species such as *Billardiera scandens* (Common Apple-berry). Damp Sands Herb-rich Woodland (EVC 3) is characterised as low eucalypt forest or open woodland with a rich ground layer of herbs, grasses and orchids. Some of the species found across the EVC include *Eucalyptus viminalis ssp. Pyrroiana* (Rough barked Manna Gum), *Pteridium esculentum* (Austral Bracken), *Acacia mearnsii* (Black wattle), *Acacia melanoxylon* (Blackwood), *Leptospermum continentale* (Prickly tea-tree), *Lomandra longifolia* (Spiny-headed Mat-rush; Department of Environment, Land, Water and Planning 'Bioregions and EVC Benchmarks', 2020).

Plants were extensively exploited by Aboriginal people for food, medicine and fibres for weaving. Plant components utilised would have included berries, fungi, roots, tubers, bulbs, leaves, pith from fleshy plants, seeds and sap. Gum was also collected from wattle and stored in known locations for seasons when food was less abundant (Zola & Gott 1992). Table 3 below presents a list of known flora resources collected by Aboriginal people.

**Table 3: Examples of locally available native plants utilised by Aboriginal people (Department of Environment, Land, Water and Planning ‘Bioregions and EVC Benchmarks’, 2020; Zola & Gott 1992; Australian National Botanic Gardens, 2015)**

Plant Species	Uses
<i>Acacia melanoxylon</i> Blackwood	Bark used to treat rheumatism. Wood made into spear-throwers, shields and clubs. Ground leaves used to stun fish in the water
<i>Eucalyptus viminalis</i> ssp. <i>Pyroriana</i> (Rough-barked Manna Gum)	Eucalypt tree used for food (sweet, crumbly white gum procured from the bark), medicines and tools.
<i>Leptospermum continentale</i> Prickly tea tree	Wood used for spears and pegs.
<i>Pteridium esculentum</i> Austral Bracken	Underground stems were a staple food. Young stems used to relieve stinging and itching from insect bites.
<i>Eucalyptus obliqua</i> (Stringybark)	Outer bark powdered for tinder. Inner bark for manufacturing coarse string for bags and fishing.
<i>Eucalyptus radiata</i> s.l. (Narrow-leaf peppermint)	Eucalypts used for food, medicines, containers, shelter, canoes, string, tools and weapons.
<i>Lomandra longifolia</i> (Spiny-headed Mat-rush)	Food - nectar; Leaves - basket-making
<i>Acacia mearnsii</i> (Black-wattle)	Gum used as a sugar source. Possibly used as an ingredient in a type of cement. Used to treat indigestion.
<i>Billardiera scandens</i> (Common Apple-berry)	Food - berry
<i>Xanthorrhoea minor</i> ssp. <i>Lutea</i> (Small grass-tree)	Bases of the leaves and heart of the stem were eaten. Nectar was collected from the tall spike of flowers with a sponge made of stringybark. Dry flower-stems of smaller species were used for spears, and those of this larger species were used to make fire, as well as containing large edible grubs. Globules of hard waterproof resin collected from the base of the plant served as a cement to fasten barbs in spears or stone axes to handles. The tough leaves were used as knives to cut meat.
<i>Lepidosperma laterale</i> var. <i>laterale</i> (Variable Sword Sedge)	Fibres used for making baskets.

### **Fauna Resources**

A number of animals would have been present within the activity area and are likely to have been hunted by Aboriginal people. A series of pre-European wetland environments immediately adjacent to the east, and further to the north and south east of the activity area would have provided an abundance of edible freshwater aquatic life, as well as attracting other fauna. A range of mammal species including bats, native rats, brushtail and ringtail possums, bandicoots, wombats, and echidnas would have been present in the region. As well as being a valuable food source, possums provided raw materials for the manufacture of cloaks, while echidnas provided quills which were used to make necklaces (Sullivan 1981, p.23; Rhodes & Rawoteea 2007, p.18).

The native fauna identified in this region is high in bird species, particularly water birds and raptors. Birds would have been utilised for food (meat and eggs) and feathers. Reptiles in the region would have comprised several species of snakes, skinks, lizards, and blue-tongue lizards (Atlas of Living Australia, n.d.). It is unlikely that there was any specific fauna used by Aboriginal people in the past concentrated within the activity area itself that were not equally as abundant within the surrounding areas.

The native fauna in the geographic region is significantly diminished in modern times, largely as a result of the loss of habitat, with many animal species once present, now locally or regionally extinct.

## **Water Resources**

Sources of fresh water would not have been available within the study area, although Elster Creek and other large wetlands existed near the intersection of the Nepean Highway and Charman Road at Highett, approximately 800m south east of the activity area. Part of this area is covered by the present-day Victoria and Cheltenham Golf Clubs. There would have been numerous other wetlands and ephemeral watercourses between the swales of the dunes (Rhodes 2007).

Waterways were important for the sustaining of native flora and fauna and for the provision of drinking water for Aboriginal people. The only significant creek channel within the City of Bayside was Elster Creek (now Elster canal), which was situated approximately 5km north of the activity area (Rhodes 2007, p.8) and may have been a source of potable water. Elster Creek flows into Port Phillip Bay in the suburb of Elwood, and has been modified in recent times with much of the creek now an underground drain.

There were several other sources of freshwater available to Aboriginal people within the geographic region. Early maps of Brighton indicate that Elster Creek contained a chain of deeper waterholes along its channel. These are likely to have been a significant source of fresh water in drier seasons or periods of drought. Wells or waterholes were known to exist in the vicinity of where Cheltenham Golf Course is now constructed, approximately 1.8km south east of the activity area (VAHR 7922-0958). These waterholes were recorded as a known water source for Aboriginal peoples in the area (Nicholls 2007, p.92; as cited in Hardy 2019 p. 26).

Prior to European occupation, a series of wetlands were present in the geographic region. Wetland environments were located to the east, south east and further north east and north west of the activity area. These wetlands have been modified and disappeared over recent years, but formerly extended over a broad area close to the activity area. These wetlands would have provided water and resources for Aboriginal people in the area. Wetlands between the dune swales were fed by an underground aquifer contained within Tertiary Sandstones (Bird 1990, p.10). Groundwater from the aquifer still discharges from under the sand dunes at several locations along the coast and Aboriginal people constructed wells in rock and sand to collect groundwater (Rhodes 2007, p.17). It is highly possible that groundwater was available within the area in and around the Highett site. The aquifer has also been extensively utilised by European settlers in the area since the nineteenth century and continues to be utilised for watering parks and golf courses.

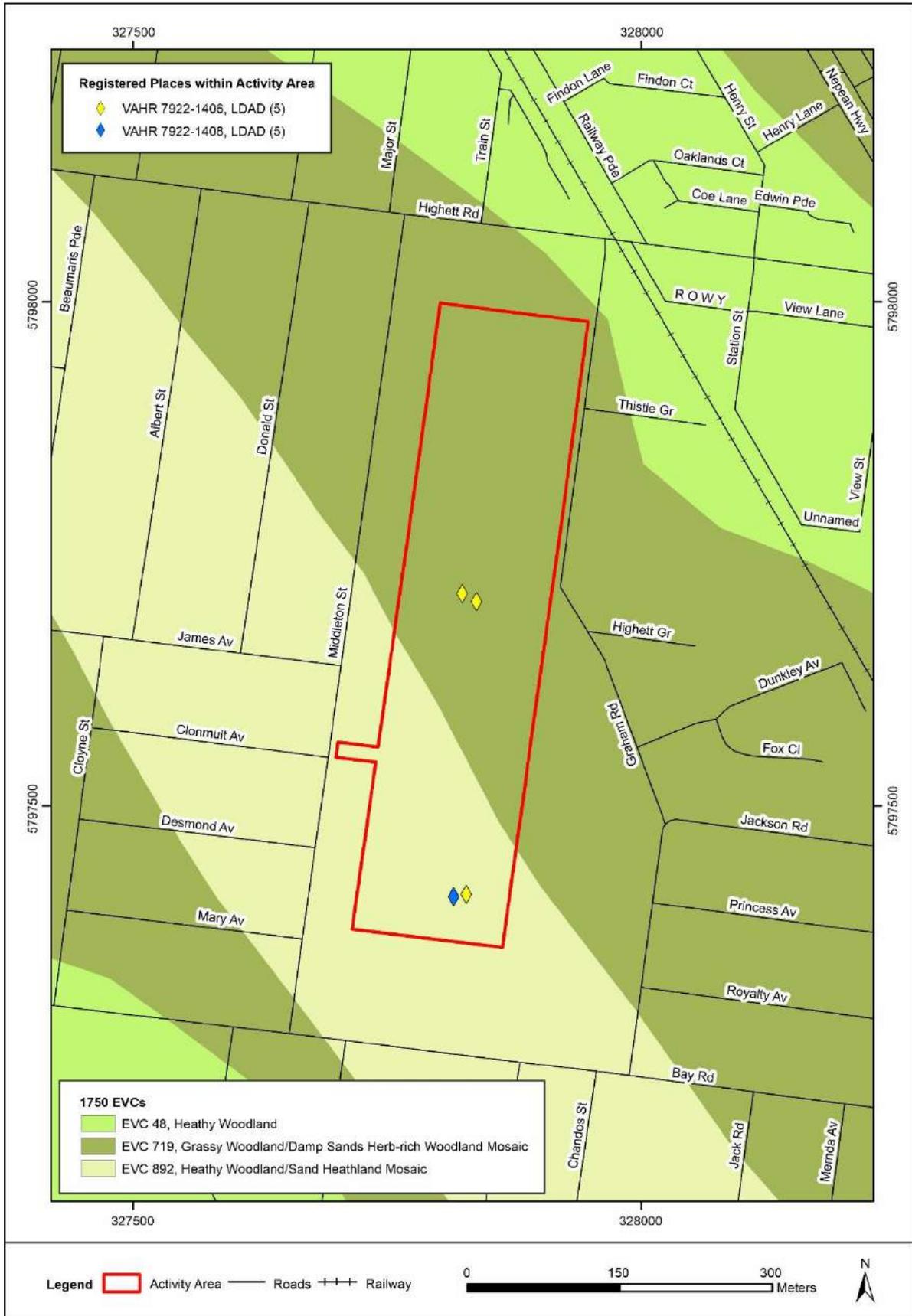
Waterways have been key resources for Aboriginal people as travel routes, clan boundaries, meeting places, for accessing fresh water and gathering food and plant resources. They have a demonstrated high archaeological potential.

In the contemporary landscape, there is one wetland/swamp (Avoca Street sediment pond) located in the region, intersected by an unnamed watercourse/channel approximately 600m west of the activity area in an area subject to inundation. The eastern coastline of Port Phillip Bay is located approximately 2.8km west of the activity area.

### **Stone Resources**

Chert, silcrete and quartz are available inland on the Mornington Peninsula, while marine flint is commonly found on beaches as large nodules washed ashore on the Bass Strait coastline (Sullivan 1981, p.10). George McCrae recounted finding outcrops of milky quartz and quartz crystals ‘several inches in length’ in the southern-facing gullies on the southern Mornington Peninsula in the 1840s and 1850s (McCrae 1911, p.20). Locally available robust and sharpened shell edges may have been used for some cutting functions and calcarenite may serve as an abrasive, pounder or as a grinding stone. Ochre, used for decorating objects and for body paint, was reputed by Protector Thomas to have been obtained from an unknown source near Mount Eliza (Thomas, cited in Sullivan 1981, p.9).

Flakeable stone from which to make tools was available within the surrounding region. Reef quartz may have been quarried from areas on the Mornington Peninsula, including Devilbend Creek (Ellender 1991, p.10), where sedimentary deposits interface with intrusive volcanics (granite). Chert could be found at Devilbend. Sandstone and slate could be found at Baxter on the Mornington Peninsula (Weaver 1992).



Map 6: Pre-1750 EVC within the activity area

## 7.2.4 Search of the Victorian Aboriginal Heritage Register

The Victorian Aboriginal Heritage Register (VAHR), accessed through Aboriginal Cultural Heritage Register and Information System (ACHRIS), was searched to identify any previously registered Aboriginal Places within the geographic region for the activity area, as well as the results of previous archaeological assessments. The Register was accessed on February 27, 2020. Updated searches of the VAHR were undertaken on June 17 and November 30, 2020.

### 7.2.4.1 Aboriginal Places in the Geographic Region

A search of the VAHR identified 66 registered Aboriginal Places within the geographic region, comprising a total of 105 components (Table 4; Appendix 3). Aboriginal Place components comprise low density artefact distributions (n=31), object collections (n=23), shell middens (n=20), artefact scatters (n=17), Aboriginal historical places (n=6), stone features (n=6), an earth feature and a scarred tree. Twenty of the object collection components are for Aboriginal Places beyond the geographic region. These are an anomalous entry and will not be discussed as they document the location where the heritage is being stored, such as a heritage advisor’s office. This is also the case for two of the three remaining object collections, VAHR 7922-1564 and VAHR 7922-1617, which are Places within the geographic region, but the contents of the Places are currently stored as object collections at a heritage advisor’s office (also within the geographic region). The final object collection, VAHR 7922-1353 is for a private collection of artefacts that was collected from east of Wangaratta and does not reflect the nature of Aboriginal cultural heritage within the geographic region. The 23 object collection components are therefore not included in the following analysis and discussion of Aboriginal Places within the geographic region as they would conflate the true record of the Aboriginal cultural heritage as registered prior to the date of this CHMP.

Low density artefact distributions and artefact scatters are found along the sand sheets (inland dune deposits (Qd1)) across the coastal hinterland. The six stone features are along the coastline and are all described as rockwells. Of the 43 Aboriginal Places within the geographic region (excluding object collection components), 30 (70%) are located along the coastline. The large percentage of Aboriginal Places associated with the coastline may be due to the more recent restricted development of the areas closest to the coastline, although it is still used heavily for recreational use. The overall low numbers of recorded sites in the geographic region may be due to the intensive urban development to which Bayside has been subject to in the past.

**Table 4: Summary of registered Aboriginal Places within the geographic region**

<b>Component Type</b>	<b>Frequency (No.)</b>	<b>Frequency (%)</b>
Aboriginal Historical Place	6	6
Artefact Scatter	17	16
Earth Feature	1	1
Low Density Artefact Distribution	31	30
Object Collection	23	22
Scarred Tree	1	1
Shell Midden	20	19
Stone Feature	6	6
<b>Total Components</b>	<b>105</b>	
<b>Total Registered Places</b>	<b>66</b>	

There are two Aboriginal Places (VAHR 7922-1406 and VAHR 7922-1408) within 200m of the activity area. These Places are both within the activity area (Map 7; Table 5) and are registered as low density artefact distributions (LDADs).

VAHR 7922-1406 is located within the activity area, within a swale in the sand dune system. The site is comprised of five artefacts, excavated from three 400x400mm shovel test pits (STPs) during subsurface testing by Rowney (2012). The three STPs were distributed across the activity area: STP 7.5E15S in the southern portion of the activity area, comprised VAHR 7922-1406-1 to -3, STP 0E6S and STP 15E11S each comprised one artefact, VAHR 7922-1406-4 and -5, respectively. VAHR 7922-1406-1 to -3 were identified at a depth of 150-300mm on the western edge of the soccer field in the south east corner of the property on a level and grassed surface. VAHR 7922-1406-4 and -5 were identified at depths of between 550-700mm in a grassed area between buildings. The assemblage is comprised of three angular fragments, a distal flake and a complete flake. The artefacts are manufactured from light grey chert (n=4) and a single light brown quartzite complete flake. VAHR 7922-1406-1 to -3 are in a grassed, relatively stable area within a proposed conservation area. VAHR 7922-1406 -4 and -5 are situated in an area that has undergone soil stripping under the previous land owner. Soil removal was required as part of remediation works on the property prior to the property being sold and redeveloped. This has impacted the locations of VAHR 7922-1406-4 and -5; however, the two artefacts were collected from the Place during Rowney’s excavation and reburied within VAHR 7922-1408 (see below).

VAHR 7922-1408 is located within the southern portion of the activity area, approximately 13m west of VAHR 7922 1406-1 to -3. The Place is registered as an LDAD and comprises the reburial location for the five artefacts from VAHR 7922-1406. The Place location of VAHR 7922-1408 is similar to VAHR 7922 1406-1 to -3 and lies in a relatively stable grassy treed area within the proposed conservation area.

**Table 5: Previously recorded Aboriginal Places within the activity area**

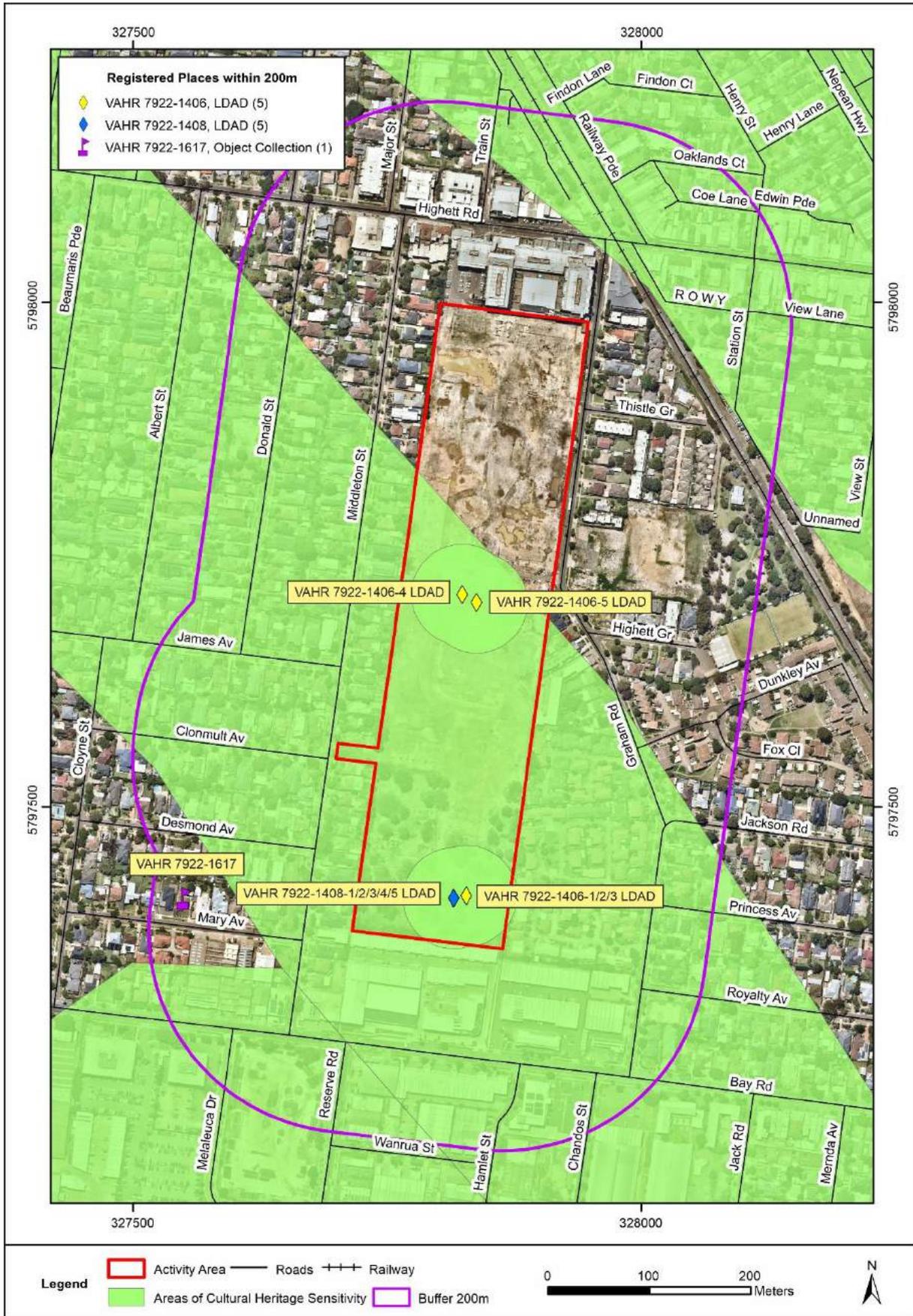
VAHR No.	Site Contents	Horizontal Artefact Density	Depth of Artefacts	Landform
<b>7922-1406</b>	LDAD (stone artefacts: four chert, one quartzite; comprised of one distal flake, one complete flake and three angular fragments)	3/m <sup>2</sup> (max)	150mm-700mm: <ul style="list-style-type: none"> <li>• 150-170mm (n=1)</li> <li>• 250-300mm (n=2)</li> <li>• 550-600mm (n=1)</li> <li>• 700mm (n=1)</li> </ul>	Within a swale in the sand dune system present throughout coastal hinterland.
<b>7922-1408</b>	LDAD (reburial location of artefacts from VAHR 7922-1406)	5/m <sup>2</sup>	Reburial at 400mm	Within a swale in the sand dune system present throughout coastal hinterland.

One historical reference is located within the geographic region, approximately 2.7km south east of the current activity area. Lame Tommy’s grave refers to the potential location of the old pioneer’s cemetery at Beaumaris, which was disturbed through the construction of a road through the area, although the graves were not exhumed (Table 6).

**Table 6: Aboriginal historical reference sites within the geographic region**

<b>Historical Reference Id</b>	<b>Historical Reference Name</b>	<b>Historical Reference Association</b>	<b>Period of Association</b>	<b>Approximate Distance to Activity Area</b>
9.3-29	Lame Tommy's Grave	9.3 Location of burials within cemeteries	N/A	2.7km

Five preliminary reports are located within the geographic region, two within Cheltenham (scarred tree and stone artefacts), one within East Brighton (stone artefacts), one within Beaumaris (shells) and one within Sandringham (stone). No further information is available about the preliminary reports.



Map 7: Aboriginal Places within 200m of the activity area

#### **7.2.4.2 Previous Work in the Geographic Region**

A large number of reports have been undertaken within the geographic region (Appendix 4). The results of relevant regional and localised studies are presented below and in Table 7 and Table 8. Due to the large number of previous studies undertaken in the geographic region, the following discussion is limited to relevant archaeological reports (CHMPs) within 2km of the activity area. Relevance was determined through proximity and similarity of landform and geology. A more detailed review of relevant reports within close proximity of the activity area is also presented below. This review of relevant reports within the geographic region has been undertaken to assist with the formulation of the Aboriginal Place prediction model.

#### **Previous Investigations within the Activity Area**

##### **CSIRO Highett Laboratories Indigenous Archaeological Test Excavation (Rowney 2012)**

A subsurface testing program was undertaken by Rowney (2012) to assess the Indigenous heritage values proposed by Barker (2008; see below). The program aimed to better understand the nature, extent and significance of VAHR 7922-0966<sup>3</sup>, and to test the surrounding area and three areas of potential archaeological sensitivity (PAS) identified in the earlier study (Barker 2008). A permit to uncover/discover (CHP 11/005618) was granted for the program. Desktop research revealed 75% of Places within 4km were identified as shell middens, with the remaining 25% identified as rock wells. Subsurface testing comprised a series of four 1x1m test pits and 101 400x400mm shovel test pits across four key areas (Figure 2).

**VAHR 7922-0966:** VAHR 7922-0966 was examined through sub-surface testing comprised of 47 STPs and one 1x1m test pit over an area of 50m north-south by 35m east-west (Figure 3). The test pit was undertaken in a relatively undisturbed area, adjacent to the positive shovel test pit. Two previous attempts to undertake a test pit in this area were terminated due to the potential presence of asbestos in fragmentary fibro sheeting in the topsoil. An area was left untested as a result of known subsurface electrical and water assets across the centre of the soccer oval between Building 214 and two materials testing huts on the eastern portion of the oval. Eight shovel test pits were abandoned due to the presence of fibrous cement sheeting fragments. This area was divided into two sections of testing (one north and west of the soccer oval and the other in the south eastern corner). The majority of testing (the 1x1m test pit and 38 shovel test pits) was undertaken in the northern portion.

Overall, the northern portion yielded a relatively consistent soil profile with some cases of minor surface contamination and some deeper fill patches. The natural soil profile was identified as a topsoil unit of humic silty sand, overlaying a silty sandy above a silt unit, increasing in gravels to a fourth unit comprised of gravels and silt in a highly compacted, hard layer, overlaying a hard clay stratum.

In the southern area, all shovel test pits (n=9) comprised a humic topsoil layer overlaying a semi-humic loamy silt to 200–300mm over gravels mix in a brown silt matrix (primarily containing ironstones of 5–40mm diameter). Clay was encountered between 300–370mm depth (slightly lower in the north). Disturbance across the southern part of this area was primarily from service installation through the oval and included electrical services installed in an untested corridor and a gas pipeline revealed in a shovel test pit, aligned north-south through the centre of the oval at a depth of 400mm. Mixed fill was identified to 350mm in a shovel test pit, and blue metal gravels in the top 200mm of another shovel test pit indicated disturbance potentially associated with the gas pipeline installation.

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<sup>3</sup> Now recognised as a non-site

No evidence of a shell midden site was identified. Soil acidity testing indicated neutral soils, ruling out the likelihood of acidic soil influencing an accelerating decomposition of shell material. Additionally, excavation did not reveal the sand dune profile expected; instead, silt-like deposits and gravels were present. Three chert artefacts (two angular fragments and a flake) were identified in shovel pit 7.5E15S at a depth of 50–150mm. The three artefacts were subsequently registered together with artefacts recovered from PAS 3 to form VAHR 7922-1406.

**PAS 1:** Subsurface testing at this location comprised 23 shovel test pits and a single 1x1m test pit over an area of 40m east-west by 30m (Figure 4). The test pit was located on a small hill noted to have been a spill heap from prior earthworks relating to Buildings 31 and 32 constructed towards the end of the 1960s. Three previous attempts at test pits were abandoned due to potential asbestos. An untested zone (approximately 15m wide) was left untested due to known subsurface sewer services. The testing was divided into two areas (19 pits in the main section and four east of the main section, separated by known subsurface services between Buildings 208 and 044).

The soil profile was similar to the VAHR 7922-0966 testing location and comprised a silt and clay profile derived from the Red Bluff Sands formation. All shovel test pits demonstrated consistent humic sandy loam topsoil overlaying two silt units. Below this, a distinctive gravel-silt matrix layer overlay a yellowish-brown clay stratum. The four eastern shovel test pits were similar in profile with the addition of the second context in the other pits as a rubble deposit with some fragmentary brick and stone in one pit in the topsoil layer. The test pit in this area reflected the profile described above. A single shovel test pit confirmed a spoil mound present near Buildings 31 and 32 and revealed mixed fill with historic inclusions (including glass, brick and concrete). No artefacts were identified in the PAS 1 testing area.

**PAS 2:** This testing location differed to that proposed by Barker (2008), who initially nominated an area north of Building 34 as PAS 2 (Figure 7). Desktop research by Rowney (2012) revealed the area had undergone historical disturbance during stormwater drainage and concrete slab installation, and therefore was unlikely to contain *in situ* archaeological deposits. An alternative area was nominated south of Building 8, where the exposed surface indicated a white sand profile, potentially representing a sand dune. Subsurface testing at this location comprised 13 shovel test pits (Figure 5) excavated in a grid-based system from a single 1x1m test pit.

The soil profile in PAS 2 comprised a topsoil of disturbed grey sand to a depth of 100mm, with a second unit of mixed grey sand, typically encountered to a depth of 300–320mm with some disturbance present. Loose white sand was found below this before reaching a ferruginous sandy clay unit (considered to be a hardened coffee-rock unit). The inconsistent contact type between the grey Unit 2 context and the white sand Unit 3 context was interpreted by Rowney as evidence of potential ploughing of the site (Rowney 2012, p.34).

No artefacts were identified in PAS 2 testing area.

**PAS 3:** Rowney (2012) identified various historical disturbances across Barkers (2008) original PAS 3 area resulting from the landscaping and building construction of Building 32 in 1969. As this area had been identified as an area of sensitivity, the testing still proceeded here to test the sensitivity. Subsurface testing at this location (Figure 6) comprised 18 shovel test pits and a single 1x1m test pit in a similar grid system to PAS 2, strategically positioned based on known disturbances, buried services and landscape features. PAS 3 was bisected by a path leading from the car park to the main building entrance. Twelve pits were placed to the west side of the path and six were placed to the east of the path.

PAS 3 was found to have been subject to a deep level of disturbance, with deep levelling having impacted the eastern portion of the area to the main access path, and fill having been introduced. Eight of the shovel pits and the 1x1m test pit showed an undisturbed soil profile. The remaining pits were disturbed to the depth of the underlying clay. The typical soil profile, with variability in depths, comprised topsoil overlying mixed fill/rubble and redeposited sandy silt. Below this was undisturbed natural grey brown silt overlying compacted ironstone gravels and silt and a clay base.

Two Aboriginal artefacts were identified in the PAS 3 testing area from shovel test pits 0E6S and 15E11S at depths of 700mm and 550–600mm respectively. A fragment of glass was found approximately 100mm below the artefact in shovel test pit 0E6S which suggests soil disturbance extended below 700mm in this pit. The artefact in shovel test pit 15E11S was found at the same depth as some small glass fragments. PAS 3 was found to have been subject to a deep level of disturbance, with deep levelling having impacted the eastern portion of the area to the main access path, and fill having been introduced. Disturbance of up to 870mm depth was also noted on the western side (with historical inclusions and construction debris present).

The subsurface testing demonstrated that a mixture of landscapes and disturbances (types and extent) exist across the activity area. VAHR 7922-0966, PAS 1 and PAS 3 were all interpreted as swale environments within the larger sand dune system which extends across the coastal hinterland area. PAS 2 exhibited a very different profile, most likely demonstrating a dune ridge environment.

Rowney acknowledges the limited sample size from which to draw conclusions regarding Aboriginal occupation of the area (Rowney 2012, p.41). Despite this, the results indicate that a chert source was available locally, and that retouching of tools in the area was likely represented by the 2012 assemblage. Quartzite, represented only as a single occurrence, indicates Aboriginal people were utilising more than one raw material (although this may have been an imported stone material). The relative absence of artefacts in this area and lack of expected shell midden, despite intensive localised testing, suggests the activity area was not a heavily utilised environment, and that Aboriginal utilisation in this immediate area in the past was relatively low, potentially in part due to the swampy nature of PAS 1 and VAHR 7922-0966 locations that may have been inaccessible (i.e., the same resources may have been more accessible from elsewhere outside the activity area).

Following the completion of the works associated with Rowney's investigation, the five artefacts located during the testing were reburied near the location of components #1–3 of VAHR 7922-1406. Due to the capabilities of the registration process at the time, these were registered as VAHR 7922-1408 rather than retaining the registration number VAHR 7922-1406.

