



**Proposed Residential Subdivision at 26 Francis Elliott Court,
Bundalong: Cultural Heritage Management Plan**

First Peoples - State Relations Management Plan Number: 18622

Size of Activity: Medium

Sponsor: Auburn Consulting Group ABN: 48 135 906 204

Date: December 16th, 2022

Heritage Advisor: Matthew Barker

Author: Matthew Barker

Registered Aboriginal Party: Yorta Yorta Nations Aboriginal Corporation

Level of Assessment: Desktop, Standard and Complex

ABORIGINAL CULTURAL HERITAGE: VAHR 8125-0485 (26 Francis Elliot Court LDAD)

Title Page

TITLE OF MANAGEMENT PLAN:	Proposed Residential Subdivision at 26 Francis Elliott Court, Bundalong
First Peoples - State Relations CHMP NUMBER:	18622
SIZE OF ACTIVITY AREA:	2.143ha (Medium)
LEVEL OF ASSESSMENT:	Desktop, Standard and Complex Assessments
SPONSOR:	Auburn Consulting Group ABN: 48 135 906 204
HERITAGE ADVISOR:	Matthew Barker
AUTHOR:	Matthew Barker
DATE OF COMPLETION:	December 24 th , 2022
ABORIGINAL CULTURAL HERITAGE:	None
REGISTERED ABORIGINAL PARTY:	Yorta Yorta Nations Aboriginal Corporation
ABORIGINAL CULTURAL HERITAGE:	VAHR 8125-0485 (26 Francis Elliot Court LDAD)

Acknowledgements

Benchmark Heritage Management Pty Ltd (BHM P/L) wishes to acknowledge the following people for their assistance and participation in the production of this CHMP:

Yorta Yorta Nations Aboriginal Corporation

The Sponsor

Auburn Consulting Group

Cultural Heritage Management Plan – Notice of Approval

CHMP Name: Proposed Residential Subdivision at 26 Francis Elliott Court, Bundalong

CHMP Number: 18622

Sponsor: Auburn Consulting Group

ABN: 48 135 906 204

Heritage Advisor(s): Matthew Barker

Author(s): Matthew Barker (Benchmark Heritage Management Pty Ltd)

Cover date: 16 December 2022

Pages: Cover, i-viii, 1-110

TO BE COMPLETED BY THE SECRETARY (OR DELEGATE)

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.

Yes

No

✓

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, Harry Webber, Director Heritage Services, First Peoples – State Relations, 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:


HARRY WEBBER

Dated:

22 December 2022

- This notice of approval must 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.

Disclaimer

The information contained in this CHMP references information contained in government heritage databases and similar sources and is, to the best knowledge of Benchmark Heritage Management Pty Ltd, true, and correct at the time of report production. While this CHMP contains a summary of information it does not provide, nor does it intend to provide, an in-depth summary and assessment of all available research materials in relation to the Activity Area. Benchmark Heritage Management Pty Ltd does not accept liability for errors or omissions referenced in primary or secondary sources.

Any opinions expressed in this CHMP are those of Benchmark Heritage Management Pty Ltd and do not represent those of any third parties. Benchmark Heritage Management Pty Ltd have undertaken reasonable efforts to consult with Registered Aboriginal Parties and representatives of Aboriginal community groups who are, to the best of our knowledge and advice, the legal and proper representatives of the local Aboriginal community relevant to the Activity Area. However, Benchmark Heritage Management Pty Ltd will not be held responsible for opinions or actions which may be expressed by dissenting persons or organisations. This CHMP has been prepared to comply with the *Aboriginal Heritage Act 2006* and the *Aboriginal Heritage Regulations 2018*.

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Abbreviations

AP: Aboriginal Place

BA: Bachelor of Archaeology

BHM P/L: Benchmark Heritage Management Pty Ltd

CHMP: Cultural Heritage Management Plan

DPGS: Differential Global Positioning System

EVC: Ecological Vegetation Community

GDA: Geocentric Datum of Australia

LDAD: Low Density Artefact Distribution

OH&S: Occupational Health and Safety

PAD: Potential Archaeological Deposit

PAS: Potential Archaeological Sensitivity

PH: Potential of Hydrogen

RAP: Registered Aboriginal Part

S: Section

VAHR: Victorian Aboriginal Heritage Register

YYNAC: Yorta Yorta Nations Aboriginal Corporation

Executive Summary

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

Activity, Location and Level of Assessment Undertaken

This CHMP has been prepared for the proposed residential subdivision at 26 Francis Elliott Court, being Lot 28 on LP137177 and Ann Grove being Lot R1 on PS812527 and the road reserve of Pyke Street; Bundalong, Shire of Moira. The Activity Area is located in MGA Zone 55. All coordinates presented in this CHMP are referenced to GDA94/MGA55. The Activity Area is 2.143ha in size and is situated within Bundalong, which lies approximately 250km north of the Melbourne CBD (see Maps 2-3). This CHMP comprises a Desktop, Standard and Complex Assessment (see Sections 7.1-7.3 for more detail). A Glossary of Terms is shown in Appendix 3.

Results of Assessment: Desktop

The activity area has not been subject to previous archaeological assessment and no Aboriginal Places (APs) are located on the property; however, APs have been recorded in the surrounding geographic region. There are 5 registered APs within the geographic region (with 6 components), all of which comprise artefact scatters and scarred trees. No Aboriginal Historical References were identified within the geographic region. None of these APs were located in the Activity Area. The Desktop Assessment concluded that Object Collections and Low Density Artefact Distributions (LDADs) are the AP site types most likely to occur within the Activity Area.

Results of Assessment: Standard

The Standard Assessment was conducted on the 15th of March 2022 and was undertaken by Matthew Barker (who also supervised the Standard Assessment) and Annette Millar of Benchmark Heritage Management. Shannon Atkinson and Michael Clark from the YYNAC also participated. Effective ground surface coverage was estimated to be less than 1% due to dense grass. The field representatives of the YYNAC agreed that the Activity Area was of low potential archaeological sensitivity and agreed to establish the potential for Aboriginal cultural heritage by Complex Assessment to test the site prediction model.

Results of Assessment: Complex

The Complex Assessment was conducted on the 15th of March 2022 and was undertaken by Matthew Barker (who also supervised the Complex Assessment) and Annette Millar of Benchmark Heritage Management; with Michael Clarke and Shannon Atkinson from the YYNAC. The excavation of one 1x1m Test Pit and 22 50x50cm Shovel Test Pits was undertaken (Tables 6-7, Map 12). Note that two Shovel Test Pits were mistakenly excavated outside the Activity Area and have been removed from the mapping (Shovel Test Pits 22-23). Aboriginal cultural heritage was identified in Test Pit 1. No dating samples of cultural deposits or stratigraphic layers were obtained. In general, the Complex Assessment revealed that the Activity Area is of low potential sensitivity for Aboriginal cultural deposits.

Aboriginal Cultural Heritage

AP VAHR 8125-0485 (26 Francis Elliot Court LDAD) was located in the Activity Area during the Complex Assessment. VAHR 8125-0485 (26 Francis Elliot Court LDAD) is comprised of a total of one sub-surface stone artefact manufactured on silcrete. The stone artefact was located in a disturbed surface context in mixed clay loam with clay inclusions.

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Part 1 -Cultural Heritage Management Conditions

1.0 Management Conditions

These conditions become compliance requirements once the Cultural Heritage Management Plan (CHMP) is approved. Failure to comply with a condition is an offence under section 67A of the *Aboriginal Heritage Act 2006*.

The CHMP must be readily accessible to the Sponsor and their employees and contractors when carrying out the activity. Aboriginal cultural heritage was located within the Activity Area; therefore, specific cultural heritage Management Conditions are required.

1.1 Specific Management Conditions: VAHR 8125-0485 (26 Francis Elliot Court LDAD)

Management Condition 1: Repatriation of the Stone Artefact Comprising VAHR 8125-0485 (26 Francis Elliot Court LDAD) After the Activity

The following Management Condition is required after the implementation of the activity.

1. The stone artefacts comprising VAHR 8125-0485 (26 Francis Elliot Court LDAD) must be reburied within the proposed reserve in the southeast of the Activity Area (Map 1). The reburial process must occur as follows:
 - I. The reburial pit must be excavated using small hand tools (limited to trowels and hand shovels) and must not damage any roots.
 - II. The relevant RAP (if one has been appointed) or relevant traditional owners if no RAP has been appointed (should they choose to participate) must be invited to participate.
 - III. The location of the re-buried artefacts must be recorded by the Heritage Advisor by undertaking a place record edit using appropriate Object Collection Forms and associated documentation in accordance with the relevant standards (e.g., First People – State Relations’ Guide to Preparing a Cultural Heritage Management Plan) and reported to the VAHR.



Map 1: Repatriation Location of VAHR 8125-0485 (26 Francis Elliot Court LDAD)

1.2 General Management Conditions

Management Condition 2: Cultural Heritage Induction to be Undertaken Before the Activity

A cultural heritage induction must be conducted with all site workers/contractors involved in ground disturbing works by a suitably qualified archaeologist/Heritage Advisor before the commencement of any ground disturbing activities.

The relevant Traditional Owner groups (or any appointed Registered Aboriginal Party) must be invited to participate in the cultural heritage induction.

The induction must include:

1. A brief history of the Aboriginal occupation of the Activity Area and the broader region.
2. A summary of the archaeological investigations conducted within the Activity Area.
3. A summary of the conditions and contingencies contained within this CHMP.
4. The obligations of site workers/contractors and Sponsors under the *Victorian Aboriginal Heritage Act 2006*.
5. Contact numbers of First Peoples – State Relations and Heritage Advisors.

The purpose of the cultural heritage induction is:

1. To explain the procedures outlined in this CHMP.
2. To show the site contractors examples of the most likely Aboriginal cultural heritage material to be located within the Activity Area.
3. To explain the procedure outlined in the Contingency Plan section (Section 2) of this CHMP in the event that this material is uncovered by them during the course of construction works.

Following the induction, the project manager or site supervisor are permitted to deliver the critical information (contingencies) in a subsequent toolbox or orientation inductions to staff employed during the activity.

The cost of the cultural heritage induction must be met by the Sponsor.

2.0 Contingency Plans

The contingency procedures contained in Section 2 of this report form part of the CHMP and *must* be incorporated into the development, or Environmental Management Plan for the project. A copy of this CHMP must be held on site at all times.

The approved format for a CHMP states that, in accordance with Clause 13(1) Schedule 2 of the *Aboriginal Heritage Regulations 2018*, a CHMP must also 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 registered Aboriginal parties in relation to the implementation of the plan or the conduct of the activity;
- (c) reviewing compliance with the CHMP and mechanisms for remedying non-compliance;
- (d) the management of Aboriginal cultural heritage found during the activity;
- (e) the notification, in accordance with the Act, of the discovery of Aboriginal cultural heritage during the carrying out of the activity;
- (f) how each lot is intended to be used or developed by the sponsor.

Contingency plans are required, even in situations where it has been assessed that there is a low probability of APs being located within an Activity Area.

2.1 Section 61 Matters

If there are any changes to the activity which require a statutory authorisation (for example, an amendment to the planning permit) the sponsor must either prepare and submit an application to amend the Cultural Heritage Management Plan, or a new Cultural Heritage Management Plan, for approval (Guide to preparing a CHMP - p. 44-5).

Under Section 61(d) of the *Aboriginal Heritage Act 2006*, all Cultural Heritage Management Plans must incorporate contingency plans to manage Aboriginal Cultural Heritage issues that may affect the conduct of the activity. This Cultural Heritage Management Plan must be kept on site during the construction works.

Section 61 matters pertaining to undiscovered cultural heritage that may become exposed during the activity are discussed in Section 2.2.

2.2 Discovery of Aboriginal cultural heritage during works

2.2.1 Contingency 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 must 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 309 519. 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 within at least 30 metres must stop

- b) The remains must be left in place and protected from harm or damage, and
- c) Do not contact the media; do not take any photographs of the remains other than those requested by the relevant authorities below.

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 are reasonable grounds to believe the remains are Aboriginal Ancestral Remains, the Coronial Admissions and Enquiries hotline must be immediately notified on 1300 309 519.
- 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 State Coroner's Office that 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. All costs associated with this will be the responsibility of 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 and all relevant details provided to the Registrar
- b) Appropriate management measures must be implemented to ensure the Aboriginal Ancestral Remains are not disturbed in the future.

2.2.2 Contingency 2 - 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 21-2) of the *Aboriginal Heritage Act 2006*.

b) All works must stop within at least 10 metres of the objects.

c) The Victorian Aboriginal Heritage Council will transfer the object/s to an Aboriginal person that the Victorian Aboriginal Heritage Council is satisfied is entitled to and willing to take possession, custody, or control of the object/s, or otherwise deals with the object/s as the Victorian Aboriginal Heritage Council thinks appropriate, as per section 21B 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 stop within at least 10 metres of the suspected Aboriginal cultural heritage.

ii) The 'stop works' area around the suspected Aboriginal cultural heritage must be fenced off using appropriate temporary fencing and protected from further disturbance; "no-go zone" signage must be attached to the fencing at all times to prevent the area from being disturbed further.

iii) An appropriately qualified Heritage Advisor must be notified within two working days.

iv) An appropriately qualified Heritage Advisor must inspect the suspected Aboriginal cultural heritage within three working days of notification.

v) Relevant Traditional Owner groups must be provided with the opportunity to participate in the inspection.

3) Notification

a) The Department of Premier and Cabinet (vahr@dpc.vic.gov.au) must be notified of the discovery of any Aboriginal cultural heritage excluding Aboriginal Ancestral Remains by the Sponsor within five working days.

4) Unexpected discoveries of Aboriginal cultural heritage

a) If the Heritage Advisor determines that the discovery is Aboriginal cultural heritage, then the following must occur:

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, the Sponsor must arrange a meeting between the Heritage Advisor, relevant Traditional Owner groups (should they wish to attend) and FP-SR, as soon as practicable, to discuss and agree on an appropriate way of managing the Aboriginal cultural heritage. This may include archaeological salvage

iii) all reasonable costs arising from the meeting and any agreed management actions must be borne by the Sponsor

iv) 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 the Department of Premier and Cabinet

v) the Heritage Advisor must record the Aboriginal cultural heritage in accordance with VAHR standards and relevant forms must be submitted to the Victorian Aboriginal Heritage Register as soon as practical.

5) Not unexpected Aboriginal cultural heritage and low density artefact distributions

a) If the Heritage Advisor determines that the discovery is a low density artefact distribution or other expected Aboriginal cultural heritage, such as rock art, scarred trees, and historical structures:

i) the Heritage Advisor must record the Aboriginal cultural heritage in accordance with Victorian Aboriginal Heritage Register (VAHR) recording standards, and relevant forms must be submitted to the VAHR as soon as practical; and

ii) works can continue once the Aboriginal cultural heritage has been recorded and all temporary fencing is removed.

2.3 Contingency 3 - Custody and Management

1) Where the Secretary to the Department of Premier and Cabinet 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 Registered Aboriginal Party for the land from which the Aboriginal cultural heritage is salvaged.

b. any relevant registered native title holder for the land from which the Aboriginal cultural heritage is salvaged.

c. any relevant native title party (as defined in the Aboriginal Heritage Act 2006) for the land from which the Aboriginal cultural heritage is salvaged.

d. any relevant Traditional Owner or Owners of the land from which the Aboriginal cultural heritage is salvaged.

e. any relevant Aboriginal body or organisation which has historical or contemporary interests in Aboriginal cultural heritage relating to the land from which the Aboriginal cultural heritage is salvaged.

f. the owner of the land from which the Aboriginal cultural heritage is salvaged.

g. Museum Victoria.

2) Final management arrangements, such as repatriation and/or reburial, must occur within six months of the completion of the activity.

3) If the relevant Traditional Owners 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. (Note, if reburial is to be within the extent of registered place the management plan must allow for that harm to occur).

4) 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.

2.4 Contingency 4 – Dispute Resolution

1) This contingency has no application as the Secretary to the Department of Premier and Cabinet is evaluating the Management Plan.

2.5 Contingency 5 – Compliance

1) In the event of suspected non-compliance:

- a) All relevant works must stop.
- b) The Sponsor must contact the Statewide Compliance and Enforcement Unit (compliance.aboriginalvictoria@dpc.vic.gov.au) within two working days to review the suspected non-compliance and agree to any required remedies.
- c) If an agreement cannot be reached by all parties, the Minister may order an audit of the management plan.
- d) All reasonable costs arising from the meeting and any agreed remedies must be borne by the Sponsor.

2.6 Contingency 6- Intended use or development of a subdivision

1) Information must be given:

- 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.

Under the Alpine Shire Council Planning Scheme, the Activity Area is zoned Rural Living Zone 1 (RLZ1). Each lot within the Activity area is to be developed in accordance with permissible developments for each lot as detailed in the relevant section of the Alpine Shire Planning Scheme (Appendix 7). If any proposed changes to an activity require a statutory authorisation (for example, an amendment to the planning permit application) the Sponsor must determine if amendments to the CHMP, or a new CHMP, is required. The Sponsor must refer any proposed changes to the activity, including proposed changes that require works outside of the activity area, to a Heritage Advisor for guidance on cultural heritage conditions

Under clause 35.03-3 of the Alpine Shire Council Planning Scheme under which the Activity Area is zoned specified a permit is required to subdivide land. Each lot must be at least 2 hectares. A permit may be granted to create smaller lots if any of the following apply:

- The subdivision is the re-subdivision of existing lots and the number of lots is not increased.
- The number of lots is no more than the number the land could be subdivided into in accordance with a schedule to this zone.
- The subdivision is by a public authority or utility service provider to create a lot for a utility installation Rural Living Zone 1 (RLZ1).

Table 1: Checklist for Reviewing Compliance

Contingency	Yes/No	If no...
Ensuring Compliance		
Have all the conditions in Section 1 of the approved Cultural Heritage Management Plan been met?		All works must immediately cease, and the relevant RAP contacted immediately. Refer to Section 1.
Contingency Plans for Discovery of Aboriginal Heritage During Works		
If suspected human remains have been identified, have all works immediately ceased and the Coroner, the VAHC and the RAP been contacted as per the 5-step contingency plan in Contingency 1 (Section 2.2.1)?		All works must immediately cease, and the relevant RAP and authorities contacted immediately. Refer to Contingency 1 (Section 2.2.1).
If Aboriginal cultural heritage excluding Aboriginal Ancestral Remains has been discovered, has the correct procedure been followed as per Contingency 2 (Section 2.2.2)?		All works must immediately cease within a 10m buffer of the suspected heritage, and the relevant RAP contacted immediately. Refer to Contingency 2 (Section 2.2.2).
Management of Aboriginal Cultural Heritage Identified During Works		
Has the procedure been followed for the management of Aboriginal Cultural Heritage identified during works?		Refer to Contingency 3 (Section 2.3).