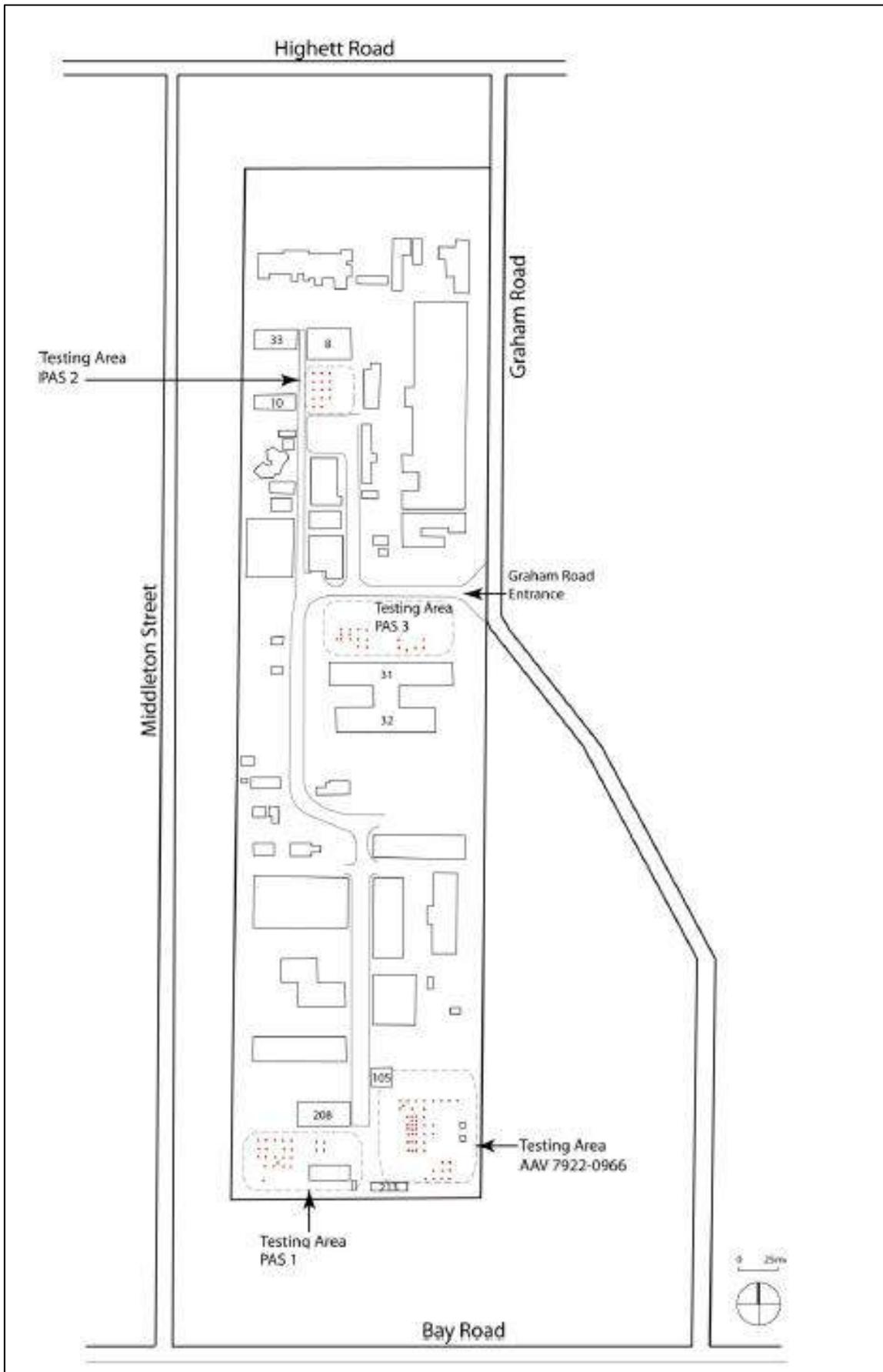


Figure 2: Testing locations (reproduced from Rowney 2012, p.20)

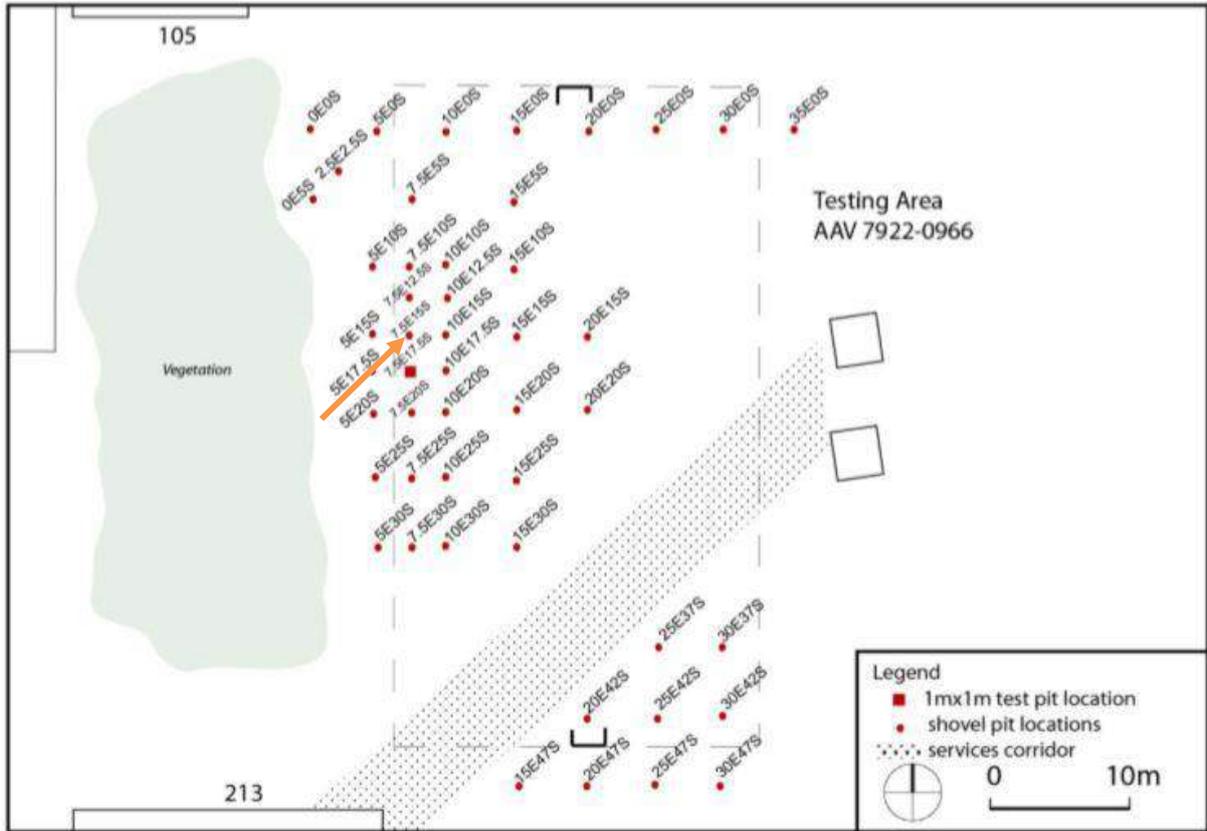


Figure 3: Subsurface testing locations for VAHR7922-0966. Orange arrow marks VAHR 7922-1406-1 to -3 (Rowney 2012, p.21)

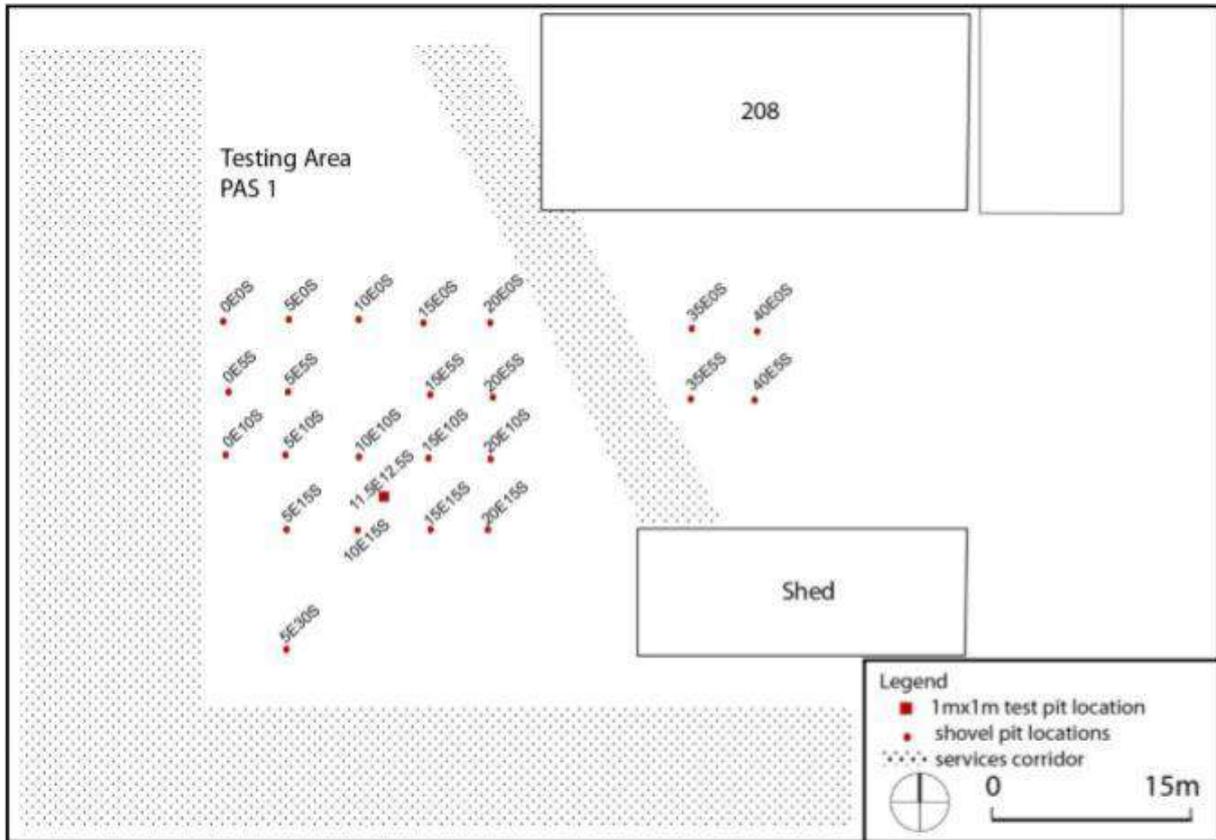


Figure 4: PAS 1 subsurface testing locations (Rowney 2012, p.21)

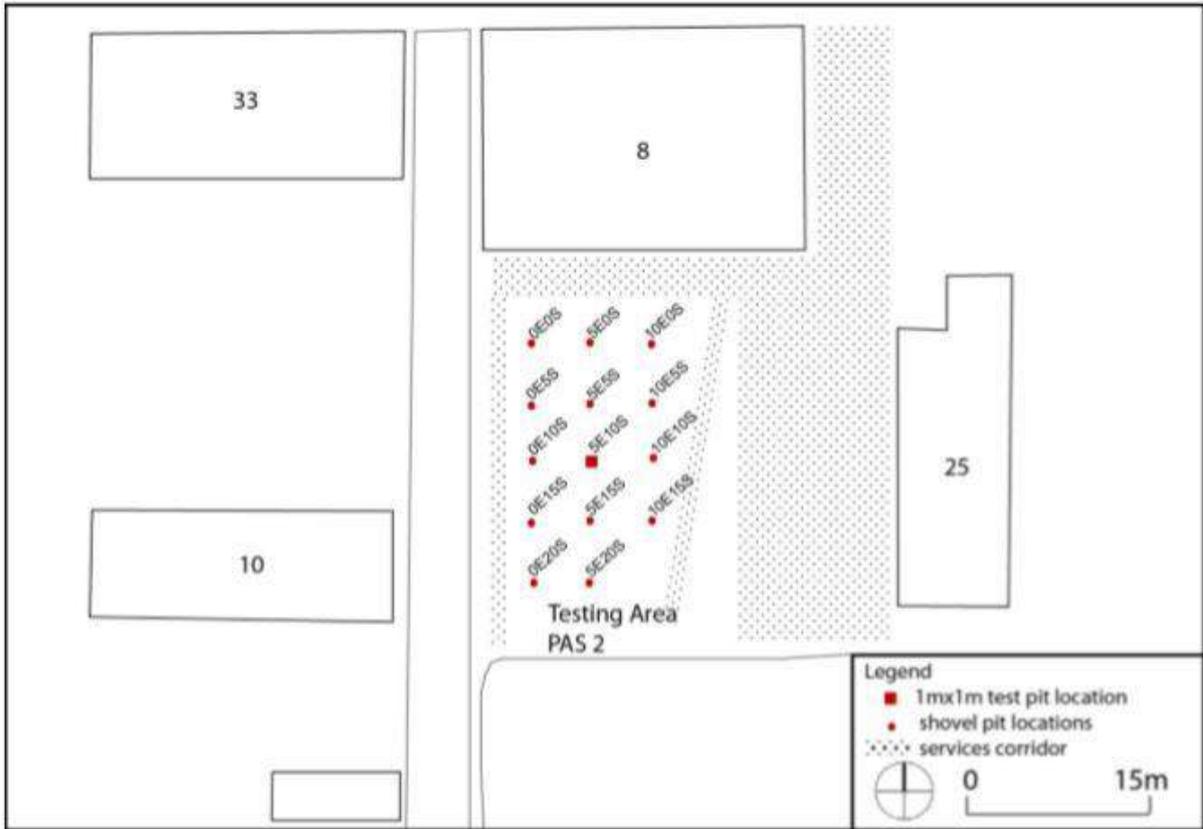


Figure 5: PAS 2 Subsurface testing locations (Rowney 2012, p.22)

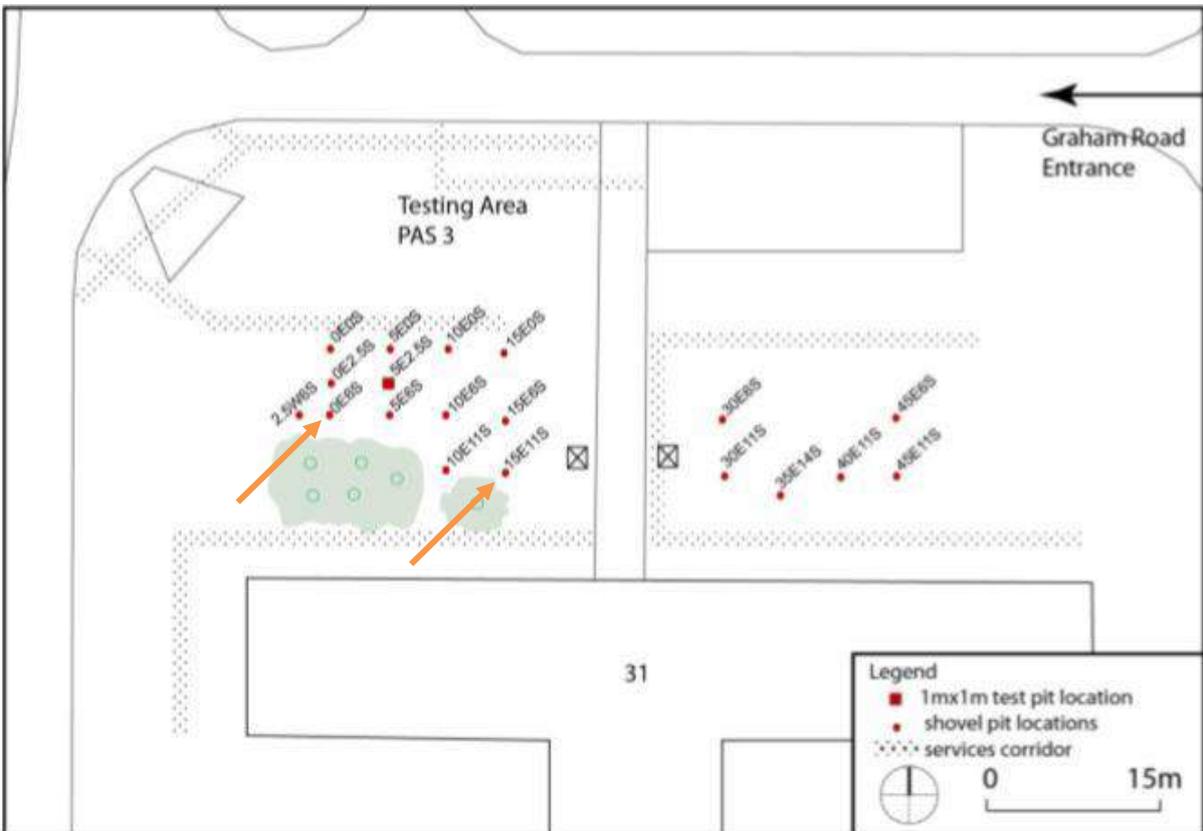


Figure 6: PAS 3 subsurface testing locations. Orange arrows mark VAHR 7922-1406-4 and -5 (Rowney 2012, p.22)

### **Due Diligence Archaeological Assessment of the CSIRO Highett Complex (Barker 2008)**

The majority of the activity area (excluding the parcel of land on the south western side of the activity area; Lot 172\LP9880) was surveyed as part of a due diligence assessment for the CSIRO Highett complex undertaken in 2008. The report aimed to assess whether there were any issues relating to Aboriginal cultural heritage within the CSIRO Highett complex, and comprised desktop research and a field survey.

The desktop study revealed the area had previously been utilised as primarily agricultural land, with plough furrow marks in the south eastern portion identified in aerial imagery indicating use as a market garden in the 1940s. Past disturbances resulting from vegetation clearance, ploughing, landscaping and construction of the existing CSIRO complex and access roads was identified, with a centre-south section comprised of several large trees without much understory interpreted as potentially an area of little past disturbance beyond grazing. Despite this, the desktop research identified the potential for Aboriginal Places to survive in isolated pockets of undeveloped land in the coastal hinterland across the City of Bayside, with sand dune environments providing the potential to contain deeply buried deposits of *in situ* Aboriginal cultural material. Barker's predictive model anticipated that archaeological sites within the activity area, if present, would likely date from approximately 4000 years BP to European settlement when the current coastline became habitable (i.e., sea levels receded from a higher level 5000–6000 years ago, which had previously submerged the contemporary coast).

Field assessment comprised a pedestrian survey across the study area and inspection of a shell midden site (VAHR 7922-0966)<sup>4</sup>. VAHR 7922-0966 was previously registered on the basis of an oral report by Steven Compton (Bunurong Land Council) of shell material eroding around the edge of a sports field in the CSIRO site in 2006 (Nicholls 2007, p.79). Three patches of exposed soil were located during the field assessment, with several small fragments of calcified shell identified as *Katehsia rhytiphora* (a species of common sandy shore shellfish local to the Port Phillip coast known to be found in midden deposits in the region). Due to the poor condition of the shell fragments at the probable location of the VAHR 7922-0966 site, the nature of the material was unable to be confirmed during the field assessment, which was further hindered by poor visibility in these areas beyond the exposed ground. Several healthy mature eucalypt trees were identified at the southern end of the CSIRO complex, including two remnant Yellow Box trees within the sports field area.

No new sites were identified and Barker (2008) concluded that the undeveloped areas had undergone considerable disturbance, diminishing the likelihood that surface or near-surface buried deposits would be present *in situ*. Three areas of potential archaeological sensitivity were identified in undeveloped open space, between buildings, on sections of dune deposits, considered to have been a suitable campsite location due to its position on a crest of a low dune system proximal to the former wetlands adjacent to the activity area (Figure 7).

- PAS 1 comprised the remains of a sand dune on the grassed southern area of the CSIRO complex where VAHR 7922-0966 was located.
- PAS 2 was located in the north west of the CSIRO complex, positioned on the margin of former swampland on a sandy rise.
- PAS 3 was located in the centre of the CSIRO complex, on the margin of former swampland, where deeply buried deposits may be present

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<sup>4</sup> VAHR 7922-0966 was amended to a 'non-site' following the later Rowney assessment (2012)

Additionally, sub-surface testing was recommended for the location of VAHR 7922-0966, to confirm the nature of the deposit, as well as testing to be undertaken across the three areas of potential archaeological sensitivity identified. The due diligence found a reasonable likelihood that archaeological sites would be located within the study area.



Figure 7: Satellite image showing potential areas of sensitivity proposed by Barker (2008, p.32)

### **Previous Investigations within Close Proximity of the Activity Area**

#### **Proposed Residential Subdivision and Construction of Dwellings at 19–25 Donald Street, Highett Cultural Heritage Management Plan 16884 (M. Barker 2019a)**

This CHMP was conducted for a proposed industrial subdivision at Donald Street, Highett, approximately 145m west of the activity area. The desktop assessment did not identify any Aboriginal Places within the activity area, and predicted low density artefact distributions to be the most likely site type to occur within the activity area. The standard assessment found there was potential for artefact bearing former surfaces (dune deposits) to be buried within the activity area, prompting complex assessment. Subsurface testing included the excavation of one test pit and six shovel test pits. No Aboriginal cultural heritage was identified within the activity area at any stage of assessment. Disturbance from previous development noted included: construction and demolition of a previous hall, the construction of the existing house, driveway, toilet block and associated infrastructure.

**Table 7: Tabulated summary data for previous archaeological reports within, or in close proximity to, the activity area**

Study	Distance from activity area	Landform/s	Subsurface testing (max depth)	Sediment/s	Culturally sterile deposits? How determined?	Aboriginal cultural heritage			
						VAHR No.	Landform/s	Depth/Sediments	Lithic Materials
Proposed Residential Subdivision and Construction of Dwellings at 19-25 Donald Street, Highett: Cultural Heritage Management Plan 16884- Desktop, Standard and Complex Assessments  (M. Barker 2019a)	145m west of the activity area.	Inland dune deposits	1160mm	A1: Organic dark grey sands A2: Bleached sand A3: Compounds of organic matter, aluminium and/or iron; i.e. coffee rock	Cemented coffee rock considered the sterile basal layer.	N/A	N/A	N/A	N/A
CSIRO Highett Laboratories  Indigenous Archaeological Test Excavation 4535  (Rowney 2012)	Encompasses majority of the activity area, excluding the small parcel on the south west side (Lot 172\LP9880)	Low relief rising from north to south (southern end on flat crest of a sand dune approx. 5m higher than northern end).	1200mm (PAS3)	Varied across four main testing locations, range of landscapes/disturbance:  -VAHR 7922-0966 and PAS 1: silts and clays from Red Bluff Sands formation (within a swale in the sand dune system present throughout coastal hinterland) -PAS2 dune ridge environment -PAS 3 potentially swale environment	Yes, clay	Previously registered VAHR 7922-0966 inspected, no evidence of shell or shell deposits in testing, site considered not present and subsequently deregistered.  VAHR 7922-1406 VAHR 7922-1408	Flat crest of a sand dune	150mm-300mm, 550-600 mm and 700mm depth.	Chert (n=1) Quartzite (n=1):
Due Diligence Archaeological Assessment of the CSIRO Highett Complex  Due Diligence Assessment. Report 4359  (Barker 2008)	Encompasses majority of the activity area, excluding the small parcel on the south west side (Lot 172\LP9880)	Low relief rising from north to south (southern end on flat crest of a sand dune approx. 5m higher than northern end).	N/A	Soils described during ground survey as a light grey/light brown sandy loam with light grey sand in some locations where ground surface was exposed.	N/A	Previously registered VAHR 7922-0966 inspected, unable to confirm cultural or otherwise due to poor condition.	Flat crest of a sand dune	Surface	N/A

### **Relevant Local and Regional Studies**

Eighteen CHMPs have been undertaken within 2km of the activity area (Table 8). Regional studies (Rhodes 2007, p.17; Nicholls 2007) have indicated that the majority of Aboriginal Places within the City of Bayside are situated on a narrow strip of coastal land between Brighton and Beaumaris, which is heavily utilised for recreational purposes. There are also a substantial number of historically documented Aboriginal places in all environmental zones within Bayside; some of these are large pre-contact campsites such as Hurlingham and Landcox Parks and campsites associated with groundwater sources. There are several historically documented burial Places of the traditional *Boon wurrung* owners. Historically, there continued to be considerable interaction between *Boon wurrung* people living on the Mordialloc Reserve and places and people within Bayside.

### **City of Bayside Indigenous Heritage Study Volume 1 (Rhodes 2007); and City of Bayside Indigenous Heritage Study Volume 2 (Nicholls 2007, p.2)**

A comprehensive archaeological survey of the City of Bayside (Volume 1 by Rhodes (2007), Volume 2 by Nicholls (2007)) was conducted to assist Council to identify the locations of significant archaeological sites and prepare a local government heritage strategy for potential integration of Aboriginal heritage into the planning scheme. The study was conducted in 2006 prior to the introduction of the *Aboriginal Heritage Act 2006*. The study included consultation with local residents' groups and historical societies. Survey areas included the few large areas of parks and golf courses inland from the coast, which had not yet been developed and the entire area of coastline. Several landforms were surveyed as part of this study, including coastal bluffs, undulating plains and rocky platforms. The field survey found seven of the previously registered shell middens and two previously registered rock wells. One new shell midden (VAHR 7922-0964) was recorded above Sandringham Beach, 3.3km west of the current activity area. Ten new historic Aboriginal places including a burial site were also identified in the study, as were areas of potential archaeological sensitivity on the coast and in inland areas. The study found that the majority of Places were clustered in a series of narrow reserves on the coastline and appeared to have been significantly degraded. However, *in situ* shell midden deposits were also documented at Half Moon Bay. While the Places located were in a degraded condition, they were nonetheless considered highly significant as they constitute one of the largest clusters of Aboriginal Places remaining in close proximity to the Melbourne CBD and the only major cluster of coastal Places near the City. It was suggested that use of the coastline was seasonal, possibly exploited from base camps at locations such as Landcox and Hurlingham Parks, one of which is also a documented massacre site (Worrowen). A strategy for introducing Aboriginal heritage places into the local planning scheme was developed, but not implemented after the introduction of the *Aboriginal Heritage Act 2006*.

Previous archaeological surveys in the study area had exclusively focused on the coastline, with less attention paid to undeveloped areas in the coastal hinterland. The study demonstrated that Aboriginal Places survive within the coastal hinterland in the broader City of Bayside, with a higher potential for their survival in areas of open space, such as golf courses, depending on the level of disturbance such areas have been subject to. Barker (2008) has noted that archaeological sites and historical records provide support to the presence of potentially large camps on the hinterland farther from the coast. Rhodes (2007) identified five new Aboriginal archaeological sites (including two literature references) comprised of three shell middens, one scarred tree and an artefact scatter. Nine historic places and four areas of potential archaeological sensitivity were identified (one within the current activity area, the location of the now non-site VAHR 7922-0966).

The review of previous archaeological research has shown that the majority of previous studies within the city of Bayside have largely focused on coastal areas, leading to an abundance of archaeological sites

recorded along the coastline, compared to the coastal hinterland, further inland. A small number of studies have indicated the potential for the hinterland dune systems to preserve deeply buried *in situ* archaeological material in undeveloped areas that have not been subject to higher levels of disturbance. The scarcity of Aboriginal Places identified within the hinterland may be a result of archaeological testing bias in methodology rather than a reflection on the distribution of cultural places across the broader landscape. Archaeological testing both within the activity area (Rowney 2012) and nearby (M. Barker 2019a) often identified highly disturbed subsurface ground conditions, reflecting the long-term urbanisation of Highett. This does not negate the potential for Aboriginal cultural heritage as Rowney's 2012 excavations identified artefacts (VAHR 7922-1406). The Aboriginal Places identified during previous studies were of low density and were located within both disturbed and undisturbed subsurface contexts.

**Table 8: Previous studies in the geographic region that are relevant to the activity area**

Study Name	Distance from Activity Area	Results
<p>Proposed Residential Development at 1089 Nepean Highway, Moorabbin Cultural Heritage Management Plan 16649</p> <p>(Hardy 2019)</p>	<p>590m north</p>	<p>This CHMP was undertaken for the proposed multiple dwelling residential development at 1089 Nepean Highway, Moorabbin. The activity area was located on a sand sheet. Desktop assessment revealed there were no Aboriginal Places within 200m or within the activity area. Preliminary inspection of the activity area indicated there was potential for archaeological material to be present below the ground surface within the sand sheet landform. As preliminary inspection confirmed a poor ground surface visibility across the activity area, a standard assessment was considered unnecessary. Complex assessment comprised of a test pit and four 2x1m machine trenches to a maximum depth of 950mm. Five silcrete artefacts were identified during subsurface testing at a depth of 400-500mm in a disturbed context with abundant modern inclusions. The five artefacts were registered as a low density artefact distribution VAHR 7922-1623. Complex testing revealed a humic sandy silt topsoil with historic inclusions, overlaying silty sands with coffee rock charcoal inclusions until an undulating mottled clay sterile basal layer was reached. The limited range and types of artefacts within the assemblage indicate the deposition was more likely to have resulted from minor knapping activities and consistent with use of the area for transient hunting and foraging activities rather than as a more long term camp site.</p>
<p>119 Chesterville Road, Highett Victoria 3190: Industrial Development Cultural Heritage Management Plan 16630</p> <p>(Painter &amp; Patton 2019)</p>	<p>1.1km east</p>	<p>This CHMP was undertaken for the proposed construction of an industrial estate. The activity area was located on a sandsheet, (Qm1 and Nbr geology present). Desktop assessment did not identify any Aboriginal Places within the activity area. Desktop assessment identified the Koo Wee Rup Plain sand sheet has potential to contain Aboriginal cultural heritage in undisturbed areas. The desktop predicted that, as a result of various forms of disturbance the activity area had been subject to in the past (including building construction, subsurface utility installation, levelling and mechanical clearing, that it is unlikely that Aboriginal cultural heritage remains <i>in situ</i> (though may still be present in a disturbed context). Standard assessment comprised a pedestrian survey, which was hindered by very poor visibility (0%) from thick grass cover and deposited construction materials. Following the standard assessment, it was considered necessary to progress to complex testing in order to better determine the nature, extent and significance of any Aboriginal cultural heritage that may be present. Complex assessment comprised a single 1x1m test pit and three 0.5x0.5m shovel test pits to a depth of up to 500mm. Subsurface testing revealed considerable ground disturbance including asbestos and modern rubbish inclusions. No Aboriginal cultural heritage was identified during any stage of assessment. The report confirmed the likelihood of identifying undisturbed Aboriginal cultural heritage in the activity area to be minimal.</p>

Study Name	Distance from Activity Area	Results
Proposed Construction of an Ancillary Facility: 8 Park Road, Cheltenham, VIC, 3192 Cultural Heritage Management Plan 16574  (Boucher 2019)	1.7km south east	This CHMP was undertaken for the proposed construction of an ancillary facility site during the construction associated with three level rail crossing removals. Desktop assessment did not identify any Aboriginal Places within the activity area. Desktop assessment identified the landform within the activity area as a rise on an inland dune deposit (Qd1), with low potential for Aboriginal cultural heritage to be present. Standard assessment did not identify any Aboriginal cultural heritage. As the standard assessment was hindered by poor visibility, complex assessment was undertaken to better determine the potential for Aboriginal cultural heritage. Complex assessment comprised two 1x1m test pits and five 0.5x0.5m test pits. Subsurface testing revealed a profile comprised of a silty sand A1 horizon with modern historic and refuse inclusions, overlying a lighter coloured similar A2 context, overlying a B1 horizon of mottled clay and coffee rock before reaching a B2 sterile basal clay layer. Profile: A1 horizon: dark greyish brown firm silty sand, modern historic and refuse inclusions. An isolated silcrete artefact was identified within the A1 horizon at a depth of 400mm, subsequently registered as VAHR 7922-1617. The artefact was identified within the disturbed A1 horizon which contained historical and rubble inclusions which indicate the artefact potentially has been located due to a historic land use event, and was not considered <i>in situ</i> .
Proposed Supermarket and Car Parking Development at 208-210 Bay Road, Sandringham Cultural Heritage Management Plan 16713  (Mitchell 2019)	1.3km west	This CHMP was undertaken for a proposed multi-unit residential redevelopment. The desktop assessment did not identify any registered Aboriginal Places previously recorded within the activity area. The desktop assessment concluded that Aboriginal cultural material may be present in less disturbed areas, and that any cultural material present would likely be in a disturbed context as a result of the disturbance associated with prior land clearing, market gardens, and industrial development. The complex assessment comprised a single 1x1m test pit and a single STP (500x500mm) and revealed disturbance in upper contexts to 310mm depth. Underlying sandy contexts overlying a clay base 910-1040mm depth appeared to be natural. No Aboriginal cultural material was identified during complex assessment.
Multi Dwelling Development, 4-6 Horscroft Place, Moorabbin, Victoria Cultural Heritage Management Plan 16183 (Amendment 31 July 2019)  (Burch & Evans 2019)	1.4km north	This CHMP was undertaken for a proposed multi-unit residential development. The desktop assessment did not identify any registered Aboriginal Places previously recorded within the activity area. The desktop assessment concluded that as the activity area had been heavily disturbed through the construction activities associated with the current structures on the site, including soil stripping; grading; excavation for services and construction of two warehouses, that the likelihood of identifying any Aboriginal cultural material was considered very low. As such, no further assessment was undertaken.