Contact Details for Developer

John Lotauro & Abdul Syed
 9 Park Lane Point Cook Vic 3029
 0468786059
 Engineeringcompliance@outlook.com

Contact details for the Yorta Yorta Nations Aboriginal Corporation

Vanessa Charles
 Ph: (03) 58320 222

Part 2 - Assessment

3.0 Introduction

This Cultural Heritage Management Plan (CHMP) has been prepared for the proposed residential subdivision at 26 Francis Elliott Court, Bundalong, being Lot 28 on LP137177; herein referred to as the Activity Area (see Maps 2-3).

The purpose of the CHMP is to identify and assess the nature, extent, and significance of Aboriginal Places within the Activity Area. The CHMP provides mitigation, protection, and contingency procedures for the management of cultural heritage values before, during and after development of the land.

3.1 Reasons for Preparing the Cultural Heritage Management Plan

This CHMP is mandatory as the following conditions have been triggered under the *Aboriginal Heritage Regulations 2018* (r.7);

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

Specifically, the Activity Area is located within two areas of cultural heritage sensitivity which, in this case, is defined as:

r.26 Waterways

The Activity Area is located within an area of cultural heritage sensitivity which, in this case, is defined as land within 200m of the Ovens River (Map 3).

And

The proposed activity is a high impact activity (*Aboriginal Heritage Regulations 2018*, Division 1, 6(b)). The high impact activity defined in relation to the current Activity Area is:

r. 49 Subdivision of land

(1) The subdivision of land into 3 or more lots is a high impact activity if—

- (a) the planning scheme that applies to the Activity Area in which the land to be subdivided is located provides that at least 3 of the lots may be used for a dwelling or may be used for a dwelling subject to the grant of a permit; and
- (b) the area of each of at least 3 of the lots is less than 8 hectares.

A Notice of Intent (NOI) to prepare this CHMP, as required by Section 54 of the Act was submitted to the Secretary, First Peoples - State Relations (First Peoples - State Relations) on the 15th of February 2022. A copy of the NOI is attached as Appendix 1. First Peoples - State Relations replied to the NOI on the 15th of February 2022 and allocated this project with the CHMP Number 18622.

The RAP with responsibility for the Activity Area is the Yorta Yorta Nations Aboriginal Corporation (YYNAC). The YYSAC responded in writing on the 15th of February 2022 to the Notice of Intent outlining their intentions to evaluate the CHMP (Appendix 2). The NO was sent to the Shire of Moira by the sponsor.

On the 24th of October 2022 FP-SR notified the sponsor that YYSAC failed to evaluate the CHMP 18622. Subsequently following advice from the VAHR the CHMP was submitted to the FP-SR for evaluation on the 8th of November 2022.

3.2 Location of the Activity Area and the Current Landowner

This CHMP has been prepared for the proposed residential subdivision at 26 Francis Elliott Court, being Lot 28 on LP137177 and Ann Grove being Lot R1 on PS812527 and the road reserve of Pyke Street; Bundalong, Shire of Moira herein referred to as the Activity Area. The Activity Area is located in MGA Zone 55. All coordinates presented in this CHMP are referenced to GDA94/MGA55. The Activity Area is 2.143ha in size and is situated within Bundalong, which lies approximately 250km north of the Melbourne CBD.

The Activity Area is owned and managed by the Sponsor- John Lotauro, Director of the Auburn Consulting Group (ABN 48 135 906 204).

3.3 Sponsor for the CHMP

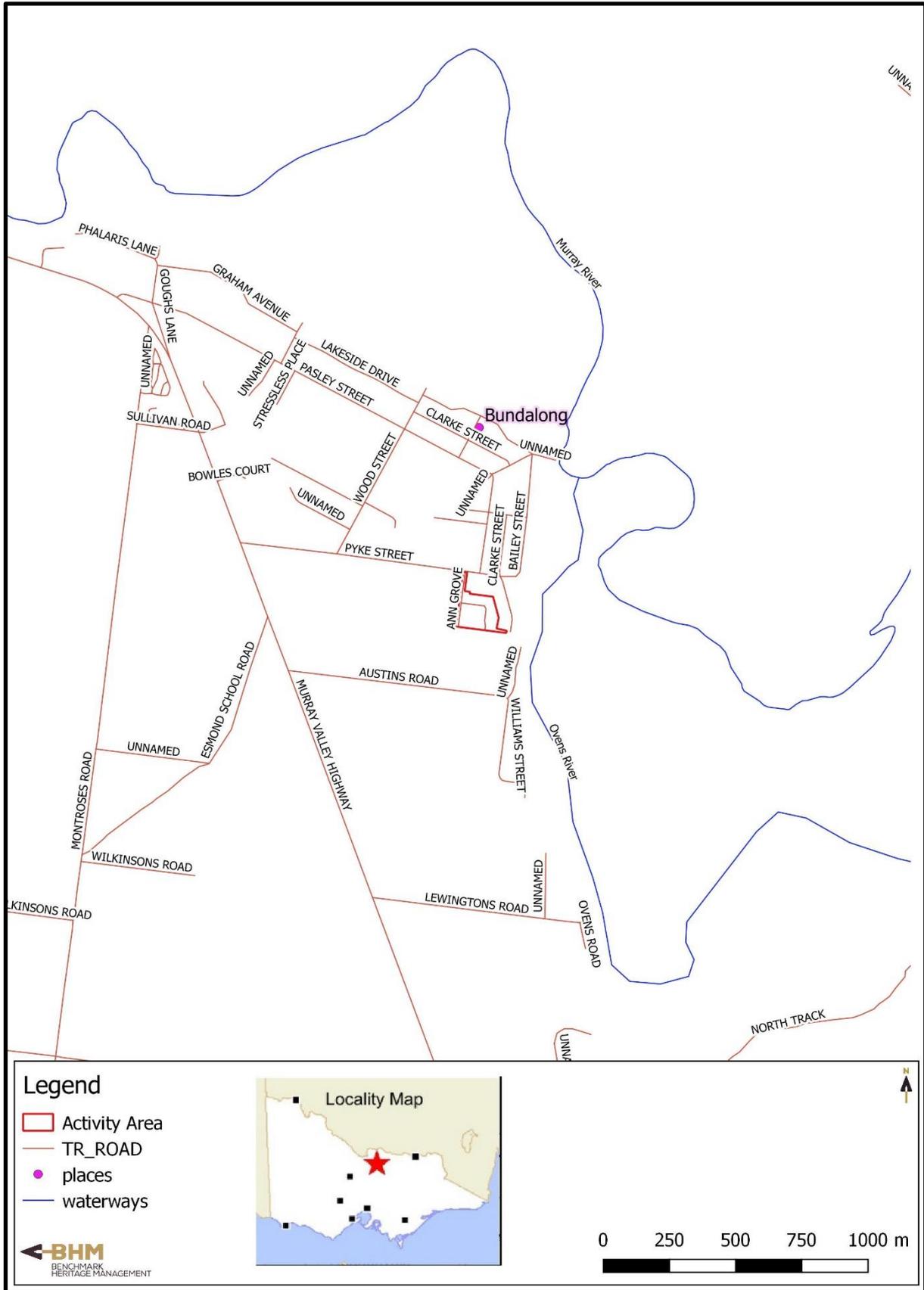
The Sponsor for this CHMP is Auburn Consulting Group.

3.4 Name, Qualifications and Experience of the Heritage Advisor

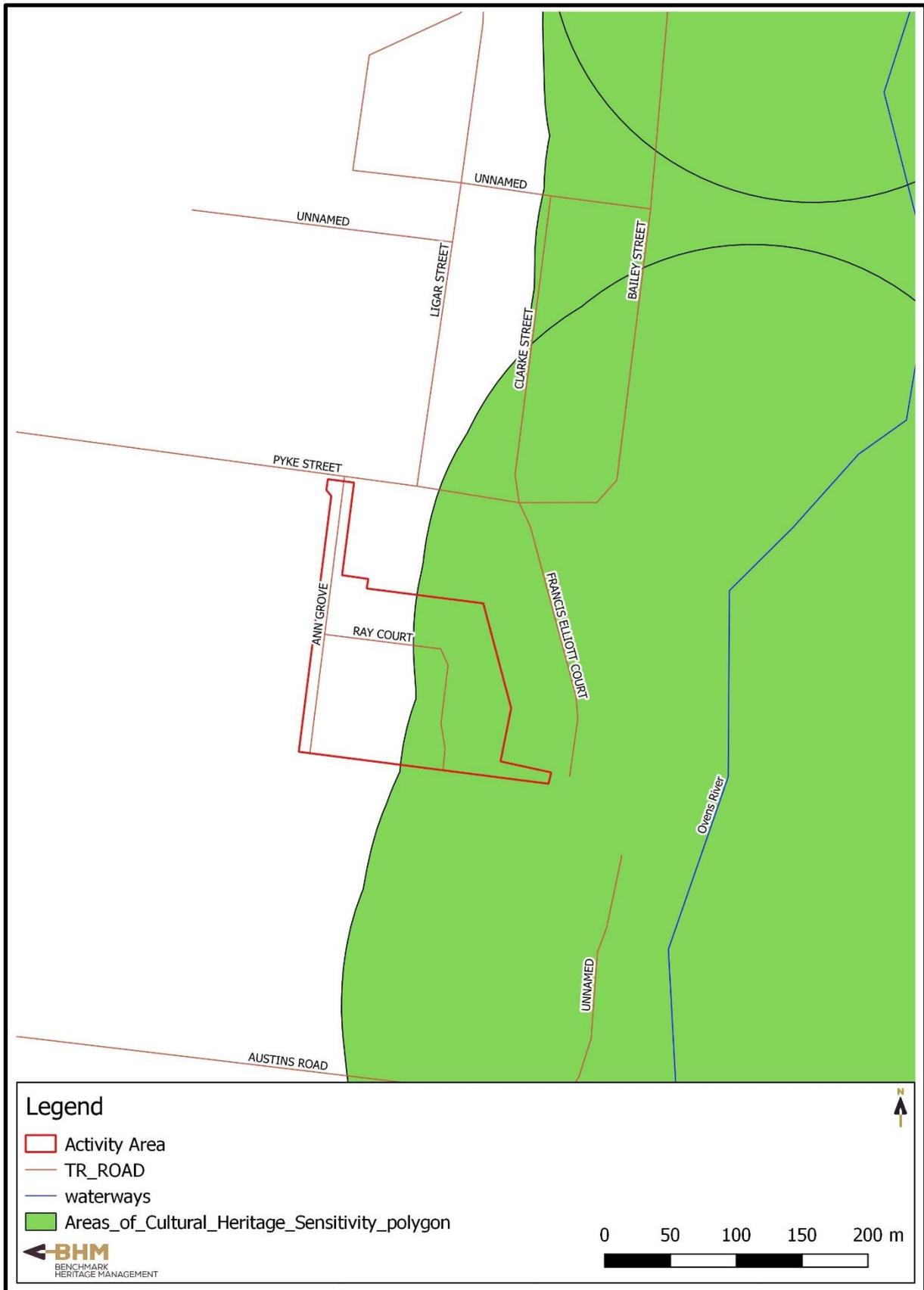
The Heritage Advisor (HA) who has undertaken this CHMP is Matthew Barker. Matthew (supervisor) has a Bachelor of Archaeology (2004) with Honours (2005) in Archaeology from La Trobe University and has been working in the field of Aboriginal archaeology for seventeen years. Matthew was assisted in the field by Annette Millar. Annette co-authored this CHMP.

3.5 Registered Aboriginal Party (RAP) with Responsibility for the Activity Area

The RAP with responsibility for the Activity Area is the YYSAC. The YYSAC responded in writing on the 15th of February 2022 to the Notice of Intent outlining their intentions to evaluate the CHMP (Appendix 2).



Map 2: Activity Area Location: Regional View



Map 3: Activity Area Location: Local View and Area of Cultural Sensitivity

4.0 Activity Description

The proposed activity is the proposed residential subdivision comprising 22 lots (see Figure 1). The relevant planning scheme (in accordance with Clauses 6 (2) and 10, Schedule 2 of the Aboriginal Heritage Regulations 2018) is the Shire of Moira Planning Scheme under which the Activity Area is zoned Township Zone. Permitted uses are shown in Appendix 8.

The sequence of activities that will occur during the course of any subsequent development is likely to be as follows:

1. Grass and vegetation removal comprising impacts on the ground surface to the upper 200mm.
2. Installation of drainage, utilising heavy machinery through the excavation of open cut trenches, only to depths of 2m. The top surface of the existing stripped ground 1.0m to either side of the trench may be disturbed during this work. A backhoe will be used to excavate the trenches.
3. Installation of services (electricity, telecommunications, gas, water) utilising heavy machinery to depths of 300mm-1m. As the trench excavations are likely to be relatively shallow and narrow, disturbance on either side of the trench is of minimal impact. Use of excavators and ditchwitches for these narrow trenches.
4. Excavation for roads and kerbs to 400mm in depth. A backhoe will be used to excavate the trenches.
5. Excavation for driveways to 400mm in depth. A backhoe will be used to excavate the trenches.
6. Excavation of foundations to 1m in depth. A backhoe will be used to excavate the trenches.
7. Construction will then take place in accordance with the design of the Sponsor.
8. Landscaping works will also occur according to the design of the Sponsor.

A summary of typical trench widths and depths of excavation of each construction activity is provided below in Table 2:

Table 2: Typical Activity Depths

Activity	Width of Trench (m)	Depth Range (m)
Drainage	0.5-1.0	2.0
Grass/vegetation removal	n/a	0.1
Foundations	10.0-30.0	1.0
Driveways	4.0	0.4
Roads/Kerbs	4.0-8.0	0.4
Sewer reticulation	0.5-1.0	0.6-2.0
Water reticulation	0.3 – 0.5	0.4-1.0
Electricity	0.1-0.3	0.6-1.0
Telecommunications	0.1-0.3	0.3-0.6
Gas	0.1-0.3	0.6-1.0

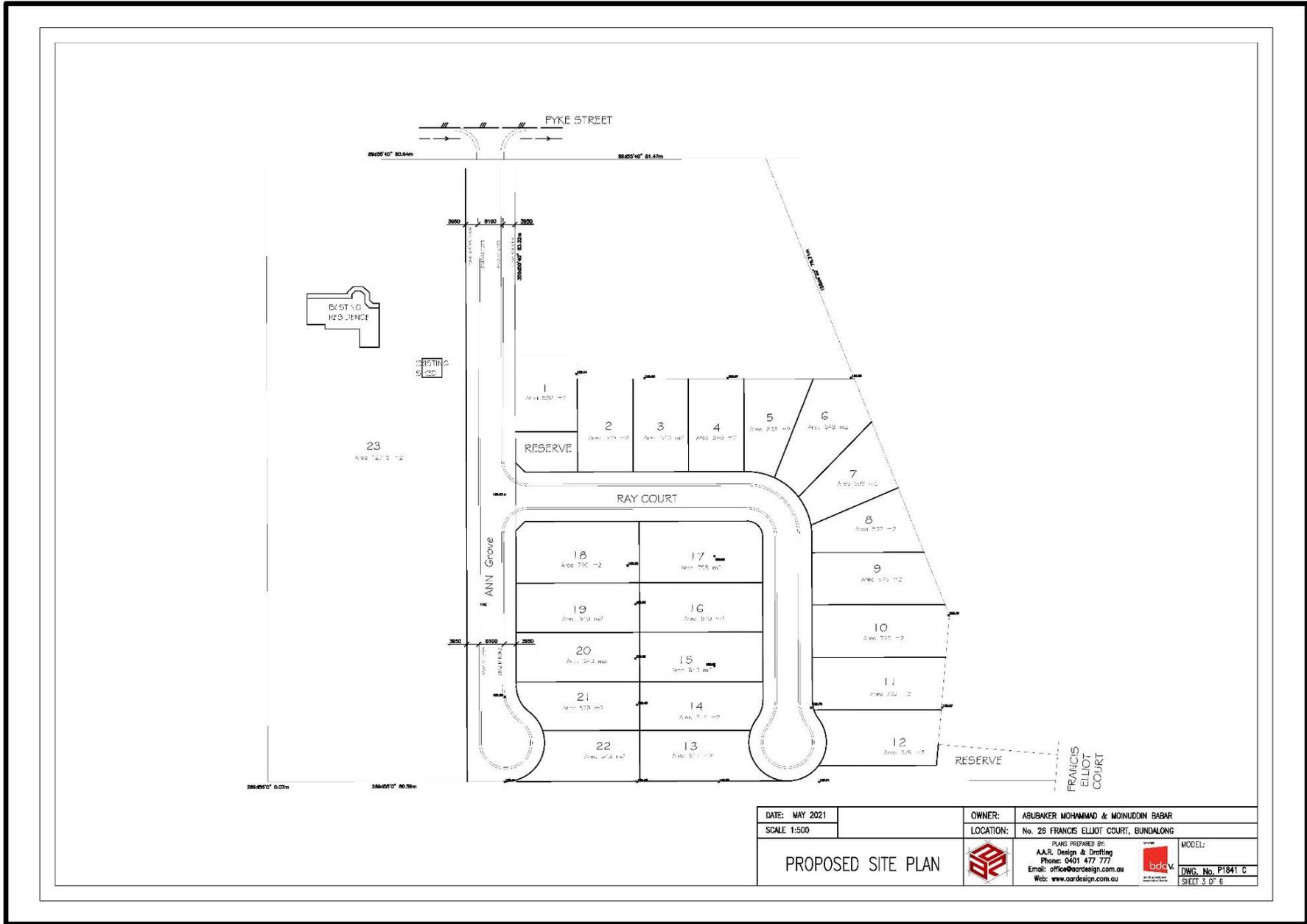


Figure 1: Indicative Development Plan

5.0 Extent of the Activity Area Covered by the Cultural Heritage Management Plan

This CHMP has been prepared for the proposed residential subdivision at 26 Francis Elliott Court, being Lot 28 on LP137177 and Ann Grove being Lot R1 on PS812527 and the road reserve of Pyke Street; Bundalong, Shire of Moira. The Activity Area is located in MGA Zone 55. All coordinates presented in this CHMP are referenced to GDA94/MGA55. The Activity Area is 2.143ha in size and is situated within Bundalong, which lies approximately 250km north of the Melbourne CBD.

The extent of the activity area is shown at Maps 2-4. The existing conditions of the Activity Area are shown in Map 4.

The Activity Area is located in MGA Zone 55. All coordinates presented in this CHMP are with reference to GDA94/MGA Zone 55.



6.0 Documentation of Consultation

This section outlines the consultation which was undertaken in relation to this CHMP and includes references to all relevant documentation submitted for this project.