<b>Study Name</b>	<b>Distance from Activity Area</b>	<b>Results</b>
Mixed Use Development, 212-216 Bay Road, Sandringham Cultural Heritage Management Plan 16791 (Amended 27 June 2019)  (Morgan, Amorosi & Walther 2019)	1.3km south west	This CHMP was undertaken for the proposed construction of a mixed use development. The activity area was located on a sand sheet (Qd1). The desktop assessment found there was potential for Aboriginal cultural heritage material to be present within the study area, particularly in the southern portion where potential upper slopes of a dune were identified. Seep sandy deposits within the region also had potential to retain cultural material even in areas where disturbance to the surface was identified. Standard assessment identified evidence of past disturbance across the activity area as a result of earthworks, cutting and dumping. The standard assessment was hindered by poor visibility due to thick grass cover across the activity area. Subsequently, complex assessment comprised a single test pit undertaken to test the landform across the activity area and to determine the level of disturbance the activity area had been subject to. No Aboriginal cultural heritage was identified at any stage of assessment.
Proposed Dwellings at 7 Tulip Grove, Cheltenham: Cultural Heritage Management Plan 16116  (M. Barker 2019b)	1.1km southeast	This CHMP was undertaken for a proposed residential development. The activity area was located within an inland dune deposit geology. The desktop assessment identified that while approximately 75% of the activity area had been developed with a residential dwelling and outbuildings, the remainder of the activity area had been relatively undisturbed. While scarred trees were the most common Place type within the geographic region, the activity area had been subject to native vegetation removal at the time of the dwelling's construction and so artefact scatters were considered to be the most likely Place type to occur. The report also identified that the nearest reliable source of potable water was 700m from the activity area, reducing the likelihood of identifying Aboriginal cultural material within the activity area. No Aboriginal cultural material was identified during standard assessment; however, ground surface visibility was reported as less than 1% due to thick grass coverage. Garden beds within the property were identified as areas of potential for Aboriginal cultural heritage and so a complex assessment was carried out. A 1x1m TP and six 500x500mm shovel test pits (STPs) were excavated to a maximum depth of 1220mm. Soil profile was relatively consistent across the activity area, with a dark grey sand overlying a light grey sand overlying an indurated dark coffee rock layer, which was considered to be the culturally sterile layer. No Aboriginal cultural material was identified.
Multi Dwelling Development, 55 and 57 Wilson Street, Cheltenham, Victoria Cultural Heritage Management Plan 16915  (Burch, Evans & Ryan 2019)	1.7 southwest	This CHMP was undertaken for a proposed multi-dwelling development. The activity area was located within an inland dune deposit geology. The desktop assessment did not identify any Aboriginal Places within the activity area, and concluded that Aboriginal cultural heritage may be present due to its location within the Cranbourne sand. Standard assessment identified four areas of PAS, subsequently tested in the complex assessment which comprised three 1x1m test pits and 2 500x500mm STPs. Subsurface testing revealed a soil profile comprised of disturbed topsoils overlying a sandy clay base. Two test pits and an STP were abandoned due to the presence of asbestos. No Aboriginal Places were identified during complex assessment.

Study Name	Distance from Activity Area	Results
Office Development, 303-307 Reserve Road, Cheltenham Cultural Heritage Management Place 16223  (Hernandez 2019)	1km south	This CHMP was undertaken for a proposed mixed-use development. The activity area was located in sand sheet geology. The desktop assessment found that although the activity area was within an area of sensitivity due to its location within a sand sheet landform, the activity area had been highly developed and it was considered unlikely that any undisturbed part of the landform remained. As such, it was determined that there was a very low likelihood of identifying any Aboriginal cultural material. No standard assessment was undertaken, however comprised a single 1x1m test pit to investigate a deep sandy pocket in the north west corner of the activity area. The test pit revealed a highly disturbed soil profile considered to be largely fill/a service trench surrounding a pipe and broken brick. The soil profile comprised likely redeposited silty sand with modern inclusions of ceramics, plastics, glass, metal and brick fragments encountered to 1100mm depth. At 1100mm depth a ceramic pipe was encountered in gravel fill. The western portion of the test pit revealed various bluestone gravel inclusions present to 700mm and increasingly waterlogged sands, visible at 1400mm. A sondage was excavated to 1400mm. Unit C (1000–1400mm) was not considered to have been a living floor, and therefore unlikely to contain Aboriginal cultural heritage. No Aboriginal cultural material was identified.
Multi-Dwelling Development 15, 17 & 19 King Street, and 3 & 5 Highbury Avenue, Hampton East Cultural Heritage Management Plan Number: 16952  (A. Barker 2019)	1.8km northwest	This CHMP was undertaken for a proposed residential development. The activity area was located within an area mostly comprised of alluvium, with an area of inland dune deposit geology. Desktop assessment did not identify any Aboriginal Places within the activity area and predicted that Aboriginal cultural material, if present, would be likely to occur on elevated landforms and within areas of CHS associated with sand sheets. The standard assessment was hindered by poor visibility (<1%) due to ground cover. Substantial ground disturbance was observed in the forms of landscaping, service installation with subsurface infrastructure, building and driveway construction and associated features (e.g. pools, sheds). The complex assessment comprised of two 1x1m test pits and seven STPs. No Aboriginal cultural material was identified within the activity area.
Residential Development: 13-15 Jellicoe St Cheltenham VIC 3192 Cultural Heritage Management Plan (Amended 20 November 2018) 15904  (Painter & Patton 2018)	1.7km south east	This CHMP was undertaken for a proposed residential development. The activity area was located in sand sheet geology. Desktop assessment considered that there was a potential for Aboriginal cultural heritage to be present within the activity area. If present, cultural heritage was not likely to be <i>in situ</i> , as a result of high levels of disturbance across the activity area from previously urbanisation and the agricultural land use history associated with the activity area. No areas of sensitivity were identified during standard assessment, which observed the presence of dwellings, paved and landscaped areas across the two surveyed blocks. Complex assessment comprised a single 1x1m test pit and three STPs (500x500mm). The soil profile demonstrated in the test pit consisted of a sandy loam topsoil to a depth of 100mm, overlying grey sand contexts increasing in compaction until 1m where a brown sand was encountered, overlying a sandy clay at 1200–1220mm depth, excavated via sondage and considered to be the culturally sterile layer. Modern inclusions were identified to 100mm in the TP, and present in all STPs. No Aboriginal cultural material was identified.

<b>Study Name</b>	<b>Distance from Activity Area</b>	<b>Results</b>
Six Dwelling Development, 4 Sunlit Court, Hampton East, Victoria Cultural Heritage Management Plan 15922  (Burch & Evans 2018)	800m north west	This CHMP was undertaken for a proposed residential development. The desktop assessment identified that the activity area was located within the Koo Wee Rup Plain area of cultural heritage sensitivity and so had the potential to contain Aboriginal cultural material. The report considered artefact scatters and low density artefact distributions to be the most likely Place type to be identified. No Aboriginal cultural material was identified during standard assessment and the majority of the activity area appeared to have undergone disturbance, but one area of archaeological potential was identified in a less disturbed area. The complex assessment comprised excavation of one 1x1m TP and six 500x500mm STPs to a maximum depth of 850mm. The soil profile revealed that the activity area had been heavily disturbed, with fill sand with abundant modern inclusions overlying fill clay overlying dark grey, sticky, natural clay. One silcrete artefact was identified in the sand fill context at a depth of 200-300mm and is registered as an LDAD (VAHR 7922-1555). It was considered possible that the artefact was imported into the site in the fill context.
Mixed-Use Development: 956-958 Nepean Highway, Moorabbin, Victoria Cultural Heritage Management Plan 15913  (Brooke 2018)	1.3km north west	This CHMP was undertaken for a proposed mixed-use development. The activity area was located within Red Bluff Sandstone (Nbr) geology. The desktop assessment considered isolated artefacts or low density artefact scatters of quartzite or chert raw material in disturbed subsurface contexts to be the most likely Place type to occur in the geographic region. Dune ridges or crests overlooking former swamps or soaks are considered to be the most likely place to identify Aboriginal cultural material in the Port Phillip Bay hinterland more generally. The report noted that the City of Kingston overall has undergone a high level of disturbance through the process of urbanisation, which has likely impacted on archaeological deposits. However, where there is deeper soil, there is a greater likelihood of undisturbed subsurface cultural material. While the activity area had undergone a moderate amount of disturbance, it was considered possible that the northern portion of the activity area retained some archaeological sensitivity. A standard assessment was not undertaken due to close to 0% ground surface visibility. The complex assessment included the excavation of one 1x1m TP and one 500x500mm STPs to a maximum depth of 800-900mm. The soil profile showed a high level of disturbance with the top 500mm being imported gravel and concrete slab overlying loose grey sand with frequent modern fragments of brick, concrete, glass, plastic, metal and ceramic inclusions overlying stiff yellowish brown mottled clay with occasional buckshot gravel inclusions. No Aboriginal cultural material was identified.

Study Name	Distance from Activity Area	Results
Level Crossing Removal Authority Southern Program – Additional Works Package 1 Cultural Heritage Management Plan 15160 (Verduci & Lovell 2018)	Various	This CHMP was undertaken for the proposed rail crossing removal and associated works between Cheltenham and Chelsea stations on the Frankston railway line. The activity area extended for a total area of 68.85ha and traversed numerous geological and geomorphological units, including inland dune deposits (Qd1) and Red Bluff Sandstone (Nbr). The desktop assessment considered that the rail corridor was likely heavily disturbed, but still contained some potential for the identification of Aboriginal cultural material. Artefact scatters and LDADs were identified as the most common Aboriginal Place within the geographic region, occurring across all landforms. It was considered possible that less disturbed parts of the activity area contained a low to moderate potential for Aboriginal cultural material. One previously registered Aboriginal Place was located within the activity area, a historic Place (VAHR 7921-1446). There were also three previously registered Places within 50m of the activity area: a shell midden and two further historic Places (VAHR 7921-0669, VAHR 7922-0959 and VAHR 7922-0960). No Aboriginal cultural material was identified during the standard assessment; however, ground surface visibility was noted as between 1–5%. Several areas were identified as having moderate archaeological sensitivity and these were targeted during complex assessment, with the excavation of two 1x1m TP and 18 500x500mm STPs to a maximum depth of 1500mm. One silcrete artefact was identified in TP 1x1A at depths of between 800–900mm and radial test pits were excavated, but no further cultural material was identified. The artefact was registered as an LDAD (VAHR 7922-1520), and was identified in a friable sand context with frequent small to medium charcoal also present, as well as moderate rootlets and occasional worms. TP 1x1A was excavated to a depth of 1420mm (the last 220mm via a sondage) to mottled brown clay underneath a coffee rock stained sand. The soil profile in TP 1x1A was considered to represent natural, undisturbed soils from the lower portion of Context 3 (580–940mm), with the upper portion likely disturbed during the construction of the railway/road. The soil profile across the activity area revealed a moderate-to-high level of disturbance in relation to the past and current use of the Frankston railway line

## 7.2.5 Historical and Ethno-Historical Accounts in the Geographic Region

Prior to European occupation, the central portion of what is now known as the state of Victoria was occupied by Aboriginal people who shared a common language and political, social, religious and economic affiliations. They identified themselves as *Kulin*, the label meaning ‘man’ in the dialect spoken in the Melbourne region (Blake 1991, p.31). The area of land occupied by the *Kulin* people extended as far north as present day Echuca, west as the Richardson River, Mt Avoca, Fiery Creek and Mt Emu Creek, south to the Victorian coastline and east to the Tarwin River and Wilsons Promontory (Blake 1991, p.30; Clark 1990).

Within the *Kulin*, a number of different but related dialects or *wurrung* (= lips, speech, mouth) were spoken. Generally speaking, different dialect groups among the *Kulin* were delineated by association with a specific area of country. Thus *Taungurong* was a *Kulin* dialect spoken north of the Great Dividing Range and west to the Campaspe River (Blake 1991, p.31). *Woiworung* was one of the *Kulin* dialects spoken in the Melbourne region, within the area drained by the Yarra River and its tributaries (Blake 1991, p.45). *Bunurong* was a dialect spoken along the coast from the Werribee River to Wilsons Promontory and in the country that took in rivers to the east of Melbourne, which drained from the highlands to the coast (Blake 1991, p.47).

Amongst the *Kulin*, political, social and economic relationships were shaped by affiliation with the main unit of social organisation (the clan) and affiliation with one of two groups linked with creation ancestors. A clan was usually formed from a number of related families (a lineal descent group), which claimed guardianship over a particular tract of land (Howitt 1904, p.41; Cotter 2001). *Kulin* clans supposedly traced descent through the male line (patrilineal descent), although this is disputed by some contemporary descendants of Traditional Owners.

The *Kulin* were also divided into two groups (described as moieties<sup>5</sup> by western anthropologists) linked with creation ancestors. These groups were *Waa* (crow or Australian Raven) and *Bunjil* (Wedge-tailed Eagle; Barwick 1984, p.105). Affiliation of an individual with either *Waa* or *Bunjil* was determined at birth by the group/moiety affiliation of the father and the father’s clan (Barwick 1984, p.105; Clark 1990).

In traditional *Kulin* law, moiety and clan affiliation determined marriage. Individuals were required to marry outside their clan and to a person belonging to the opposite moiety. Thus, an individual who belonged to the *Waa* descent group could only marry a person from another clan and from the *Bunjil* descent group. Marriages were often arranged at large ceremonies involving clans from a number of different geographical locations.

Marriage had an extremely important influence on social and economic relationships and individuals could acquire considerable status and economic power through marriage ties, particularly men who could afford to support more than one wife. Access to the land and resources of another clan was most often gained by a kin relationship formed by marriage (Barwick 1984, p.106), although geographical proximity of birth or descent could also form grounds for access. Marriage also imposed a mutual obligation of each clan to provide access to some or all of the resources of another, so that reciprocal sharing of resources was fundamental to land management (Barwick 1984, p.106).

The activity area also lies within lands associated with clans speaking *Bunurong* dialects of the *Kulin* language.

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<sup>5</sup> In anthropological terms, a ‘moiety’ is defined as one of two (or in some Australian Aboriginal societies more than two) unilateral descent groups into which a tribe or other large social group is divided.

William Thomas stated that the *Bunurong* claimed “all the country south of the Yarra River, whose creeks and inlets fall into the sea from the Werribee River west to the Tarwin River, east of Cape Patterson” (Thomas papers Vol.7 17/1/1860 in Clark 1990, p.363).

The description given by *Bunurong* clans of the area covered by their own country, which was transcribed in a discussion between *Bunurong* descendants Nana Ida West, Auntie Lennah Newson, Sheldon Thomas and Sonia Murray, (reproduced in Murphy 2002, p.28), reveals that:

All the rivers, creeks and small streams that run into the two bays or Bass Strait east of the Werribee River are Bunurong land and waters...These rivers and mountains are living spiritual beings, they interact with all that is around them. There is no line separating the rivers from the mountains and living things move between them both without fighting. That is how my old people lived!

The *Bunurong* language group comprised six clans who occupied the coastal tract stretching east from the Werribee River and encompassing the Port Phillip and Western Port Bays and ceasing at the Tarwin River watershed (Howitt 1904, p.71; Clark 1990, p.366). The *Bunurong* clan associated with the region of the activity area was the *Ngaruk willam* (Clark 1990, p.365). *Ngaruk willam* literally translates as ‘stone dwellers’ (Clark 1990, p.367). The *Ngaruk willam* were associated with the area south of the Yarra River through the region of Brighton, Mordialloc and Dandenong (Clark 1990, p.367).

### **Oral History Relating to the Activity Area**

WWCHAC, BLCAC and BWFL were invited to provide oral history in relation to the activity area and surrounding region via email as part of correspondence forwarded to the TO organisations on May 12, 2020. No oral history was provided by the WWCHAC. No response was received from the BLCAC or BWFL.

Although the Aboriginal communities have not provided any specific information about the Aboriginal cultural heritage within the activity area, it is recognised that contemporary Aboriginal people are the custodians of a rich and diverse knowledge about the history, society, spiritual beliefs, material and intangible culture of their people. Contemporary Aboriginal people retain considerable traditional knowledge and are an active community with a distinct cultural identity and spiritual beliefs, whose roots extend more than 40 000 years into the past.

## 7.2.6 Land-Use History of the Activity Area

The activity area lies within a region first surveyed in 1841 (Rowney 2012, p.8) and was primarily used as agricultural land. The activity area continued to function as grazing and agricultural land in contrast to the local development of Highett and Bay Roads and the railway line adjacent to the east. The locality name derives from Highetts Road, the original name of the railway station along the Caulfield to Mordialloc line established in 1888 (Victorian Places ‘Highett’, 2015).

The Williams family (who operated a mixed garden, orchard and dairy farm) may have owned land in the activity area from 1858 (Rowney 2012, p.8). Records indicate the property was utilised as ‘William’s aircraft factory’ in 1930s, though Rowney (2012, p.8) suggests, that the land was more likely used as an aerodrome based on inspection of a historical photograph.

An 1864 parish map (Figure 8) shows springs in a reserve south of study area. The activity area appears to be located either within land owned by James Murphy and/or H.B. Foot. A 1926 Parish map (Figure 9) also shows a rectangular parcel of land had been demarcated in the area, which may represent part of the activity area, as owned by J.A. Robinson.

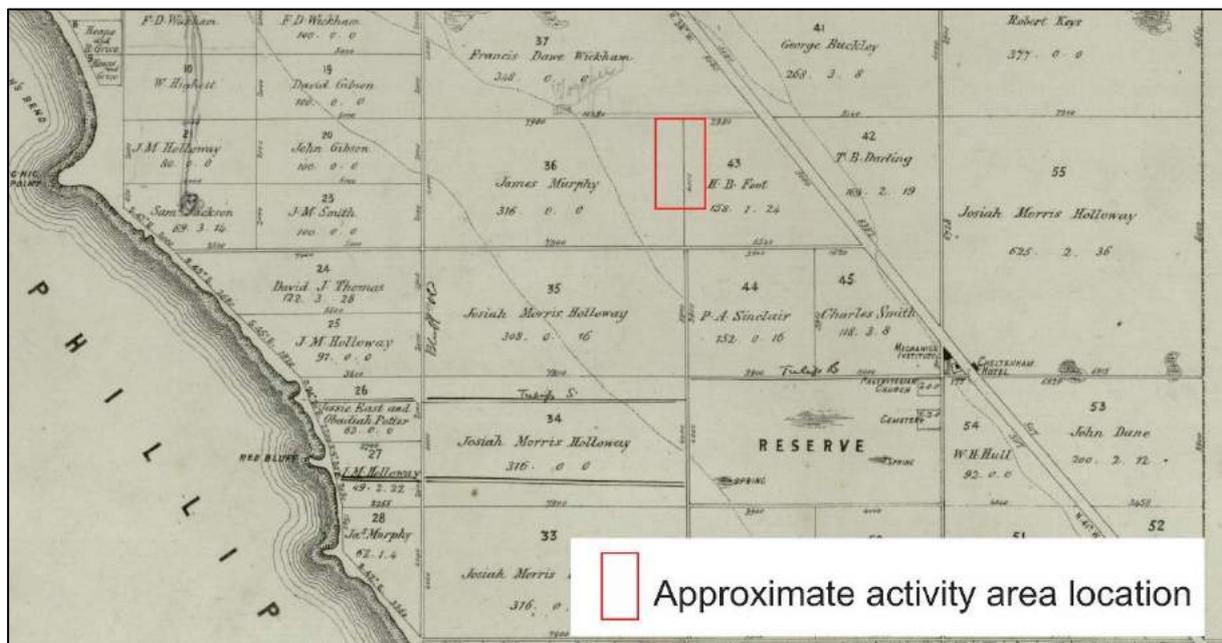


Figure 8: 1864 Parish map showing approximate activity area location (State Library Victoria)

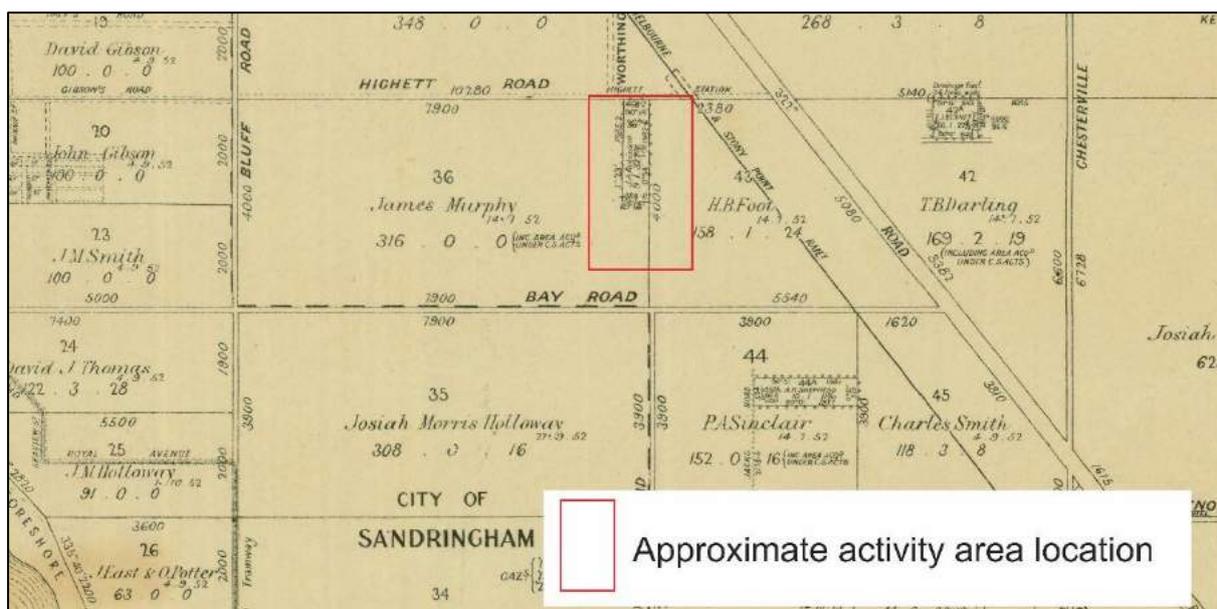


Figure 9: 1926 Parish map showing approximate activity area location (State Library Victoria)

Barker (2008, p.33) interpreted linear depressions he observed in a 1940s aerial image as plough furrows in areas that had undergone vegetation clearance (Figure 10). Rowney (2012, p.34) also noted faint plough lines from aerial imagery in 1945. These observations suggest past agricultural use of the activity area in the early to mid-twentieth century, particularly in the south east corner, where it may have been used for market gardens or as part of John William's farm.

The property was acquired by the Department of Defence's Aeronautical Inspection Directorate (AID) as a testing facility comprised of workshop and laboratories in 1942 (Anon. 1942). Adjacent land appeared to remain undisturbed woodland or to continue in use as market gardens.

The activity area has been extensively developed since 1953 when ownership passed to the CSIRO for research facilities. The site of CSIRO Highett Laboratories has hosted various research divisions. In 2012 (Figure 13), the layout of approximately 60 buildings (built mostly between 1946-1980) across the site appear to conform to a rectilinear grid parallel and perpendicular to the site (Rowney 2012, p.9), with some additional buildings constructed in the following two decades. Aerial imagery from 2009 (Figure 12) demonstrates the extensive development and landscaping the activity area has undergone, with the below features visible:

- The CSIRO complex, comprised of extensive buildings including a range of research laboratories across most of the activity area;
- Asphalted roads into the activity area from Middleton Street, Thistle Grove and Graham Road;
- Some remaining open grassed spaces including a rectangular sports field in the south east corner with two rectangular structures visible on the eastern side;
- Several carparks across the activity area; and
- Numerous large, mature introduced trees across the property, including in areas previously cleared, as visible in the 1940s aerial imagery in the central and northern portions of the activity area.



Figure 10: 1940s aerial photograph showing possible ploughed furrows in areas cleared of native vegetation and remnant vegetation (from Barker 2008, p.33)



Figure 11: 1945 aerial photograph (Land Victoria Aerial Photography)

It is unclear whether the trees in the southern portion of the activity area are introduced species or remnant (Figures 10 and 11), however an archaeological survey by Barker (2008) confirmed the presence of several healthy mature eucalypts in the southern portion (including two remnant Yellow Box Trees within the soccer pitch). The survey identified a patch of remnant, relatively unmodified Indigenous vegetation in the centre south of the activity area.

Demolition and earthworks are apparent from 2016 (Figures 14 and 15; Appendix 10). In April (Figure 14) disturbance has occurred in the north eastern carpark and a large, stockpiled heap of sediment is visible north of some trees in the centre of the activity area. By December (Figure 15), almost all buildings in the northern half of the activity area have been removed.

Further building demolition has occurred in the northern portion of the activity area in 2017 (Figure 16) with surface grading likely to have occurred during clean-up of the debris. By late 2018 (Figure 17), the buildings in the southern half of the activity area have also been removed as well as the road surfaces. Earthworks appear to have been concentrated through the central region of the activity area as grass and weed vegetation has grown across the northern region, suggesting little or no mechanical works has occurred there.

Aerial imagery spanning 2019 (Figures 18–21) shows the eventual removal of vegetation in the northern and central areas and the stockpiling of what appears to be gravel or asphalt. Depressions filled with water suggest that the contaminated soil removal is underway. By September and October (Figures 20 and 21) the northern region has several stockpiles of materials and the contaminated soil removal in the northern and central regions appears to be completed, or almost completed.

While the entire north half of the activity area has been cleared of vegetation during the contaminated soil removal, the trees in the southern region have remained untouched. When compared with the conditions in 1945 (Figure 11), many of the trees in this southern region appear to have been retained through to the present day.



Figure 12: 06/11/2009 aerial photograph (Nearmap)

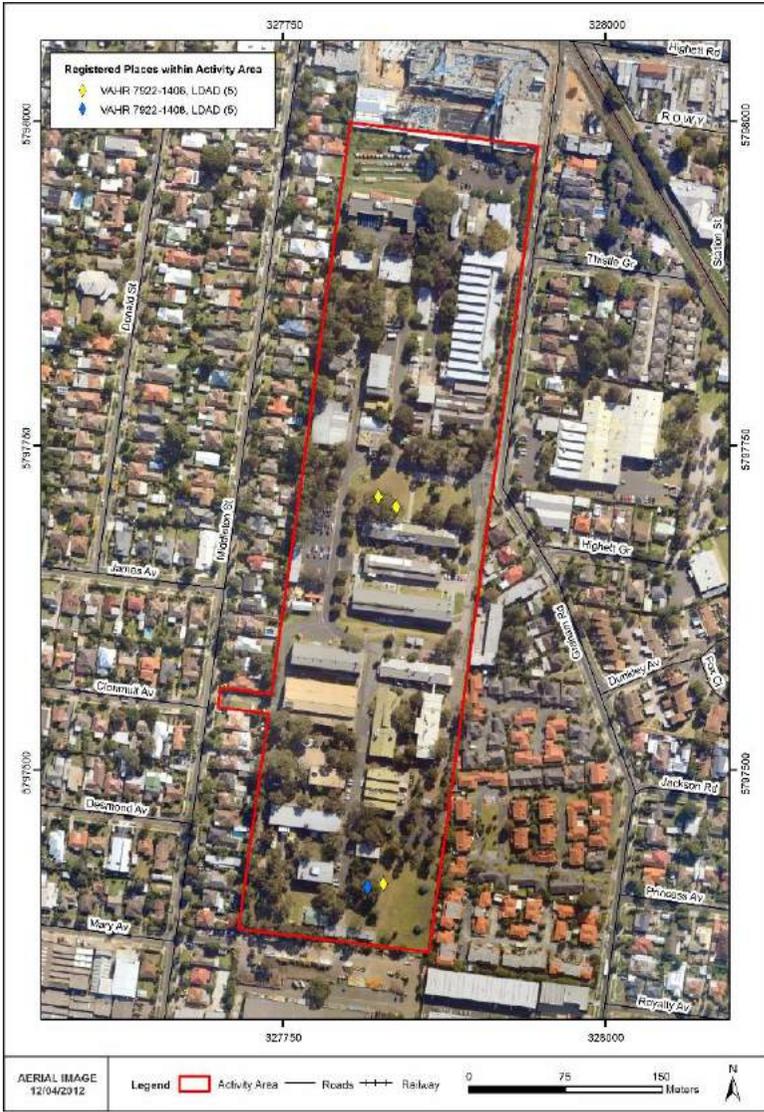


Figure 13: 12/04/2012 aerial photograph (Nearmap)

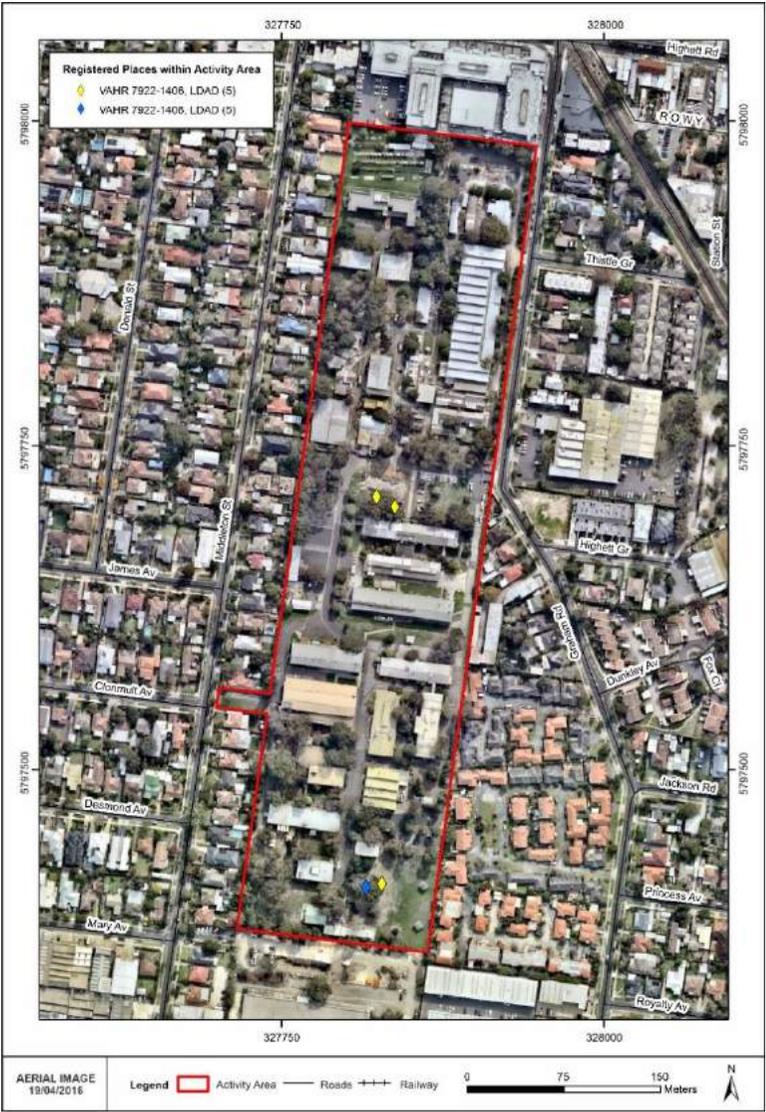


Figure 14: 19/04/2016 aerial photograph (Nearmap)



Figure 15: 23/12/2016 aerial photograph (Nearmap)

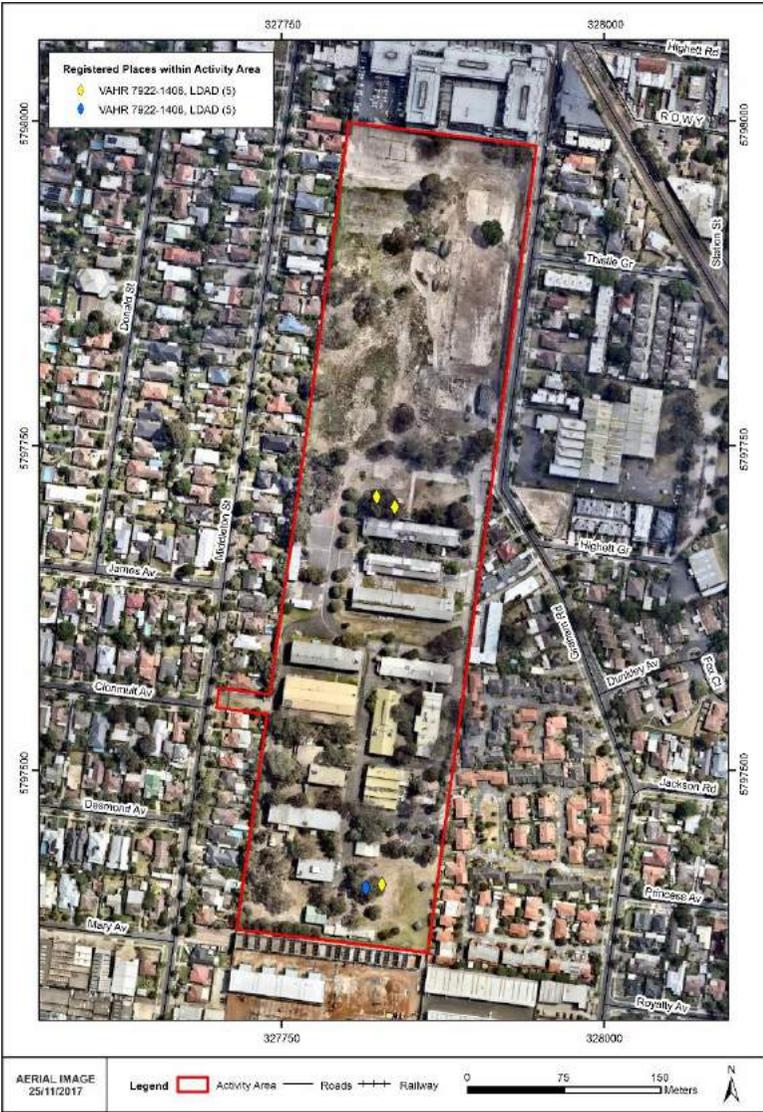


Figure 16: 25/11/2017 aerial photograph (Nearmap)



Figure 17: 07/10/2018 aerial photograph (Nearmap)

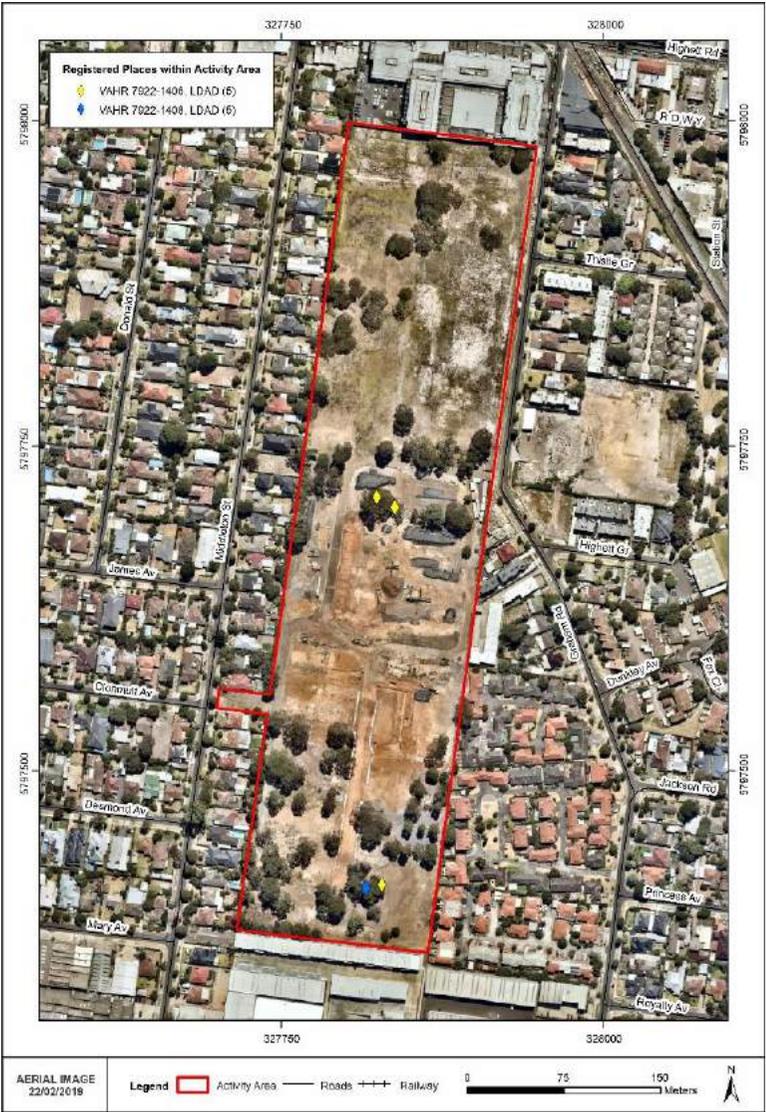


Figure 18: 22/02/2019 aerial photograph (Nearmap)

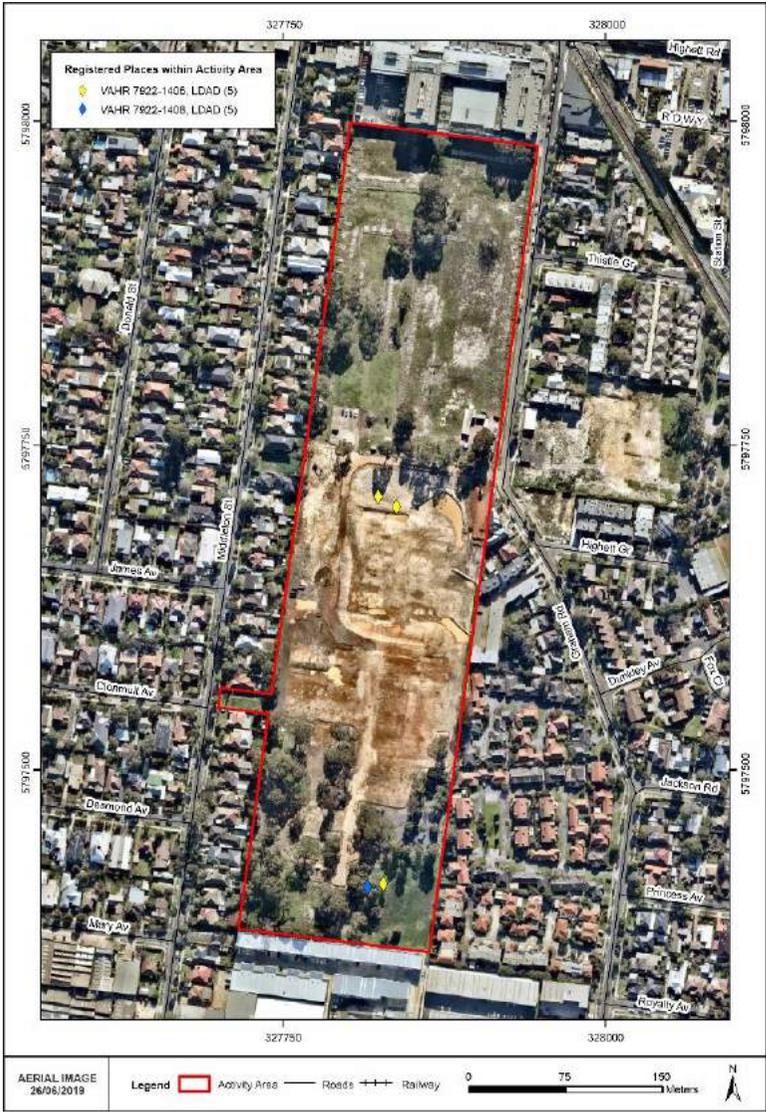


Figure 19: 26/06/2019 aerial photograph (Nearmap)



Figure 20: 11/09/2019 aerial photograph (Nearmap)



Figure 21: 24/10/2019 aerial photograph (Nearmap)

Extensive soil removal has occurred across much of the northern and central portions of the activity area in the last few years as part of remediation works on the property due to soil contamination, which was required prior to the property being sold and redeveloped (see Appendix 10). Recent photographs of the northern portion of the activity area (Plates 1–4) illustrate the level of disturbance these two portions of the activity area have been subject to.

The extensive amount of soil removal that has occurred is also evident through comparisons of contour mapping for the pre-works landscape and the present day. Recently recorded levels following the soil removal and remediation works indicate that the northern area is approximately 7m lower than the southern treed region (Figures 22 and 23). The recent levels show the southern portion of the site at around 38m–38.5m asl, whereas the topography in the northern portion is visibly incised and lowered abruptly in places, with contours ranging from approximately 30.8m–32.4m asl. The new survey levels between 30.8m and 32.4m asl across the northern region represents an additional lowering in elevation by up to 1.2m in some places when compared to the pre-demolition feature survey from 2011, where levels differed by approximately 6m.



**Plate 1: Central region of activity area following soil removal facing east (photo provided by the Sponsor 28/01/2020)**



**Plate 2: Central region of activity area following soil removal facing south (photo provided by the Sponsor 28/01/2020)**



**Plate 3: Northern region of activity area following soil removal facing north (photo provided by the Sponsor 28/01/2020)**



**Plate 4: Northern region of activity area following soil removal facing north east (photo provided by the Sponsor 28/01/2020)**

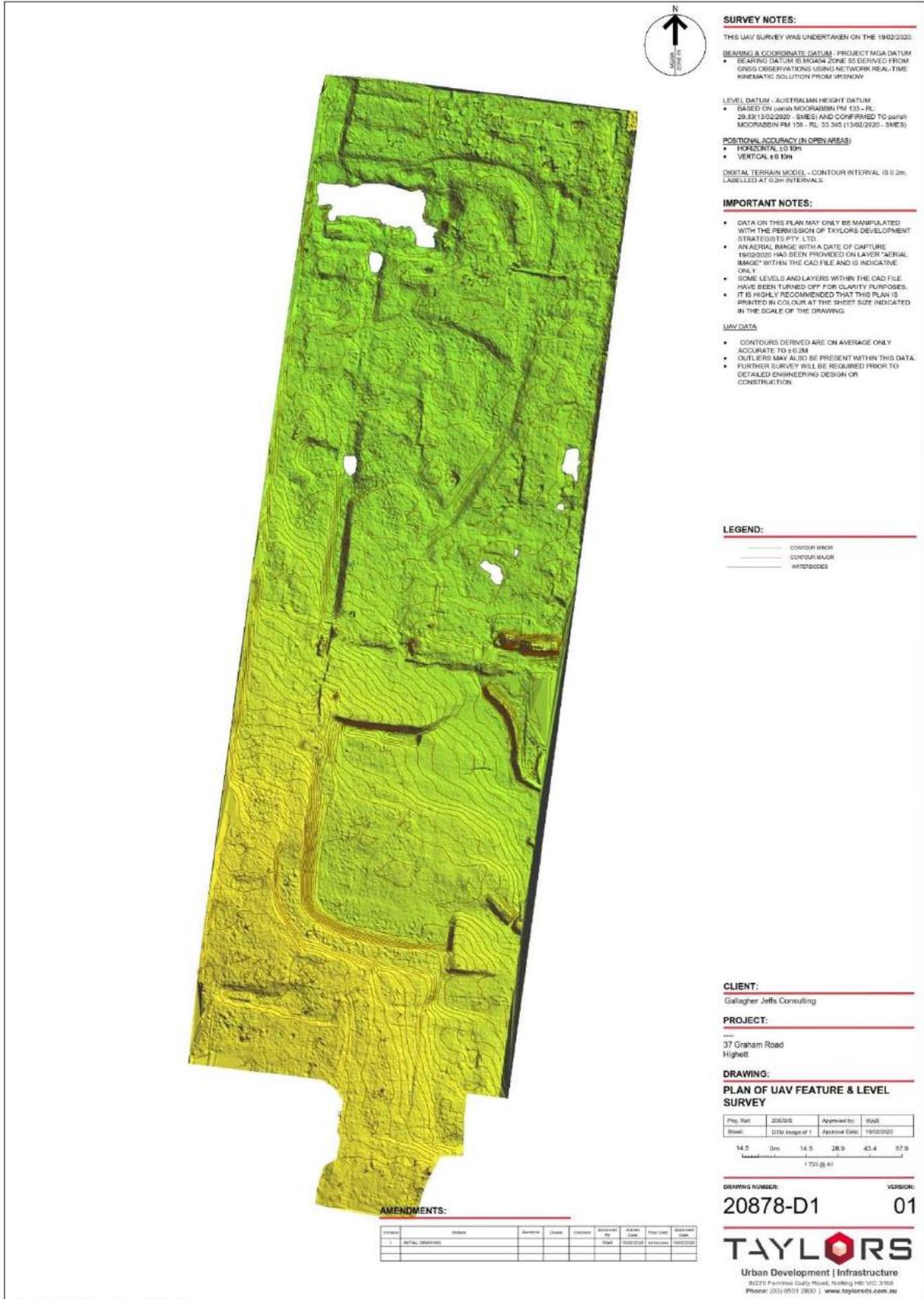


Figure 22: Digital elevation model February 2020 showing current ground levels across the activity area (provided by Gallagher Jeffs on behalf of the Sponsor)



Figure 23: Example of levels from feature survey of central area from 2011 (left) and current conditions (right; provided by Gallagher Jeffs on behalf of the Sponsor)

### **7.2.7 Environmental Audit**

Environmental audit of the activity area was completed in 2020 and was produced in three separate reports (CARM Reference 68549–1 to 3, Service Order No. 8003038, 2020; Figure 24): Highett North (Throssell 2020a), Highett South (Throssell 2020b) and Grassy Woodlands (Throssell 2020c; also see Appendix 9).

Both Highett North and South were found to have forms of groundwater contamination associated with off-site sources of pollution and regional groundwater conditions. Both areas underwent bonded asbestos containing material (ACM) removal. Large areas were scraped and remediated as part of site decommissioning works. Site remediation was undertaken extensively across Highett North and South between December 2017 to February 2020, to remove friable and bonded asbestos in the soils, according to criteria dictating acceptable level of percentage bonded asbestos and friable asbestos. The first 100mm of soil was required to be visually free of bonded asbestos. Following unsuccessful attempts at soil remediation on site, all ACM impacted soils were excavated and removed. Despite some areas not requiring remediation in Highett South, final recontouring across the site involved the removal of these soils (Throssell 2020b, p.40), which were disposed of off-site to landfill marked as either Category C soil with asbestos or Fill Material with asbestos. Any material to be excavated and removed from the site in future must be classified and disposed of off-site in accordance with relevant regulations and guidelines, consistent with any development. This will mean further soil testing will need to be completed for the basement excavation areas.

The Highett South and North audit reports concluded that all buildings and infrastructure within the site had been demolished and removed. Soil remediation across the two areas resulted in the removal of all ACM as far as practicable. Certificates of Environmental Audit were issued for Highett South and North stating that “the condition of site is neither detrimental nor potentially detrimental to any beneficial use of the site” (Appendix 9; Throssell 2020b, 2020a).

The audit report for Grassy Woodland, encompassing the conservation area, found the site condition to be “detrimental or potentially detrimental to any (one or more) beneficial uses of the site” (Throssell 2020c, p.ii). Remediation works were undertaken across Fifth Street and exposed ground areas (which was followed by the installation of geofabric membrane lining and backfilling of the area with clean fill). No remediation was undertaken within Tree Protection Zones, which appears to include the area in the south east of the activity area where VAHR 7922-1408 and VAHR 7922-1406-1 to -3 are located. A Statement of Environmental Audit rather than a Certificate was issued, detailing a number of conditions requiring fulfilment prior to such certification. These conditions included removal of residual ACM impacted fill and aesthetic impacts within Tree Protection Zones and below Fifth Street. Soil remediation also was undertaken in General Access Areas, including the excavation and off-site disposal of soil from below prior building footprints, roads, carparks (including former carparks), garden beds and areas and within the vicinity of underground assets. The Statement of Environmental Audit noted that ACM was present within the fill associated with the Tree Protection Zones and underlying Fifth Street at over a metre depth, requiring ongoing management. The Statement concluded that the Grassy Woodlands site was suitable for the beneficial uses associated with recreation/open space, commercial and industrial use, subject to the implementation and maintenance of the Environmental Management Plan (Grogan, Farmer & Gooley 2020).



### **7.3 Site Prediction Model**

The desktop assessment for the activity area has allowed a site prediction model to be developed. A site prediction model is intended for use as an indication of the types of Aboriginal archaeological sites that may occur in a given area. The site prediction model can later be tested against the results of field survey and/or subsurface testing.

The following statements can be made about the current activity area:

- reports undertaken within the geographic region commonly note disturbance due to urbanisation. Nearby heritage assessments have encountered disturbance primarily due to initial land clearance and construction of residential and industrial buildings and infrastructure; which has likely impacted on archaeological deposits;
- within the activity area, VAHR 7922-1406-4 and -5 were identified in deep, highly disturbed soil contexts, while VAHR 7922-1406-1 to -3 were in shallow, less disturbed soil contexts. The reburial of the artefacts from VAHR 7922-1406 (VAHR 7922-1408) is located in less disturbed soils near to VAHR 7922-1406-1 to -3;
- where there is deeper soil, there is a greater likelihood of undisturbed subsurface soils and Aboriginal cultural material. There remains a small potential for undisturbed dune deposits to remain in areas that have not undergone extensive earthworks or excavation;
- a range of site types have been recorded within the geographic region including isolated artefact occurrences, artefact scatters, Aboriginal Historical Places, stone features (rockwells), scarred trees and shell middens;
- subsurface LDADs are considered to be the most likely type of Place to be identified in the Port Phillip Bay hinterland more generally;
- Aboriginal cultural heritage is likely to be located within dune deposits (particularly ridges or crests overlooking former swamps or soaks);
- the activity area has been subject to previous archaeological ground survey and localised intensive subsurface testing in areas with potential archaeological sensitivity, it is highly unlikely that unrecorded shell midden or scarred trees occur within the activity area. Shell middens are more likely to occur closer to the coast line, and are therefore unlikely to be in the activity area which is situated in the coastal hinterland;
- silcrete is the dominant raw material used for tool manufacture in the geographic region, followed by chert and quartzite. Chert and quartzite were identified within the activity area;
- due to the extensive removal of contaminated soils across the central and northern regions of the activity area prior to the Sponsor taking ownership of the property, it is unlikely that unidentified Aboriginal cultural heritage will be present in these regions; and
- much of the southern region has not undergone major earthworks previously and while this would suggest that there is some likelihood that additional Aboriginal cultural heritage is present in this region (particularly where VAHR 7922-1406-1 to -3 and VAHR 7922-1408 are located), Rowney (2012) extensively tested across the undisturbed areas of this region and found no further cultural heritage.

The open woodland environment with sandy rises proximal to wetland resources and nearby waterholes would have been an ideal campsite, with shade provided by the woodland during hot periods and sand

dunes providing elevated dry areas to camp during wetter periods. Well-drained sandy rises within close proximity to wetlands are considered to be areas of sensitivity for Aboriginal sites. Conversely, the activity area may have been located too close to the margins of nearby wetlands and been more suitable for ephemeral visitation associated with hunting and foraging, as opposed to a longer-term camp site. Other elevated locations farther from swamp margins in the geographical region may have been preferred over the activity area. The existing archaeological evidence for the activity area likely reflects minor knapping activity indicating visitation here was more transient in nature.

There remains a low potential for Aboriginal cultural heritage to be present within the activity area, particularly in the southern portion which has historically undergone less disturbance. The land use history demonstrates the central and northern portions of the activity area have been subject to extensive degrees of ground disturbance. The activity area, in general, has been subject to extensive modification of the ground surface through various forms of impact since the 1940s, associated with its use as an orchard/market garden, agricultural and potential pastoral use, aircraft factory and/or aerodrome facility, AID Defence testing facility and CSIRO research laboratories. Aerial imagery reveals evidence of past vegetation clearance, potential agricultural ploughing, land levelling, building, carpark and road/path construction. Extensive soil removal, particularly in the northern and central portions of the activity area during soil remediation works, would have almost certainly disturbed, destroyed or removed any Aboriginal cultural heritage that may have been present within the disturbed soils of those regions resulting in a low likelihood of intact, *in situ*, archaeological deposits to be present in the activity area. The only area that may potentially retain any cultural heritage is that immediately surrounding VAHR 7922-1406-1-3 and VAHR 7922-1408, which will not be impacted by the activity and is proposed to be retained within a conservation area.

#### **7.4 Conclusions from the Desktop Assessment**

The desktop assessment identified that the activity area has previously been subject to archaeological survey (Barker 2008) and localised intensive testing (Rowney 2012). The assessment has also identified that extensive soil removal and remediation has occurred across the central and northern regions of the activity area under the previous owner, including where VAHR 7922-1406-4 and -5 were identified.

Regulation 62 of the *Aboriginal Heritage Regulations 2018* requires consideration of whether a standard assessment is required. It is reasonably possible that Aboriginal cultural heritage is present in the activity area as Aboriginal cultural heritage has previously been identified and registered within the activity area. Therefore, according to r. 62 of the *Aboriginal Heritage Regulations 2018*, a standard assessment is required.

## **8.0 Report on the Standard Assessment**

In accordance with Clause 8, Schedule 2 of the *Aboriginal Heritage Regulations 2018*, this section contains the results of the standard assessment and field survey.

### **8.1 Aims and Methodology for the Standard Assessment**

A standard assessment is a surface archaeological survey. This may locate evidence of surface sites but will not necessarily find buried archaeological deposits. The methodology for the standard assessment is informed by the desktop assessment and the site prediction model.

The aim of the field survey was to:

- identify any surface evidence of Aboriginal cultural heritage;
- relocate VAHR 7922-1406 and VAHR 7922-1408; and
- identify areas of potential sensitivity for Aboriginal cultural heritage.

The field survey was undertaken in accordance with proper archaeological practice, pursuant to r. 63 of the *Aboriginal Heritage Regulations 2018*.

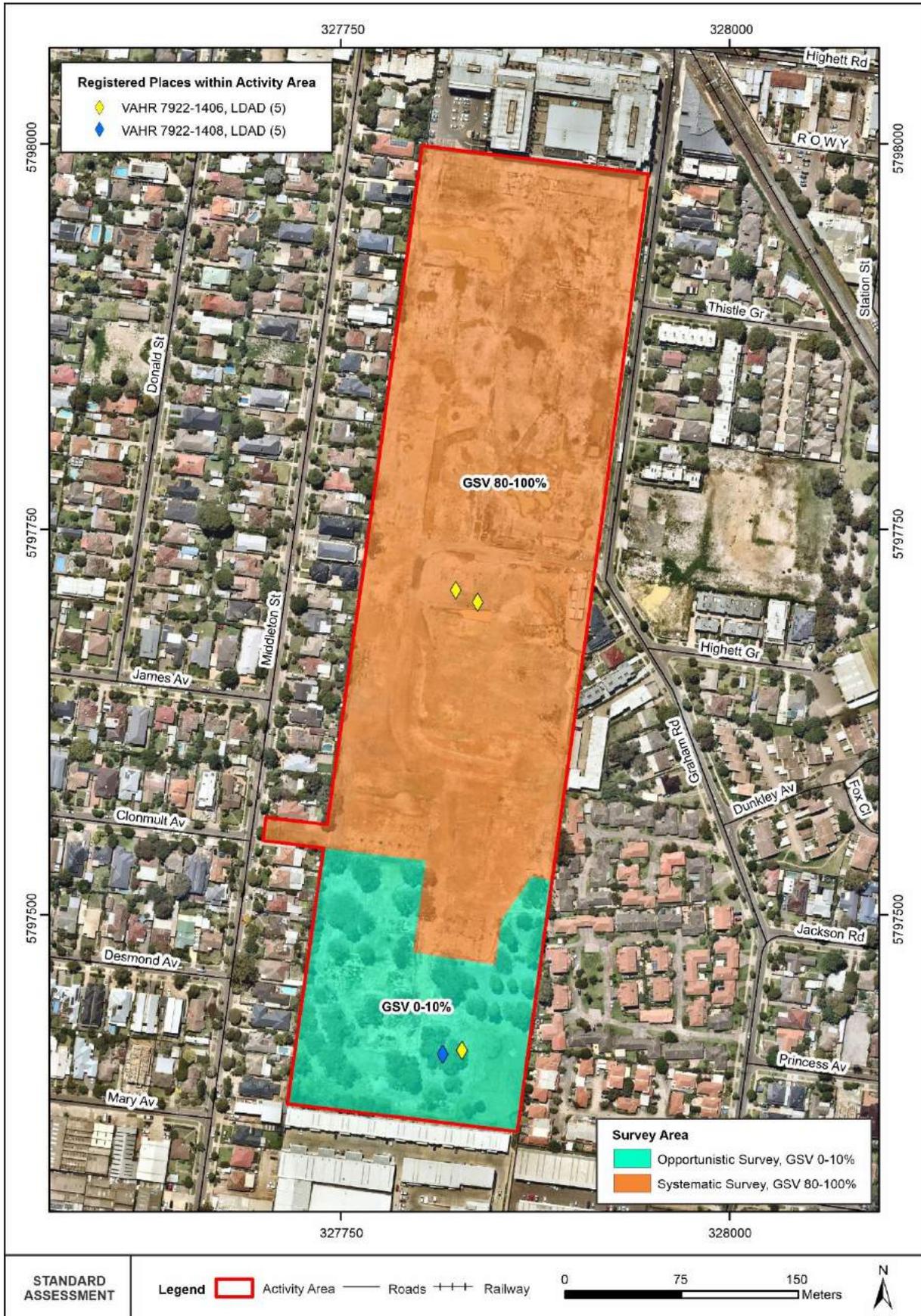
The pedestrian field survey, comprising five people, was undertaken utilising both systematic and opportunistic methodologies. The central and northern regions of the activity area have been cleared of surface vegetation and so systematic survey was undertaken in these regions. Systematic survey involved the field team walking 5–10m spaced transects in a north-south orientation across the entire regions. The southern region was thickly grassed and retained larger shrub and tree vegetation and so opportunistic survey was undertaken in this region where exposed earth or lightly grassed areas were primarily targeted.

Areas of bare ground surface exposure were inspected closely. The general percentage (%) of ground surface visibility was recorded throughout the activity area. All evidence of prior ground disturbance was also recorded. All mature trees within the activity area were examined for the presence of scars. The activity area was also examined for the presence of caves, cave entrances or rock shelters.

If any surface archaeological sites were located during the assessment, the following would be undertaken:

- completion of a standard recording form;
- photography of the general location of the surface site and cultural material; and
- drawing a plan of the site in relation to landmarks within the activity area and recording the location of the cultural material with a differential GPS.

A discussion of the results of the survey took place on-site with the field representative/s from the BWFL, BLCAC and WWCHAC.



Map 8: Standard assessment field survey

## **8.2 Results of the Standard Assessment**

### **8.2.1 Area Surveyed**

The field survey was undertaken by Kathleen Hislop and Vanessa Beasley (Heritage Insight Pty Ltd) on November 20, 2020. They were assisted by Minta Franks (BLCAC), Kerrie Broomfield (WWCHAC) and Ricky Abrahams (BWFL). All regions of the activity area were accessible for survey. All regions of the activity area were surveyed (Map 8).

### **8.2.2 Ground Surface Visibility and Other Constraints on Field Survey**

The main constraint on the field survey was the poor ground surface visibility (thick grass coverage and some fallen tree vegetation) in the southern region of the activity area which meant that the field team was only able to opportunistically inspect the ground in this region to assess the likelihood of cultural heritage being present. The overall effective survey coverage in the central and northern regions of the activity area was estimated at 80–100% (ca. 63 297m<sup>2</sup>). The overall effective survey coverage in the southern region of the activity area was estimated at 0–10% (ca. 1150m<sup>2</sup>).

### **8.2.3 Survey Results**

No Aboriginal cultural material was identified within the activity area during the field survey. No caves, rock shelters, or cave entrances were noted within the activity area. No mature trees displayed cultural scarring.

The activity area was divided into two survey units: one unit being the northern and central regions, and the other unit being the southern region.

#### **Northern and Central Regions (Unit 1)**

The northern and central regions of the activity area encompass the parts of the activity area that were subject to extensive soil contamination removal by the previous owners. There are no structures, and all former vegetation has been removed (Map 8; Plates 5–16). The only vegetation present are small, tufted grass and weeds that have grown since the completion of the soil contamination removal. The ground surface is otherwise bare.

The extent of soil removal was evident from the remnant underground utility pipes that are now lying fully or partially exposed (Plate 6). Additionally, ground level comparisons were possible between the adjacent land and the activity area which indicated the ground surface was lowered in the activity area by approximately 800–1000mm (Plates 8, 9 and 12). Several patches of ground within this region also held water and were areas that had been excavated into the basal clay (Plates 7 and 10). The small entrance from Middleton Street on the western boundary still retained an asphalt surface; however, soil testing undertaken directly adjacent to this entrance and at the same elevation showed a lack of topsoil, suggesting that the asphalted entrance had likely been stripped prior to the surface being laid (Plate 15). A large ‘L-shaped’ basin has also been created through the central region on the northern and eastern sides of the original road configuration in this region. The basin is almost 2m lower than the adjacent original road alignment (Plate 16).



**Plate 5: Northern region showing extensive excavation and ground surface visibility facing north west (photo by K. Hislop 20/11/2020)**



**Plate 6: Exposed utility pipe in the northern region facing south (photo by K. Hislop 20/11/2020)**



**Plate 7: Exposed clay areas in the northern region facing north (photo by K. Hislop 20/11/2020)**



**Plate 8: North eastern boundary of the activity area showing the difference in ground levels facing north east (photo by K. Hislop 20/11/2020)**



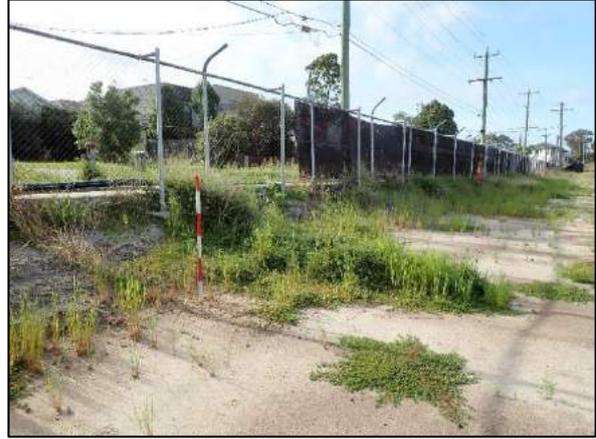
**Plate 9: Northern boundary of the activity area showing difference in ground levels facing north east (photo by K. Hislop 20/11/2020)**



**Plate 10: Exposed clay areas in the north western region of the activity area facing south east (photo by K. Hislop 20/11/2020)**



**Plate 11: Central region showing extensive excavation and ground surface visibility facing south west (photo by K. Hislop 20/11/2020)**



**Plate 12: Eastern boundary of the central region showing difference in ground levels facing south east (photo by K. Hislop 20/11/2020)**



**Plate 13: Central region showing dried out clay ditch facing north west (photo by K. Hislop 20/11/2020)**



**Plate 14: Western side of central region showing ground surface visibility facing west-south west (photo by K. Hislop 20/11/2020)**



**Plate 15: Middleton Street entrance facing west (photo by K. Hislop 20/11/2020)**



**Plate 16: Excavated basin showing depth of excavation in relation to the adjacent old L-shaped road facing west (photo by K. Hislop 20/11/2020)**

## **Southern Region (Unit 2)**

The southern region encompasses the part of the activity area that is being retained within a conservation area as a public park. There are no structures remaining, however gravel areas are still present from former car park locations (Map 8; Plates 17–22). The vegetation is primarily comprised of mature and semi mature eucalypts and smaller bushes and shrubs. Grass cover was present across open areas away from the gravel car parks and varied in height from approximately 100–400mm. There were isolated areas of bare ground, including at the base of trees. Bare ground generally appeared to have a highly compacted soil surface which may have also been further eroded while exposed (Plate 18).

No soil removal has occurred through the southern grassed area, although it was noted in the environmental auditing that asbestos fragments are present in the soils. Other than the gravel car park areas, the only other feature identified from the previous usage of the activity area was a concrete open drainage channel (Plate 18). Ground levels are unaltered but there is an artificial mounded earth area near the southern boundary that is now covered with grass that may have been the location of a shed prior to demolition within the activity area (Plate 21). Rowney’s excavation report (2012) identified that underground utilities and services are present within the grassed southern region. However, evidence of these was not visible, most likely because of the grass coverage.



**Plate 17: Gravel surface of car park in north eastern section of the southern region facing north east (photo by K. Hislop 20/11/2020)**



**Plate 18: Exposed ground and concrete drainage facing north west (photo by K. Hislop 20/11/2020)**



**Plate 19: Gravel surface and example of trees facing north (photo by K. Hislop 20/11/2020)**



**Plate 20: Gravel surface and example of tree in the western section of the southern region facing north west (photo by K. Hislop 20/11/2020)**



**Plate 21: Artificial mounded earth (possibly a shed location) and grass coverage near the southern boundary of the activity area facing south (photo by K. Hislop 20/11/2020)**

**Plate 22: Example of trees in the south western corner of the activity area facing south west (photo by K. Hislop 20/11/2020)**

#### **8.2.4 Manual Auger Investigation**

As part of the standard assessment, a total of six auger probes (AP) were hand excavated to investigate the soil profile and areas of disturbance within the activity area (Map 9; Table 9). Auger probes were labelled numerically in order of excavation. Each auger probe measured 50mm in diameter and was backfilled as per Heritage Insight Pty Ltd's OHS policy. The Traditional Owner representatives chose the locations for the six Aps.