Consultation was undertaken by BHM P/L on behalf of the Sponsor and comprised:

- 1: A project inception meeting.
- 2: A Standard and Complex Assessment results; and Management Conditions meeting.

Documentation of consultation is shown in Table 3.

Name and Organisation	Participants	Date	Type of Communication	Discussion
BHM P/L	Matthew Barker: BHM P/L	15th of February 2022	Email	Submission of Notice of Intent to Prepare a CHMP
First Peoples - State Relations		15th of February 2022	Email	First Peoples - State Relations replied to the Notice of Intent to Prepare a CHMP and assigned the project number 18622.
BHM P/L	Matthew Barker: BHM P/L	15th of February 2022	Email	Forward the NOI to the YYNAC.
YYNAC	Janarli Bux: YYNAC	17th of February 2022	Email	YYNAC response to the NOI
BHM P/L / YYNAC	Matthew Barker: BHM P/L Abdul Syed and John Lotaro on behalf of Auburn Consulting Group Wade Morgan: YYNAC	16th of February 2022	Meeting	Inception meeting with the YYNAC
BHM P/L / YYNAC	Matthew Barker: and Annette Millar BHM P/L Shannon Atkinson: YYNAC Michael Clarke: YYNAC	15th of March 2022	Standard and Complex Assessment	The results of the Standard Assessment were first discussed. The results of the Complex Assessment were discussed.
BHM P/L / YYNAC	Matthew Barker: BHM P/L Vanessa Charles: YYNAC	6 th of June 2022	Meeting	Results of Standard and Complex Assessments; Management Conditions
BHM P/L		29 th of June 2022	Email	Submission of CHMP 18622 for evaluation to the YYNAC

First Peoples - State Relations		24 th of October 2022	Email	First Peoples - State Relations sent an email stating that YYNAC had failed to evaluate CHMP 18622.
BHM P/L		8 th of November	Email	Submission of CHMP 18622 for evaluation to the VAHR

Table 3: Documentation of Consultation

6.1 Consultation in Relation to the Assessment

The Standard and Complex Assessments were undertaken by Matthew Barker and Annette Millar of Benchmark Heritage Management P/L on the 15th of March 2022, with YYNAC representatives Michael Clarke and Shannon Atkinson.

1. Project Inception Meeting

A project inception meeting was held for this CHMP on the 16th of February 2022. The meeting was attended by Matthew Barker (BHM P/L), Abdul Syed and John Lotaro on behalf of Auburn Consulting Group and Wade Morgan (YYNAC).

At the meeting, Matthew Barker asked if there was any known oral history in relation to the current Activity Area.

The purpose of this meeting was to address:

1. Proposed Activity;
2. Current conditions within the Activity Area;
3. APs and reports within the geographic region;
4. Cultural heritage likely to be found within the Activity Area;
5. Proposed Standard Assessment methodology; and

Wade Morgan requested that:

- A detailed survey must be undertaken
- Excavation must be undertaken to assess the sub-surface soils for Aboriginal cultural heritage.

2. Complex Assessment

The Standard and Complex Assessment was conducted on the 15th of March 2022 and undertaken by Matthew Barker and Annette Millar (BHM P/L), who also supervised the Complex Assessment and with YYNAC field representatives Michael Clarke and Shannon Atkinson. The proposed methodology was discussed during a meeting with the YYNAC representatives prior to the commencement of fieldwork and during the Complex Assessment.

The excavations yielded Aboriginal cultural heritage comprising a single stone artefact located in Test Pit 1 at a depth of 200mm.

3. Complex Assessment Results and Conditions

A results and Management Conditions meeting was held for this CHMP on the 6th of June 2022. The meeting was attended by Matthew Barker (BHM P/L) and Vanessa Charles of the YYNAC. The following conditions were proposed by Vanessa Charles (YYNAC) on the 6th of June 2022.

- The cultural heritage located in the Complex Assessment must be repatriated to the YYNAC.
- A hard copy of the approved CHMP must be kept on-site during construction works associated with the activity so that it can be referred to if required.
- A cultural heritage induction must occur prior to works occurring.

6.2 Summary of Outcomes of Consultation

- Two meetings were held between BHM P/L and the YYNAC.
- The YYNAC provided input regarding the background information, excavation results and conditions contained in this CHMP.

7.0 Aboriginal Cultural Heritage Assessment

7.1 Desktop Assessment

The aim of the Desktop Assessment was to produce an AP prediction model, which would assist in the design of the fieldwork, the interpretation of the fieldwork results, the assessment of cultural significance and the design of the Management Conditions. The Desktop Assessment involved a review of:

- Standard ethnographic sources to identify the likely traditional owners and a review of any written and oral local history regarding Aboriginal people in the geographic area;
- Environmental resources available to Aboriginal people within the region of the Activity Area;
- The Victorian Aboriginal Heritage Register (VAHR) at First Peoples - State Relations and previous archaeological studies, to identify any previously registered APs 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 AP prediction model (Section 7.1.9). The site prediction model assists in determining the type of APs 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 APs. The information provided by the site prediction model is used constructively in designing the survey strategy, by, for example, allowing the field team to target areas which have a high probability of containing APs. No obstacles were encountered during the preparation of this Desktop Assessment.

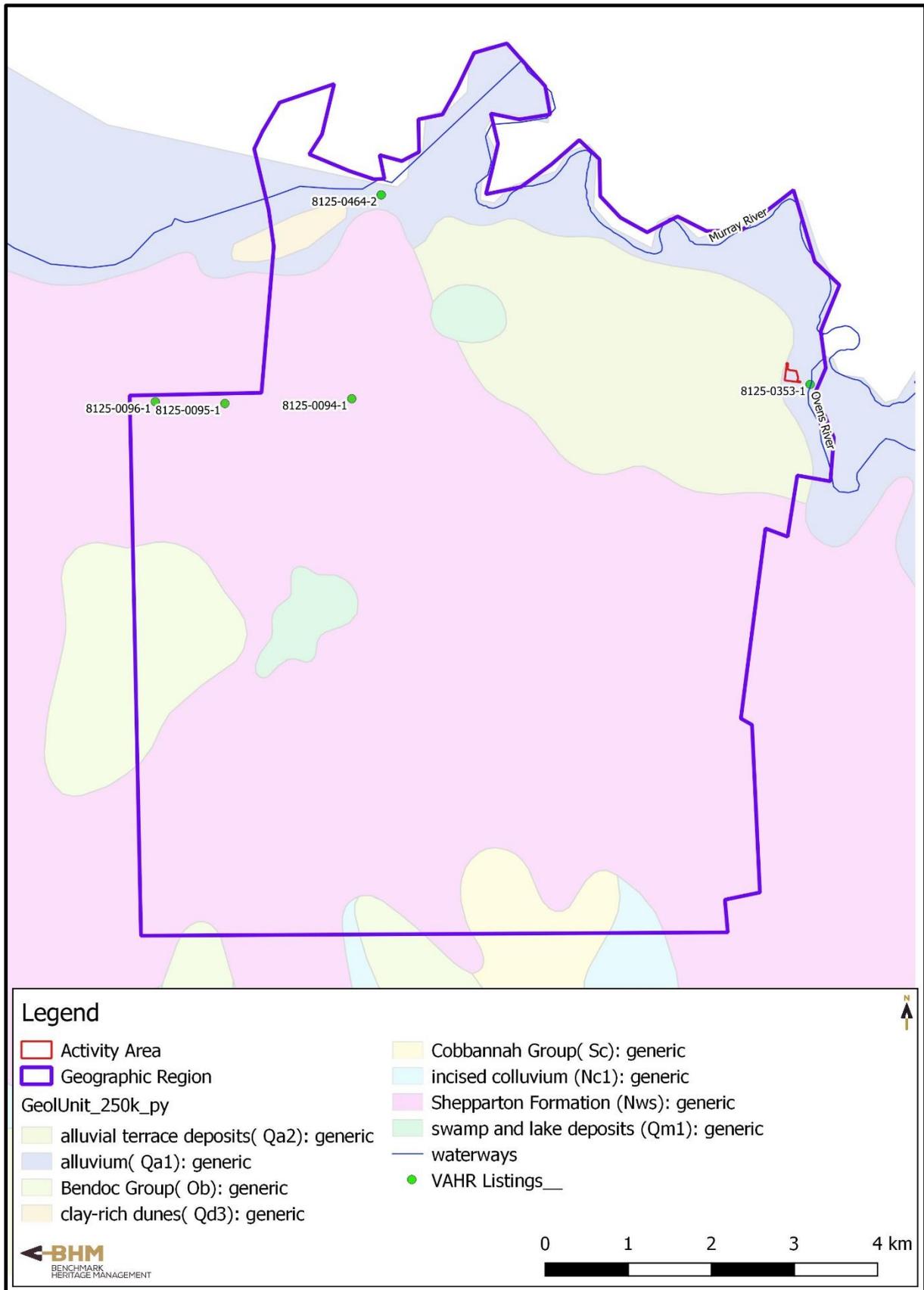
7.1.1 Search of the Victorian Aboriginal Heritage Register

The VAHR on-line database maintained by First Peoples - State Relations was searched to identify any previously registered Aboriginal Places (APs) within the Activity Area and surrounding geographic region, as well as the results of previous archaeological assessments. The Victorian Aboriginal Heritage Register was searched on 15th of February 2022 by Matthew Barker.

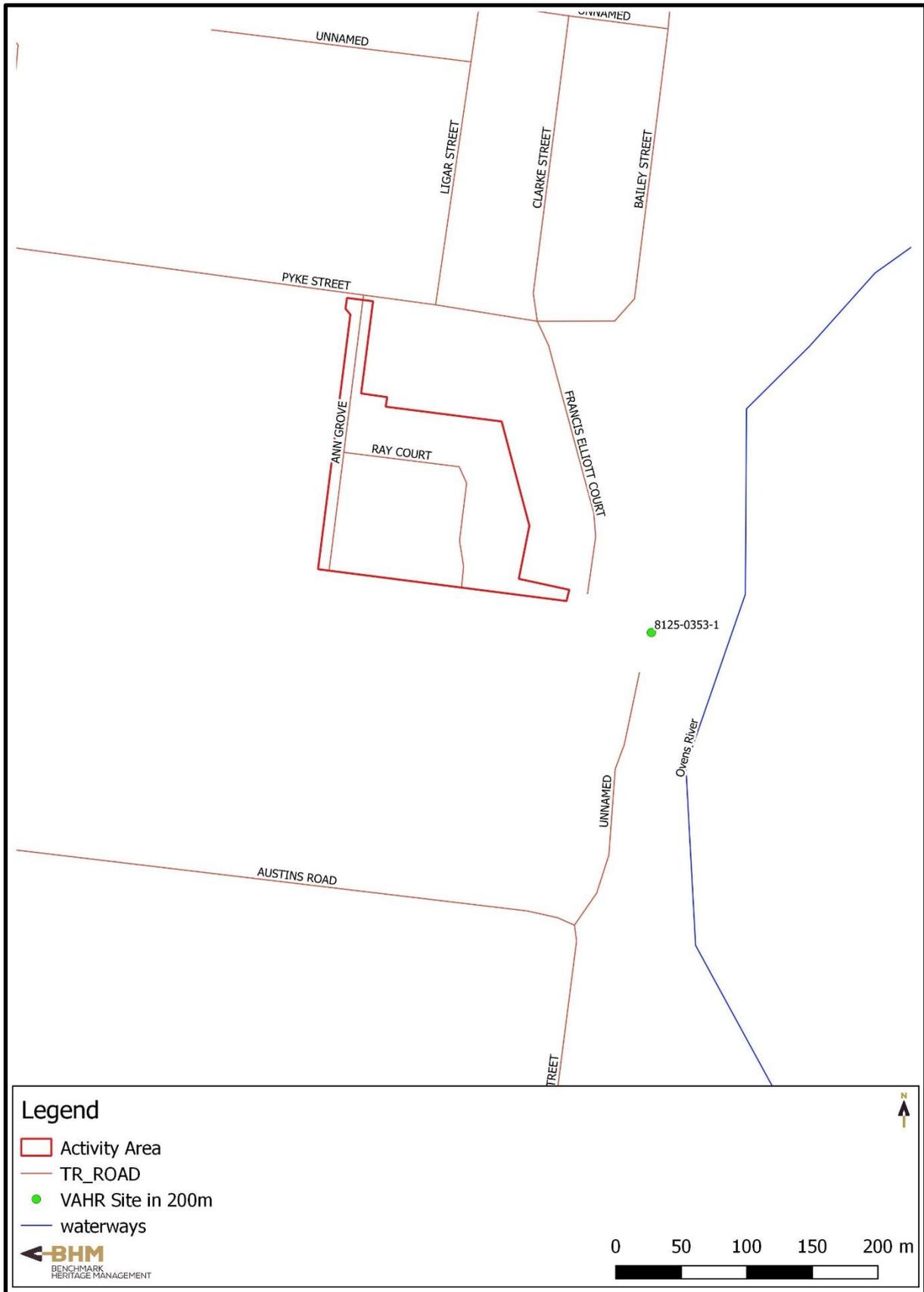
There has been no previous archaeological assessment of the Activity Area. The search indicated that there is one previously recorded AP within 200m the Activity Area (Map 6); Ovens River Terrace Bundalong 1 (VAHR 8125-0353) is an artefact scatter located on the western alluvial terrace of Ovens River, 20 metres west of the waterline, approximately 68m southeast of the Activity Area. The artefact scatter was recorded during CHMP 11584 and recorded in an area with remnant vegetation and grassland on undeveloped crown land. The artefact scatter consists of seven flaked stone artefacts of quartz and silcrete material. The assemblage includes one surface artefact and six artefacts found at maximum depths of 150mm in silty sand or clayey silt contexts. The place was in a very poor condition due to wind and water erosion.

7.1.2 The Geographic Region

The geographic region in which the Activity Area is located is defined for the purposes of this CHMP, as the extent of the Bundalong, (Map 5). This area had been identified as the geographic region for the purposes of this CHMP as it is considered to be of relevance to predicting the nature, extent and significance of any Aboriginal cultural heritage located in the Activity Area. Specifically, the geographic region as defined, samples a variety of landforms, environmental determinants, and resources that likely influenced Aboriginal occupation of, and places near to, the Activity Area.



Map 5: Geographic Region



Map 6: AP within 200m of the Activity Area

7.1.3 Registered APs in the Geographic Region

The activity area has not been subject to previous archaeological assessment and no Aboriginal Places are located on the property; however, APs have been recorded in the surrounding geographic region. There are 5 registered Aboriginal Places within the geographic region (with 6 components), all of which comprise artefact scatters and scarred trees.

Table 4: Site types in the region of the Activity Area

Site Type	Frequency (No)
Artefact Scatter	1
Low Density Artefact Distribution	4
Scarred Tree	1 (with 2 components)

7.1.4 Previous Works in the Geographic Region Relevant to the Activity Area

A summary of these works offers a basis on which to form a site prediction model for the current Activity Area by providing an indication of the most sensitive landforms and soils in the region. The information garnered from past studies also assists in focusing the methodology for the Standard and Complex Assessments. Overall, the studies suggest that rises overlooking creeks and the presence of silty and alluvial soils comprise the areas which are most sensitive to the presence of Aboriginal sites. The studies which are most relevant to the Activity Area are outlined and summarised below.

Regional Investigations

Two broad regional studies have been undertaken of the wider Murray River region which have some relevance to the current assessment. These include Lomax and Lusty's 1994 investigations of the Lower Goulburn River and associated floodplain, and the Southern Murray Basin Aboriginal survey undertaken by Long in 1996. A summary of these studies is provided below.

Lower Goulburn River and associated floodplain (Lomax and Lusty 1994)

Lomax and Lusty (1994) undertook a study which focused on a 245 km section of the Lower Goulburn River and associated floodplain, from the Murray River to the Goulburn Weir. The authors characterised the range, nature, and location of Aboriginal archaeological sites within this area and summarised a site prediction model for the region. Lomax and Lusty sampled a small proportion of the Lower Goulburn River area, dividing this area into three land systems comprising Floodplain (75%), Riverine Plain (15%) and Lakes/lunettes (10%). The Riverine and floodplains land\ systems are of relevance to the current activity area:

The Riverine Plain land system is characterised by:

- Archaeological materials associated with the margins of swamps and watercourses;
- A range of Aboriginal Place types including mounds, scarred trees, surface stone artefact scatters and subsurface archaeological deposits;
- Subsurface deposits will be shallow and conflated;
- Mounds will be found adjacent to water sources in either red gum or box vegetation;
- Scarred trees predominantly occur on grey box with a smaller number on red gums;

The floodplains landform includes the following site predictive statements:

- Landforms include oxbow lakes, meander scrolls and occasional source bordering sand dunes;
- Soils consist of recent Quaternary and dominant vegetation is River red gum;
- A range of AP types will be present including middens, stone artefact scatters, scarred trees, hearths, and mounds;
- Aboriginal burials will be located within source bordering dunes;
- Sites adjacent to the river system will be difficult to locate as they may be covered by deep alluvial deposits;
- Most areas within 100m of the river will have been reworked by the action of the river and may no longer contain Aboriginal material;
- Elevated terraces may contain Aboriginal material, especially fresh-water mussel middens;
- Stone artefact sites will most probably reflect a wide range of stone utilisation tasks.

Southern Murray Basin Aboriginal Sites Survey (Long 1996)

Long (1996) undertook a field assessment which included the area of Barmah, situated on the Murray. This is of likely relevance to the current study area as the assessment contains similar landforms.

The Murray section of the survey recorded a total of 125 Aboriginal Places comprising 98 scarred trees, seven artefact scatters, 13 isolated artefacts, four mounds and three hearths. Long made the following site prediction model based on the results of the survey:

- Stone artefact assemblages predominately comprised quartz lithics, with silcrete and chert also present.
- The majority of the stone artefacts representing these Aboriginal Places were small waste flakes and cores;
- Sites of greatest artefact density occurred along Broken Creek and Moodie Swamp;
- Scars were found almost exclusively on Grey Box with a small number on Red Gum and Yellow Box;
- The Aboriginal mounds were located on the bank of the creek within the Barmah quadrant a total of 61 Aboriginal places were identified, represented by 41 scarred trees, four artefact scatters, three isolated artefacts and 13 mounds. Long concluded:
- Most scars are located on grey box with scars located on black box trees in low-lying areas, and a small number of scars on yellow and red gum trees;
- Stone artefact assemblages are relatively small predominated by quartz and chert with some silcrete present;
- Majority of stone artefact consist of waste flakes and cores, and generally occur on elevated ground adjacent to water sources;
- Mound sites have been recorded along low banks of permanent creeks and along the backwaters of the Murray River along gentle slopes that define the edge of the localised floodplain;
- Mounds dimensions are small with the standard shape being round to slightly oval;
- Mound sites are often highly disturbed by animal burrowing or construction activities.

Smaller Scale Investigations

Vines and Orr (2008) completed a CHMP (10136) for a subdivision which is located approximately 598 north of the current Activity Area. The Desktop Assessment discusses the impact of the creation of Lake Mulwala since 1915 and concluded that Aboriginal place types were predominantly scarred trees, with only one artefact scatter recorded at the time. This was attributed to the river floods which may have transferred large quantities of sediments across the floodplains, burying surface artefacts, and

therefore impacting site formation and preservation. It was discussed that areas of higher archaeological potential would be associated with elevated sandy soil adjacent to waterways where agricultural practices have not occurred. The CHMP predicted that scarred trees and isolated artefacts are possible across the whole area and riverbanks or areas in very close proximity (bordering the study area to the north-east (part of Lake Mulwala). These areas contained some low rises which indicate that they may not have been subject to levelling or other disturbances. A Complex Assessment followed to further investigate the possibility that Aboriginal cultural heritage may be present within the study area. The Complex Assessment included a 1x1 metre test pit and a transect of seven (0.3x0.3 metre) shovel test pits (STP). An additional three machine trenches were excavated with lengths between 15 and 30 metres, with a width of 1.2 metres. During machine excavations, 50% of soil was sieved, while 100% of the manually excavated soil was sieved. The excavation of Test Pit 1 revealed a loose pale brown, silty sand to a depth of 350 millimetres before a gradual transition to a compact red sandy silty clay, increasing with clay content with depth. The excavation ceased at the sterile silty clay unit at 400 millimetres. The transect of STPs showed a similar stratigraphy with maximum depths of 600 millimetres. Machine trenches also showed a similar stratigraphy, and a five metre section of Machine Trench 1 was excavated to a depth of 1.2 metres which showed the continuation of the silty clay with occasional lenses of sand. This was noted as being consistent with descriptions of soil formation processes along the Murray River and it was stated that such soil formations have been dated to before known activity of humans in the area. Disturbance was recorded in subsurface investigations to depths of 300 millimetres due to past agricultural activity. No Aboriginal cultural heritage was identified during the Complex Assessment. Possible contributing factors for the absence of Aboriginal cultural heritage found included the disturbance in the area due to the formation of Lake Mulwala and agricultural practices. Overall, the study area was assessed as having low cultural heritage potential and any sub-surface or cultural features within the study area are likely to be highly disturbed.

Bell and Edwards (2011) completed a CHMP (11584) for a proposed water main and reticulation network between Yarrawonga and Bundalong located adjacent to the eastern boundary of the current Activity Area. The majority of the study area included road reserves and was largely situated on the plains with leveed channels and sometimes source bordering dunes (GMU 4.2.1). The Desktop found that the study area consisted of plains, dunes and floodplain landforms and that historic plans and aerial mapping indicate clearance of native vegetation from the land and agricultural activity since European settlement. Scarred trees and artefact scatters were considered the most common Aboriginal place types and it was concluded that these were most likely to be located on plain or floodplain landforms. A Standard Assessment followed to further test these sensitive landforms within the study area. The Standard Assessment included a pedestrian survey which noted varying ground surface visibility (0-100%) and observed a flat to gently undulating surface within the study area. The survey did note high disturbance associated with the installation of utilities and services and the construction of the Murray Valley Highway. No Aboriginal cultural heritage was identified during the survey, but three areas of archaeological potential were identified: an inland dune deposit, a minimally disturbed riverbank, and a terrace landform. A Complex Assessment was undertaken comprising a test pit (0.5x0.5 metres) which was excavated in the northern road reserve of the Murray Valley Highway between Bundalong and Yarrawonga (within the inland dune landform). This test pit identified a total of 17 artefacts between 50 and 250 millimetres (Murray Valley Highway Bundalong VAHR 8125-0351). A total of four shovel test pits were then excavated at five metre intervals to test the extent of this place. Stratigraphy within these excavations were generally uniform, showing a yellowish red, medium sand to 500 millimetres, before a reddish brown, silty sand to 600 millimetres. The shovel test pits showed disturbance to 400 millimetres. Additional testing near the Ovens River Pump Station, approximately 600 metres east of the current Activity Area included two test pits (0.5x0.5 metres) and seven 0.4x0.4 metre shovel test pits. No Aboriginal cultural heritage was identified in this set of testing and the stratigraphy showed a strong brown compact clayey silt overlying a yellowish red sandy clay between 100 and 600 millimetres. Subsurface excavations showed introduced material from 100 to

600 millimetres) and natural quartz gravel throughout. Further testing showed a stratigraphy of red silty sand/sandy silt between 0 and 150mm, overlying yellowish red to red clayey silt between 150 and 500mm. Testing on the river terrace landform identified one surface quartz artefact and six quartz flaked artefacts between 0 and 150 millimetres (Ovens River Terrace Bundalong VAHR 8125-0353). A total of two Aboriginal cultural heritage places were identified during the complex assessment: Murray Valley Highway Bundalong 1 (VAHR 8125-0351) and Ovens River Terrace Bundalong 1 (VAHR 8125-0353). No specific management conditions were established for each place due to highly disturbed contexts and low densities.

Wall and Bell (2016) completed a CHMP (14246) to a Standard Assessment level for the proposed subdivision at 26-28 Pasley Street, Bundalong located approximately 1.276km northwest of the Activity Area. The Desktop Assessment concluded that the land had been cleared of native vegetation with two Eucalyptus trees remaining on the southern boundary. Scarred trees and artefact scatters were considered most likely to be found in the region within the floodplain landform. A Standard Assessment followed and included a systematic pedestrian survey. The survey noted poor ground surface visibility across most of the study area (<25%). The survey included the inspection of two mature Grey Box eucalypt trees however no cultural scarring was noted. The survey noted disturbances associated with the installation of water tanks, water and sewerage lines, construction of tennis courts, and dumping and landscaping. No Aboriginal cultural heritage or areas of archaeological potential were identified during the Standard Assessment and after consultation with YYNAC, it was concluded that a Complex Assessment was not required.

Johnson and Shiner (2018) completed a CHMP (15708) for a car park at Majors Lane, Bundalong approximately 5.2km northwest of the Activity Area and 50m south of the Murray River. The Desktop Assessment found that despite disturbance from agricultural practices across the geographic region, the area had not been extensively impacted and was close to sensitive landforms: a sand dune, a prior waterway, McDougall's Creek, Ovens Creek, and the Murray River. A Standard Assessment showed very limited ground surface visibility and an underlying yellowish brown sand and clay stratigraphy. A Complex Assessment included one 1x1 metre test pit and two 0.5x0.5 metre shovel test pits. A total of two isolated artefacts (crystal quartz and unknown) were discovered at 50 millimetres depth and registered as Major's Lane LDAD (VAHR 8125-0464). The stratigraphy in the area showed a yellowish brown laminated sandy clay overlying a brownish yellow cemented clay.

Fitzgerald and Aitchison (2019) completed a CHMP (16524) to a Standard Assessment level for the proposed subdivision at 42-94 Pasley Street, Bundalong located approximately 402m northwest of the Activity Area. The study area is located within close proximity to major rivers, the Murray, and Ovens Rivers, and in an area of regular swampland due to frequent flooding. The Desktop Assessment concluded that the study area had been impacted by European settlers since the 1880s via clearing of native vegetation, agricultural and pastoral activities, installation of services and flooding in the past. It was stipulated that given the minimal modification to the land over time, there was the potential for Aboriginal cultural material, most likely in the form of low density artefact scatters in the sub-surface. A Standard Assessment followed and included a systematic pedestrian survey. The survey noted very poor ground surface visibility across most of the study area.

Carter et al undertook a CHMP (17478) for a proposed bridge over Jacksons Creek and path, Bundalong located 660m north. The Desktop Assessment identified that minimal land clearance and development has occurred within the Activity Area but that the Activity Area has been impacted by Lake Mulwala. The construction of Lake Mulwala and natural soil erosion due to the nature of the floodplains does indicate that if Aboriginal cultural heritage is present, it is likely in a disturbed state and most probably buried under deposited alluvium. Given the lack of archaeological investigation and based on previous assessments within the wider region, it is likely that Aboriginal cultural heritage will be present in the form of either scarred trees or low density artefact distributions in subsurface contexts. The Standard

Assessment recorded very poor ground surface visibility due to long grass coverage. Disturbances to the area have most likely been from natural processes associated with water movement across the floodplain, which has likely been altered over the years with changes to the hydrology due to the formation of Lake Mulwala. The Activity Area is considered to be of low – moderate potential due to its proximity to the Murray River; however, this may be offset by the low lying nature of the landform. The Complex Assessment included the excavation of two 1x1 metre test pits within the proposed bridge footing locations. The excavations ceased at 600 millimetres when clay base or the water table was reached. No Aboriginal heritage was discovered.

7.1.5 Historical and Ethno-historical Accounts of the Geographic Region

No specific oral history has been provided in relation to the Activity Area from the YYNAC.

The Desktop Assessment must include a review of historical and ethnohistorical accounts of Aboriginal occupation in the geographic region (*r.61 (1) (d)*). Therefore, a review of the historical and ethnohistorical accounts of Aboriginal occupation within the geographic region has been undertaken.

This section provides a review of documentation relevant too Aboriginal historical and ethno-historical accounts related to the Activity Area and surrounding region. An examination of lifeways provides an additional tool in the prediction of locating Aboriginal cultural heritage in specific regions. This is achieved through a broad analysis of the ways in which Aboriginal people utilised landscapes and resources (such as watercourses, flora, fauna, and stone). The following is intended as a basic review of resources and should be treated cautiously as the information is based primarily on accounts written just after the point of contact with Europeans.

No specific references to Aboriginal use of the Activity Area have been found in published sources. A brief review of Aboriginal history in the region of the Activity Area is set out below.

According to Wesson (2000:83), the activity area falls within the traditional lands of the Minubuddong language group, which shared 27% of their vocabulary with the Yorta Yorta language group to the west. Wesson (2000:76) also states that the Waveroo tribe were associated with the area between Yarrowonga and the Ovens River. Tindale (1940:198) places the activity area within the boundaries of the Kwat Kwat language group. Clark (1990:20) attributes the area to the Waveroo tribe (see Figure 2).

Bossence also states that Curr (in his 1887 publication) claims that the part of the shire north of the Nine Mile Creek were shared between the Angootheriban, the Toolenyagan and the Towrooban tribes, which he claimed were all of the Bangarang clan. However, according to (Clark 1990) and Dixon (working papers, cited by Clark 1990), from analysis of the available data, it is clear that there was a group of contiguous clans that were called 'Bangarang' and that their language was called Jodajoda. In other words, Bangarang and Jodajoda refer to the same people. According to Clark, Tindale made a similar mistake, setting up two separate tribes, which has misled many subsequent researchers (Clark 1990).

Aboriginal groups within the Murray River region such as the jodajoda groups followed a semi-sedentary hunter-gatherer lifestyle. Resource rich watercourses and swamps, containing a diversity of fish, shellfish, birds and other plant or animal foods formed a particular focus for regular Aboriginal occupation.

Like other Victorian Aboriginal groups, northeastern Victorian Aboriginal people suffered significant population decline after the arrival of European people. This is thought to be mainly due to the spread of diseases such as smallpox and influenza. Conflict with European settlers was not uncommon. From an estimated 1628 people in the 1840's, only 37 Aboriginal people were recorded in the northeast of Victoria in 1877 (Wesson 2000: 59).

In July 1841, Edward Curr settled on the Tongala Station, southeast of the present township of Echuca (Curr 1883, 83). During his time in the area, Curr met with and observed the local Aboriginal people, including people from the Bangerang Aboriginal group. He called his station Tongala, which he said was the Bangerang name for the river Murray (Curr 1883, 83). Curr also mentions the Moira area as being a favourite place of the Bangerang Aboriginal people, and was very resource rich. Curr's brother, Richard, made the following observations of this area:

"In a flying visit made to it some short time previous, he had found that, under water for several months of the winter and spring, it abounded in summer in excellent sheep feed, in the shape of couch grass, young reeds...and was usually as green as an emerald from November till march, when other pastures were withered and dry...it abounded beyond all belief in unusually fat fish, swarmed with leeches and snakes, and the ducks were so numerous that I cannot tell now how many he bowled over at one shot. As we learned afterwards, its extensive reed-beds were the great stronghold of the Bangerang Blacks..." (Curr 1883, 166).

Curr (1883:118) recounts camp life as follows:

'When several families were camped together at a spot at which they proposed to remain for a few days, the custom was for the women to leave camp an hour or two after sunrise for the purpose of getting roots and vegetables, catching shrimps or prawns, digging out rats, and carrying on other avocations of the sort... Generally their absence from the camp was about six hours, half of the time being loitered away in the shade or by the fire, according to the season, when they returned with a heavy load of food. It was when camped in this way for several days at a place that weapons and ornaments were manufactured, and games played. The men used to start out to hunt in threes and fours shortly after the women had left the camp, and returned at about the same time. The ordinary business of the married men was to see to the safety of the family, procure meat or fish, and opossum skins enough to keep them clad'.

Curr made the following observations of local Aboriginal burial practices:

“The dead were rolled up in their opossum-rugs, the knees being drawn up to the neck with strings, when the corpse was interred in a sitting posture, or on its side, generally in a sandhill, in which a grave about four feet deep had been excavated. A sheet of bark was then placed over the corpse, the sand filled in, and a pile of logs about seven feet long and two feet high was raised overall. Round about the tomb it was usual to make a path, and not unfrequently a spear, surmounted by a plume of emu feathers, stuck at the head of the mound, marked the spot where rested the remains of the departed. Women were interred with less ceremony” (Curr 1883, 286).

After the mid-1850s, large townships such as Echuca and Cobram became established within the Murray River region. When he first settled in the region. Curr observed how the local Aboriginal people began to die from diseases that had been brought to the area by the European settlers:

...a large and steady decrease took place in their numbers, so that at the end of ten years, I doubt whether as many as eighty of the original two hundred were left. This falling off I attribute to diseases – which had originated with the whites, and been passed on from tribe to tribe – having made their appearance amongst the Bangerang a year or two prior to my squatting in their country...There was, however, no doubt, a tendency to disease consequent on the partial abandonment of their traditional ways of life for others less healthy, for, after my settlement in their country, the Bangerang gave up in great measure their wholesome and exhilarating practices of hunting and fishing, and took to hanging about our huts in a miserable objectless frame of mind and underfed condition, begging and doing trifling services of any sort. To this course they were mainly led by their desire to obtain from the newcomers’ various commodities, such as iron tomahawks, tobacco, and especially flour, mutton, sugar, and other articles of food...” (Curr 1883, 235).

In addition, the loss of traditional lands led to the breakdown of social units and food resource areas. As a result, the Goulburn Aboriginal Protectorate started a centre for the protection of local Aborigines in Murchison 1839, which operated to approximately 1850, when the system of protection was abolished (Massola 1969). Similar centres opened in NSW with David Mathews establishing a mission in 1874 at his Maloga property on the banks of the Murray, where many Aboriginal people from the surrounding regions resettled. In 1883 the NSW government established the Cummerajunga Protectorate, adjacent to Maloga mission and in 1889 the majority of the Maloga residents moved into the new Protectorate. Here they enjoyed comparative freedom and there was a great deal of movement between Cummerajunga, as people visited relatives or established new homes. However, this independence was significantly curtailed in 1909/1915 when NSW enacted legislation virtually identical to earlier amendments to the Victorian Aboriginal Act – which brought into effect a new policy of assimilation, particularly of those considered of mixed blood or half castes. During this period 150 people were dismissed from the mission, with most of them moving south into the Barmah region and eventually dispersing through a number of Victorian towns. (Massola 1969).

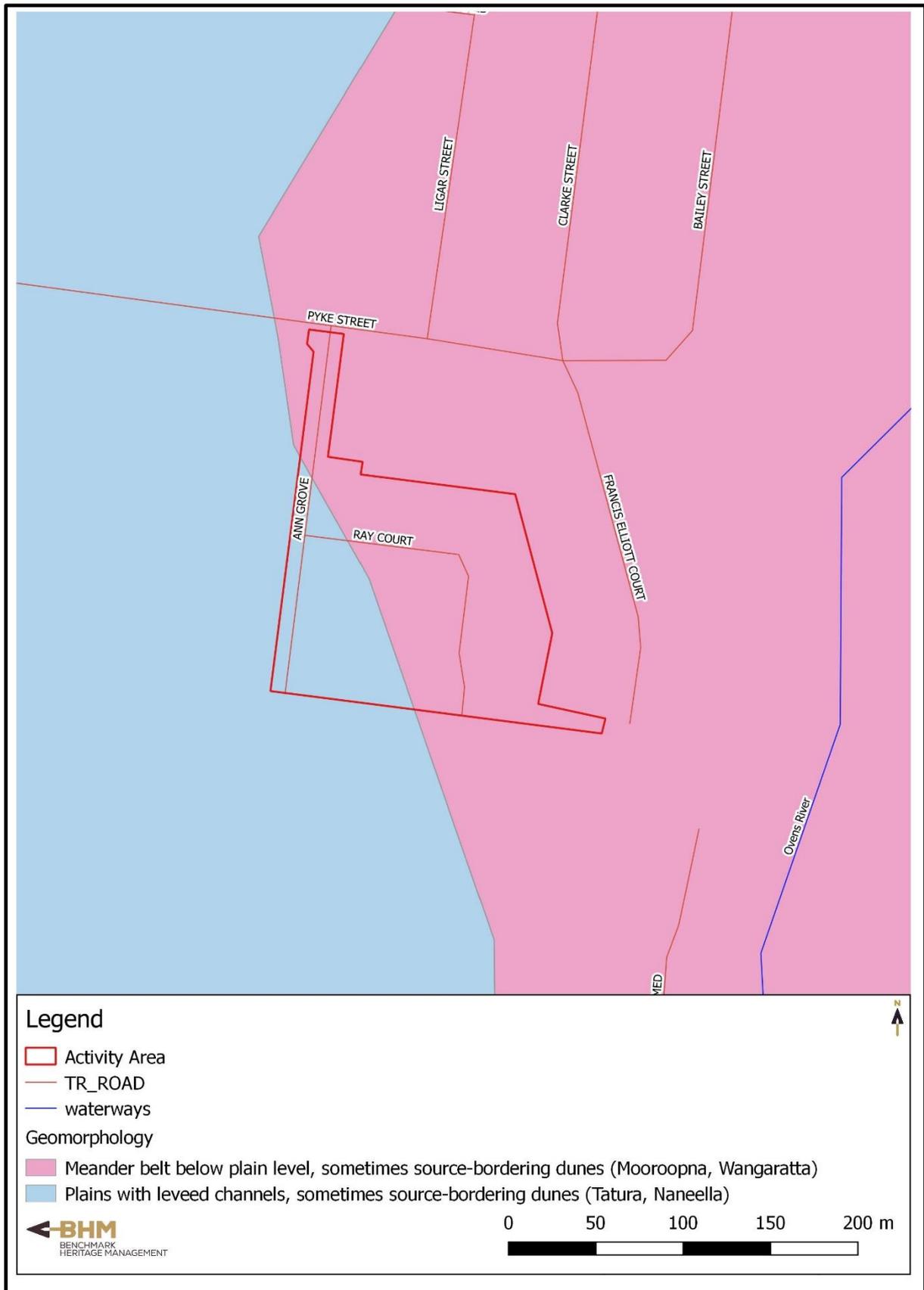
In 1939 following a period of organised protest against the antagonistic management and plans to lease mission land to white farmers there was a mass migration away from Cummerajunga back across the border mostly into Mooroopna, Shepparton, Echuca, and other smaller centres. Many of the people who moved into Mooroopna lived in tin sheds on a bend of the Goulburn River known as the Flats; this part of the river regularly flooded often forcing the residents to move to high ground (LCC 1991 following Sutherland 2010). It was not until 1957 that the Victorian Welfare Board established a housing estate at Rumbalara near Mooroopna (Newby & Muir 1999, following Sutherland 2010).