Aps 1–3 were excavated in the northern region of the activity area, while Aps 4–6 were excavated in the central region. No auger probes were excavated within the southern region due to OHS concerns in relation to asbestos within the soils.

The results of the auger probe investigation indicate that the remnants of the soil profile are highly varied in condition. The soils in Aps 3–6 were shallow, with little soil present other than dry clay. The maximum depth of excavation in these probes was 250mm. The soils in Aps 1 and 2 were deeper and contained truncated, remnant sandy upper deposits to a depth of 280mm and 410mm, respectively. Below this depth the sand component was mixed with increasing amounts of clay. AP 2 contained an additional layer below this that had an increased sand component, similar to the clayey sands and sandy clays found below the coffee rock and clay in the Cranbourne Sands soil profile. The maximum depth of excavation was 870mm. Soils within the sandy topsoils of Aps 1 and 2 were homogenous and showed no stratigraphic differentiations which suggests these sandy deposits were mixed and disturbed, likely through a combination of construction activities earlier in the twentieth century and the soil contamination assessment and clearance processes.

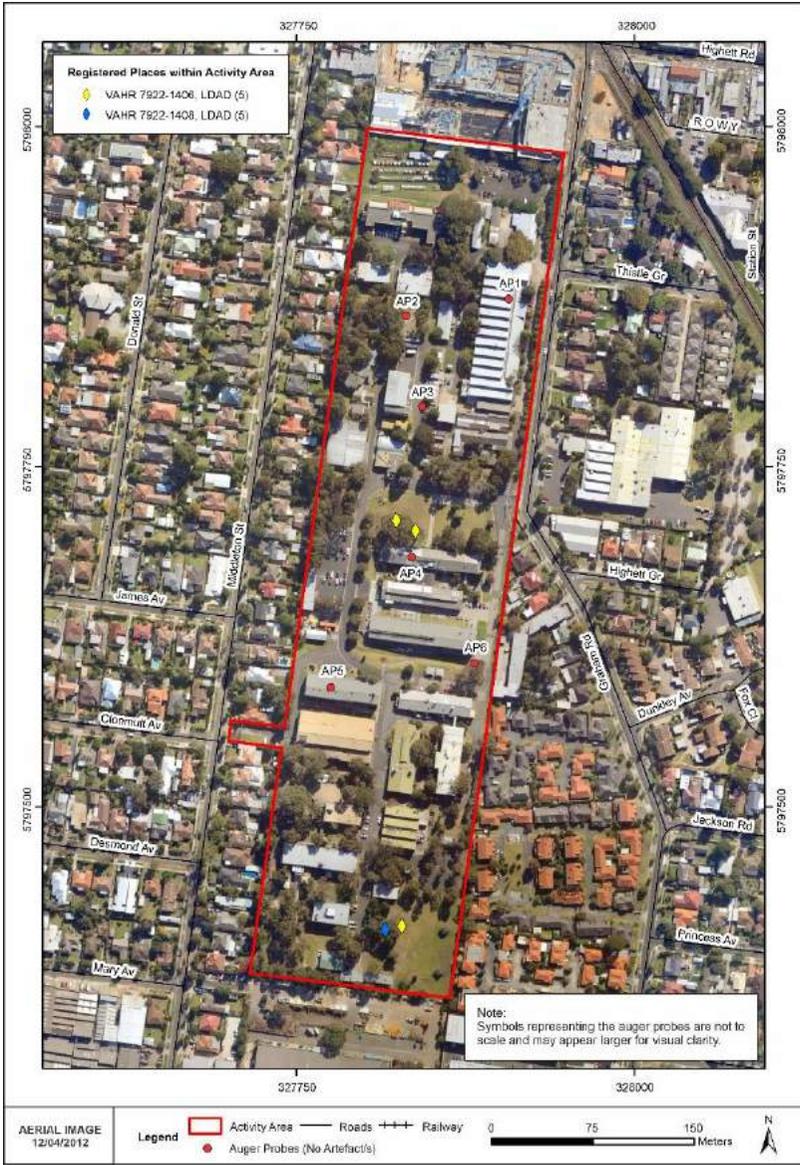
Comparisons between the auger probe locations and the pre-demolition conditions within the activity area shows that Aps 1, 4 and 5 are located within building footprints, while AP 3 and 6 are in proximity to building footprints (Map 9). AP 2 was the only one located in a grassed area and it is the same grassed area

as Rowney's PAS 2 testing area (Figures 2 and 5). Additionally, AP 4 was situated approximately 15m south of VAHR 7922-1406-4 and -5.

The excavated soil profile in Aps 4–6 contained no topsoil deposits, while the profile in AP 3 only retained 50mm of sandy topsoil. These regions of the activity area contain no potential for subsurface Aboriginal cultural heritage.

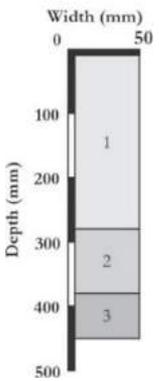
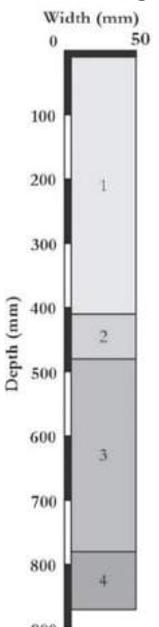
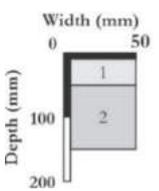
AP 2 contained remnant sandy topsoils and was situated in an area previously tested by Rowney through the excavation of one 1x1m test pit and 13 400x400mm shovel pits, with the remainder of the grassed area having been subject to underground service installations. No Aboriginal cultural heritage was identified by Rowney. This assessment concludes there is no potential for subsurface Aboriginal cultural heritage in this area.

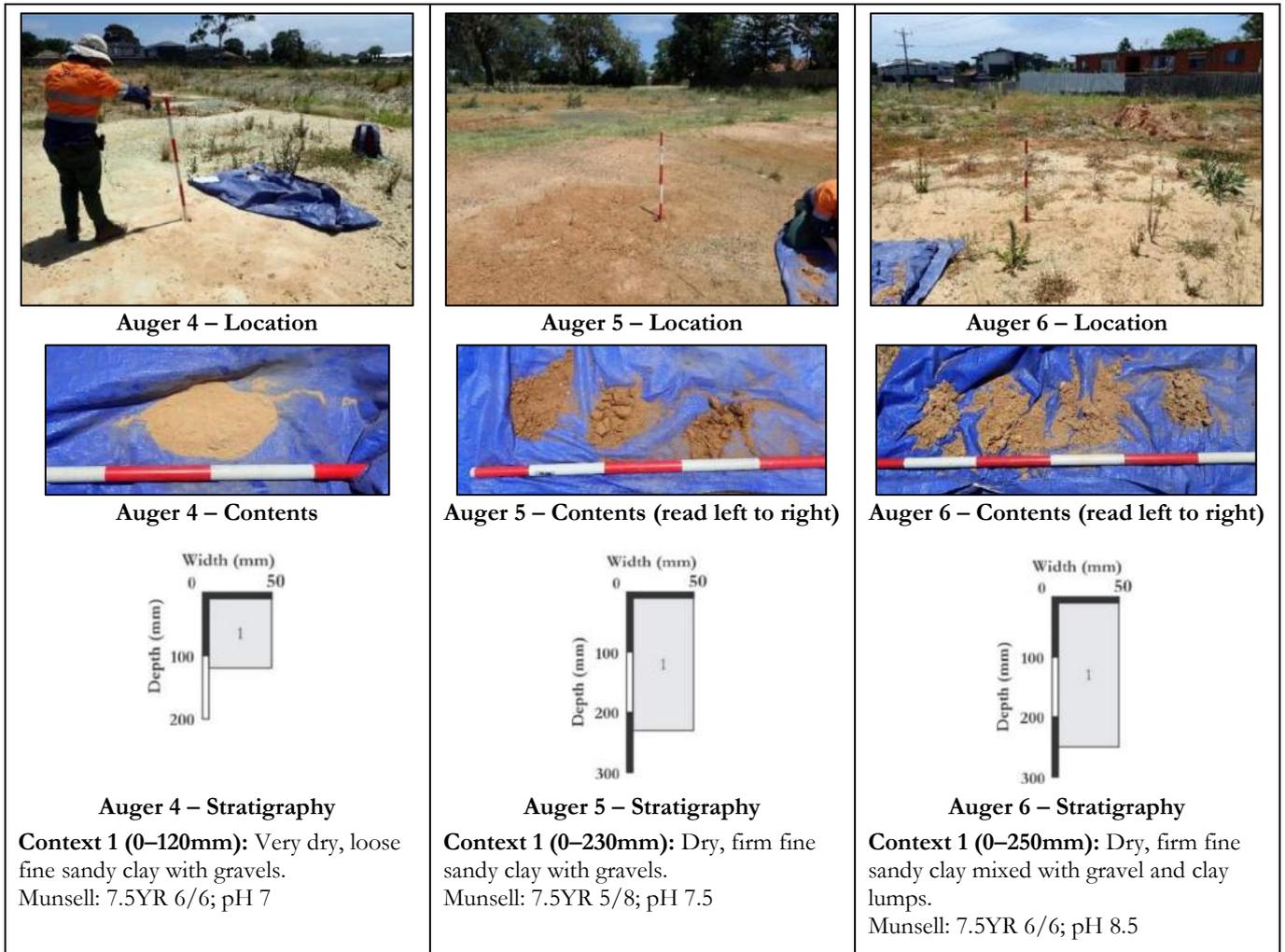
AP 1 contained remnant sandy topsoils but was situated within a building footprint. As described above, the sandy topsoil showed no stratigraphic differentiation and is therefore likely to be a mixed, disturbed profile. This assessment concludes there is no potential for subsurface Aboriginal cultural heritage in this area.



**Map 9: Auger probe locations (left) and comparison to pre-demolition conditions (right)**

Table 9: Auger probe summary data

		
<p>Auger 1 – Location</p>	<p>Auger 2 – Location</p>	<p>Auger 3 – Location</p>
		
<p>Auger 1 – Contents (read right to left)</p>	<p>Auger 2 – Contents (read top left to right, then bottom right to left)</p>	<p>Auger 3 – Contents (read left to right)</p>
		
<p>Auger 1 – Stratigraphy</p>	<p>Auger 2 – Stratigraphy</p>	<p>Auger 3 – Stratigraphy</p>
<p><b>Context 1 (0–280mm):</b> Dry, very weak fine sand with moisture level increasing with depth. Munsell: 10YR 6/2; pH 7</p>	<p><b>Context 1 (0–410mm):</b> Dry, very weak fine sand with moisture level increasing with depth. Munsell: 10YR 6/2; pH 7.5</p>	<p><b>Context 1 (0–50mm):</b> Dry, loose silty sand. Munsell: 10YR 6/2; pH 7.5</p>
<p><b>Context 2 (280–380mm):</b> Moderately moist, weak, mixed, patchy clay and fine sand. Munsell: 10YR 5/2; pH: 7</p>	<p><b>Context 2 (410–480mm):</b> Moderately moist, weak, mixed, patchy clay and fine sand. Munsell: 10YR 5/2 &amp; 10YR 4/6; pH: 7</p>	<p><b>Context 2 (50–150mm):</b> Dry, very firm mottled clay. Munsell: 10YR 5/2 &amp; 10YR 5/6; pH: 7.5</p>
<p><b>Context 3 (380–450mm):</b> Moderately moist, firm sandy clay. High clay content. Munsell: 10YR 4/1; pH 7</p>	<p><b>Context 3 (480–780mm):</b> Moderately moist, firm mottled sandy clay. High clay content. Munsell: 10YR 6/1 &amp; 10YR 5/6; pH 7</p>	
	<p><b>Context 4 (780–870mm):</b> Moderately moist, firm mottled clayey sand. Munsell: 10YR 6/8 &amp; 10YR 5/3; pH 7.5</p>	



### 8.2.5 Aboriginal Cultural Heritage

No Aboriginal cultural heritage was identified during the standard assessment. No culturally modified trees were present in the activity area.

### 8.2.6 Areas of Potential Archaeological Sensitivity

No surface Aboriginal cultural heritage was identified during the standard assessment.

The field survey and auger probe excavation have demonstrated that there is no potential archaeological sensitivity associated with the northern and central regions of the activity area. While only opportunistic survey was possible in the southern region for this assessment, previous excavations undertaken by Rowney at 2.5m and 5m spacing through the grassed area adjacent to VAHR 7922-1406-1 to -3 (and its reburial location, VAHR 7922-1408) and within the grassed area of the south western section of the southern region found no further Aboriginal cultural heritage in subsurface contexts. The extent of this previous testing has shown that there are no remaining areas of potential archaeological sensitivity in the undisturbed sections of the southern region.

### **8.3 Conclusions from the Standard Assessment**

No Aboriginal cultural heritage was identified during the standard assessment (including scarred trees, caves, cave entrances or rock shelters).

The desktop assessment indicated that there was potential for Aboriginal cultural heritage to be present due to the previous identification of VAHR 7922-1406 within the activity area and subsequent reburial of the Place contents within VAHR 7922-1408. The demolition and soil contamination removal activities undertaken by the previous owner following the initial identification of VAHR 7922-1406 have severely impacted on the ground conditions associated with VAHR 7922-1406-4 and -5, while VAHR 7922-1406-1 to -3 and the reburial location of the artefacts VAHR 7922-1408 remain in an undisturbed region of the activity area.

Field survey and auger probe excavation undertaken for the current assessment confirm the extent of soil removal and lack of potential archaeological sensitivity within the northern and central regions of the activity area. While the southern region was unable to be effectively surveyed by this assessment due to grass cover, previous excavation undertaken by Rowney across the open areas did not identify subsurface artefact deposits or areas of potential archaeological sensitivity beyond the location of VAHR 7922-1406-1 to -3.

Regulation 64 of the *Aboriginal Heritage Regulations 2018* states that:

- r. 64 (1) A complex assessment is required if the desktop assessment or standard assessment shows that–
  - (a) Aboriginal cultural heritage is, or is likely to be, present in the activity area; and
  - (b) 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.

Regulation 64 further states:

- r.64 (2) Despite subregulation (1), a complex assessment is not required in respect of an area to which the standard assessment applied if the activity will not harm Aboriginal cultural heritage in that area.

Aboriginal cultural heritage is present in the activity area. However, it is possible to identify the extent, nature and significance of the Aboriginal cultural heritage due to the previous testing works undertaken through CHP 11/005618 by Rowney (2012) as outlined in the desktop assessment and Section 9 below. Further to this, while the original find locations for VAHR 7922-1406-4 and -5 have been destroyed by soil contamination removal works under the previous owner and retain no potential archaeological sensitivity, VAHR 7922-1406-1 to -3 and VAHR 7922-1408 will not be harmed by the proposed activity. Therefore, complex assessment works are not required under the *Aboriginal Heritage Regulations 2018*.

## **9.0 Aboriginal Cultural Heritage within the Activity Area**

Aboriginal cultural heritage is located within the activity area, recorded during the previous investigation by Rowney (2012). The cultural heritage is registered as VAHR 7922-1406 and VAHR 7922-1408. The Place locations can be found in Map 10. Stone artefacts (lithics) were the only items of Aboriginal material culture found during the previous investigations.

### **9.1 Assessment of the Aboriginal Cultural Heritage**

As part of this assessment, a brief review has been carried out of the available Aboriginal stone artefact data for VAHR 7922-1406 and the site representing the artefact reburial, VAHR 7922-1408.

All available data regarding the stone artefacts (accessed via the site records on ACHRIS June 10, 2020, and as detailed in Rowney (2012) was collated and entered into an MS Excel database for further analysis. Data from the artefact analysis is presented in Appendix 5. The site gazetteer is provided in Appendix 6.

Further details regarding the subsurface investigation which identified the artefacts associated with VAHR 7922-1406 and VAHR 7922-1408 can be found in Rowney (2012).

The assemblage comprises five subsurface artefacts located in three shovel test pits within the activity area. All five artefacts (VAHR 7922-1406-1 to -5) were reburied at a depth of 400mm in a location approximately 13m west of the southernmost shovel test pit. The repatriation location was registered as VAHR 7922-1408. As VAHR 7922-1408 is the repatriated artefacts from VAHR 7922-1406, only VAHR 7922-1406 will be described in detail below.

The five artefacts were made from two raw stone materials: light grey chert (n=4) and light brown quartzite (n=1). The small number of artefacts limits the inferences that can be drawn from the assemblage; however, the presence of quartzite and chert indicate more than one source of raw material was available for manufacture in the broader area (or may have been imported from a distance; Rowney 2012, p.40).

The assemblage comprises five flakes (including one complete flake). No formal tool types were identified. The presence of small flakes may be indicative of a low-density artefact scatter, likely representative of ephemeral or brief visitation, rather than more intensive occupation within the activity area. The small fragments may also indicate that retouch of damaged tools was occurring in the area (Rowney 2012, p.40). Artefacts were identified at a range of depths (between 150-300mm for VAHR 7922-1406-1 to -3, and between 550-700mm for VAHR 7922-1406-4 and -5).

### **9.2 Site Formation Processes**

The land-use history demonstrated that the activity area has been subject to varying degrees of ground disturbance by previous construction and demolition activities through the past two centuries, particularly since its use as a CSIRO research complex from 1953.

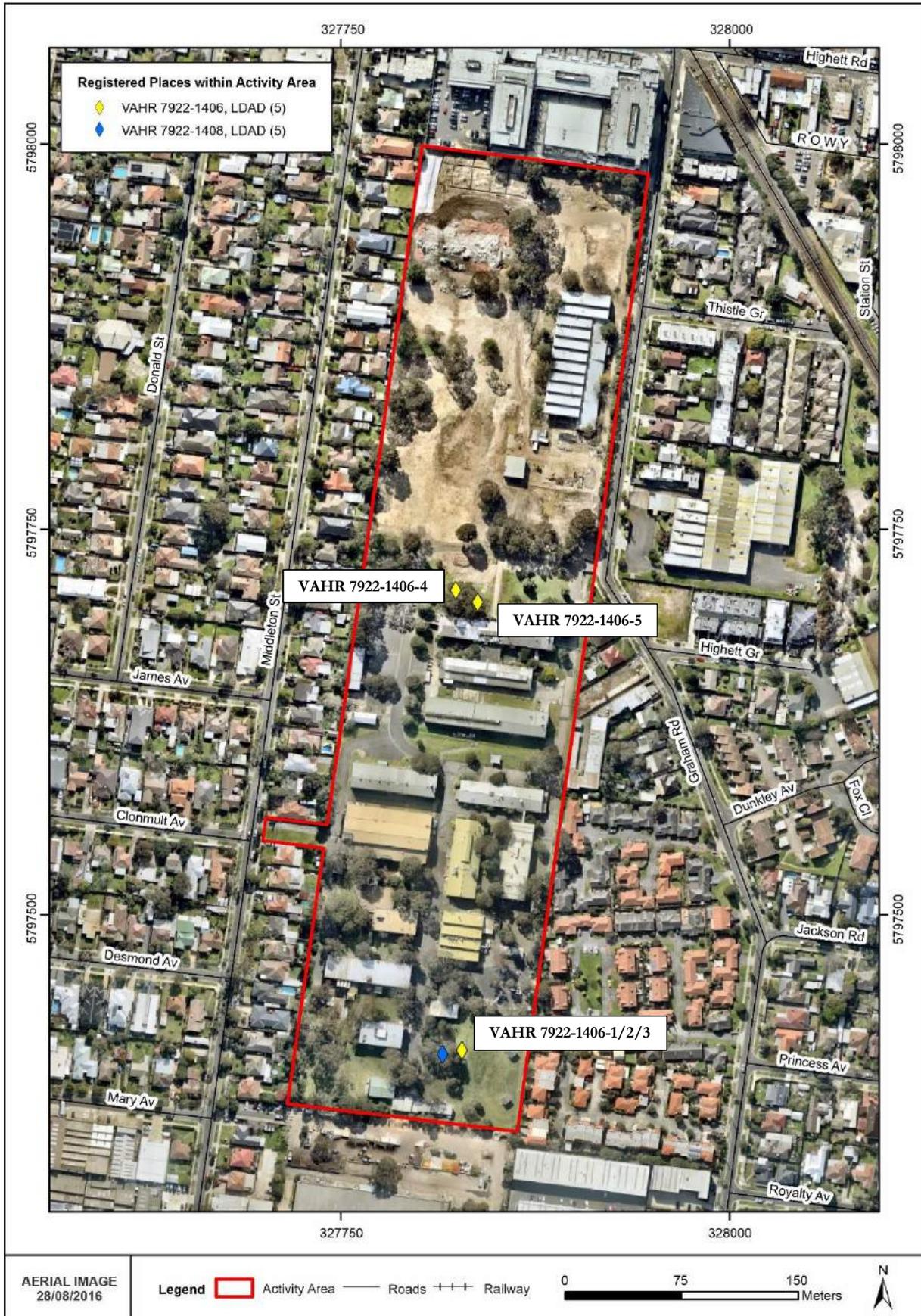
These activities have significantly impacted where Aboriginal cultural heritage was located in the central region of VAHR 7922-1406 as the results of subsurface testing in the area surrounding VAHR 7922-1406-4 and -5 were identified as significantly disturbed by Rowney (2012). Artefacts were present at a range of depths with VAHR 7922-1406-4 and -5 found at depths of 700mm (shovel test pit 0E6S) and 550–600mm (shovel test pit 15E11S). A fragment of glass was found approximately 100mm below the artefact in shovel test pit 0E6S which suggests soil disturbance extended below 700mm in this pit. The artefact in shovel test

pit 15E11S was found at the same depth as some small glass fragments. The artefacts located in the southern region (VAHR 7922-1406-1 to -3) were in less disturbed shallow soils which reflect the more natural, treed environment that they were within.

The proximity of the activity area and VAHR 7922-1406 (and by extension, VAHR 7922-1408) to a series of pre-European wetlands and Port Phillip Bay supports the interpretation of Aboriginal utilisation of the region due to its food resources. The sand ridge landform that extended through the activity area would have provided Aboriginal people with higher ground overlooking the adjacent wetland landscape. Marine fauna would have been abundant within this environment due to the proximity of Port Phillip Bay, while fresh water across the wetlands that extended to the east, south east and further north east and north of the activity area would have encouraged the presence of land and riverine fauna. The vegetation in the region would also have provided a range of plants utilised by Aboriginal people for making tools, weapons, medicine and weaving.

The high degree of soil disturbance, low frequency of artefacts and variation in depths across VAHR 7922-1406 mean it is not possible to establish whether deposition likely occurred from one or more visits. No dating of sediments was undertaken by Rowney (2012), however the artefact technology present across the assemblage suggests the artefacts likely date to the Holocene.

The limited raw material range and artefact types within the artefact assemblage suggests that the deposition of the artefacts was related to minor knapping activities such as tool or flake adjustments, or accidental deposition. This type of deposition is more likely to occur in relation to transient hunting and foraging activities rather than a fixed or long-term camp site (VAHR 7922-1406-1 to -3 potentially are within an area that was too swampy), and that other, more elevated, ridge landforms in the wider landscape would have been more attractive locations for longer term habitation. Archaeological evidence may have been present in the higher topography within the activity area which Rowney (2012, p.42) notes would have been destroyed as a result of the construction of building 31 (located adjacent south of PAS 3 where VAHR 7922-1406-4 and -5 were identified).



Map 10: Location of Aboriginal cultural heritage within the activity area

### 9.3 Aboriginal Places within the Activity Area

#### 9.3.1 VAHR 7922-1406

**VAHR Number:** 7922-1406

**Field Name:** CSIRO Highett LDAD

**Primary Grid Coordinate (GDA94 Zone 55):**

327828.001E / 5797411.950N

**Cadastral details:**

Lot 1\TP223183, 37 Graham St, Highett (Parish of Moorabbin, City of Bayside)

**Site Plan:** see Map 10

**Description of Aboriginal Place VAHR 7922-1406** (information reproduced from original place inspection form attached to registration and from Rowney (2012))

Nature: Five subsurface artefacts identified as a low density artefact distribution. Components -1 to -3 were located in one shovel pit (7.5E15S) at a depth of 50–150mm. Impacts to the soils were mainly restricted to the upper 250mm with a few notably deeper impacts associated with previously installed services. The presence of only three artefacts across the testing within this area which retains a relatively intact landscape suggests that Aboriginal activity within this area in the past was relatively low or left minimal cultural evidence.

Soil profile:

Component -1 to -3

Shovel Pit 7.5E15S		
0-30mm	Humic sandy silt topsoil	10YR3/2 Very Dark Greyish Brown
30-300mm	Grey/brown sandy silt. Sparsely flecked with charcoal. Friable.	10YR5/2 Greyish Brown
300-400mm	Highly compacted grey/brown sandy silt with a high amount of ironstone gravels.	10YR6/3 Pale brown
400mm	Mottled orange/light brown/yellow/grey clay	10YR5/8 Yellowish brown and 10YR5/1 Grey.

Component -1 to -3



Figure 5.7 AAV7922-0966 Shovel Pit 7.5E15S

\*Note: VAHR 7922-0966 was reassessed as a non-site as no evidence of a midden was present within the testing. This artefact location became part of the new registration VAHR 7922-1406

Components -4 and -5 were located in two separate shovel pits (0E6S and 15E11S) at depths of 700mm and 550–600mm respectively. Component -4 was found approximately 100mm above a fragment of glass. Component -5 was found at the same level as a few glass fragments. Disturbance to the natural soil layers from the nearby building construction in the late 1960s resulted in disturbance, redeposition and removal of the natural soil profile that would have been associated with the artefacts originally. Stratigraphy indicates

there may have been a low density background scatter of debitage from stone tool production in the area associated with these two artefacts in the past, however the construction of the building resulted in total loss of the majority of intact soils within this area.

Soil profile:

Component -4

Shovel Pit 0E6S		
0-100mm	Humic sandy silt topsoil.	10YR3/2 Very Dark Greyish Brown
100-500mm	Dark grey/brown silt with a sparse scatter of charcoal flecks. Friable in texture and tending to lighten in colour towards the base of the unit.	10YR4/3 Dark grey brown
500-800mm	Light grey sandy silt with very sparse inclusions of glass and ceramic. One artefact found in this unit at 700mm below surface.	2.5Y 6/2 Light Brownish Grey
800-900mm	Compacted layer of ironstones gravels and light grey/brown silt matrix.	2.5Y 6/2 Light Brownish Grey
900mm	Orange/Brown clay	10YR5/8 Yellowish brown and 10YR5/1 Grey.

Component -5

Shovel Pit 15E11S		
0-100mm	Humic sandy silt topsoil.	10YR3/2 Very Dark Greyish Brown
100-270mm	Mixed grey/brown sand and silt with fragments of brick and concrete rubble.	10YR5/3 Brown
270-380mm	Grey/brown sandy silt with fragments of metal including rusted nails and a rusted cup hook.	10YR4/2 Dark grey brown
380-620mm	Grey/brown sandy silt with a sparse scatter of charcoal flecks and some gravels. One artefact retrieved from this unit at 500-600mm below surface.	10YR4/2 Dark grey brown
620-920mm	Light grey sandy silt. Compacted. Burnt tree root and evidence of bioturbation.	2.5Y 6/2 Light Brownish Grey
920-1060mm	Compacted layer of ironstones gravels and light grey/brown silt matrix.	2.5Y 6/2 Light Brownish Grey
1060mm+	Unexcavated.	

Component -4

No photo available

Component -5

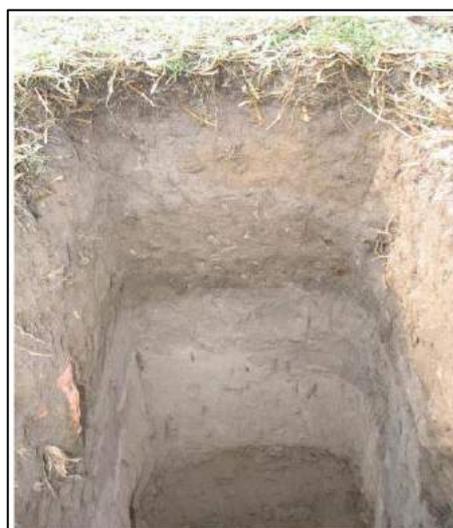


Figure 5.23 PAS3 Shovel Pit 15E11S

Extent:

- 47 shovel pits and one test pit were excavated within the region of VAHR 7922-1406-1 to -3 at either 5m or 2.5m spacing on a grid layout. No additional artefacts were located.
- 18 shovel pits and one test pit were excavated within the region where VAHR 7922-1406-4 and -5 were located at either 5m or 2.5m spacing on a grid layout. No additional artefacts were located.

The testing indicates that the five subsurface artefacts are located in low density/isolated contexts with Components -1 to -3 in relatively intact soils and Components -4 and -5 in highly disturbed soil contexts. The shovel testing at the artefact locations was undertaken as close as 2.5m resulting in the assessment that the artefacts were unlikely to be associated with denser deposits of artefacts.

**DESCRIBE THE PLACE LOCATION**

The shovel pit where the artefacts were originally found was located on the western edge of the soccer field in the south east corner of the property. The pit is located just on the edge of the dripline of the large eucalypts intended for conservation, approx. 35m north of the north-east corner of building 213 and approx. 25m south-east of the south-east corner of building 105. The area is level and grassed. The reburied artefacts are located to the west of this tree within a vegetated area that will be conserved in the future. This new location is approx 13m due west of the original find location.

**IMPACTS AFFECTING SITE**

Actual: This site was examined through a test excavation program. No evidence of the existence of a midden site was found. However, three artefacts were found in a shovel pit on the edge of the CSIRO oval. The shovel pit was located at E327828.001 N5797411.950 . The area around this shovel pit was examined through excavation of additional shovel pits and a 1m x 1m test pit, within 2.5m of the artefact site. No additional artefacts were found. The extent of the site is considered to be within 2.5m of the location point. It comprises a scatter of three artefacts and does not contain any shell midden material. Two additional isolated artefacts were located at: E327823.876 N5797710.370 and E327837.996 N5797702.567. A new LDAD site recording has been prepared for these artefacts.



Plate 23: Location of VAHR 7922-1406-4 facing east (photo by K. Hislop 20/11/2020)



**Plate 24: Location of VAHR 7922-1406-5 facing south east (photo by K. Hislop 20/11/2020)**



**Plate 25: Location of VAHR 7922-1406-1 to -3 facing south west (photo by K. Hislop 20/11/2020)**

### 9.3.2 VAHR 7922-1408

**VAHR Number:** 7922-1408

**Field Name:** CSIRO Highett LDAD  
COLLECTION

**Primary Grid Coordinate (GDA94 Zone 55):**  
327815.602E / 5797409.604N

**Cadastral details:**  
Lot 1\TP223183, 37 Graham St, Highett (Parish  
of Moorabbin, City of Bayside)

**Site Plan:** see Map 10

#### **Description of Aboriginal Place VAHR 7922-1408**

VAHR 7922-1408 comprises the reburial location of the VAHR 7922-1406 assemblage (see Section 9.3.1). The artefacts were reburied at a depth of 400mm in a position approximately 13m due west of the location of VAHR 7922-1406 components 1-3 (i.e. the position of STP 7.5E15S from (Rowney 2012)). The site is in a good, stable condition within an area that is to be retained as a proposed conservation area (Plate 26).



Plate 26: Location of VAHR 7922-1408 facing south (photo by K. Hislop 20/11/2020)

## **9.4 Aboriginal Place Significance Assessment**

The significance of the Aboriginal archaeological heritage within the activity area has been assessed against the Australia ICOMOS Burra Charter Criteria for the assessment of cultural significance (Australia ICOMOS Incorporated 2013).

In the Burra Charter, ‘cultural significance’ is defined as “...aesthetic, historic, scientific, social or spiritual value for past, present or future generations” (Australia ICOMOS Incorporated 2013 Article 1.2). Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects. Places may have a range of meanings for individuals or groups. The Burra Charter also states that “Cultural significance may change over time and with use. Understanding of cultural significance may change as a result of new information” (Australia ICOMOS Incorporated 2013, p.2 Explanatory note).