The majority of the members of the current Rumbalara Aboriginal Co-operative at Mooroopna are Yorta Yorta people, descendants of the people who walked off Cummerajunga mission Station in 1939 to live on the River Flats (Du Cros & Associates 1998 following Sutherland 2010). The YYNAC was incorporated under the Commonwealth Aboriginal Councils and Associations Act 1976 on 27 November 1998. The organisation was created to represent all Yorta Yorta Family Groups including those representing the, Kailtheban, Wollithiga, Moira, Ulupna, Kwat Kwat, Yalaba Yalaba, Nguaria-iiliam-wurrung and Pangerang clans (Seidel & Hetyey 2004).

Descendants of the Jodajoda tribe now live throughout the Murray River region and are represented by the Registered Aboriginal Party; the Yorta Yorta Nation Aboriginal Corporation. The Yorta Yorta Nation identified the entire area along the Murray River as of cultural significance, as it is part of creation for the Yorta Yorta Aboriginal people (Sutherland 2010).

7.1.6 The Landforms and Geomorphology of the Activity Area

Bundalong is located on the physiographic feature known as the Riverine Plain. This elevated alluvial plain is a geological feature consisting of an extensive series of low relief floodplains and associated rivers, tributaries, lake systems, ephemeral channels, palaeochannels and prior streams (Pels 1971). The Murray River has cut into the Riverine plain and its meandering course.



Map 7: Geomorphology of the Activity Area

The majority of the Activity Area (Map 7) is situated on the geomorphic unit (GMU) 4.1.1 Meander belt below plain level, sometimes source-bordering dunes (Mooroopna, Wangaratta); with a small part of the south-eastern extent situated in the geomorphic unit (GMU) 4.2.1. Plains with leveed channels, sometimes source bordering dunes (Tatura, Naneella). These plains typically consist of largely inactive leveed channels which are characteristic of stream deposition that predate the current floodplains. These plains are characterised as older alluvial plains or prior stream plains. These plains originated from the foothills, but unlike the present streams, the stream pattern traversing the plain is distributary and/or divergent which are generally visible on aerial imagery. Initially the prior streams incised the plains during wet periods, however during later dry periods erosion increased in the uplands and deposited sediments within the incision. Eventually these streams filled the incision with sediment which then spilled over the plain. Coarse material was deposited nearest to the stream channel forming levees with finer material overflowing onto the plain. In this way, prior streams built up levees and clayey flood plains. Associated soils include red, brown, and yellow texture contrast soils (Sodosols), with grey cracking clays (Vertosols) occupying poorly drained areas (DEDJTR 2022a)

The Activity Area is located within the Murray Basin Plains (Cuddy et al. 1993). The landscape in the region has altered greatly over the past 500 million years (Land Conservation Council 1983). Over 500 million years ago the area was part of a sea and layers of marine sediments settled on top of lava that erupted from the ocean floor. Approximately 450 million years ago the region was rocked by a period of massive earth movements which deformed the cooled lava layers and marine sediments. Many of the rocks pushed up were well above sea level. The region was quiet between 300 and 65 million years ago and erosion occurred during this period producing a flat landscape. Later, as the ground began to subside, the Murray Basin was created. About 1.8 million years ago, the Basin continued to sink, and thick layers of alluvium and swamp deposits lay over the top of the volcanic and marine sediments. Deposits of river alluvium continue today with the flooding of creeks and rivers in the region.

The geology of the Activity Area (Map 8) is unnamed alluvium (Qa1) which comprises fluvial alluvium, gravel, and sand and silt (DEDJTR 2022b). The geomorphology and geology of the Activity Area indicate that the land consists of an older alluvial floodplain which has been incised by the more recent floodplain of the Murray River and Ovens River.

Older geological mapping however assessed the Activity as being on the Shepparton Formation (Bell and Edwards 2011) which comprises unconsolidated to poorly consolidated mottled variegated clay, silty clay with lenses of polymictic, coarse to fine sand and gravel; partly modified by pedogenesis, includes intercalated red-brown paleosols; and forms extensive flat alluvial floodplains (Australian Stratigraphic Units Database 2022). Bowler (1967) obtained radio-carbon dates on the upper part of the formation, ranging from 20 900+/-500 years BP to 30 600+/-1300 years BP.

The above geologies have both been noted in the geographic region:

1. Bell and Edwards (2011) completed a CHMP (11584) for a proposed water main and reticulation network between Yarrawonga and Bundalong located adjacent to the eastern boundary of the current Activity Area. Bell and Edwards (2011) excavated 1x1m Test Pits and Shovel Test Pits on the banks of the Murray River and Ovens River and located:
 - red silty sand/sandy silt between 0 and 150mm, overlying
 - yellowish red to red clayey silt between 150 and 500mm.
2. Johnson and Shiner (2018 amended 2020) completed a CHMP (15708) for a car park at Majors Lane, Bundalong approximately 5.2km northwest of the Activity Area. Johnson and Shiner (2018) amended 2020 excavated pits 40-50m south of the Murray River on a flat plain landform identical to the current Activity Area. The soil profile comprised:
 - yellow brown sandy silt to 100mm,
 - overlying brownish yellow cemented clay from 200mm.

3. Carter et al undertook a CHMP (17478) for a proposed bridge over Jacksons Creek and path, Bundalong located 660m north. Carter et al excavated pits on a terrace floodplain and located sediments assessed as comprising an alluvial layer:
 - 0-250mm – Soft, dry silty sand with merging contact and grass, leaf litter, Munsell 10YR 7/4 very pale brown. pH 7.5
 - 250-400mm – Damp firm sand with frequent tree roots, ants, charcoal flecks, and merging contact. Munsell 10 YR 6/4 light yellowish brown. pH 7.5
 - 400-580mm - Damp firm mottled sand and clayey sand with tree roots and charcoal flecks. Clay content increasing with depth and merging contact. Munsell 10YR 4/6 dark yellowish brown. pH 6.5.
 - 580-600mm – Damp compact clay with tree roots, natural quartz gravel and weathering sandstone. Clay: Munsell 7.5 YR 5/2 brown. pH 5.5. Sandstone: Munsell 2.5 YR 3/6 dark red, pH 5.

4. Vines and Orr (2008) completed a CHMP (10136) for a subdivision which is located approximately 598 north of the current Activity Area. The excavation of Test Pit 1 revealed:
 - loose pale brown, silty sand to a depth of 350mm
 - before a gradual transition to a compact red sandy silty clay, increasing with clay content with depth.

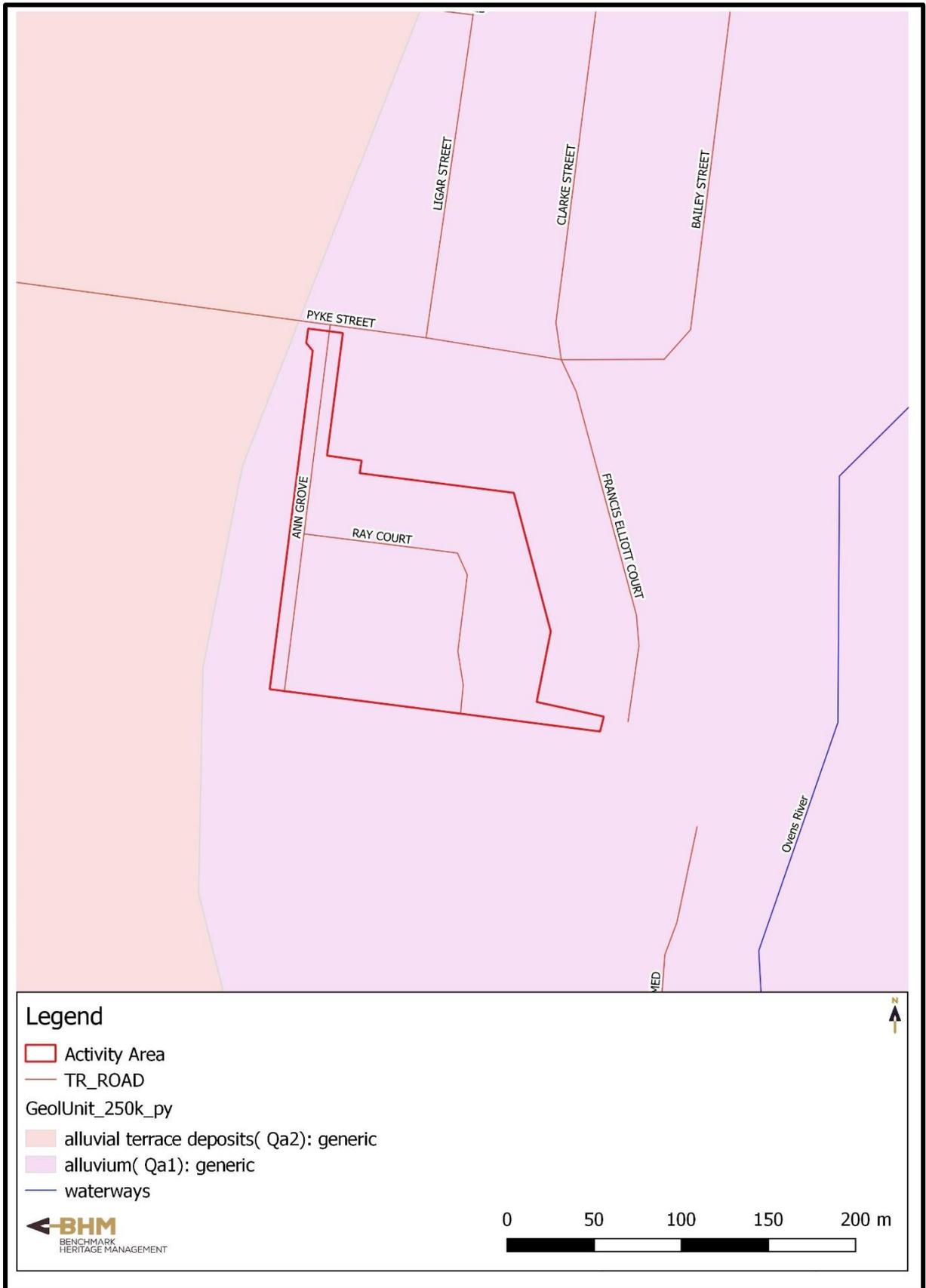
Outside the geographic region In Yarrawonga (located 12km west) there have been several CHMPs that have located similar thin soils profile to that identified by Johnson and Shiner on the same landform and as the current Activity Area: Generally, this comprised (Stammers and Rovinsky 2021):

- wet, mid-brown clayey silty loam A-horizon (0-20 cm) overlying;
- a diffuse transition to a B-horizon of reddish orange clay (20+ cm).

In terms of the current Activity Area the stratigraphy described by Johnson and Shiner (2018) amended 2020 is most likely as:

- The deeper soil profile located by Bell and Edwards was identified on the Ovens River bank in an area not subject to land clearance or agricultural activity.
- The alluvial soil profile described by Carter et al was located in an area not subject to vegetation clearance or agriculture and subject to regular inundation from the Murray River
- The sub-surface soils investigated by Johnson and Shiner were south of the Murray River on a cleared and cultivated landform.

The distribution of Aboriginal places within the geographic region indicates that Aboriginal places nearest to the current Activity Area include low density artefact scatters and scarred trees within either a terrace, floodplain, or dune landform within 200m of a major waterway (Murray or Ovens River), prior waterway or swampland. Within the floodplain landform, artefacts were discovered in silty sand or clayey silt contexts at maximum depths of 150mm.



Map 8: Geology of the Activity Area

7.1.7 The Environmental Determinants of the Activity Area

The Desktop Assessment included a review of the physical context and natural resources present within the geographic region. These environmental variables can determine how people used the landscape in the past. This information is used to gain an understanding of past human behaviours and provides an indication of where APs and heritage places may be located within the landscape. These environmental factors are summarised below.

- **Climate**

Temperature averages at Yarrawonga indicate a cold to hot maximum average of 6.8°C in July to 22.9°C in February. Minimum average temperatures throughout the year range from 6.8°C in July to 13.9°C in February. The annual average rainfall for the area is 687mm. These climate conditions would have placed no restrictions on Indigenous or European occupation of the area (LCC 1991).

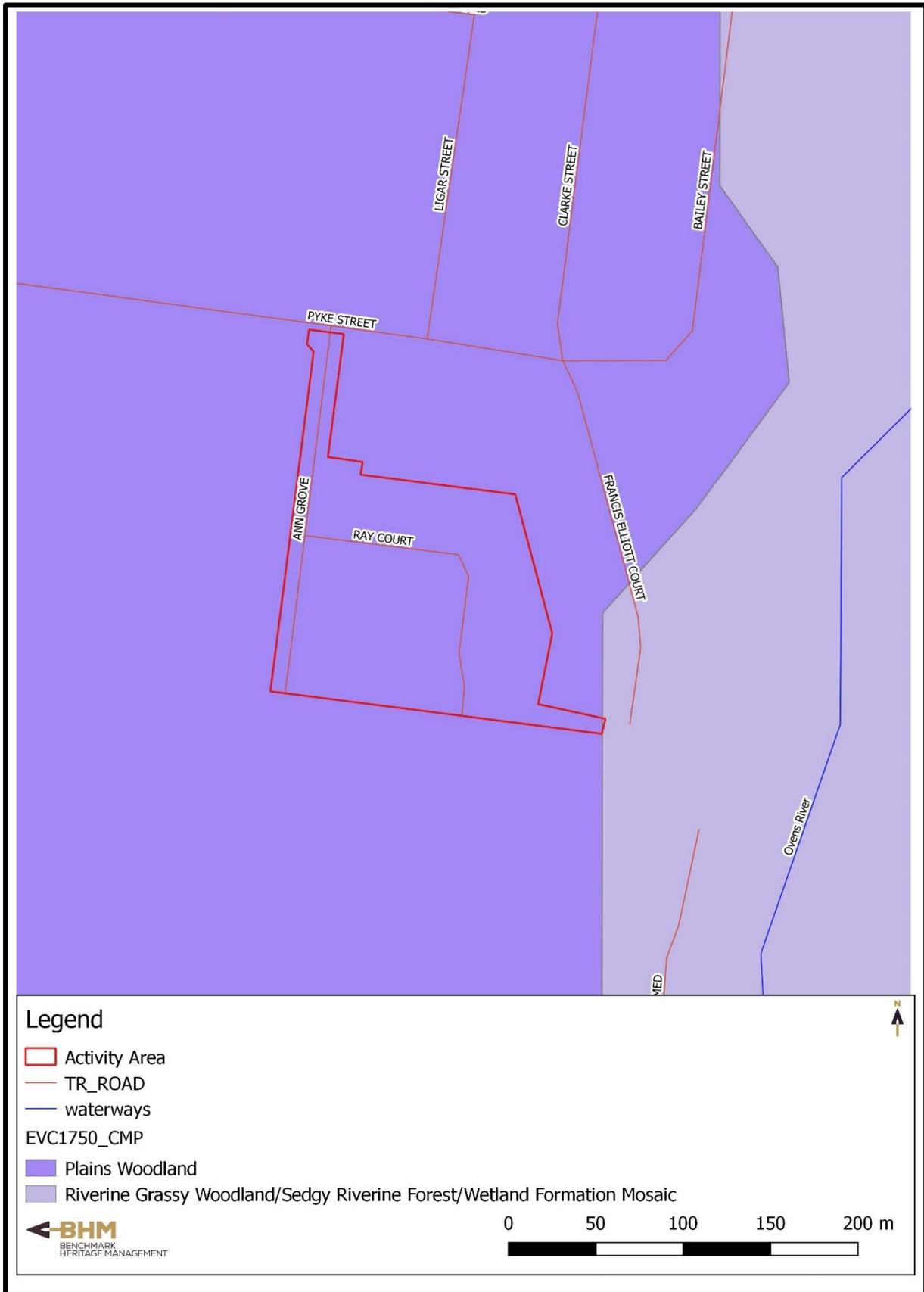
- **Water Sources**

The Ovens River is located 137m east of the activity area and the Murray River is 411m northeast. These watercourses are permanent and would have provided a perennial source of water.

- **Description of Existing and Pre-Contact Vegetation**

There was one Ecological Vegetation Community (EVC) within the Activity Area prior to 1750; Plains Woodland EVC 175 (NatureKit 2022, Map 9). Plains Woodland occurs on well-drained clay loam to sandy clay loams on flat or gently undulating plains at low elevations in areas with h <600 mm annual rainfall. An open woodland to 15 m tall usually dominated by Grey Box and Buloke with White Box on the eastern edge of the plains, and occasionally with Yellow Box. This grassy, and often herb-rich, woodland is thought to have been shrubby prior to European settlement. The overall amount of plant matter (biomass) produced in the ground layer (particularly grasses) in this vegetation type tends to be less than in Plains Grassy Woodland. Whilst many of the remnants seen today have few shrubs (due to grazing by rabbits and stock), a few sites show the range and (possibly) original density. Species include Mallee Wattle, Gold-dust Wattle, Golden Wattle, Sweet Bursaria and on drier sites Weeping Pittosporum and Emubush (GBCMA 2022).

The existing vegetation of the Activity Area bears no resemblance to the descriptions above.



Map 9: EVCs within the Activity Area

- **Information on Fauna Within the Region of the Activity Area**

There are ethnographic accounts of Aboriginal life along the Murray River. Hawdon (1838:16-19) found kangaroo and emu in abundance in the lagoons and plains. Hawdon (1838:17) also provides information on subsistence when noting that his party,

'passed the fires of a native encampment, but met with none of the natives; it was evident, however, from the heap of muscle (sic) shell we saw piled on the banks of the river, and from the number of trees that had been "barked'

Similarly, in an 1843 tour of the colony George Augustus Robinson found that:

'All along the banks of the Mury [sic] there [were] muscle (sic) shells in heap and the boughs of trees was scattered about there for a camping place'.