Although the Burra Charter is more applicable to non-Aboriginal sites and structures, it may be adapted to assess Aboriginal heritage significance. In particular, the views of contemporary Aboriginal people must be taken into consideration when assessing the following values.

The Burra Charter definitions and ratings used within the following assessment are provided in Appendix 7.

### **9.4.1 Assessment of Significance – VAHR 7922-1406 and VAHR 7922-1408**

#### **Aesthetic Value**

VAHR 7922-1406-1 to -3 and VAHR 7922-1408 are situated within a semi-urbanised environment amongst the broader facilities associated with the CSIRO research laboratories. However, they are located amongst a treed area in the southern region of the activity area that has only undergone a minimal amount of development and ground disturbance. As such, the southern region of the activity area has retained an environmental aesthetic value associated with the treed landscape.

Disturbance has occurred from bulk soil removal during soil contamination remediation works across VAHR 7922-1406-4 and -5. There is no aesthetic value associated with VAHR 7922-1406-4 and -5.

#### **Historic Value**

All Aboriginal Places can be considered to be of value to the history of the local region generally and to descendants of traditional Aboriginal owners in particular. All archaeological sites illustrate aspects of the past use of the landscape by Aboriginal people and all sites have the potential to provide information on changes in Aboriginal economic and technological practices in the local area prior to the arrival of Europeans.

#### **Scientific Value**

The scientific significance assessment for VAHR 7922-1406 (Table 10) indicates that it has a variable level of archaeological significance where VAHR 7922-1406-1 to -3 are of moderate (4) significance and VAHR 7922-1406-4 and -5 are of low (2) significance. This is due to the small quantity and limited range of artefacts and the minimally disturbed soils around VAHR 7922-1406-1 to -3 and the highly disturbed and destroyed soil profile around VAHR 7922-1406-4 and -5. Small sites with variable disturbance are common within the broader region due to the extensive urbanisation of the Bayside area. Additional testing undertaken in the

vicinity of the three artefact locations for VAHR 7922-1406 by Rowney (2012) indicated that the artefacts are likely to be associated with isolated or low densities of artefacts. The contaminated soil removal that has occurred across the region where VAHR 7922-1406-4 and -5 were identified has meant that little remains of the natural ground and therefore the archaeological potential of this area no longer exists. VAHR 7922-1406-1 to -3 are situated in an area with minimal soil disturbance that will be preserved within a conservation area. The extent of archaeological testing undertaken by Rowney for VAHR 7922-1406 indicates that there is limited to no archaeological potential remaining in this south eastern region for Aboriginal cultural heritage that may contribute to our understanding of Aboriginal land use in the Bayside region. This part of the activity area will not undergo any further ground disturbance from the proposed activity, therefore further archaeological excavation is not warranted.

The scientific significance assessment for VAHR 7922-1408 (Table 10) is nominal as the location represents a reburial of cultural heritage rather than an original artefact location. The overall archaeological significance rating has been assessed as moderate (5) due to the less disturbed soil context of the reburial which is within the large treed vegetation in the south eastern part of the activity area. This part of the activity area will not undergo any ground disturbance from the proposed activity and therefore archaeological excavation is not warranted.

**Table 10: Scientific significance assessment of VAHR 7922-1406 and VAHR 7922-1408**

	Site Contents	Site Condition	Representativeness	Overall Archaeological Significance
<b>VAHR 7922-1406 (CSIRO Highett LDAD)</b>	1	Components 1-3: 2  Components 4-5: 0	1	Components 1-3: Moderate (4); Components 4-5: Low (2)
<b>VAHR 7922-1408 (CSIRO Highett LDAD COLLECTION)</b>	1	3	1	Moderate (5)

### **Social Value**

Aboriginal people regard archaeological sites as holding considerable social and cultural value, irrespective of their scientific significance. This arises not only from the material remains that represent a connection to their ancestors, but also from beliefs in the association of archaeological sites and land or ‘Country’. Protection of archaeological sites and remnant sections of landscape form part of their traditional obligations to looking after ‘Country’, which were handed down to them by their ancestors. VAHR 7922-1406 and VAHR 7922-1408 are regarded as being of high social and cultural value to the Traditional Owners.

### **Spiritual Value**

There has been no indication expressed by the Traditional Owners to date of any spiritual values attached to the site. However, it is recognised that all Aboriginal cultural heritage represents a spiritual connection with the land.

### **Statement of Significance**

In assessing the significance of VAHR 7922-1406 and VAHR 7922-1408, it is apparent that historical and social values of the Aboriginal Place are important to the contemporary Aboriginal community. The association of the Aboriginal cultural material to its location on the landscape also has a spiritual aspect,

even though no specific spiritual values have been identified to date. Regarding the variable (moderate and low) scientific significance of VAHR 7922-1406 and VAHR 7922-1408, there is limited to no potential for additional cultural heritage to be present near the locations associated with VAHR 7922-1406 due to the intensive localised testing in these areas by Rowney (2012) that did not locate any further cultural heritage thereby indicating the low density nature of the finds. Rowney's (2012) assessment of the significance of VAHR 7922-1406 (and by extension VAHR 7922-1408) was that there were insufficient cultural deposits or features to illustrate information about the lifestyle and cultural of the Aboriginal people who passed through the area prior to the arrival of the European settlers. The artefacts were considered to have no scientific significance by Rowney. However, the cultural deposits are of high cultural significance to Aboriginal people.

#### **9.4.2 TO Information About the Aboriginal Cultural Heritage**

Comment on the cultural values and significance of Aboriginal Places can only be made by the Aboriginal community. No statements were provided by the TO groups for the Aboriginal Places.

## **10.0 Consideration of Section 61 Matters – Impact Assessment**

In accordance with Section 61 of the *Aboriginal Heritage Act 2006*, a CHMP must consider whether the activity will be conducted in a way that avoids harm to Aboriginal cultural heritage.

Section 61 matters are a requirement of the CHMP process and are an assessment of whether:

- harm to Aboriginal cultural heritage can be avoided or minimised (s. 61 (a) and (b));
- specific measures are required for the management of Aboriginal cultural heritage (s. 61 I);
- particular contingency plans are required in relation to disputes, delays and other obstacles that may affect the conduct of the activity (s. 61 (d)); and
- requirements relating to the custody and management of Aboriginal cultural heritage during the course of the activity are needed (s. 61 I).

### **10.1 Section 61 Matters in Relation to VAHR 7922-1406 and VAHR 7922-1408**

#### **10.1.1 Can Harm to VAHR 7922-1406 and VAHR 7922-1408 be Avoided and/or Minimised?**

In accordance with Section 61 of the *Aboriginal Heritage Act 2006*, it is stated that harm to VAHR 7922-1406-1 to -3 can be avoided, but harm to VAHR 7922-1406-4 and -5 cannot be avoided or minimised. Harm to VAHR 7922-1408 can be avoided.

VAHR 7922-1406 is located in three testing pits, with two located in the central region (VAHR 7922-1406-4 and -5) of the activity area and one in the south (VAHR 7922-1406-1 to -3). The southern region of the activity area is to be retained as a conservation reserve and no ground disturbing works are proposed for this area. Harm to VAHR 7922-1406-1 to -3 can therefore be avoided. VAHR 7922-1406-4 and -5 have been excavated as part of contaminated soil removal and remediation works undertaken prior to the Sponsor taking ownership of the land. Extensive soil removal has occurred as part of this process and no soils of cultural heritage sensitivity remain at the location of VAHR 7922-1406-4 and -5. It is not feasible to try and avoid or minimise harm to the location of VAHR 7922-1406-4 and -5 as it has already been destroyed.

VAHR 7922-1408 is located in the southern region of the activity area, near VAHR 7922-1406-1 to -3. This location lies within the conservation reserve and no ground disturbing works are proposed for this area. Harm to VAHR 7922-1408 can therefore be avoided.

### **Cumulative Impact Statement**

The assessment for this CHMP resulted in the review of two previously registered Aboriginal Places within the activity area, VAHR 7922-1406 (low density artefact distribution) and VAHR 7922-1408 (low density artefact distribution-reburial location of VAHR 7922-1406), as well as a varied range of other Aboriginal Place component types within the geographic region. Subsurface stone artefacts are frequently located across this region, particularly on inland dune deposits. Subsurface stone artefacts are predominantly associated with low density artefact distributions (also registered as artefact scatters) and shell middens.

The geographic region currently contains 66 registered Aboriginal Places, comprising 105 components. The most common components in the geographic region are low density artefact distributions (n=31), followed by object collections (n=23), shell middens (n=20), artefact scatters (n=17), Aboriginal historical places (n=6), stone features (n=6), an earth feature and a scarred tree. A large proportion of these sites (43%) are

located along the coastline, and this most likely reflects the extent of destructive land-use activities related to urbanisation of Highett over the last 150 years.

The activity area lies within a region approximately 19km south of Melbourne that has undergone extensive urban development since the mid-nineteenth century. While CHMPs and archaeological assessments in this region have led to the discovery of many Aboriginal Places, most have ultimately been destroyed through the process of urbanisation.

VAHR 7922-1406 is a low density artefact distribution of moderate to low scientific significance which has partially (VAHR 7922-1406-4 and -5) been destroyed prior to the Sponsor taking ownership of the land. VAHR 7922-1406-1 to -3 are, however, protected within a conservation area. VAHR 7922-1408, the reburial location of the Aboriginal cultural heritage from VAHR 7922-1406, is also located within the conservation area. While the region of the activity area where VAHR 7922-1406-4 and -5 were identified has been destroyed through soil removal and, therefore, the original location has been lost to both the Aboriginal community and the archaeological record of the Highett region, the remaining cultural heritage locations within the activity area will be preserved within the proposed activity and will not undergo future harm, being retained within a conservation area that will be accessible to descendants of the Traditional Owners and the general public following the completion of the activity works.

#### **10.1.2 Are Specific Measures Needed for the Management of Aboriginal Cultural Heritage at VAHR 7922-1406 and VAHR 7922-1408?**

As the original location of VAHR 7922-1406-4 and -5 has already been destroyed through the removal of contaminated soils, no further management is required of the physical location. The artefacts associated with VAHR 7922-1406-4 and -5 were collected at the time they were identified and have since been reburied within VAHR 7922-1408.

Harm is able to be avoided to VAHR 7922-1406-1 to -3 and VAHR 7922-1408. No on-site salvage works are required. However, measures for the ongoing management of the locations will be required through a protection zone being placed around the two locations. No ground disturbing works are permitted within the protection zone (Condition Map 1).

All Aboriginal cultural heritage from VAHR 7922-1406 has been repatriated and reburied as VAHR 7922-1408 and no further measures are required for the curation and treatment of the cultural material.

Management measures for VAHR 7922-1406 and VAHR 7922-1408 are discussed in detail in Section 1.

#### **10.1.3 Necessary Contingency Plans**

The approved form for a CHMP (*Aboriginal Heritage Regulations 2018*, Schedule 2, 13(1)) states that a management plan must include specific contingency plans for:

- (a) the matters referred to in Section 61 of the *Aboriginal Heritage Act 2006*;
- (b) the resolution of any disputes between the Sponsor and relevant RAPs in relation to the implementation of an approved management plan or the conduct of the activity (if a RAP is evaluating the management plan);
- (c) reviewing compliance with the management plan and mechanisms for remedying non-compliance;

- (d) the management of Aboriginal cultural heritage found during the activity; and
- (e) the notification, in accordance with the *Aboriginal Heritage Act 2006*, of the discovery of Aboriginal cultural heritage during the carrying out of the activity.

Contingency plans are required even in situations where it has been assessed that there is a low probability of Aboriginal cultural heritage being located within an activity area.

If the activity is a subdivision referred to in r. 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.

These matters are outlined in Section 2.

#### **10.1.4 Necessary Custody and Management Arrangements**

All artefacts found will be temporarily stored at the offices of the heritage advisor for the duration of the CHMP works. Repatriation and/or reburial of Aboriginal cultural heritage must occur within six months of the completion of the activity. If requested by the Traditional Owners (or RAP if one has been appointed), provisions should be made to re-bury artefacts within the activity area, in a place which will not be disturbed by future works. Further information regarding the Aboriginal cultural heritage custody and management arrangements are contained in Sections 1 and 2.

No Aboriginal cultural heritage was identified during the conduct of this CHMP. However, as registered Places are present within the activity area, there must be a procedure in place for the unexpected discovery of Aboriginal cultural heritage during the proposed works. Further information regarding custody and management arrangements for Aboriginal cultural heritage identified during the conduct of the proposed activity are contained in Section 2.

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## **Appendix 1: CHMP Notification**



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: Wolf International Group Pty Ltd  
ABN/ACN: 32 615 160 015  
Contact Name: Mark Nutter  
Postal Address: Suite 6/40-42 Montclair Avenue, Glen Waverley VIC 3150  
Business Number: 9886 8668 Mobile: \_\_\_\_\_  
Email Address: mark.n@wolfinternationalgroup.com

### Sponsor's agent (if relevant)

Company: Gallagher Jeffs  
Contact Name: Courtney Hipperson - Assistant Development Manager  
Postal Address: Level 1, 606 St Kilda Rd, Melbourne VIC 3004  
Business Number: 8610 3852 Mobile: \_\_\_\_\_  
Email Address: courtneyh@gj.com.au

### SECTION 2 - Description of proposed activity and location

Project Name: Proposed residential development at 37 Graham Road, Highett  
Municipal district: Bayside City Council

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

Dwellings (3+)

### SECTION 3 - Cultural Heritage Advisor

Kathleen Hislop Heritage Insight Pty Ltd kathleenhislop@heritageinsight.com  
Name Company Email address

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

Start Date: 17-Feb-2020 Finish Date: 17-May-2020

Submitted on: 17 Feb 2020



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?*  
Dwellings (3+)  
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.*

### 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**.*

Boon Wurrung Foundation Limited  
Bunurong Land Council Aboriginal Corporation  
Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation

### 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**.*

*CHMP is expected to be only a desktop level assessment. Consultation will include request for oral history and feedback regarding management conditions.*

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

*The plan is to be evaluated by:*

- Joint - Registered Aboriginal Party AND The Secretary
- A Registered Aboriginal Party
- The Secretary
- Victorian Aboriginal Heritage 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

Submitted on: 17 Feb 2020



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.)

In addition to notifying the Deputy Director and any relevant registered Aboriginal party/ies, 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: 17 Feb 2020

**Appendix 2: DPO2 and RGZ/RGZ3, City of Bayside Planning Scheme**

BAYSIDE PLANNING SCHEME

30/06/2020  
C162bays

**SCHEDULE 2 TO CLAUSE 43.04 DEVELOPMENT PLAN OVERLAY**

Shown on the planning scheme map as **DPO2**.

**FORMER CSIRO SITE, HIGHETT**

**1.0**

30/06/2020  
C162bays

**Objectives**

To redevelop the former CSIRO Highett site in an integrated manner with surrounding land uses.

To provide a high-quality open space network and conservation area.

To contribute to the housing diversity within the area by providing a range of dwelling types and densities, including affordable housing.

To demonstrate high quality building and landscape design that implements environmentally sustainable design principles.

To provide for safe and efficient traffic and pedestrian networks that integrate with the surrounding neighbourhood

**2.0**

30/06/2020  
C162bays

**Requirement before a permit is granted**

A permit may be granted to use or subdivide land, construct a building or construct or carry out works before a development plan has been prepared to the satisfaction of the responsible authority for the following:

- Any buildings and works associated with the remediation of the land in accordance with or for the purpose of obtaining a certificate or statement of environmental audit under the Environmental Protection Act 1970.
- Minor buildings or works.
- Consolidation of land or Subdivision.
- Removal or creation of easements or restrictions.

The responsible authority must be satisfied that the development is necessary to the ongoing management and preparation of the land for future redevelopment.

Before granting a permit, the responsible authority must be satisfied that the permit will not prejudice the preparation of a development plan and the future use and development of the land in an integrated manner and in accordance with the objectives for the site contained in this schedule.

**3.0**

30/06/2020  
C162bays

**Conditions and requirements for permits**

The following conditions and/or requirements apply to permits:

- A permit for subdivision or development of the land (excluding site preparation works) must include a requirement for a Section 173 Agreement to be entered into between the owner of the land, the Bayside City Council and CSIRO. The Agreement must provide for the following:
  - Prior to the issue of a Statement of Compliance for the residential subdivision of the land, the transfer of a total of 4.0ha of the land to Bayside City Council for public open space and conservation purposes. This must include:
    - 3.0 ha of land for conservation purposes in the southern portion of the site;
    - 1.0 ha of land for passive open space purposes, distributed across the balance of the site, in a manner that provides for equitable local access and good urban design outcomes.
  - The land must be transferred at no cost to Bayside City Council.

## BAYSIDE PLANNING SCHEME

### 4.0

30/06/2020  
C162bays

#### Requirements for development plan

The development plan must show or make provisions for the following requirements to the satisfaction of the responsible authority:

##### Urban Context and Site Analysis

- A response to the site's regional and strategic context.
- Existing urban character analysis including landscape features, topography and significant vegetation.
- Details on how an integrated development will be achieved that improves and complements the desired urban character for the site and surrounding land uses.
- Vehicle and pedestrian linkages to existing networks.

##### Character and Built Form

- Building envelopes that identify heights, setbacks and minimum offsets between buildings to ensure internal amenity.
- Conceptual general layout and height of proposed buildings showing the graduation of building heights across the site, including:
  - Two to three storeys where development abuts existing residential development and storey built form.
  - up to 4 storeys in the central area of the site.
  - up to 6 storeys at the northern end of the site.
- An explanation of how the development will interface with adjoining commercial and residential development.
- A range of dwelling types to cater for a variety of housing needs.
- A high quality of internal amenity for future residents.

##### Open Space, Landscape, and Significant Vegetation

- At least 4.0 hectares of land for conservation and open space purposes, which is to include:
  - 3.0 ha of land for conservation purposes in the southern portion of the site.
  - 1.0 ha of land for passive open space purposes, distributed across the balance of the site, in a manner that provides for equitable local access and good urban design outcomes.
- An offset strategy in accordance with the principles set out under *Guidelines for the removal, Destruction or lopping of native vegetation* (Department of Environment, Land, Water and Planning, 2017) The incorporation of significant native vegetation into the design of the development where possible.
- The incorporation of any sites of cultural significance into the design of the development.
- A Landscape Concept Plan and Tree Management Plan for the site that provides:
  - An assessment of existing vegetation on the land by a suitably qualified arborist or ecologist.
  - Opportunities to retain mature trees with adequate setbacks to development.
  - A planting theme which complements neighbourhood character, surrounding street trees and demonstrates water sensitive design objectives.
  - Delineation of which trees are to be removed and which trees are to be retained.
- Safety for users through passive surveillance and site activation.

#### BAYSIDE PLANNING SCHEME

##### **Traffic and Access**

A comprehensive transport analysis which identifies:

- Expected traffic volumes associated with the proposed use and development of the site;
- A transport, traffic and access management plan which includes measures to address the transport, traffic, pedestrian and bicycle needs of the development, in particular an indicative hierarchy proposed for the site that:
  - Complements the form and structure of the surrounding network.
  - Investigates the potential for an east-west vehicle connection that links into the surrounding road network.
  - Provides for functional, safe and efficient pedestrian and cyclist routes to, from and within the site.
- The means proposed to address the impacts of traffic generated by the development on the surrounding road network including any required upgrades or modifications.

##### **Drainage**

A civil infrastructure and drainage report that includes:

- Assessment of the capacity of infrastructure to service the development with respect to the treatment and retardation of stormwater.
- Water Sensitive Urban Design (WSUD) principles.

##### **Environmentally Sustainable Development**

- Environmentally sustainable design principles to be incorporated into the development, including integrated water management, energy efficiency, climate responsive design, waste minimisation and improvements to urban ecology including an assessment with the Built Environment Sustainability Scorecard (BESS) tool.
- How the orientation and layout of the development makes appropriate use of daylight and solar energy.
- Water sensitive urban design solutions for managing storm water discharge throughout the site including public areas and roads, including the potential for diverting storm water for reuse off-site.
- Incorporation of rain water tanks into the design to capture and store rain water for use in private gardens within the development and public open space.

BAYSIDE PLANNING SCHEME - LOCAL PROVISION  
 AMENDMENT C162bays



- LEGEND**
-  EAO - Environmental Audit Overlay
  -  Local Government Area

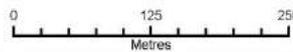


Part of Planning Scheme Map 3EAO

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Environment,  
 Land, Water  
 and Planning

VICTORIA PLANNING PROVISIONS

**32.07**

31/07/2018  
VC148

**RESIDENTIAL GROWTH ZONE**

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

**Purpose**

To implement the Municipal Planning Strategy and the Planning Policy Framework.  
 To provide housing at increased densities in buildings up to and including four storey buildings.  
 To encourage a diversity of housing types in locations offering good access to services and transport including activity centres and town centres.  
 To encourage a scale of development that provides a transition between areas of more intensive use and development and other residential areas.  
 To ensure residential development achieves design objectives specified in a schedule to this zone.  
 To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.

**32.07-1**

27/03/2017  
VC110

**Design objectives**

A schedule to this zone must contain the design objectives to be achieved for the area.

**32.07-2**

24/01/2020  
VC160

**Table of uses**

**Section 1 - Permit not required**

Use	Condition
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.
Community care accommodation	Must meet the requirements of Clause 52.22-2.
Dependent person's unit	Must be the only dependent person's unit on the lot.
Domestic animal husbandry (other than Domestic animal boarding)	Must be no more than 2 animals.
Dwelling (other than Bed and breakfast)	
Home based business	
Informal outdoor recreation	
Medical centre	The gross floor area of all buildings must not exceed 250 square metres.
Place of worship	The gross floor area of all buildings must not exceed 250 square metres.  The site must adjoin, or have access to, a road in a Road Zone.
Racing dog husbandry	Must be no more than 2 animals.
Railway	

VICTORIA PLANNING PROVISIONS

Use	Condition
Residential aged care facility	
Rooming house	Must meet the requirements of Clause 52.23-2.
Tramway	
Any use listed in Clause 62.01	Must meet the requirements of Clause 62.01.

Section 2 – Permit required

Use	Condition
Accommodation (other than Community care accommodation, Dependent person's unit, Dwelling, Residential aged care facility and Rooming house)	
Agriculture (other than Animal production, Animal training, Apiculture, Domestic animal husbandry, Horse husbandry and Racing dog husbandry)	
Car park	Must be used in conjunction with another use in Section 1 or 2.
Car wash	The site must adjoin, or have access to, a road in a Road Zone.
Convenience restaurant	The site must adjoin, or have access to, a road in a Road Zone.
Convenience shop	
Domestic animal husbandry (other than Domestic animal boarding) – if the Section 1 condition is not met	Must be no more than 5 animals.
Food and drink premises (other than Convenience restaurant and Take away food premises)	
Grazing animal production	
Leisure and recreation (other than Informal outdoor recreation and Motor racing track)	
Market	
Office (other than Medical centre)	The land must be located within 100 metres of a commercial zone.  The land must have the same street frontage as the land in the commercial zone.  The leasable floor area must not exceed 250 square metres.
Place of assembly (other than Amusement parlour, Carnival, Cinema based entertainment facility, Circus, Nightclub and Place of worship)	
Plant nursery	

VICTORIA PLANNING PROVISIONS

Use	Condition
<b>Service station</b>	<p>The site must either:</p> <ul style="list-style-type: none"> <li>▪ Adjoin a commercial zone or industrial zone.</li> <li>▪ Adjoin, or have access to, a road in a Road Zone.</li> </ul> <p>The site must not exceed either:</p> <ul style="list-style-type: none"> <li>▪ 3000 square metres.</li> <li>▪ 3600 square metres if it adjoins on two boundaries a road in a Road Zone.</li> </ul>
<b>Shop (other than Adult sex product shop, Bottle shop and Convenience shop)</b>	<p>The land must be located within 100 metres of a commercial zone or Mixed Use Zone.</p> <p>The land must have the same street frontage as the land in the commercial zone or Mixed Use Zone.</p>
<b>Store</b>	<p>Must be in a building, not a dwelling, and used to store equipment, goods, or motor vehicles used in conjunction with the occupation of a resident of a dwelling on the lot.</p>
<b>Take away food premises</b>	<p>The site must adjoin, or have access to, a road in a Road Zone.</p>
<b>Utility installation (other than Minor utility installation and Telecommunications facility)</b>	
<b>Any other use not in Section 1 or 3</b>	

**Section 3 – Prohibited**

Use
Adult sex product shop
Amusement parlour
Animal production (other than Grazing animal production)
Animal training
Bottle shop
Brothel
Cinema based entertainment facility
Domestic animal boarding
Extractive industry
Horse husbandry
Industry (other than Car wash)
Motor racing track
Nightclub
Retail premises (other than Food and drink premises, Market, Plant nursery and Shop)
Saleyard

VICTORIA PLANNING PROVISIONS

**Use**

Transport terminal  
Warehouse (other than Store)

**32.07-3**  
31/07/2018  
VC148

**Subdivision**

**Permit requirement**

A permit is required to subdivide land.

An application to subdivide land, other than an application to subdivide land into lots each containing an existing dwelling or car parking space, must meet the requirements of Clause 56 and:

- Must meet all of the objectives included in the clauses specified in the following table.
- Should meet all of the standards included in the clauses specified in the following table.

Class of subdivision	Objectives and standards to be met
60 or more lots	All except Clause 56.03-5.
16 – 59 lots	All except Clauses 56.03-1 to 56.03-3, 56.03-5, 56.06-1 and 56.06-3.
3 – 15 lots	All except Clauses 56.02-1, 56.03-1 to 56.03-4, 56.05-2, 56.06-1, 56.06-3 and 56.06-6.
2 lots	Clauses 56.03-5, 56.04-2, 56.04-3, 56.04-5, 56.06-8 to 56.09-2.

**VicSmart applications**

Subject to Clause 71.06, an application under this clause for a development specified in Column 1 is a class of VicSmart application and must be assessed against the provision specified in Column 2.

Class of application	Information requirements and decision guidelines
Subdivide land to realign the common boundary between 2 lots where: <ul style="list-style-type: none"> <li>▪ The area of either lot is reduced by less than 15 percent.</li> <li>▪ The general direction of the common boundary does not change.</li> </ul>	Clause 59.01
Subdivide land into lots each containing an existing building or car parking space where: <ul style="list-style-type: none"> <li>▪ The buildings or car parking spaces have been constructed in accordance with the provisions of this scheme or a permit issued under this scheme.</li> <li>▪ An occupancy permit or a certificate of final inspection has been issued under the Building Regulations in relation to the buildings within 5 years prior to the application for a permit for subdivision.</li> </ul>	Clause 59.02
Subdivide land into 2 lots if: <ul style="list-style-type: none"> <li>▪ The construction of a building or the construction or carrying out of works on the land:</li> </ul>	Clause 59.02

VICTORIA PLANNING PROVISIONS

Class of application	Information requirements and decision guidelines
<ul style="list-style-type: none"> <li>- Has been approved under this scheme or by a permit issued under this scheme and the permit has not expired.</li> <li>- Has started lawfully.</li> </ul> <ul style="list-style-type: none"> <li>▪ The subdivision does not create a vacant lot.</li> </ul>	

**32.07-4**  
31/07/2018  
VC148

**Construction and extension of one dwelling on a lot**

**Permit requirement**

A permit is required to construct or extend one dwelling on a lot less than 300 square metres. A development must meet the requirements of Clause 54.

**No permit required**

No permit is required to:

- Construct or carry out works normal to a dwelling.
- Construct or extend an out-building (other than a garage or carport) on a lot provided the gross floor area of the out-building does not exceed 10 square metres and the maximum building height is not more than 3 metres above ground level.
- Make structural changes to a dwelling provided the size of the dwelling is not increased or the number of dwellings is not increased.

**VicSmart applications**

Subject to Clause 71.06, an application under this clause for a development specified in Column 1 is a class of VicSmart application and must be assessed against the provision specified in Column 2.

Class of application	Information requirements and decision guidelines
<p>Construct an outbuilding or extend a dwelling if the development:</p> <ul style="list-style-type: none"> <li>▪ Does not exceed a building height of 5 metres.</li> <li>▪ Is not visible from the street (other than a lane) or a public park.</li> <li>▪ Meets the requirements in the following standards of Clause 54:</li> <li>▪ A10 Side and rear setbacks.</li> <li>▪ A11 Walls on boundaries.</li> <li>▪ A12 Daylight to existing windows.</li> <li>▪ A13 North-facing windows.</li> <li>▪ A14 Overshadowing open space.</li> <li>▪ A15 Overlooking.</li> </ul> <p>For the purposes of this class of VicSmart application, the Clause 54 standards specified above are mandatory.</p>	<p>Clause 59.14</p>

VICTORIA PLANNING PROVISIONS

Class of application	Information requirements and decision guidelines
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If a schedule to the zone specifies a requirement of a standard different from a requirement set out in the Clause 54 standard, the requirement in the schedule to the zone applies and must be met.

**32.07-5**  
31/07/2018  
VC148

**Construction and extension of two or more dwellings on a lot, dwellings on common property and residential buildings**

**Permit requirement**

A permit is required to:

- Construct a dwelling if there is at least one dwelling existing on the lot.
- Construct two or more dwellings on a lot.
- Extend a dwelling if there are two or more dwellings on the lot.
- Construct or extend a dwelling if it is on common property.
- Construct or extend a residential building.

A permit is required to construct or extend a front fence within 3 metres of a street if:

- The fence is associated with 2 or more dwellings on a lot or a residential building, and
- The fence exceeds the maximum height specified in Clause 55.06-2.

A development must meet the requirements of Clause 55. This does not apply to a development of five or more storeys, excluding a basement.

An apartment development of five or more storeys, excluding a basement, must meet the requirements of Clause 58.

A permit is not required to construct one dependent person’s unit on a lot.

**VicSmart applications**

Subject to Clause 71.06, an application under this clause for a development specified in Column 1 is a class of VicSmart application and must be assessed against the provision specified in Column 2.

Class of application	Information requirements and decision guidelines
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Construct or extend a front fence within 3 metres of a street if the fence is associated with 2 or more dwellings on a lot or a residential building.	Clause 59.03
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**Transitional provisions**

Clause 55 of this scheme, as in force immediately before the approval date of Amendment VC136, continues to apply to:

- An application for a planning permit lodged before that date.
- An application for an amendment of a permit under section 72 of the Act, if the original permit application was lodged before that date.

Clause 58 does not apply to:

- An application for a planning permit lodged before the approval date of Amendment VC136.

**VICTORIA PLANNING PROVISIONS**

- An application for an amendment of a permit under section 72 of the Act, if the original permit application was lodged before the approval date of Amendment VC136.

**32.07-6**  
27/03/2017  
VC110

**Requirements of Clause 54 and Clause 55**

A schedule to this zone may specify the requirements of:

- Standards A3, A5, A6, A10, A11, A17 and A20 of Clause 54 of this scheme.
- Standards B6, B8, B9, B13, B17, B18, B28 and B32 of Clause 55 of this scheme.

If a requirement is not specified in a schedule to this zone, the requirement set out in the relevant standard of Clause 54 or Clause 55 applies.

**32.07-7**  
26/10/2018  
VC152

**Residential aged care facility**

**Permit requirements**

A permit is required to construct a building or construct or carry out works for a residential aged care facility.

A development must meet the requirements of Clause 53.17 - Residential aged care facility.

**32.07-8**  
26/10/2018  
VC152

**Buildings and works associated with a Section 2 use**

A permit is required to construct a building or construct or carry out works for a use in Section 2 of Clause 32.07-2.

**VicSmart applications**

Subject to Clause 71.06, an application under this clause for a development specified in Column 1 is a class of VicSmart application and must be assessed against the provision specified in Column 2.