Curr (1883:120) describes the diet of the Bangerang as:

'...varied – somewhat poor, but not insufficient. The standing dishes were roots of several sorts, opossums, and fish. Emu and kangaroo were scarce and but rarely obtained, whilst among the minor plants may be mentioned manna, eggs, kangaroo-rats, field-rats, birds of every sort, tadpoles, grubs, snakes, the larvae of ants, and one or two wild fruits of inferior description'.

- **Stone Resources**

No stone resources and outcrops suitable for the manufacture of stone tools are found within the Activity Area. Sources of greenstone and chert are known to have quarried at Dookie located 70km southwest (Sutherland 2010).

Two stone quarry sites adjacent to Mt. Camel; one is on the southeast slopes (Mt. Camel north), the other is about 1.5km further south (Mt. Camel south). Mt Camel north comprises about thirty quarrying pits and troughs on a low knoll. Mt Camel south has pits on a hilltop and quarry waste below greenstone boulders on a hill slope. Flaking floors also occur (Sutherland 2010).

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7.1.8 Land Use History Relevant to the Activity Area

The Desktop Assessment must include a review of the history of the use of the Activity Area (r.61(1)(f)). Therefore, a review of the history of the use of the Activity Area was undertaken.

The activity area is located in an area that was once a part of the Peechelba run (Spreadborough & Anderson 1983:66-67; Hayward 1989). The Peechelba run was originally gazetted in 1848, but licensed 12 months prior to the NSW Orders-in-Council (1847) to James and George Rowan. It comprised a total of 161,650 acres. Peechelba was bounded by Yarroweyah in the west, the River Murray in the north, the Ovens River in the east, and the Killawarra, Goorambat, Broken Creek and St. James runs in the south. The run changed hands several times before being subdivided in 1867 and ultimately forfeited in 1879 (Spreadborough & Anderson 1983:66-67; Hayward 1989).

The first school to open in the district was at Bundalong South in 1878, about 10km away on the road to Wangaratta (Victorian Places 2022). Six years later another school was opened closer to the Murray River. First named Bundalong, then Esmond, it was moved in 1903 to the Bundalong Village

Settlement. The Village Settlement also had a Congregational church and a hotel. Its school closed in 1936, and the Bundalong South school closed in 1970 (Victorian Places 2022).

Bundalong was given a brief description in the 1903 *Australian handbook*:

BUNDALONG (co. Moira, shire Yarrawonga), village settlement on Wangaratta road. Has Congregational church. Rail to Yarra-wonga, 161½ miles coach, thence. Agricultural. Population about 90.

The Bundalong area was mainly cultivated for wheat with oats being grown by farmers in the area. When land parcels were able to exceed 320 acres, dairy farming was also undertaken alongside wheat crops. Eventually sheep runs overtook dairy farming and sheep and wheat occupied most of the Bundalong area (Times, 1908).

Specific Land-Use History

The land use history of the Activity Area shows that the Activity Area has been subject to previous ground disturbance to some degree and includes:

- Removal of native vegetation along the made and unmade roads. Impacts to the land will have involved burning, clearing, and grubbing of the original vegetation and associated disturbance of the upper soil layers, erosion following vegetation clearance and levelling to create a flat surface.
- Agricultural activity. Figure 3 below shows that in 1941 the Activity Area was cleared of trees except around the perimeter and comprised open paddocks possibly used for grazing stock.
- Cultivation. Figure 4 shows that in 1971 the Activity Area appears to be most covered in crops planted north-south in rows and is part of a larger property.
- The construction of a sewage treatment Plant. Figure 5 shows a feature survey plan by Eslers and Associates with the two settlement ponds shown. These are also shown in Google Aerial Photographs taken in 2005, 2009 and 2013 (Figures 6-8) with the latter showing potential levelling of the ponds,
- Figures 5-7 show that there were three rows of Olive Trees within the Activity Area. These were removed between 2013 and 2022 (Figure 9). Figure 7 shows possible wheat cropping with hay bales visible.

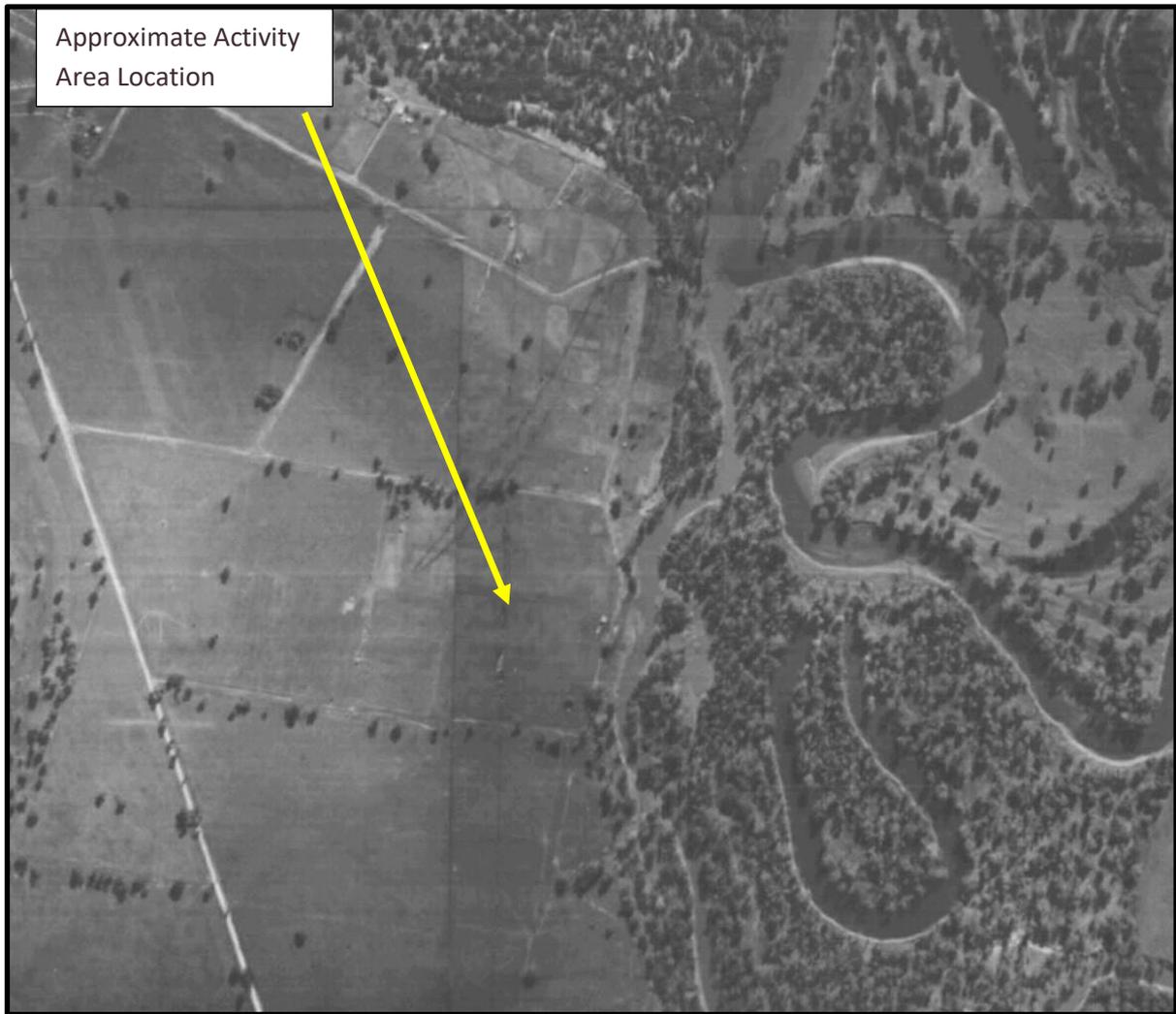


Figure 3: 1941 Aerial Showing General Location of the Activity Area (Mapdata 2022)



Figure 4: 1971 aerial image of approximate location of Activity Area (Department of Crown Lands and Survey 1973)



Figure 6: 2005 Aerial Photograph showing Sewage Ponds and Rows of Olive Trees within the Activity Area



Figure 7: 2009 Aerial Photograph showing Sewage Ponds and Rows of Olive Trees within the Activity Area



Figure 8: 2013 Aerial Photograph showing Levelled Sewage Ponds and Rows of Olive Trees within the Activity Area



Figure 9: 2022 Aerial Photograph showing Sewage Ponds and Absence of Olive Trees within the Activity Area

7.1.9 Conclusions from the Desktop Assessment

The conclusions from the Desktop Assessment and the basis for the Aboriginal Place prediction model are as follows:

- The Activity Area has not been subject to previous archaeological assessment;
- There are no APs located within the Activity Area;
- The search indicated that there is one previously recorded AP within 200m the Activity Area (Map 6); Ovens River Terrace Bundalong 1 (VAHR 8125-0353) is an artefact scatter located on the western alluvial terrace of Ovens River, 20 metres west of the waterline, approximately 68m southeast of the Activity Area.
- There are 5 registered Aboriginal Places within the geographic region (with 6 components), all of which comprise artefact scatters and scarred trees;
- The distribution of Aboriginal places within the geographic region indicates that Aboriginal places nearest to the current Activity Area include artefact scatters, low density artefact scatters and scarred trees within either a terrace, floodplain, or dune landform within 200m of a major waterway (Murray or Ovens River), prior waterway or swampland. Within the floodplain landform, artefacts were discovered in silty sand or clayey silt contexts at maximum depths of 150mm.
- Low Density Artefact Distribution and Artefact Scatters are the most likely AP types to be located with the Activity Area;
- The distribution APs in the geographic region is also associated with proximity to rivers and creeks;
- The property has been subject to ground disturbance from vegetation clearance, cropping, construction of two settlement ponds, levelling of these ponds, wheat cropping, planting of three rows of olive trees and their subsequent removal.
- The flat level nature of the Activity Area indicates that the geology is most likely on the plain's landform with thin upper soil horizon of silty sand and clayey silt overlying basal clay deposits between 200-500mm in depth.
- Given the above disturbances it likely that the soils are most likely highly disturbed and shallow.
- There still exists a potential for sub-surface archaeological deposits in areas that have experienced minimal disturbance;
- There would have been a range of plant, animal, and mineral resources available for Aboriginal people living in, or in the region of the Activity Area; and

The following AP prediction model has been developed based on the available information:

- Stone artefact deposits (Artefact Scatters or Low Density Artefact Distributions are the most likely AP types to be present;
- Stone artefact deposits are most likely to be in a sub-surface context, within a depth range of 0-159mm in silty silt or clayey silt deposits;
- Scarred trees will not be present due to land clearance and the absence of remnant vegetation in the modern urban environment;
- The impact of land clearance, establishment of a former olive grove, ploughing, construction of the former sewerage ponds and access tracks, are likely to have had a severe impact on the topsoils and any Aboriginal cultural heritage; reducing the potential archaeological sensitivity of the Activity Area.

7.2 Standard Assessment

7.2.1 Justification for Survey

R.62 of the Aboriginal Heritage Regulations 2018 states that a Standard Assessment is required if the results of a Desktop Assessment show that it is reasonably possible that Aboriginal cultural heritage is present in the Activity Area. As the results of the Desktop Assessment show that it is likely that Aboriginal cultural heritage is located in the Activity Area it was necessary to proceed to a Standard Assessment.

7.2.2 Aims of Standard Assessment

The aims of the Standard Assessment (archaeological survey) were to:

- Attempt to identify Aboriginal cultural heritage;
- Undertake consultation with representative(s) of the YYNAC;
- Identify any areas of potential archaeological sensitivity deposit (that may require sub-surface testing) and;
- Document the extent of significant ground disturbance in the Activity Area.

7.2.3 Standard Assessment Methodology

The Standard Assessment was undertaken by Matthew Barker and Annette Millar of Benchmark Heritage Management P/L, with Michael Clarke and Shannon Atkinson from the YYNAC on the 15th of March 2022.

Owing to the dense grass coverage observed upon arrival the decision was made, in consultation with the YYNAC representatives, to survey the Activity Area on an opportunistic basis rather than walking linear transects (see Map 10).

Focus was concentrated on areas of high ground surface visibility. All mature trees were inspected to determine if they were culturally scarred. Areas of potential archaeological sensitivity/deposits (PAS and PAD) and significant ground disturbance were recorded near to the structures. Ground surface

visibility and surface exposure was recorded in order to determine the effective ground survey coverage. A measure with 20cm increments was included in all photographs (Plates 1-6).



Map 10: Standard Assessment Map

7.2.4 Results of Standard Assessment

The Standard Assessment noted the following:

- The Activity Area comprises flat plain with scattered immature eucalypts (Plates 1-2).
- Two former sewage ponds are located in the centre north of the Activity Area (Plates 4-6).
- Exposed soils comprised compact clay along the banks of the former sewage ponds.
- The property is accessed by a gravel track from Francis Elliot Court.
- There is an embankment along the northern boundary from excavation for the now disused sewage ponds which are approximately 400mm lower than the surrounding plain (Plate 5).
- The proposed access road to Pyke Street comprised dense grass (Plate 2).

Ground visibility was generally very poor (1%) due to heavy grass and weed cover (see Plates 1-4). As a result of the surface visibility effective survey coverage was estimated at only 1% of the activity area, and was therefore not considered adequate for effective field assessment.

No APs were identified during the Standard Assessment (this includes artefact scatters, scarred trees, or rock shelters). No caves or cave entrances were noted within the Activity Area. The absence of any evidence for Aboriginal cultural sites is likely due to dense grass coverage and resulting low ground surface visibility that characterised the majority of the Activity Area.

7.2.5 Standard Assessment Constraints

Significant constraints were encountered during the Standard Assessment comprising:

- The Activity Area was almost entirely covered by grass and vegetation resulting in an average ground surface visibility of approximately 1%. The grass and vegetation prevented effective archaeological assessment.
- The locations of trees which could not be assessed.

7.2.6 Land Disturbance

The evidence for ground disturbance in the Activity Area appears to be limited to:

- Construction of the former sewage ponds
- Plantings of rows of olive trees and their removal.
- Cultivation of crops.
- It is also likely ground disturbance within the Activity Area has included vegetation clearance for tree felling.

7.2.7 Ground Surface Visibility and Effective Survey Coverage

Effective coverage is quantified to account for ground surface visibility and exposure limitations to survey coverage and gives a good estimate of the actual proportion of investigated.

Ground surface visibility is a measure of factors which may obscure archaeological materials and can be defined as how much of the surface is visible and what other factors (such as vegetation, gravels, or leaf litter) may limit the detection of archaeological materials (Burke and Smith 2004). The higher the level of ground surface visibility, the more likely it is that Aboriginal cultural material can be identified; therefore, a good level of ground surface visibility enables a better representation of places than areas where the ground surface is obscured (Ellender and Weaver 1994).

Ellender and Weaver (1994) attempted to quantify ground surface visibility for a 1m² area:

- 0-5%: Unable to see soil;
- 5-10%: Occasional glimpse of soil;
- 10-20%: Occasional patch of bare ground;
- 20-50%: Frequent patches of bare ground;
- 50-70%: About half the ground bare; and
- 75-100%: More than half the bare ground; ploughed fields.

Ground surface visibility (Plates 1-6) was very poor (1%) across the Activity Area; therefore, there was little possibility of identifying Aboriginal cultural heritage on the surface. It is estimated that the effective survey coverage was less than 1%, due to poor ground surface visibility, and it is not considered adequate for effective field assessment.

7.2.8 Aboriginal Cultural Heritage Identified

No APs were identified within the Activity Area during the field investigation (this includes artefact scatters, scarred trees, or rock shelters). No caves or cave entrances were noted within the Activity Area. The absence of any evidence for APs is likely due to dense grass coverage and resulting low ground surface visibility that characterised the majority of the Activity Area.

7.2.9 Conclusions of the Standard Assessment

The YYNAC representatives considered it possible that buried former ground surfaces may be present within the Activity Area.

The field representatives of the YYNAC agreed that the:

- The former sewage ponds were highly disturbed and had no archaeological potential (Map 11).
- The remainder of the Activity Area was disturbed from agricultural activities and former cropping however there is still the potential for Aboriginal cultural heritage albeit in a disturbed context. It was considered that the remainder of the Activity Area was of low archaeological potential (Map 11).

Based on this the YYNAC required a Complex Assessment to test the AP prediction model.

Due to a lack of ground surface visibility and the potential for buried APs within the Activity Area, the Standard Assessment has determined that there is a requirement to undertake a further Complex Assessment for this activity, prior to the preparation of a CHMP document. In accordance with *r.64*, it was decided that a Complex Assessment of the Activity Area was required and was therefore undertaken.



Map 11: Areas of Archaeological Potential

Plate 1: View of Activity Area facing northwest M. Barker (15/3/22).



Plate 2: View of proposed pathway facing south showing exposed clay silts (M. Barker 15/3/22)



Plate 3: View of western boundary and proposed access to Pykes Road facing north (M. Barker 15/3/22)



Plate 4: View of former sewage ponds with exposed sandy clay (M. Barker 15/3/22) facing northwest.



Plate 5: View of site cut along northern boundary proposed pathway (northern edge of former sewage ponds) and exposed clays (M. Barker 15/3/22) facing west.



Plate 6: View of former bank between the two sewage ponds (M. Barker 15/3/22) facing west.



Table 5: Standard Assessment Photographs

7.3 Complex Assessment

7.3.1 Justification for Sub-Surface Testing

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

R 64 When is a complex assessment required?

- (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.

In this case, a complex assessment is required because it is 'likely' that Aboriginal cultural heritage will be located within the Activity Area as:

1. Previous archaeological research has shown that stone artefacts can be located throughout the landscape in both surface and subsurface contexts.
2. There is a previously recorded AP located 69m southeast of the Activity Area on the same landform and geological unit (Map 6); VAHR 8125-0353 is an artefact scatter comprising of seven flaked stone artefacts of quartz and silcrete material. The assemblage includes one surface artefact and six artefacts found at maximum depths of 150mm in silty sand or clayey silt contexts.
3. The distribution of Aboriginal places within the geographic region indicates that Aboriginal places nearest to the current Activity Area include low density artefact scatters and scarred trees within either a terrace, floodplain, or dune landform within 200 metres from a major waterway (Murray or Ovens River), prior waterway or swampland. Within the floodplain landform, artefacts were discovered in silty sand or clayey silt contexts at maximum depths of 150mm.
4. The soils noted across this Activity Area were brown/red silty loam, which is consistent with the identified local soils identified in the other assessments conducted in the near vicinity and geomorphological mapping of the region, indicating that while disturbance is likely to have occurred to the topsoils there is the potential for undisturbed soil deposits that following Points 1-3 above; may contain in-situ deposits of Aboriginal cultural heritage material, or such material in disturbed contexts within the Activity Area.

7.3.2 The Sub-Surface Testing Aims

The aims of the Complex Assessment were to:

- Determine if Aboriginal cultural heritage is located in the Activity Area and if so, establish the extent, nature, and significance of said Aboriginal cultural heritage;
- Test the AP prediction model developed in the Desktop Assessment and refined in the Standard Assessment;
- Record the sub-surface stratigraphic composition of the landform and investigate a representative sample of sub-surface sediments;
- Identify any undisturbed (in-situ) sub-surface deposits;
- Use Shovel Test Pit excavation to provide improved sample size, investigate the extent of sub-surface disturbance and to determine the extent of the stone artefact located in Test Pit 1; and
- Enable an accurate scientific significance assessment to be made.

A Complex Assessment comprising hand excavation was carried out as part of this CHMP. The aim of the sub-surface testing/excavation was to establish if the proposed activity is likely to cause harm to Aboriginal cultural heritage. The Complex Assessment was conducted on the 15th of March 2022 and was undertaken by Annette Millar of Benchmark Heritage Management P/L under the supervision of Matthew Barker of Benchmark Heritage Management P/L, with Michael Clarke and Shannon Atkinson from the YYNAC.

7.3.3 Sub-surface Testing Methodology

Excavation of Test Pit

As required by the *Aboriginal Heritage Regulations 2018 r65(4)*, a Test Pit was first excavated to determine the soil stratigraphy (see Map 12, Table 6).

Test Pit 1 was excavated in order to examine the soil stratigraphy within the property and determine whether there were sub-surface deposits of cultural materials.

Controlled excavation was undertaken in accordance with the guidelines set out in Burke and Smith (2004) and the FP-SR Practice Note: Subsurface Testing.

Excavation of Test Pits

The excavation of a 1x1m Test Pit was undertaken during sub-surface testing (Map 9).

- All Test Pits must be excavated by hand.
- Test Pits must be a minimum size of 1x1m or equivalent, measured at both the top and bottom of the pit.
- Excavation of all contexts is to proceed in arbitrary spits not exceeding 50mm.
- All artefacts must be recorded in-situ or within 50mm spits.
- All contexts must be fully excavated, sieved, and recorded before proceeding to excavate the next context.
- Cultural or occupation deposits must always be excavated in a controlled manner using accepted stratigraphic methods. Note that occupation deposits may be in situ, dispersed or disturbed.
- All cultural layers and any adjacent non-cultural layers/areas must be excavated manually with trowels or other small tools unless it is not practicable to do so.
- All excavated sediment must be sieved through mesh not exceeding 5mm augmented by a smaller sieve size for charcoal and smaller artefacts.
- The recording of each context must include context numbers, associated soil horizon (if applicable), context depth, Munsell colour, pH, texture, moisture, structure, consistency, coarse fragments (inclusions), boundary, and artefacts (if present).
- A minimum of one stratigraphic section drawing must be undertaken for each Test Pit.
- A minimum of one photo of the Test Pit wall and one photo of the Test Pit base must be taken.
- A minimum of one photo (both in section and plan) for any archaeological feature must be taken.
- Scales with clearly defined increments placed both vertically and horizontally, must be included in all Test Pit photos.
- A photo board and north arrow must be present in all Test Pit photos.
- Any organic material suitable for dating purposes found in association with intact archaeological deposits must be collected and sent for radiocarbon analysis.
- All Test Pits must be excavated to the depth of impact or to culturally sterile horizons or sediments (which have been established to predate human occupation), whichever comes first.
- All Test Pit locations must be recorded with a differential GPS.
- All material recovered should be labelled/catalogued with reference to its provenance.

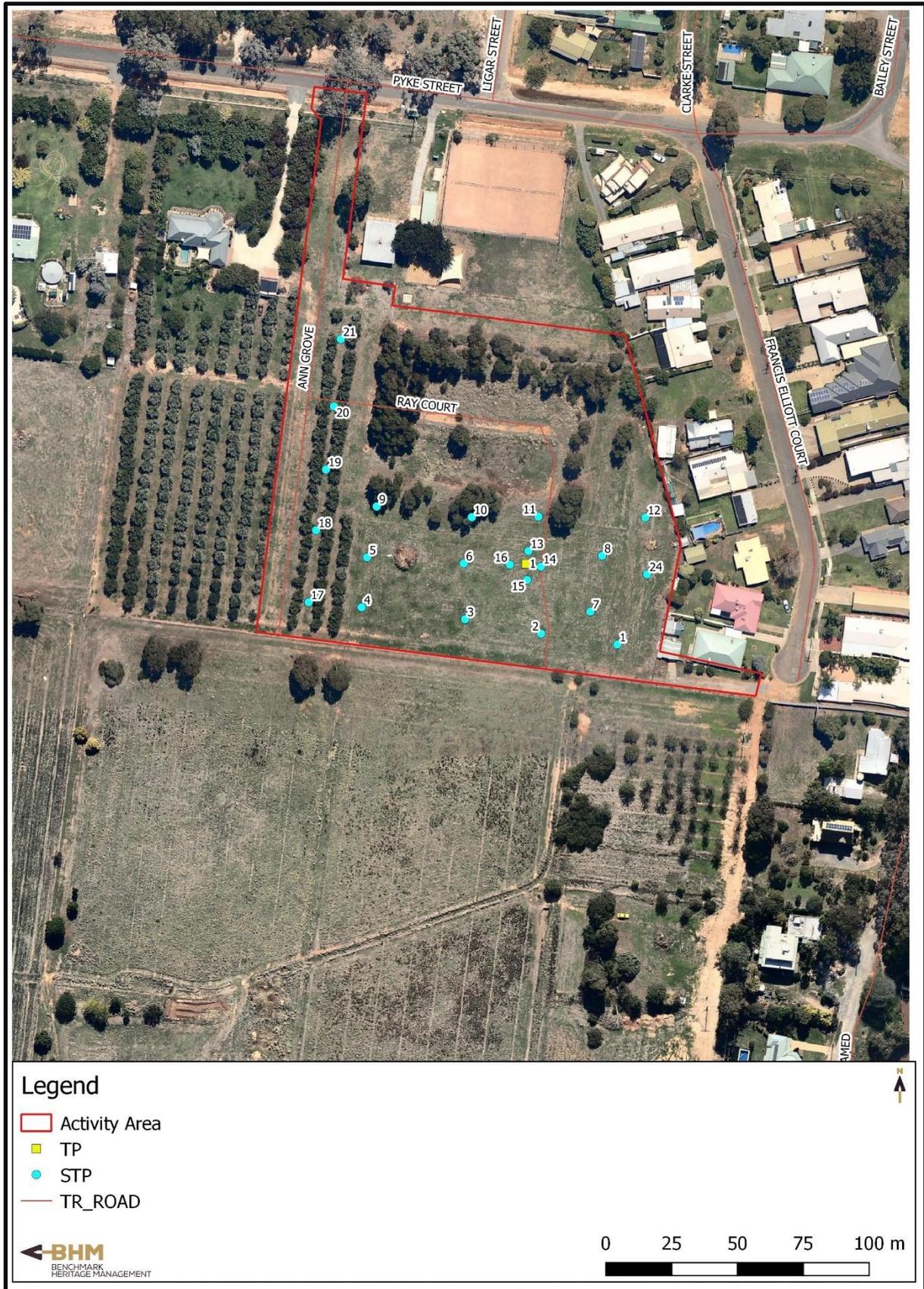
The excavated Test Pit location is shown in Map 12. GDA94/MGA55 co-ordinates are shown in Table 6.

Excavation of Shovel Test Pits

The excavation of twenty-two 500x500mm Shovel Test Pits was undertaken during sub-surface testing (Table 8, Map 9). Note that two Shovel Test Pits were mistakenly excavated outside the Activity Area and have been removed from the mapping (Shovel Test Pits 22-23).

- All Shovel Test Pits must be excavated by hand.
- Shovel Test Pits must be a minimum size of 500x500mm, measured at both the top and bottom of the pit.
- Where cultural heritage has been identified in a Shovel Test Pit, the pit must be expanded to a TP following the procedure outlined above. The Shovel Test Pit is then referred to only as a TP.
- Excavation of all contexts is to proceed in arbitrary spits not exceeding 100mm.
- All contexts must be fully excavated, sieved, and recorded before proceeding to excavate the next context.
- Cultural or occupation deposits must always be excavated in a controlled manner using accepted stratigraphic methods. Note that occupation deposits may be in situ, dispersed or disturbed.
- All cultural layers and any adjacent non-cultural layers/areas must be excavated manually with trowels or other small tools unless it is not practicable to do so.
- All excavated sediment must be sieved through mesh not exceeding 5mm augmented by a smaller sieve size for charcoal and smaller artefacts.
- The recording of each context must include context numbers, associated soil horizon (if applicable), context depth, Munsell colour, texture, moisture, structure, consistency, coarse fragments (inclusions), boundary, artefacts (if present).
- A minimum of one photo of the Shovel Test Pit wall and one photo of the Shovel Test Pit base must be taken.
- Scales with clearly defined increments, placed both vertically and horizontally, must be included in all Shovel Test Pit photos (measuring tapes with 10 mm increments or less are impractical scales as these increments cannot be clearly viewed in most photos).
- A photo board and north arrow must be present in all Shovel Test Pit photos.
- All Shovel Test Pits must be excavated to the depth of impact or to culturally sterile horizons or sediments (which have been established to predate human occupation), whichever comes first.
- All Shovel Test Pit locations must be recorded with a differential GPS.
- All material recovered should be labelled/catalogued with reference to its provenance

The excavated Shovel Test Pit locations are shown in Map 12. The stratigraphy of the Shovel Test Pits is shown in Table 7. GDA94/MGA55 co-ordinates are shown in Appendix 7.



Map 12: Sub-surface Testing Locations Overview, Test Pit 1, and Shovel Test Pits 1-22

7.3.4 Results of the Sub-surface Testing

Excavation of Test Pit 1

As required by the *Aboriginal Heritage Regulations 2018*, a Test Pit was initially excavated to determine the soil stratigraphy (see Plate 7, Map 12, and Table 6).

Aboriginal cultural heritage was identified in Test Pit 1 comprising a single angular fragment located at 50mm in disturbed topsoils comprising mixed clay loam and clay. No dating samples of cultural deposits and or stratigraphic layers were obtained due to the lack of suitable dating material. The provenance and stratigraphic data from the Test Pit is contained in Table 6. The location of the Test Pit can be found in Map 12. A photograph of the Test Pit is shown in Plate 7.

The soil profile is not considered representative of the typical soil profile described in Section 7.1.6 which describes the geology as unnamed alluvium (Qa1) which comprises fluvial alluvium, gravel, and sand and silt (DEDJTR 2022b). Rather the soils are assessed as comprising red, brown and yellow texture contrast soils (Sodosols) which are representative off Shepparton Formation soils. All members of the field team agreed that the base of Context 2 – was a natural clay base and an archaeologically sterile deposit and agreed excavation could cease.

Table 6: Summary excavation data from Test Pit 1

GDA 94/MGA55 Coordinates	425518.785e, 6011421.253n
Size	1x1m
Stratigraphy	
Context 1	0-200mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6
Context 2	200-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5
Depth of Excavation	220mm
Aboriginal cultural heritage	A single silcrete angular fragment located at 50mm in disturbed topsoils comprising mixed clay loam and clay

Plate 7: Photo by A. Millar (15/3/22) after excavation showing stratigraphic profile of Test Pit 1 facing north



Shovel Test Pits

Twenty-two 50cm x 50cm Shovel Test Pits were excavated (Map 12, Table 7). Note that two Shovel Test Pits were mistakenly excavated outside the Activity Area and have been removed from the mapping (Shovel Test Pits 22-23). Shovel Test Pits were excavated to:

1. Further assess the likelihood of Aboriginal cultural material being located within the Activity Area.
2. Determine the extent of the stone artefact located in Test Pit 1.
3. Shovel Test Pits 13-16 were placed 5m to north, south, east, and west of Test Pit 1 to determine the extent of the stone artefact located in Test Pit 1.

The stratigraphic data from the Shovel Test Pits is contained in Table 7. GDA 94/MGA55 Co-ordinates are shown in Appendix 7.

No Aboriginal cultural heritage was identified in Shovel Test Pits 1-22. No dating samples of cultural deposits and or stratigraphic layers were obtained. The provenance and stratigraphic data from the Shovel Test Pits is contained in Table 7. The location of the Shovel Test Pits can be found in Map 12. The soil profile is not considered representative of the typical soil profile described in Section 7.1.6 which describes the geology as unnamed alluvium (Qa1) which comprises fluvial alluvium, gravel, and sand and silt (DEDJTR 2022b). Rather the soils are assessed as comprising red, brown and yellow texture contrast soils (Sodosols) which are representative off Shepparton Formation soils. All members of the field team agreed that the base of Context 2 – was a natural clay base and an archaeologically sterile deposit and agreed excavation could cease.

Table 7: Stratigraphic Details: Shovel Test Pits 1-22

STP	Stratigraphy	Presence of Cultural Material
1	Context 1: 0-140mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 140-200mm: Yellowish red clay inclusions Munsell 5YR 5/6, pH 6.5	No
2	Context 1: 0-200mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 200-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	Np
3	Context 1: 0-160mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 160-210mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
4	Context 1: 0-190mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 190-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
5	Context 1: 0-180mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 180-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
6	Context 1: 0-210mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 210-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
7	Context 1: 0-170mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 140-200mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
8	Context 1: 0-170mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 170-210mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
9	Context 1: 0-190mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 190-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
10	Context 1: 0-190mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 190-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
11	Context 1: 0-180mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 180-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No

12	Context 1: 0-210mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 210-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
13	Context 1: 0-170mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 140-200mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
14	Context 1: 0-190mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 190-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
15	Context 1: 0-180mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 180-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
16	Context 1: 0-190mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 190-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
17	Context 1: 0-180mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 180-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
18	Context 1: 0-210mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 210-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
19	Context 1: 0-170mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 140-200mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
20	Context 1: 0-170mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 170-210mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
21	Context 1: 0-180mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions Munsell 5YR 5/6 Context 2: 180-220mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No
24	Context 1: 0-160mm: Pink humic loam with grass root inclusions. Munsell 5YR 8/4 and pH 6. Yellowish red clay inclusions. Munsell 5YR 5/6 Context 2: 160-210mm: Yellowish red clay. Munsell 5YR 5/6, pH 6.5	No

7.3.5 Complex Assessment Constraints and Limitations

The major constraints encountered during the Complex Assessment comprised:

- The former location of the sewage ponds that was excavated to a basal clay and was not assessed.

7.3.6 Conclusions of the Sub-Surface Testing

A 1x1m Test Pit and 22 50x50cm Shovel Test Pits were excavated, to establish the soil stratigraphy of the Activity Area and to assess the likelihood of Aboriginal cultural material being located within the Activity Area.

Aboriginal cultural heritage was identified Test Pit 1 at a depth of 50mm. No dating samples of cultural deposits or stratigraphic layers were obtained. In general, the Complex Assessment has revealed that the Activity Area is of low potential sensitivity for Aboriginal cultural deposits. The Complex Assessment demonstrated that the Activity Area has limited potential to retain Aboriginal cultural deposits.

The excavation results indicated that the soils have been mixed through former ploughing of the Activity Area with yellowish red clay inclusions found in the upper soil horizon. The soil profile is not considered representative of the typical soil profile described in Section 7.1.6 which describes the geology of the Activity Area as an informal geological formation of gravel, sand, and silt. Rather the soils are assessed as comprising red, brown and yellow texture contrast soils (Sodosols) which are representative off Shepparton Formation soils.

8.0 Details of Aboriginal Cultural Heritage in the Activity Area

Aboriginal cultural heritage was identified in a sub-surface context comprising of one stone artefact located in Test Pit 1.

8.1 Aboriginal Cultural Heritage in the Activity Area

The following section comprises artefact data compiled from the Complex Assessment. Summary detail of the APs is contained in the AP Gazetteer (Table 8 and Appendix 5) below. Raw data on stone artefacts found at the AP, is contained in Appendix 6. Map co-ordinates can be found in Table 8. An artefact catalogue is included as Appendix 6. The AP is shown in Map 13.

Cadastral and Zone Details:

26 Francis Elliott Court, Bundalong, being Lot 28 on LP137177, MGA Zone 55.

8.1.1 Methodology: Stone Artefact Analysis

The Aboriginal stone artefact was analysed in terms of raw material and technological types based upon the shared attributes, or landmarks, it exhibited (see Holdaway & Stern 2004, 107-110, 191-197). The stone artefacts were broadly classified into the following categories:

- Raw material.
- Complete flakes exhibited at least four of the following identifiable attributes; a ventral and dorsal surface, an identifiable striking platform, a bulb of percussion, a bulbar scar, lateral margins, and an identifiable termination. These were further described as either flakes or blades; a blade being a stone artefact with a length at least twice the width.
- Some implements are also sometimes deliberately manufactured to a template. An example of this are blades, narrow flakes with a length at least twice the width and sharp edges, which can be used as a tool without further modification. Other blank flakes are subject to secondary modification, such as retouching the edges, to produce a specific type of tool. Throughout the period of Indigenous occupation of Australia, there have also been changes in the types of stone tools which were manufactured, and thus stone tools can be used, in some cases, to provide a rough approximation of the likely age of an AP.
- For the purposes of this analysis a tool has been defined as a flake or blade which has retouch or use wear along one or more of its edges (following Holdaway and Stern 2004: 38-39). Tools that show retouch, or both retouch and use wear are classified below as modified tools, while those tools with use wear alone are classified as unmodified tools.

The ratio data of axial length, width and thickness was recorded for all complete blades to the nearest millimetre using Vernier callipers. For stone artefacts lacking axial metrical attributes, the maximum dimension was recorded.

8.1.2 Assessment of the Aboriginal Cultural Heritage: VAHR 8125-0485 (26 Francis Elliot Court LDAD)

Extent

As an LDAD comprised of one flaked stone artefact identified at one sub-surface location (Plates 16-17). The extent of VAHR 8125-0485 (26 Francis Elliot Court LDAD) is no greater than the GPS coordinate

point at which the artefact was recorded shown in Table 8 below.