Class of application	Information requirements and decision guidelines
<p>Construct a building or construct or carry out works with an estimated cost of up to \$100,000 where:</p> <ul style="list-style-type: none"> <li>▪ The building or works is not associated with a dwelling.</li> <li>▪ The requirements in the following standards of Clause 54 are met, where the land adjoins land in a residential zone used for residential purposes:                             <ul style="list-style-type: none"> <li>▪ A10 Side and rear setbacks.</li> <li>▪ A11 Walls on boundaries.</li> <li>▪ A12 Daylight to existing windows.</li> <li>▪ A13 North-facing windows.</li> <li>▪ A14 Overshadowing open space.</li> <li>▪ A15 Overlooking.</li> </ul> </li> </ul> <p>For the purposes of this class of VicSmart application, the Clause 54 standards specified above are mandatory.</p> <p>If a schedule to the zone specifies a requirement of a standard different from a requirement set out in the Clause 54 standard, the requirement in the schedule to the zone applies and must be met.</p>	<p>Clause 59.04</p>

VICTORIA PLANNING PROVISIONS

**32.07-9**

26/10/2018  
VC152

**Maximum building height requirement for a dwelling or residential building**

A building must not be constructed for use as a dwelling or a residential building that exceeds the maximum building height specified in a schedule to this zone.

If no maximum building height is specified in a schedule to this zone, the building height should not exceed 13.5 metres.

This building height requirement replaces the maximum building height specified in Standard A4 in Clause 54 and Standard B7 in Clause 55.

A building may exceed the maximum building height specified in a schedule to this zone if:

- It replaces an immediately pre-existing building and the new building does not exceed the building height of the pre-existing building.
- There are existing buildings on both abutting allotments that face the same street and the new building does not exceed the building height of the lower of the existing buildings on the abutting allotments.
- It is on a corner lot abutted by lots with existing buildings and the new building does not exceed the building height of the lower of the existing buildings on the abutting allotments.
- It is constructed pursuant to a valid building permit that was in effect prior to the introduction of this provision.

An extension to an existing building may exceed the maximum building height specified in a schedule to this zone if it does not exceed the building height of the existing building.

A building may exceed the maximum building height by up to 1 metre if the slope of the natural ground level, measured at any cross section of the site of the building wider than 8 metres, is greater than 2.5 degrees.

The maximum building height requirement in this zone or a schedule to this zone applies whether or not a planning permit is required for the construction of a building.

**Building height if land is subject to inundation**

If the land is in a Special Building Overlay, Land Subject to Inundation Overlay or is land liable to inundation the maximum building height specified in the zone or schedule to the zone is the vertical distance from the minimum floor level determined by the relevant drainage authority or floodplain management authority to the roof or parapet at any point.

**32.07-10**

26/10/2018  
VC152

**Buildings on lots that abut another residential zone**

Any buildings or works constructed on a lot that abuts land which is in a General Residential Zone, Neighbourhood Residential Zone, or Township Zone must meet the requirements of Clauses 55.03-5, 55.04-1, 55.04-2, 55.04-3, 55.04-5 and 55.04-6 along that boundary.

**32.07-11**

26/10/2018  
VC152

**Application requirements**

An application must be accompanied by the following information, as appropriate:

- For a residential development of four storeys or less, the neighbourhood and site description and design response as required in Clause 54 and Clause 55.
- For an apartment development of five or more storeys, an urban context report and design response as required in Clause 58.01.
- For an application for subdivision, a site and context description and design response as required in Clause 56.
- Plans drawn to scale and dimensioned which show:
  - Site shape, size, dimensions and orientation.

**VICTORIA PLANNING PROVISIONS**

- The siting and use of existing and proposed buildings.
- Adjacent buildings and uses.
- The building form and scale.
- Setbacks to property boundaries.
- The likely effects, if any, on adjoining land, including noise levels, traffic, the hours of delivery and despatch of good and materials, hours of operation and light spill, solar access and glare.
- Any other application requirements specified in a schedule to this zone.

If in the opinion of the responsible authority an application requirement is not relevant to the evaluation of an application, the responsible authority may waive or reduce the requirement.

**32.07-12**

26/10/2018  
VC152

**Exemption from notice and review**

**Subdivision**

An application to subdivide 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.

**32.07-13**

24/01/2020  
VC160

**Decision guidelines**

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider, as appropriate:

**General**

- The Municipal Planning Strategy and the Planning Policy Framework.
- The purpose of this zone.
- The objectives set out in a schedule to this zone.
- Any other decision guidelines specified in a schedule to this zone.
- The impact of overshadowing on existing rooftop solar energy systems on dwellings on adjoining lots in a Mixed Use Zone or Residential Growth Zone.

**Subdivision**

- The pattern of subdivision and its effect on the spacing of buildings.
- For subdivision of land for residential development, the objectives and standards of Clause 56.

**Dwellings and residential buildings**

- For the construction of one dwelling on a lot, whether the development is an under-utilisation of the lot.
- For the construction and extension of one dwelling on a lot, the objectives, standards and decision guidelines of Clause 54.
- For the construction and extension of two or more dwellings on a lot, dwellings on common property and residential buildings, the objectives, standards and decision guidelines of Clause 55. This does not apply to an apartment development of five or more storeys, excluding a basement.
- For the construction and extension of an apartment development of five or more storeys, excluding a basement, the objectives, standards and decisions guidelines of Clause 58.

VICTORIA PLANNING PROVISIONS

**Non-residential use and development**

- Whether the use or development is compatible with residential use.
- Whether the use generally serves local community needs.
- The scale and intensity of the use and development.
- The design, height, setback and appearance of the proposed buildings and works.
- The proposed landscaping.
- The provision of car and bicycle parking and associated accessways.
- Any proposed loading and refuse collection facilities.
- The safety, efficiency and amenity effects of traffic to be generated by the proposal.

**32.07-14**

28/10/2018  
VC152

**Signs**

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

BAYSIDE PLANNING SCHEME

30/06/2020  
C162bays

**SCHEDULE 3 TO CLAUSE 32.07 RESIDENTIAL GROWTH ZONE**

Shown on the planning scheme map as **RGZ3**.

**FORMER CSIRO SITE, HIGHETT**

**1.0**

**Design objectives**

30/06/2020  
C162bays

To facilitate the renewal of the former CSIRO site in an integrated manner.

**2.0**

**Requirements of Clause 54 and Clause 55**

30/06/2020  
C162bays

	Standard	Requirement
Minimum street setback	A3 and B6	None Specified
Site coverage	A5 and B8	None Specified
Permeability	A6 and B9	None Specified
Landscaping	B13	None Specified
Side and rear setbacks	A10 and B17	None Specified
Walls on boundaries	A11 and B18	None Specified
Private open space	A17	None Specified
	B28	None Specified
Front fence height	A20 and B32	None Specified

**3.0**

**Maximum building height requirement for a dwelling or residential building**

30/06/2020  
C162bays

None Specified

**4.0**

**Application requirements**

30/06/2020  
C162bays

None Specified

**5.0**

**Decision guidelines**

30/06/2020  
C162bays

None specified.

### **Appendix 3: Aboriginal Places in the Geographic Region**

VAHR No.	Aboriginal Place Name	Component Place No.	Component Type	Component Feature Type
7821-0964	Peninsula Springs 1	7821-0964-2	Object Collection	
7821-0965	Peninsula Springs 2	7821-0965-2	Object Collection	
7821-0966	Peninsula Springs 3	7821-0966-1	Object Collection	
7821-0967	Peninsula Springs 4	7821-0967-2	Object Collection	
7821-0967	Peninsula Springs 4	7821-0967-4	Object Collection	
7822-0459	PICNIC POINT 1	7822-0459-1	Shell Midden	
7822-0460	PICNIC POINT 2	7822-0460-1	Shell Midden	
7822-0463	PICNIC POINT 3	7822-0463-1	Shell Midden	
7822-0464	PICNIC POINT 4	7822-0464-1	Shell Midden	
7822-3833	Jetty Road West Shell Midden 1	7822-3833-2	Artefact Scatter	
7822-3833	Jetty Road West Shell Midden 1	7822-3833-1	Shell Midden	
7921-0036	Bluescope Western Port 1 (LYSAGHT 1)	7921-0036-4	Object Collection	
7921-1750	South Boundary Rd East LDAD	7921-1750-5	Object Collection	
7921-1751	Warringine Creek AS	7921-1751-1	Object Collection	
7921-1752	Bungower Road Pearcedale LDAD	7921-1752-2	Object Collection	
7921-1753	Callanans Lane LDAD	7921-1753-7	Object Collection	
7921-1754	Craigs Lane LDAD	7921-1754-4	Object Collection	
7921-1755	Baxter-Tooradin Rd AS	7921-1755-1	Object Collection	
7921-1756	Baxter-Tooradin Road LDAD	7921-1756-8	Object Collection	
7921-1762	Hobson Road AS	7921-1762-1	Object Collection	
7921-1838	Railway Road LDAD	7921-1838-5	Object Collection	
7922-0074	HALF MOON BAY ROCKWELL 1 ROCKWELL 1	7922-0074-1	Stone Feature	Rockwell
7922-0075	HAYDENS RD ROCKWELL ROCKWELL 2	7922-0075-1	Stone Feature	Rockwell
7922-0185	TABLE ROCK POINT 1	7922-0185-2	Earth Feature	Soil Deposit
7922-0185	TABLE ROCK POINT 1	7922-0185-1	Shell Midden	
7922-0186	HALF MOON BAY ROCKWELL 2	7922-0186-1	Stone Feature	Rockwell
7922-0187	HALF MOON BAY 4	7922-0187-1	Shell Midden	
7922-0188	HALF MOON BAY ROCKWELL 5	7922-0188-1	Stone Feature	Rockwell
7922-0189	HALF MOON BAY ROCKWELL 6	7922-0189-1	Stone Feature	Rockwell
7922-0191	BLACK ROCK 1	7922-0191-1	Shell Midden	
7922-0192	BLACK ROCK 2.	7922-0192-1	Shell Midden	
7922-0193	HALF MOON BAY 3	7922-0193-1	Stone Feature	Rockwell
7922-0194	HALF MOON BAY 7	7922-0194-1	Shell Midden	
7922-0195	HALF MOON BAY 8	7922-0195-1	Shell Midden	
7922-0196	RED BLUFF STREET 1	7922-0196-1	Shell Midden	
7922-0197	RED BLUFF STREET 2	7922-0197-1	Shell Midden	
7922-0198	ROYAL AVE 1	7922-0198-1	Shell Midden	
7922-0956	CHELTENHAM GOLF COURSE 1	7922-0956-1	Artefact Scatter	
7922-0957	CHELTENHAM GOLF COURSE 2	7922-0957-1	Scarred Tree	
7922-0958	CHELTENHAM WELLS	7922-0958-1	Aboriginal Historical Place	
7922-0959	TIGER'S GRAVE	7922-0959-1	Aboriginal Historical Place	
7922-0960	ELIZA'S (TOO-LUM) GRAVE	7922-0960-1	Aboriginal Historical Place	
7922-0961	BLACK ROCK HOUSE AND SURROUNDS	7922-0961-1	Aboriginal Historical Place	
7922-0963	HURLINGHAM PARK	7922-0963-1	Aboriginal Historical Place	
7922-0964	SANDRINGHAM SHELL MIDDEN	7922-0964-1	Shell Midden	
7922-0965	SURF AVENUE WELL/WATERHOLE	7922-0965-1	Aboriginal Historical Place	
7922-1144	SANDRINGHAM PLAYGROUND 1	7922-1144-1	Shell Midden	

<b>VAHR No.</b>	<b>Aboriginal Place Name</b>	<b>Component Place No.</b>	<b>Component Type</b>	<b>Component Feature Type</b>
7922-1200	Sims Street Car Park 1	7922-1200-1	Shell Midden	
7922-1207	Cliff Grove 1	7922-1207-1	Artefact Scatter	
7922-1345	Beaumaris Foreshore 1	7922-1345-2	Artefact Scatter	
7922-1345	Beaumaris Foreshore 1	7922-1345-3	Artefact Scatter	
7922-1345	Beaumaris Foreshore 1	7922-1345-4	Artefact Scatter	
7922-1345	Beaumaris Foreshore 1	7922-1345-5	Artefact Scatter	
7922-1345	Beaumaris Foreshore 1	7922-1345-6	Artefact Scatter	
7922-1345	Beaumaris Foreshore 1	7922-1345-8	Artefact Scatter	
7922-1345	Beaumaris Foreshore 1	7922-1345-9	Artefact Scatter	
7922-1345	Beaumaris Foreshore 1	7922-1345-10	Artefact Scatter	
7922-1345	Beaumaris Foreshore 1	7922-1345-11	Artefact Scatter	
7922-1345	Beaumaris Foreshore 1	7922-1345-12	Artefact Scatter	
7922-1345	Beaumaris Foreshore 1	7922-1345-13	Artefact Scatter	
7922-1345	Beaumaris Foreshore 1	7922-1345-14	Artefact Scatter	
7922-1345	Beaumaris Foreshore 1	7922-1345-1	Shell Midden	
7922-1345	Beaumaris Foreshore 1	7922-1345-7	Shell Midden	
7922-1353	Hellier Collection	7922-1353-1	Object Collection	
7922-1406	CSIRO Highett LDAD	7922-1406-1	Low Density Artefact Distribution	
7922-1406	CSIRO Highett LDAD	7922-1406-2	Low Density Artefact Distribution	
7922-1406	CSIRO Highett LDAD	7922-1406-3	Low Density Artefact Distribution	
7922-1406	CSIRO Highett LDAD	7922-1406-4	Low Density Artefact Distribution	
7922-1406	CSIRO Highett LDAD	7922-1406-5	Low Density Artefact Distribution	
7922-1408	CSIRO Highett LDAD COLLECTION	7922-1408-1	Low Density Artefact Distribution	
7922-1408	CSIRO Highett LDAD COLLECTION	7922-1408-2	Low Density Artefact Distribution	
7922-1408	CSIRO Highett LDAD COLLECTION	7922-1408-3	Low Density Artefact Distribution	
7922-1408	CSIRO Highett LDAD COLLECTION	7922-1408-4	Low Density Artefact Distribution	
7922-1408	CSIRO Highett LDAD COLLECTION	7922-1408-5	Low Density Artefact Distribution	
7922-1520	Como Parade West LDAD	7922-1520-2	Low Density Artefact Distribution	
7922-1555	Sunlit LDAD	7922-1555-1	Low Density Artefact Distribution	
7922-1564	Abbott Street AS	7922-1564-1	Artefact Scatter	
7922-1564	Abbott Street AS	7922-1564-2	Object Collection	
7922-1569	Banksia Avenue LDAD	7922-1569-1	Low Density Artefact Distribution	
7922-1569	Banksia Avenue LDAD	7922-1569-2	Low Density Artefact Distribution	
7922-1569	Banksia Avenue LDAD	7922-1569-3	Low Density Artefact Distribution	
7922-1569	Banksia Avenue LDAD	7922-1569-4	Low Density Artefact Distribution	
7922-1592	Balcombe LDAD	7922-1592-1	Low Density Artefact Distribution	

<b>VAHR No.</b>	<b>Aboriginal Place Name</b>	<b>Component Place No.</b>	<b>Component Type</b>	<b>Component Feature Type</b>
7922-1612	Dales Park LDAD	7922-1612-1	Low Density Artefact Distribution	
7922-1612	Dales Park LDAD	7922-1612-2	Low Density Artefact Distribution	
7922-1612	Dales Park LDAD	7922-1612-3	Low Density Artefact Distribution	
7922-1612	Dales Park LDAD	7922-1612-4	Low Density Artefact Distribution	
7922-1617	Park Road IA	7922-1617-1	Low Density Artefact Distribution	
7922-1617	Park Road IA	7922-1617-2	Object Collection	
7922-1623	1089 Nepean Highway LDAD	7922-1623-1	Low Density Artefact Distribution	
7922-1623	1089 Nepean Highway LDAD	7922-1623-2	Low Density Artefact Distribution	
7922-1623	1089 Nepean Highway LDAD	7922-1623-3	Low Density Artefact Distribution	
7922-1623	1089 Nepean Highway LDAD	7922-1623-4	Low Density Artefact Distribution	
7922-1623	1089 Nepean Highway LDAD	7922-1623-5	Low Density Artefact Distribution	
7922-1638	Foam Street LDAD	7922-1638-1	Low Density Artefact Distribution	
7922-1638	Foam Street LDAD	7922-1638-2	Low Density Artefact Distribution	
7922-1638	Foam Street LDAD	7922-1638-3	Low Density Artefact Distribution	
7922-1638	Foam Street LDAD	7922-1638-4	Low Density Artefact Distribution	
7922-1654	Mentone Foreshore AS1	7922-1654-2	Artefact Scatter	
7922-1677	Cerberus Way Shell Midden	7922-1677-1	Shell Midden	
8021-0433	Mount Ararat Rd South LDAD	8021-0433-6	Object Collection	
8021-0434	Bald Hill Rd LDAD 2	8021-0434-1	Object Collection	
8322-0250	Angusvale Artefact Scatter	8322-0250-1	Object Collection	
8422-0688	Nyerimilang LDAD	8422-0688-1	Object Collection	
8422-0693	Scriveners Road AS1	8422-0693-2	Object Collection	

## **Appendix 4: Previous Reports in Geographic Region**

<b>Report No.</b>	<b>Title</b>	<b>Author</b>	<b>Report Year</b>
20	AN ARCHAEOLOGICAL SURVEY OF THE MELBOURNE METROPOLITAN AREA	PRESLAND, G.	1983
183	THE ABORIGINAL WELL AT BEAUMARIS	BROOKS, A.E.	1960
373	HISTORY OF THE COAST TRIBE	MASSOLA, A	1959
527	ARCHAEOLOGICAL INVEST OF AN OPTUS BASE TRANSCEIVER STATION SITE BALCOMBE PARK RESERVE, BEAUMARIS	CLARK, N.	1993
596	THE HEATHERTON DINGLEY CHAIN OF PARKS: A TOPOGRAPHIC PREDICTION FOR THE LOCATION OF ABORIGINAL SITES	ELLENDER, I.	1992
728	HISTORY OF THE ABORIGINAL PEOPLE: MELBOURNE AREA – DISTRICT 1	BLACK, C.F.	1984
774	CENTRAL HIGHLANDS ABORIGINAL ARCHAEOLOGICAL HERITAGE: NATIONAL ESTATE THRESHOLD ANALYSIS	RHOADS, J.	1994
971	ARCHAEOLOGY OF THE CENTRAL HIGHLANDS BACKGROUND STUDY: DRAFT	BIRD, C.	1993
1201	ARCHAEOLOGICAL SURVEY OF MOORABBIN AIRPORT	DEBNEY, T.	1998
1320	ABORIGINAL ARCHAEOLOGICAL SENSITIVITIES STUDY OF THE WATER WAYS AND FLOOD PLAINS GREATER MELBOURNE	DU CROS, H. & RHODES, D.	1998
1370	COAST ACTION COAST CARE 1998/99 ABORIGINAL ARCHAEOLOGICAL DESKTOP STUDY	MARSHALL, B. & SCHELL, P.	1998
1710	CITY OF MONASH DESKTOP ABORIGINAL CULTURAL HERITAGE ASSESSMENT	AMOROSI, L. & MURPHY, A.	2002
1852	EFFECTIVE STRATEGIES FOR THE MANAGEMENT OF COASTAL ABORIGINAL ARCHAEOLOGICAL SITES AND PLACES IN VICTORIA.	FRESLOV, J.	1996
2239	COAST ACTION/COASTCARE GRANT APPLICATIONS: ABORIGINAL ARCHAEOLOGICAL DESKTOP ASSESSMENT	SCHELL, P. & A. LIGHT	2001
2533	CHANNEL DEEPENING EXISTING CONDITIONS REPORT ABORIGINAL HERITAGE	RHODES, D.	2003
2622	PICNIC POINT & RED BLUFF CARPARKS, SANDRINGHAM	LIGHT, A & FELDMAN R	2003
2623	SANDRINGHAM ROTUNDA LOOKOUT	LIGHT, A & FELDMAN, R	2003
3215	SOUTH ROAD EXTENSION & OLD DANDENONG ROAD IMPROVEMENTS VIC	GEORGE, F	2005
3273	BEAUMARIS FORESHORE RESERVE	FELDMAN, R & SCHELL, P	2005
3339	AN ARCHAEOLOGICAL DESKTOP ASSESSMENT MELBOURNE WATER BEACH STORMWATER DRAINAGE OUTLETS	HYETT, J	2006
3946	BLACK ROCK CARPARK (B16) A CULTURAL HERITAGE ASSESSMENT	FELDMAN, R.	2007
3947	BLAK ROCK DRAINAE UPGRADE ARCHAEOLOGICAL DESKTOP REVIEW OF ABORIGINAL ASSOCIATIONS	FELDMAN, R., LONG, A.	2007
4223	UPDATE OF CULTURAL HERITAGE ASSESSMENT FOR MOORABBIN AIRPORT, VICTORIA	PATTON, K & VINES, G	2008
4359	Due Diligence Archaeological Assessment of the CSIRO Highett Complex	Matthew Barker	
4535	CSIRO Highett Laboratories	Martin Rowney	

<b>Report No.</b>	<b>Title</b>	<b>Author</b>	<b>Report Year</b>
4616	Port Phillip Aboriginal Heritage Strategic Desktop Assessment	Jim Wheeler, Laura Matarese, Alyssa Gilchrist and Alison O'Connor	
10990	16-17 BEACH ROAD, BEAUMARIS – MULTI UNIT DEVELOPMENT	O'REILLY, S	2009
11105	KINGSTON BAY TRAIL MENTONE BEACH STORMWATER UPGRADE, MENTONE AND PARKDALE	WACKETT, L & MCKEAGNEY, J	2010
11260	MULTI-UNIT DEVELOPMENT, 4 RESERVE ROAD BEAUMARIS: CULTURAL HERITAGE MANAGEMENT PLAN	MATI CHAMBERLAIN and SYLVANA SIYDZIK	
11476	Sims Street Car Park Upgrade, Sandringham	Ricky Feldman, Sarah Hyslop and Melinda Albrecht	
11562	Dingley Arterial Westall – Warragul Road Heatherton	Renee McAllister and Laurinda Dugay-Grist	
11661	29 Beach Road, Beaumaris	Sharne Thomas	
11714	Bayside City Council Beaumaris Shared Pathway	David Rhodes & Vaia Liouas	
12334	1 and 3 Charman Road, Beaumaris	Laurinda Dugay-Grist and Alex Cowled	
13021	Beaumaris Foreshore Pathway	Kathleen Hislop and David Rhodes	
13198	Dingley Arterial (Westall Road-Warrigal Road), Heatherton Area Expansion	David Wines	
13252	Beaumaris Motor Yacht Squadron Safe Harbour, Redevelopment Project, Victoria	Sylvana Szydzik, Rachel Power and Bradley Ward	
13336	Proposed walking path adjacent Jetty Road, Sandringham	David Rhodes and Renee McAlister	
13363	172 Beach Road, Sandringham Cultural Heritage Management Plan	Jonathon Howell-Meurs and Penelope Spry	
13654	Proposed Residential Subdivision, 420 Beach Road, Beaumaris	Jodie Mitchell and Phoebe Heddell-Stevens	
14593	51 Beach Road, Mentone, Victoria. Residential Development	Keith Patton	
14704	10 Harston Street, Sandringham, Victoria, Proposed Residential Development	Justin Shiner, Erica Walther, and Jane Stradwick	
14946	Education Centre and Change of Use, 87, 90A, 91 and 92 Beach Road, Mentone	Andrea Murphy, Andrew Morris, Emma Pericaud, and Karen Kapteinis	
15160	Level Crossing Removal Authority Southern Program – Additional Works Package 1	Josephine Verduci and Chris Lovell	
15529	345 Beach Road, Black Rock Residential Development and Subdivision	Annemarie Reich	
15543	Sandringham Foreshore Masterplan	Shannah Anderson, David Rhodes and Alison O'Connor	
15727	13-15 New Street, Brighton Residential Development	Annemarie Reich	
15870	Upgrade of the Mentone Coastal Precinct	Aaron Dalla-Vecchia, Taylor Fitzgerald and Phil Liro	
15878	Proposed Telecommunications Cable at 30-36 Ebdon Avenue, Black Rock	Shannah Anderson	
15904	Residential Development: 13-15 Jellicoe St Cheltenham VIC 3192	Leigh Painter and Keith Patton	
15913	Mixed-Use Development: 956-958 Nepean Highway, Moorabbin, Victoria	Joseph Minter Brooke and Natalie Paynter	
15922	Six Dwelling Development, 4 Sunlit Court, Hampton East, Victoria:	Jen Burch and Emily Evans	
15924	Residential Subdivision & Construction of Eight Townhouses, 75 Abbott Street, Sandringham	Anita Barker	
15937	Multiple Dwellings at 1-11 Maude Street, Cheltenham, Victoria	Joseph Minter Brooke	

<b>Report No.</b>	<b>Title</b>	<b>Author</b>	<b>Report Year</b>
15964	Construction of residential and commercial premises at 216-226 Charman Road, Cheltenham, Victoria	Wendy Hernandez and Taylor Fitzgerald	
15975	Multi Dwelling Development, 190 Church Street, Brighton, Victoria:	Jen Burch and Emily Evans	
15996	Aged Care Facility at 152-156 Como Parade West, Parkdale, Victoria	Joseph Minter Brooke	
16029	Multiple Dwellings at 1-2 Moola Court and 4 & 6 Barker Street, Cheltenham, Victoria	Joseph Minter Brooke	
16055	Place of Assembly and Carpark Development, 71-77 Pietro Road, Heatherton	Annemarie Reich	
16075	3 and 3a Banksia Avenue, Beaumaris Residential Subdivision	Annemarie Reich	
16087	Construction of Townhouses at 126 Como Parade, Parkdale	Andrew Orr and Robyn Butler	
16116	Proposed Dwellings at 7 Tulip Grove, Cheltenham	Matthew Barker	
16155	2 Fernhill Road, Sandringham Residential Development	Anita Barker	
16183	Multi Dwelling Development, 4-6 Horscroft Place, Moorabbin, Victoria	Jen Burch and Emily Evans	
16223	Office Development, 303-307 Reserve Road, Cheltenham	Wendy Hernandez and Elise Nuridin	
16271	236-242 Clarinda Road, Heatherton Place of Assembly	Ashley Matic	
16291	Residential Development 276 Nepean Highway, Parkdale	Leigh Painter and Keith Patton	
16332	Multi Dwelling Development, 13 Patty Street, Mentone, Victoria	Jen Burch and Emily Evans	
16343	Multi Dwelling Development, 123 Balcombe Road, Mentone, Victoria	Jen Burch and Emily Evans	
16508	Proposed Dales Park Upgrades, Oakleigh South: Netball Pavilion and Court	Kim White and Lucy Amorosi	
16546	Proposed playground and footpaths, Dales Park, Oakleigh South	Kim White and Lucy Amorosi	
16574	Proposed Construction of an Ancillary Facility: 8 Park Road, Cheltenham, Vic, 3192	Dr Amanda Boucher	
16630	119 Chesterville Road, Highett Victoria 3190: Industrial Development	Leigh Painter and Keith Patton	
16637	Residential Development: 29 Beach Road, Beaumaris	Jonathan Howell-Meurs and Amanda Boucher	
16649	Proposed Residential Development at 1089 Nepean Highway, Moorabbin	Jessica Hardy	
16713	Proposed Supermarket and Car parking Development at 208 – 210 Bay Road, Sandringham	Jodie Mitchell	
16716	Subdivision and Education Centre, part of 232 East Boundary Road, Bentleigh East:	Jen Burch and Emily Evans	
16791	Mixed Use Development, 212-216 Bay Road, Sandringham	Christine Morgan, Lucy Amorosi and Erica Walther	
16831	Residential Development 28, 30, 32 and 34 Service Street Hampton, 3188	Laura Campbell and Barry Green	
16868	14 New Street Hampton, Victoria 3188 Residential Development	Keith Patton	
16884	Proposed Residential Subdivision and Construction of Dwellings at 19-25 Donald Street, Highett	Matthew Barker	
16915	Multi Dwelling Development, 55 and 57 Wilson Street, Cheltenham, Victoria	Jen Burch, Emily Evans and Calum Ryan	
16941	10-12 Foam Street, Hampton Residential Subdivision and Development	Vaia Liouzas and Rebecca Antonia Zeidan	
16952	Multi-Dwelling Development 15, 17 and 19 King Street, and 3 and 5 Highbury Avenue, Hampton East	Anita Barker	
17047	Residential development, 743-745 South Road, Bentleigh East	Annemarie Reich	

## **Appendix 5: Artefact Catalogue**

VAHR	Place Name	Component No.	Easting (GDA94 Zone 55)	Northing (GDA94 Zone 55)	Depth (m)	Artefact #	Raw Material	Colour	Cortex %	Artefact Type	Platform Type	Term'n Type	L (mm)	W (mm)	T (mm)	MD (mm)	Comments
7922-1406	CSIRO Highett LDAD	7922-1406-1	327828.001	5797411.95	0.16	1	chert	grey light	None	Angular Fragment			6	5	3	8	
7922-1406	CSIRO Highett LDAD	7922-1406-2	327828.001	5797411.95	0.275	2	chert	grey light	None	Angular Fragment			5	5	3	8	
7922-1406	CSIRO Highett LDAD	7922-1406-3	327828.001	5797411.95	0.275	3	chert	grey light	None	Flake – Distal		feather	15	5	2	15	
7922-1406	CSIRO Highett LDAD	7922-1406-4	327823.876	5797710.37	0.7	4	quartzite	brown light	None	Flake – Complete	crushed	hinge	20	12	3	26	
7922-1406	CSIRO Highett LDAD	7922-1406-5	327837.996	5797702.567	0.575	5	chert	grey light	None	Angular Fragment			5	5	1	7	
7922-1408	CSIRO Highett LDAD COLLECTION	7922-1408-1	327815.602	5797409.604	0.4	1	chert	grey light	None	Angular Fragment			6	5	3	8	Repatriation of VAHR 7922-1406 artefacts
7922-1408	CSIRO Highett LDAD COLLECTION	7922-1408-2	327815.602	5797409.604	0.4	2	chert	grey light	None	Angular Fragment			5	5	3	8	Repatriation of VAHR 7922-1406 artefacts
7922-1408	CSIRO Highett LDAD COLLECTION	7922-1408-3	327815.602	5797409.604	0.4	3	chert	grey light	None	Flake – Distal		feather	15	5	2	15	Repatriation of VAHR 7922-1406 artefacts.
7922-1408	CSIRO Highett LDAD COLLECTION	7922-1408-4	327815.602	5797409.604	0.4	4	quartzite	brown light	None	Flake – Complete	crushed	hinge	20	12	3	26	Repatriation of VAHR 7922-1406 artefacts.
7922-1408	CSIRO Highett LDAD COLLECTION	7922-1408-5	327815.602	5797409.604	0.4	5	chert	grey light	None	Angular Fragment			5	5	1	7	Repatriation of VAHR 7922-1406 artefacts

## **Appendix 6: Site Gazetteer**

VAHR No.	VAHR Name	Site Type	Coordinates (GDA 94 Zone 55)	Landform	Landform Element	Soil	Nearest Potable Water Source	Vegetation
7922-1406	CSIRO Highett LDAD	LDAD	327828.001E/ 5797411.950N	Plain above flood level (relative relief <9m)	Dune swale	Components 1-3: Sandy Silt Components 4-5: Sandy silt	Elster Creek	Components 1-3: Grassed area, eucalypt trees Components 4 and 5: None due to soil remediation. Bare ground.
7922-1408	CSIRO Highett LDAD Collection	LDAD	327815.602E/ 5797409.604N	Plain above flood level (relative relief <9m)	Dune swale	Unknown (likely as per VAHR 7922-1406 components 1-3, located approximately 13m due east).	Elster Creek	Grassed area, proximal to large eucalypt trees

VAHR No.	VAHR Name	Site Aspect	Ground Surface Visibility	Maximum Dimensions N-S	Maximum Dimensions E-W	Disturbance to Site	Condition	Integrity
7922-1406	CSIRO Highett LDAD	360°	Components 1-3: 0% Components 4-5: 100%	Components 1-3: 2.5m radius Components 4-5:	Components 1-3: 2.5m radius Components 4-5:	Components 1-3: None identified Components 4-5: Soil remediation works	Components 1-3: Good Components 4-5: Very poor; destroyed	Components 1-3: Low Components 4-5: None/destroyed
7922-1408	CSIRO Highett LDAD Collection	360°	0%	N/A	N/A	None identified	Good	N/A

## **Appendix 7: Burra Charter Definitions and Ratings**

**Aesthetic value** is defined as “...the sensory and perceptual experience of a place...how we respond to visual and non-visual aspects such as sounds, smells and other factors having a strong impact on human thoughts, feelings and attitudes” (Australia ICOMOS Incorporated 2013, p.3).

**Historic value** encompasses all aspects of history. According to the Burra Charter, “A place may have historic value because it has influenced, or has been influenced by, an historic event, phase, movement or activity, person or group of people. It may be the site of an important event. For any place the significance will be greater where the evidence of the association or event survives at the place, or where the setting is substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of such change or absence of evidence” (Australia ICOMOS Incorporated 2013, p.3).

**Scientific value** is defined as “...the information content of a place and its ability to reveal more about an aspect of the past through examination or investigation of the place, including the use of archaeological techniques. The relative scientific value of a place is likely to depend on the importance of the information or data involved, on its rarity, quality or representativeness, and its potential to contribute further important information about the place itself or a type or class of place or to address important research questions” (Australia ICOMOS Incorporated 2013, p.3).

Scientific significance is assessed by examining the research potential and representativeness of archaeological sites. The scientific significance assessment methodology is based on scores for research potential (divided into site contents and site condition) and for representativeness. This system is refined and derived from Bowdler (1981) and Bowdler and Sullivan (1984).

**Research potential** is assessed by examining ‘site contents’ and ‘site condition’.

‘Site contents’ denotes all cultural materials and organic remains associated with human activity at a site. ‘Site contents’ also denotes the structure of the site – the size of the site, the patterning of cultural materials within the site, the presence of any stratified deposits and the rarity of particular artefact types.

‘Site condition’ denotes the degree of disturbance to the contents of a site at the time it was recorded.

The site contents ratings used for the scientific significance assessment are:

0. No cultural material remaining.
1. Site contains a small number (e.g. 0–10 artefacts) or limited range of cultural materials with no evident stratification.
2. Site contains:
  - (a) a larger number, but limited range of cultural materials; and/or
  - (b) some intact stratified deposit remains; and/or
  - (c) rare or unusual example(s) of a particular artefact type.
3. Site contains:
  - (a) a large number and diverse range of cultural materials; and/or
  - (b) largely intact stratified deposit; and/or
  - (c) surface spatial patterning of cultural materials that still reflect the way in which the cultural materials were deposited.

The site condition ratings for the archaeological site described in this CHMP are:

0. Site destroyed.
1. Site in a deteriorated condition with a high degree of disturbance; some cultural materials remaining.
2. Site in a fair to good condition, but with some disturbance.
3. Site in an excellent condition with little or no disturbance. For surface artefact scatters this may mean that the spatial patterning of cultural materials still reflects the way in which the cultural materials were laid down.

**Representativeness** refers to the regional distribution of a particular site type. Representativeness is assessed by whether the site is common, occasional, or rare in a given region. Assessments of representativeness are subjectively biased by current knowledge of the distribution and number of archaeological sites in a region. This varies from place to place depending on the extent of archaeological research. Consequently, a site that is assigned low significance values for contents and condition but a high significance value for representativeness can only be regarded as significant in terms of knowledge of the regional archaeology. Any such site should be subject to re-assessment as more archaeological research is undertaken.

Assessment of representativeness also takes into account the contents and condition of a site. For example, in any region there may only be a limited number of sites of any type that have suffered minimal disturbance. Such sites would therefore be given a high significance rating for representativeness, although they may occur commonly within the region.

The representativeness ratings used for the scientific significance assessment are:

1. Common occurrence.
2. Occasional occurrence.
3. Rare occurrence.

Overall scientific significance ratings for sites, based on a cumulative score for site contents, site integrity and representativeness are:

- |     |                                   |
|-----|-----------------------------------|
| 1–3 | Low scientific significance.      |
| 4–6 | Moderate scientific significance. |
| 7–9 | High scientific significance.     |

**Social value** is defined as “...the associations that a place has for a particular community or cultural group and the social or cultural meanings that it holds for them” (Australia ICOMOS Incorporated 2013, p.4).

**Spiritual value** is defined as “...the intangible values and meanings embodied in or evoked by a place which give it importance in the spiritual identity, or the traditional knowledge, art and practices of a cultural group. Spiritual value may also be reflected in the intensity of aesthetic and emotional responses or community associations, and be expressed through cultural practices and related places” (Australia ICOMOS Incorporated 2013, p.4).

## **References**

Australia ICOMOS Incorporated 2013, ‘Practice Note: Understanding and assessing cultural significance’, accessed from <[http://australia.icomos.org/wp-content/uploads/Practice-Note\\_Understanding-and-assessing-cultural-significance.pdf](http://australia.icomos.org/wp-content/uploads/Practice-Note_Understanding-and-assessing-cultural-significance.pdf)>.

Bowdler, S 1981, *Coastal Archaeology in Eastern Australia Proceedings of the 1980 Valla Conference on Australian Prehistory*, Department of Prehistory, Research School of Pacific Studies Australian National University, Canberra.

Bowdler, S & Sullivan, S 1984, *Site Surveys and Significance Assessment in Australian Archaeology*, Department of Prehistory, Research School of Pacific Studies, Australian National University, Canberra.

## **Appendix 8: Glossary**

**Adze** A flake with stepped retouch along lateral margins that can be hafted for use as a tool.

**Anvil** A flat object on which a core was placed to flake material from. Anvils often have a small pit/groove, usually in the centre of the object, as a result of this action.

**Archaeology** The study of cultural remains from past cultures and generations.

**Artefact Scatter** The material remains of past Aboriginal peoples' activities. Usually contain stone artefacts, but other material may also be present, including charcoal, animal bone, shell and ochre. An artefact scatter is usually represented by a single stone flake or a concentration of flaked stone pieces (or fragments).

**Assemblage** A collection of artefacts that are derived from the same site.

**Backed Blade** Stone artefact associated with the Australian small tool tradition. They are characterised by unidirectional or bidirectional retouch found along a lateral margin, thought to be blunt for hafting (Holdaway & Stern 2004, p.260).

**Basalt** A fine-grained rock occurring from lava flows.

**Bifacially Flaked** Flakes removed from two faces of an object such as a core.

**Blade** A flake that is twice as long as it is wide.

**Bondi Point** An asymmetrical blade with a point at one end with backing retouch. Part of the Australian Small Tool Tradition.

**Burial** Human Remains, normally found as concentrations of human bones or teeth, exposed by erosion or earthworks. They are sometimes associated with charcoal or ochre, although shell, animal bone and stone tools may also be present. Tend to be located in soft soils and sand, although can occur in rock shelters, caves and dead trees.

**Burin** A truncated flake formed by snapping or retouching along one lateral margin that then forms a platform from which small flakes are removed forming a triangular scar that acts as a working edge (Holdaway & Stern 2004, pp.241–243).

**Ceramic** A term used to identify wares made from either clay or fusible stone such as stoneware, earthenware, porcelain or terracotta (Davies & Buckley 1987, p.186).

**Chert** A compact, fine-grained rock made of cryptocrystalline silica and can occur in a variety of colours, usually red, green or black.

**Core** A specimen of rock that has undergone a process of reduction through the removal of a number of flakes

and as a result they have negative flake scars. Cores can contain a single platform, have two platforms or have had flakes removed in multiple directions.

**Cortex** The original surface of a mineral or rock subjected to weathering by the elements.

**Cultural Material** Any material remains which are produced by human activity.

**Debitage** Detached pieces of stone that are discarded during the reduction process.

**Dry Stone Wall** A wall formed of a number of courses of rock (usually basalt or limestone) with no bond or binding component. Walls are usually tapered, have two faces and can have hearting (packing), or plugging.

**Earthenware** A non-vitreous (porous) whiteware, usually used for domestic tablewares. Most earthenware is glazed and decorated, transfer printed or left plain (Davies & Buckley 1987, p.186).

**Earth Feature** Collective term used to refer to mounds, rings, hearths, postholes and ovens.

**Earth Mound** Mounds generally appear as raised areas of darker soil. They are commonly found in the volcanic plains of western Victoria or on higher ground near water bodies. Mounds often contain charcoal, burnt clay or stone heat retainers from cooking ovens, animal bones, shells, stone tools and sometimes, Aboriginal burials.

**Earth Ring** Banked circles of soil often associated with stone arrangements, which had a ceremonial purpose for Aboriginal people in the past.

**Excavation** A controlled means of soil disturbance (digging) allowing for detailed recording of the soil profile, features and artefacts exposed.

**Flake** A stone artefact that contains characteristics such as the presence of a platform, bulb of percussion and termination which reveal that the stone has been struck from a core and is the result of stone working (Holdaway & Stern 2004, p.5).

**Flake Core** A flake that has subsequently been used as a core and had other flakes removed from it.

**Flaked Piece** Small fragments of stone that have been removed from flakes resulting from tool maintenance or tool production (Holdaway & Stern 2004, p.17). Flaked pieces do not display the characteristics evident in a complete flake.

**Flint** Similar to chert with a pale cortex and conchoidal fracture. Usually occurring in limestone (Roberts 1998, p.65).

**Footing** The structural base/footprint from structures often built from bluestone, brick or wooden posts.

**Geometric Microlith** Part of the Australian small tool tradition. They are symmetrical in form, pointed at both ends and can be backed along a lateral margin (Holdaway & Stern 2004, p.262).

**Glaze** A coating put over wares fired in a kiln. Glazes can come in a variety of colours and can also be transparent.

**Greenstone** A metamorphic rock derived from basalt containing feldspar and quartz and is made green by chlorite and epidote. Often used for the manufacture of hand axes.

**Grindstone** A flat slab of rock with central depression used to grind, crush or pound seeds, ochre, or sharpen tools, etc. Grindstones are usually made on sedimentary rocks with an abrasive surface and can be used in conjunction with a muller.

**Ground Edge Axes** A sharpening process – flaking, pecking and polishing, usually along a single lateral margin. The axes are generally hafted with the worked edge forming the tool edge.

**Ground Surface Visibility** The extent to which the natural soil surface below the vegetation on the ground is visible.

**Hammerstone** A hard rock or mineral used to flake fragments of stone from a core (Holdaway & Stern 2004, p.4).

**Hearth** The remains of a fireplace containing charcoal and sometimes burnt earth, bone, stone artefacts or other organic material.

**In situ** An artefact or feature that remains in its original position, or where it was left.

**Manuport** A stone block that displays no attributes of being either a core or a flake.

**Microblade** Has the same characteristics as a blade but just of smaller proportions (Holdaway & Stern 2004, p.17).

**Ochre** Earth varying in colour from yellow to red, used as a pigment.

**Organic** Compounds formed from living organisms (plants or animals).

**Oven Mound** Usually circular or oval in shape and often situated close to a water source. They were used for cooking and contain a rich greasy organic mix of soil and organic material. An oven mound is likely to contain charcoal, burnt clay or stone heat retainers, stone tools, bones, shell and on occasion, burials (AAV Mini Poster 4).

**Platform** The surface from which the flake was struck off the core – natural, flaked or abraded (Holdaway & Stern 2004, p.120).

**Point** A flake that has two edges that form a point with retouch along one or both lateral margins (Holdaway & Stern 2004, p.16).

**Porcelain** A non-porous ceramic with a glass-like appearance. Can be translucent, can be used for tableware or more decorative features such as ornaments.

**Post-Contact** The period after contact between Aboriginal people and Europeans.

**Pre-Contact** The period before contact between Aboriginal people and Europeans.

**Quarry** Outcrop of stone or ochre that has been quarried by Aboriginal people in the past. Generally associated with a large amount of broken stone and flakes. The outcrop (cores) bear negative scars from flaking.

**Quartz** A mineral that commonly occurs in sedimentary, igneous and metamorphic rocks. Quartz can come in a number of forms including crystal, rose, and smoky.

**Quartzite** A metamorphic rock formed by the re-crystallization of quartz. Quartz is rich in sandstone and limestone (Roberts 1998, p.109).

**Retouch** A worked edge or modification of a flake formed by removing a number of small flakes along an edge. This can be done as a form of maintenance or to produce a tool.

**Rock Art** Paintings created on the rock surfaces of caves and rock shelters and engravings in limestone caves. Artwork includes stencils, prints and drawings. The paint consists of ochres, clays and charcoal mixed with fats.

**Scarred Tree** A tree which has had a slab of bark removed, exposing the sapwood on the trunk or branch of a tree. Aboriginal people used the bark to make shelters, containers (coolamons) and canoes.

**Scraper** A flake with at least one edge that has continuous retouch. Scraper types include steep-edged, end, side and nose scraper (Holdaway & Stern 2004, p.16).

**Shell Midden** A surface and/or subsurface deposit composed of shell and sometimes stone artefacts, charcoal and bone. Middens are normally found in association with coastlines, rivers, creeks and swamps – wherever coastal, riverine or estuarine shellfish resources were available and exploited.

**Silcrete** A fine-grained rock derived from shale or siltstone mixed with silica.

**Spit** A horizontal unit of soil removed during excavation. Spits can be arbitrary (dug to a depth of 50, 100, 200, 300mm, etc.) or can be confined to a particular soil type or context. The excavation of spits allows for greater understanding, analysis and interpretation of the soil profile.

**Stone Feature** Includes cairns, rock wells, stone arrangements, fish traps, stone structures and grinding grooves. May be a natural feature, which was used or modified to be used by Aboriginal people in the past (rock well, stone arrangement), or a stone feature which has been deliberately constructed for a specific purpose (fish trap, stone structure, cairn), or is the result of a specific activity carried out by Aboriginal people in the past (grinding grooves).

**Stoneware** A vitreous (non-porous) ceramic, usually light brown in colour, used for drinking containers or used industrially. Often glazed or unglazed (salt glaze or slip applied) (Davies & Buckley 1987, p.186).

**Stratification** The position of sediments and rocks in sequence throughout time.

**Subsurface Testing** A method of excavation that involves ground disturbing works to identify the potential for cultural material. Subsurface testing may comprise hand excavation and/or machine excavation.

**Survey** An inspection of land either by foot or by car (windscreen survey) noting conditions on surface visibility, landforms and the presence of cultural material.

**Termination** The shape of the distal end of a flake (Holdaway & Stern 2004, p.129).

**Terracotta** A low-fired clay (ceramic), usually orange to red in colour and very porous. Often used for plumbing (drainage components) or garden ware.

**Tool** Modified flakes usually with retouch present along an edge (Holdaway & Stern 2004, p.33).

**Transect** An excavated stretch of ground that can be of varying lengths in a straight line.

**Transfer Printed** A design is traced and engraved onto a copper plate on which ink and oil is then applied. The design is pressed onto tissue paper and then placed on an object and the paper removed. The object is then fired and glazed. Transfer printed ceramics come in a variety of colours and patterns and were mass produced.

**Trench** An area confined by excavation usually in the form of a square (e.g., 2x2m) or rectangular (e.g., 1.5x1m).

## References

AAV Mini Posters (1–7).

Davies, M & Buckley, K 1987, *Port Arthur Conservation & Development Project: Archaeological Procedures Manual*, Occasional Paper No.13. Department of Lands, Parks and Wildlife, Tasmania.

Holdaway, S & Stern, N 2004, *A Record in Stone: The Study of Australia's Flaked Stone Artefacts*, Museum Victoria and Aboriginal Studies Press, Melbourne.

Roberts, JL, 1998, *A Photographic Guide to Minerals, Rocks and Fossils*, New Holland, London.

**Appendix 9: Certificates and Statement of Environmental Audit – Northern,  
Southern and Grassy Woodland**



**CSIRO**

Highett North, 37 Graham Road, Highett, Victoria  
Environmental audit report  
CARMS Reference 68549-1; Service Order No. 8003038

May 2020

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

**ENVIRONMENT PROTECTION ACT 1970**

**Certificate of Environmental Audit**

I, John Throssell of GHD Pty Ltd 180 Lonsdale Street, Melbourne, a person appointed by the Environment Protection Authority ("the Authority") under the Environment Protection Act 1970 ("the Act") as an Environmental Auditor for the purposes of the Act, having:

1. been requested by Karen Wright of Commonwealth Scientific and Industrial Research Organisation (CSIRO) Business & Infrastructure Services to issue a certificate of environmental audit in relation to the site located at CSIRO Highett, 37 Graham Road, Highett VIC 3190, located in the Bayside City Council, comprising the land defined by the Certificate of Title Volume 8032 Folio 504 (part of Lot 1 TP223183H) ("the site"), owned by CSIRO and currently unoccupied.
2. had regard to, amongst other things,
  - a. guidelines issued by the Authority for the purposes of Section IXD of the Act;
  - b. the beneficial uses that may be made of the site; and
  - c. relevant State environment protection policies/industrial waste management policies, namely:
    - i. State environment protection policy (Prevention and Management of Contamination of Land) 2002
    - ii. State environment protection policy (Waters) 2018
    - iii. State environment protection policy (Air Quality Management) 2001
    - iv. State environment protection policy (Ambient Air Quality) 1999
    - v. Industrial Waste Management Policy (Waste Acid Sulphate Soils) 1999
    - vi. Environment Protection (Industrial Waste Resource) Regulations 2009
3. in making a total assessment of the nature and extent of any harm or detriment caused to, or the risk of any possible harm or detriment that may be caused to, any beneficial use made of the site by any industrial processes or activity, waste or substance (including any chemical substance); and
4. completed an environmental audit report in accordance with section 53X of the Act, a copy of which has been sent to the Authority and the relevant planning and responsible authority.

HEREBY CERTIFY that I am of the opinion that the condition of site is neither detrimental nor potentially detrimental to any beneficial use of the site.

*Other related information*

- Groundwater at the site contains concentrations of lead, copper, nickel and zinc above adopted ecological criteria. The concentrations are considered to be associated with off-site sources of pollution and regional groundwater conditions. The pollution is not sourced from the site.
- Bonded asbestos containing materials (ACM) were found on the site and have been removed as far as practicable. Small quantities of ACM fragments may remain within the soil and be uncovered during excavation works. These ACM fragments are not anticipated to represent a health risk to occupiers of the completed development. If encountered during future development or use of the site, any fragments must be handled and disposed in accordance with the relevant regulations and guidelines.

This Certificate forms part of environmental audit report: GHD Pty Ltd, titled , "CSIRO, Environmental Audit Report, Highett North, 37 Graham Road, Highett, Victoria, CARMS Reference 68549 – 1, Service Order No. 8003038" (May, 2020). Further details regarding the condition of the site may be found in the environmental audit report.

DATED: 12 May 2020

SIGNED:  .....

MR JOHN THROSSELL  
ENVIRONMENTAL AUDITOR  
(Appointed Pursuant to the Environment Protection Act 1970)





**CSIRO Property Services**

Highett South, 37 Graham Road, Highett, Victoria

Environmental Audit Report

CARMS Reference 68549 – 2, Service Order No. 8003038

April 2020

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

**ENVIRONMENT PROTECTION ACT 1970**

## **Certificate of Environmental Audit**

I, John Simon Throssell of GHD Pty Ltd 180 Lonsdale Street, Melbourne, a person appointed by the Environment Protection Authority ("the Authority") under the Environment Protection Act 1970 ("the Act") as an Environmental Auditor for the purposes of the Act, having:

1. been requested by Karen Wright of Commonwealth Scientific and Industrial Research Organisation (CSIRO) Business & Infrastructure Services to issue a certificate of environmental audit in relation to the site located at CSIRO Highett North, 37 Graham Road, Highett VIC 3190, located in the Bayside City Council, comprising the land defined by the Certificate of Title Volume 8032 Folio 504 (part of Lot 1 TP223183H) and Lot 172 PS9880 of Certificate of Title Volume 7073, Folio 505, owned by CSIRO. The site is currently unoccupied.
2. had regard to, amongst other things, -
  - a. guidelines issued by the Authority for the purposes of Section IXD of the Act;
  - b. the beneficial uses that may be made of the site; and
  - c. relevant State environment protection policies/industrial waste management policies, namely:
    - (i) State environment protection policy (Prevention and Management of Contamination of Land) 2002
    - (ii) State environment protection policy (Waters) 2018
    - (iii) State environment protection policy (Air Quality Management) 2001
    - (iv) State environment protection policy (Ambient Air Quality) 1999
    - (v) Industrial Waste Management Policy (Waste Acid Sulphate Soils) 1999
    - (vi) Environment Protection (Industrial Waste Resource) Regulations 2009
3. in making a total assessment of the nature and extent of any harm or detriment caused to, or the risk of any possible harm or detriment that may be caused to, any beneficial use made of the site by any industrial processes or activity, waste or substance (including any chemical substance); and
4. completed an environmental audit report in accordance with section 53X of the Act, a copy of which has been sent to the Authority and the relevant planning and responsible authority.

HEREBY CERTIFY that I am of the opinion that the condition of site is neither detrimental nor potentially detrimental to any beneficial use of the site.

**Other related information**

- Groundwater at the site contains concentrations of lead, silver, copper, mercury and zinc above adopted ecological criteria. The concentrations are considered to be associated with off-site sources of pollution and regional groundwater conditions. The pollution is not sourced from the site.
- Bonded asbestos containing materials (ACM) were found on the site and have been removed as far as practicable. Small quantities of ACM fragments may remain within the soil and be uncovered during excavation works. These ACM fragments are not anticipated to represent a health risk to occupiers of the completed development. If encountered during future development or use of the site, any fragments must be handled and disposed in accordance with the relevant regulations and guidelines.
- Any material excavated from the site and disposed off-site must be classified and managed in accordance with relevant statutory regulations and EPA guidelines.

This Certificate forms part of environmental audit report: GHD Pty Ltd, titled, "CSIRO, Environmental Audit Report, Highett South, 37 Graham Road, Highett, Victoria, CARMS Reference 68549 – 2, Service Order No. 8003038" (April, 2020). Further details regarding the condition of the site may be found in the environmental audit report.

DATED: 20 April 2020

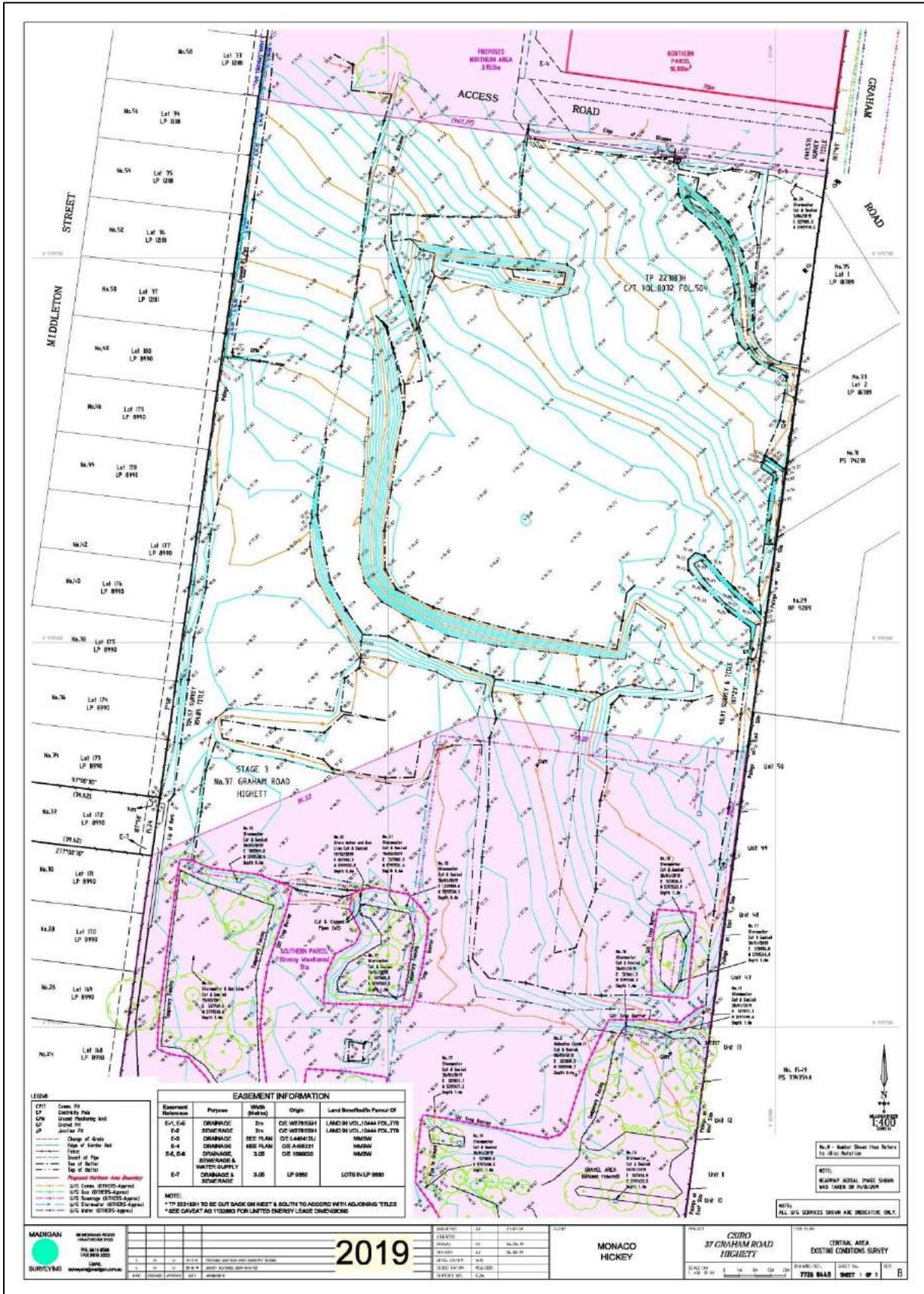
SIGNED:



MR JOHN SIMON THROSSELL

ENVIRONMENTAL AUDITOR

(Appointed Pursuant to the Environment Protection Act 1970)





**CSIRO Property Services**

Grassy Woodland, 37 Graham Road, Highett, Victoria  
Environmental Audit Report  
CARMS Reference 68549–3, Service Order No. 8003038

May 2020

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

**ENVIRONMENT PROTECTION ACT 1970**

**Statement of Environmental Audit**

I, John Throssell of GHD Pty Ltd 180 Lonsdale Street, Melbourne, a person appointed by the Environment Protection Authority ('the Authority') under the *Environment Protection Act 1970* ('the Act') as an environmental auditor for the purposes of the Act, having:

1. been requested by Karen Wright of Commonwealth Scientific and Industrial Research Organisation (CSIRO) Business & Infrastructure Services to issue a certificate of environmental audit in relation to the site located at CSIRO Grassy Woodland, 37 Graham Road, Highett VIC 3190, located in the Bayside City Council, comprising the land defined by the Certificate of Title Volume 8032 Folio 504 (part of Lot 1 on TP223183), owned by CSIRO. The site is currently unoccupied.
2. had regard to, amongst other things,
  - a. guidelines issued by the Authority for the purposes of Part IXD of the Act,
  - b. the beneficial uses that may be made of the site, and
  - c. relevant State environment protection policies/industrial waste management policies, namely:
    - (i) State environment protection policy (Prevention and Management of Contamination of Land) 2002
    - (ii) State environment protection policy (Waters) 2018
    - (iii) State environment protection policy (Air Quality Management) 2001
    - (iv) State environment protection policy (Ambient Air Quality) 1999
    - (v) Industrial Waste Management Policy (Waste Acid Sulphate Soils) 1999
    - (vi) Environment Protection (Industrial Waste Resource) Regulations 2009
3. in making a total assessment of the nature and extent of any harm or detriment caused to, or the risk of any possible harm or detriment that may be caused to, any beneficial use made of the site by any industrial processes or activity, waste or substance (including any chemical substance), and
4. completed an environmental audit report in accordance with section 53X of the Act, a copy of which has been sent to the Authority and the relevant planning and responsible authority.

HEREBY STATE that I am of the opinion that the site (as shown on the figure attached to this Statement) is suitable for the beneficial uses associated with:

- *Recreation/Open space*
- *Commercial*
- *Industrial*

subject to the following conditions attached thereto:

- Condition 1 From the date of completion of this audit, the owner of the site must implement and maintain the Environmental Management Plan (22 May 2020) which forms part of this Statement of Environmental Audit and is also attached to this environmental audit report.

The condition of the site is detrimental or potentially detrimental to any (one or more) beneficial uses of the site. Accordingly, I have not issued a Certificate of Environmental Audit for the site in its current condition, the reasons for which are presented in the environmental audit report. The terms and conditions that need to be complied with before a Certificate of Environmental Audit may be issued are set out as follows:

- Removal of all residual ACM impacted fill and aesthetic impacts within designated Tree Protection Zones and beneath the area labelled as Fifth St.

Other related information:

- Asbestos containing materials (ACM) are present within fill in the designated Tree Protection Zones and beneath Fifth St (>1 m depth), and soil in these areas needs ongoing management in accordance with the attached Environmental Management Plan. For the remainder of the site, ACM has been removed as far as practicable, however occasional ACM fragments may be encountered within the soil during excavation works. These ACM fragments do not represent a health risk to occupiers of the site. If encountered, any fragments must be handled and disposed in accordance with the relevant regulations.
- Groundwater at the site contains naturally elevated concentrations of inorganics (chloride, nitrate and total dissolved solids) and metals (copper, zinc). These levels are considered typical of the natural groundwater quality surrounding the site and do not constitute pollution in accordance with clause 15(d) of State Environment Protection Policy (Waters) 2018.
- Groundwater in the southern part of the site has historically reported concentrations of organics (trichloroethene). The concentrations are considered to be associated with an off-site source to the south of the site, and do not preclude any relevant beneficial uses of groundwater.
- In accordance with Section 53ZE of the Act, the occupier of the site must provide a copy of this Statement to any person who proposes to become an occupier of the site.

This Statement forms part of the Environmental Audit Report: GHD Pty Ltd, "CSIRO, Environmental Audit Report, Grassy Woodland, 37 Graham Road, Highett, Victoria, CARMS Reference 68549-3, Service Order No. 8003038" (May, 2020). Further details regarding the condition of the site may be found in the Environmental Audit Report.

DATED: 25 May 2020

SIGNED:  .....

MR JOHN THROSSELL  
ENVIRONMENTAL AUDITOR  
(Appointed Pursuant to the Environment Protection Act 1970)



**Appendix 10: Timeline of Land-Use/Disturbance Activities from 2009 to  
2020**

Owner	Event	Date	Brief Description
CSIRO	Site Investigation at site	2009 to 2010	Conduct site investigations include soil, ground water and rain water sampling
CSIRO	Demolition	2013	Demolition of buildings and infrastructure commenced in Highett northern parcel and validation of Asbestos contaminated material (ACM) within building footprints and other areas
CSIRO	Demolition works continue	Continue through to Sept 2018	Progressive demolition of buildings and building slabs across the Highett southern parcel (following progressive removal of asbestos).
CSIRO	Demolition works in Highett northern area of the Site ceased	Circa Feb 2018	Demolition of buildings and infrastructure and ACM remediation and validation works ceased in Highett North.
CSIRO	Remediation & Environmental Audit works on the Highett southern area of the Site	Jan to March 2019	On-site remediation trials for asbestos impacted fill conducted by iRisC on the Highett southern parcel of the site. This comprised of (1) soil sieving using an excavator with a 30mm bucket and (2) soil sifting using a SCS 205S triple deck sifting machine and Portafill 5000CT 14 Tonne screen.
CSIRO	Remediation & Environmental Audit works on the Highett northern area of the Site	Aug 2019 – Feb 2020	Asbestos remediation works were undertaken at Highett northern parcel, with all fill removed and underlying soils validated. This was undertaken by City Circle/SLH and Monaco Hickey under supervision from iRisC.
CSIRO	Remediation & Environmental Audit works on the Highett Conservation (Grassy Woodland) Area	July 2018 to Feb 2020	Asbestos remediation works were undertaken in areas of the Grassy Woodland outside of the designated Tree Protection Zones. Remedial works were undertaken by City Circle/SLH (licensed asbestos removalists) with supervision from iRisC.
CSIRO	Environmental Audit Reports	Issued May 2020	Audit and Certification (Certificates of Environmental Audit and Environmental Audit Reports are issued for North, South and Grassy Woodland (conservation area)
Sunkin	Settlement	25 JUNE 2020	Testing of soil conditions following previous soil remediation works completed by CSIRO.
Sunkin	Geotechnical Investigation	AUG-SEPT 2020	Field Investigation, borehole testing *Heritage Insight have confirmed that any geotechnical works undertaken within the activity area are satisfactory under the act.
Sunkin	Site Survey	SEPT 2020	Boundary re-establishment, feature and level survey