Nature

AP VAHR 8125-0485 (26 Francis Elliot Court LDAD) is comprised of a total of one sub-surface stone artefact manufactured on silcrete. AP VAHR 8125-0485 (26 Francis Elliot Court LDAD) is comprised of an angular fragment. The presence of the stone artefact indicates that Aboriginal people traversed the Activity Area. This raw material is not present within the Activity Area and would have been imported from elsewhere in the region; and is a raw material type highly typical locally and commonly found in artefact assemblages in the region (Section 7.1.4). The landform and low density of VAHR 8125-0485 suggests that it is likely representative of a discard event.

The stone artefact was located in a disturbed sub-surface context in mixed clay loam with clay inclusions. The low number of stone artefacts makes definitive statements about the nature of the Aboriginal occupation of the Activity Area problematic.

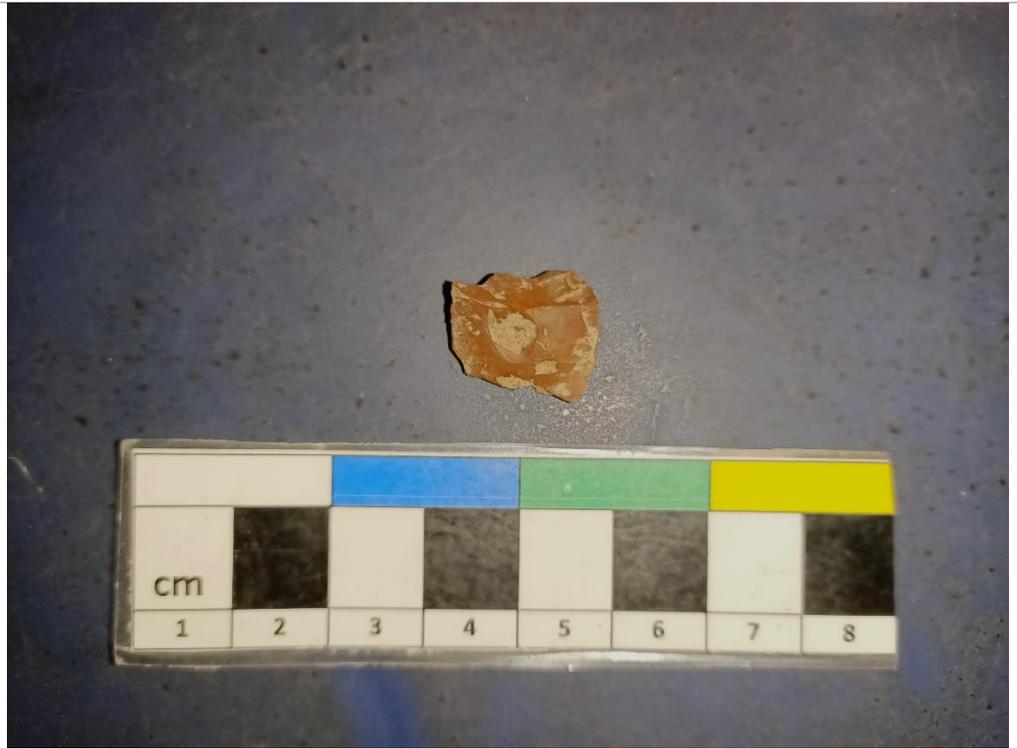
Significance

AP VAHR 8125-0485 (26 Francis Elliot Court LDAD) is assessed as having low scientific value, because the AP comprises of a low density sub-surface artefact scatter and represents an AP type that is commonly found throughout Victoria. The AP has a low level of integrity and has very little potential archaeological research value.

Table 8: VAHR 8125-0485 (26 Francis Elliot Court LDAD) AP Gazetteer

Name	VAHR 8125-0485 (26 Francis Elliot Court LDAD)
GDA 94/MGA 55 Coordinates	425518.785e, 6011421.253n
Cultural Materials	1 silcrete angular fragment
Aspect	Open
Condition and Integrity	Disturbed topsoils comprising mixed clay loam and clay
Vertical Artefact Distribution	50mm
Landform	Plain
Vegetation	Grass
Nearest Distance to Potable Water	Ovens River – 137m east

Plate 8:
Artefact.
Photo by
M. Barker
(18/3/22)





Map 13: VAHR 8125-0485 (26 Francis Elliot Court LDAD) Location

8.2 Assessment of AP Significance

The significance of the AP, has been assessed against the Australia ICOMOS Burra Charter criteria for the assessment of cultural significance (Australia ICOMOS, 1999).

In the Burra Charter, Cultural Significance is defined as “...aesthetic, historic, scientific, social, or spiritual value for past, present, or future generations. 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.” (Australia ICOMOS, 1999).

Aesthetic value is defined as “...aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, scale, colour, texture, and material of the fabric; the smells and sounds associated with the place and its use.”

Historic value is defined as the history of aesthetics, science, and society “... A place may have historic value because it has influenced, or has been influenced by, an historic Map, event, phase, or activity. It may also have historic value as the site of an important event. For any given place, the significance will be greater where evidence of the association or event survives *in-situ*, or where the settings are 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 subsequent treatment.”

Scientific value is defined as relying “...upon the importance of the data involved, on its rarity, quality, or representativeness, and on the degree to which the place may contribute further substantial information.”

Social value is defined as “...the qualities for which a place has become a focus of spiritual, political, national, or other cultural sentiment to a majority or minority group.”

The Burra Charter states that “...cultural significance may change as a result of the continuing history of the place. Understanding of cultural significance may change as a result of new information.”

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 all of the values described above. Ratings for archaeological site contents and condition are given below.

Criteria for Scientific Significance Assessment – Archaeological Sites

Scientific significance is assessed by examining the research potential and representativeness of archaeological sites (see Table 9). The scientific significance assessment methodology outlined below 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 Sullivan and Bowdler (1984).

Research potential is assessed by examining site contents and site condition. Site contents refers to all cultural materials and organic remains associated with human activity at a site. Site contents also refers to the site structure – 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 refers to the degree of disturbance to the contents of a site at the time it was recorded.

The site contents ratings used for archaeological sites 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 used for archaeological sites 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 considers 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 archaeological sites are:

- 1 common occurrence
- 2 occasional occurrences
- 3 rare occurrences

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

- 1-4 low scientific significance
- 5-6 moderate scientific significance
- 7-9 high scientific significance

The assessment of significance is presented below and in Table 9.

Aesthetic Value

The AP recorded has low aesthetic values. This is largely because of the significant alteration of the landscape context of the Activity Area, which includes modifications to the landforms on which the AP is located. However, in keeping with the Burra Charter’s principle that “...cultural significance may change as a result of the continuing history of the place.” it may be possible to enhance the aesthetic values of some sites by sympathetic landscape treatment in future.

Historic Value

The AP is of value to the history of the local region generally and to the descendants of traditional Aboriginal owners. All APs illustrate aspects of the past use of the landscape by Aboriginal people. The AP has little potential to provide information on Aboriginal economic and technological practices in the local area, prior to the arrival of Europeans.

Scientific Value

AP VAHR 8125-0485 (26 Francis Elliot Court LDAD) is assessed as having low scientific value, because it comprises of a low density disturbed surface artefact scatter and is an AP type commonly found within the region. The AP has little potential to add to existing knowledge of Yorta Yorta life in the region.

Social Value

Many 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 which 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.

The AP is likely to be regarded as being of high social and cultural value to the Aboriginal community in general. No indication of any spiritual values attached to the AP has been expressed by YYNAC representatives to date.

Table 9: Scientific Assessment of VAHR 8125-0485 (26 Francis Elliot Court LDAD)

VAHR NO	AP Contents	AP Condition	Representativeness	Overall Scientific Significance
VAHR 8125-0485 (26 Francis Elliot Court LDAD)	1	1	1	3 (low)

9.0 Consideration of Section 61 Matters

9.1 Section 61 Matters

Section 3(a) of the *Aboriginal Heritage Act 2006* states that the principal objective of the legislation is to recognise, protect and conserve Aboriginal cultural heritage in Victoria.

This section discusses the effects that the proposed activity will have on any Aboriginal cultural heritage located within the Activity Area, and whether or not the Sponsor has addressed measures to avoid or minimise harm.

Section 61 of the *Aboriginal Heritage Act 2006* states that the following matters are to be considered in assessing whether a CHMP relating to an activity is to be approved—

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

9.2 VAHR 8125-0485 (26 Francis Elliot Court LDAD)

9.2.1 Can Harm to AP VAHR 8125-0485 (26 Francis Elliot Court LDAD) be Avoided?

During CHMP 18622, AP VAHR 8125-0485 (26 Francis Elliot Court LDAD) was identified was identified in the Complex Assessment. VAHR 8125-0485 (26 Francis Elliot Court LDAD) comprises of one stone artefact located in a disturbed sub-surface context.

The proposed activity at the location of VAHR 8125-0485 (26 Francis Elliot Court LDAD) is a shared pathway. Harm cannot be avoided as:

- The proposed activity will take place within the entire extent of VAHR 8125-0485 (26 Francis Elliot Court LDAD).
- The AP location cannot be retained without affecting the financial viability of the project.

9.2.2 Can Harm to AP VAHR 8125-0485 (26 Francis Elliot Court LDAD) be Minimised?

During CHMP 18622, AP VAHR 8125-0485 (26 Francis Elliot Court LDAD) was identified in the Complex Assessment. VAHR 8125-0485 (26 Francis Elliot Court LDAD) comprises of one stone artefact located in a disturbed subsurface context.

The proposed activity at the location of VAHR 8125-0485 (26 Francis Elliot Court LDAD) is a residential subdivision. Harm cannot be avoided as:

- The proposed activity will take place within the entire extent of VAHR 8125-0485 (26 Francis Elliot Court LDAD).
- The AP location cannot be retained without affecting the financial viability of the project.

9.2.3 Are Specific Management Conditions Needed for the Management of VAHR 8125-0485 (26 Francis Elliot Court LDAD)?

There are conditions ascribed for the management of VAHR 8125-0485 (26 Francis Elliot Court LDAD) both prior, during and after the activity (Section 1.1, Management Condition 1).

9.3 Are there particular Contingency Plans that might be necessary?

There are several contingency plans that may be necessary during the project. In particular, it is necessary to have a contingency in place for the unexpected discovery of cultural material and for the unexpected discovery of human remains. These and other contingency plans are discussed in detail in Section 2 of this CHMP.

9.4 What Custody and Management Arrangements might be needed?

Custody of any Aboriginal cultural heritage material identified during the activity must be ascribed to the YYNAC. The custody and management of Aboriginal cultural heritage identified during the activity is dealt with in Section 2.5 Custody and Management of Aboriginal Cultural Heritage Recovered During Works.

9.5 Cumulative Impact Statement

This section outlines the cumulative impacts of the activity on cultural heritage within the Activity Area and the wider region.

It is difficult to determine the cumulative impact of the proposed activity on Aboriginal cultural heritage within the geographic region as:

- So much of what was likely once present has been impacted, and was impacted prior to the introduction of the *Aboriginal Heritage Act 2006* by land clearance, agriculture; and the large scale development of residential and commercial precincts and associated infrastructure.
- There was a paucity of archaeological assessment in the geographic region prior to the introduction of the *Aboriginal Heritage Act 2006*.
- No region (however defined) has been the subject of a comprehensive and systematic survey in which base data of how many ACHPs are/were present can be absolutely defined. Subsequently, the base datum for assessment can only be Aboriginal cultural heritage material that has been identified and recorded, and preferably preserved in-situ, in order to determine a calculation of loss.
- There is no agreed criteria or explicit guidance on a method for assessing potential cumulative effects on cultural heritage material.

It is therefore considered difficult to establish a reference point from which to assess cumulative impact.

There have been a total of six Cultural Heritage Management Plans (CHMPs) prepared in the geographic region; five of which have been undertaken to the level of a Complex Assessment. The results of the CHMPs undertaken to the level of a Complex Assessment showed that the geographic region has been subject to varying levels of ground disturbance; however, also showed that Aboriginal cultural heritage may be identified in both undisturbed and highly disturbed sub-surface contexts.

Aboriginal cultural heritage has been identified during the preparation of two (2) CHMPs – Bell and Edwards (2011) CHMP 11584 and Johnson and Shiner (2018) CHMP 15708. These CHMPs resulted in the identification of a total of three registered ACHPs comprising low density artefact scatters and LDADs all of which have been subject to harm for the purpose of developing land for infrastructure purposes.

In terms of unknown Aboriginal cultural heritage, artefact scatters (including LDADs) and scarred trees are the most likely Aboriginal cultural heritage place types to occur within the geographic region. Within the geographic region many surface artefact scatters (including LDADs), and scarred trees are likely to have been destroyed. Sub-surface artefact scatters may remain, as evidenced by the known ACHPs in the geographic region; however, in some instances, agricultural/pastoral land use and more recent residential development and associated infrastructure including roads and essential services are likely to have compromised their integrity. Within the geographic region artefact scatters (including LDADs) and scarred trees are most likely to be identified within close proximity to the Murray River and Ovens River

Unfortunately, due to past agricultural activities and more recent residential expansion in Bundalong, it is unlikely that a large number of Aboriginal Cultural Heritage Places (ACHPs) are preserved in situ. The cumulative impact on Aboriginal cultural heritage places in the geographic region is therefore considered to be high.

The proposed activity will entirely impact upon the recorded extent of VAHR 8125-0485 (26 Francis Elliot Court LDAD) within the Activity Area. VAHR 7622-0404 (46 King St Ballarat East LDAD) was located in disturbed soils. This is most likely a result of disturbance from:

- Vegetation clearance to create open paddocks.
- Ploughing and cultivation of crops.

Given the above it is likely that the previous ground disturbance works impacted the site; including the possibility that the cultural material originated elsewhere in the Activity Area.

There will continue to be a further development in the geographic region. As a result, CHMPs will be triggered in areas of cultural heritage sensitivity. The impact of this will be:

1. An increase in the number of registered ACHPs;
2. An increase in the cumulative impacts on registered ACHPs.

As a priority CHMP undertaken on larger greenfield sites should have open space requirements allowing ACHPs to be retained. It is recommended that smaller ‘in fill’ sites also have open space requirements to facilitate the retention of Aboriginal cultural heritage if located. It is noteworthy that during planning, specifically Precinct Structure Plans it would be an advantage to the Aboriginal cultural heritage of the area that space be available to preserve Aboriginal Cultural Heritage Place within the development. This responsibility should fall to local councils and planning authorities.

Based on the current CHMP assessment it is clear the impacts to VAHR 8125-0485 (26 Francis Elliot Court LDAD) will result in a net loss to the regional cultural heritage. The development of this CHMP is the overarching measure that will assist in the identification of ACHPs, determination of heritage

significance, avoidance, and minimisation of harm, if possible, mitigation and management of impacts, and carrying out consultation with Traditional Owner stakeholders. The contingency arrangements included in Section 2 of this CHMP deal with any unknown Aboriginal cultural heritage located during the construction phase of the activity.

References

Legislation

Aboriginal Heritage Act 2006

Aboriginal Heritage Regulations 2018

Websites

NatureKit 2022. Accessed 2/2/2022

<http://maps.biodiversity.vic.gov.au/viewer/?viewer=NatureKit>

DEDJTR 2022a. Victorian Resources Online: Geomorphology. Accessed 2/2/22

http://vro.depi.vic.gov.au/dpi/vro/vrosite.nsf/pages/landform_geomorphology

DEDJTR 2022b. GeoVic. Accessed 2/2/22

http://er-info.dpi.vic.gov.au/sd_weave/anonymous.html

Department of Lands and Survey, Melbourne 1938. Public Records Office Victoria, accessed 22/11/22

<http://access.prov.vic.gov.au/public/component/daPublicBaseContainer?component=daViewRecord&entityId=090fe27380b3b254>.

GBCMA Accessed 22/2/22

<https://www.gbcma.vic.gov.au/downloads/EVCs/PlainsWoodland.pdf>

Mapshare. Accessed 21/11/22

[Historical Photo-Maps \(mapshare.vic.gov.au\)](http://mapshare.vic.gov.au)

Victorian Places 2022. Accessed 22/11/22

<https://www.victorianplaces.com.au/bundalong>

Published Sources

Australian handbook 1873-1903

First Peoples - State Relations 2007

Guide to Preparing Aboriginal Cultural Heritage Management Plans.

Aboriginal Affairs Victoria 2007a

Guide to Preparing Aboriginal Cultural Heritage Management Plans.

Atkinson, W and A. Berryman 1983.

Aboriginal Association with the Murray Valley Study Area. Report to the Victorian Land Conservation Council.

- Bossence, W., H. 1979,
Numurkah. Melbourne, The Hawthorn Press. Butler, B. E., and R. G. Downes (1938). Soil Map - Parishes of Boosey, Cobram and Katamatite- County of Moira. Department of Agriculture - Division of Soils- Council for Scientific and Industrial Research.
- Bowdler, S. 1981
'Unconsidered Trifles" Cultural Resource Management, Environmental Impact Statements and Archaeological Research in Australia. Australian Archaeology.
- Bowler, J.M., Macumber, P.G., 1967
The Riverine Plain in Northern Victoria Excursion No. 13. IN McAndrew J., Marsden M.A.H.(eds) 'Geology excursions handbook for Section C - geology. ANZAAS 39th Congress, Melbourne, January 1967, ANZAAS, , p133-144.
- Burke, H. & Smith C. 2004 The Archaeologist's Field Handbook. Allen & Unwin: Crow's Nest.
- Carter, Z., T. Fitzgerald, and B. Grinter 2021
Proposed Bridge over Jacksons Creek and Path, Bundalong. CHMP 17478.
- Clark, I., D. 1988,
The Port Phillip journals of George Augustus Robinson: 8 March - 7 April 1842 and 18 March - 29 April 1843. Department of Geography, Melbourne University, Melbourne, Victoria.
- Clark, I. D. 1990
Aboriginal Languages and Clans: An Historical Atlas of Western and Central Victoria. Monash Publications in Geography No. 7.
- Clark I. 2003
Aboriginal spatial organisation in north-east Victoria: a preliminary investigation. In I. Clark, Place Names and Land Tenure- Windows into Aboriginal Landscapes: Essays in Victorian Aboriginal History, Ballarat Heritage Services, Ballarat, Victoria.
- Cuddy J, Maclean R, Ryan R, & Kelly M 1993
Statement of Resources, Uses and Values of the Mid Murray Forest Management Area, Department of Conservation and Natural Resources
- Curr, E.M. 1883
Recollections of Squatting in Victoria. Melbourne.
- Curr, E.M. 1887.
The Australian Race: its origin, languages, customs, place of landing in Australia and the routes by which it spread itself over that continent. John Ferres (Government Printer), Melbourne.
- Du Cros and Associates 1998.
An archaeological investigation of the Goulburn Valley Highway Strathmerton Planning Study area. Report to VicRoads.
- Edmonds, V. 1998.
An Aboriginal Archaeological Survey of the Murray River Levees near Cobram, Central North Victoria. A Report to Goulburn Broken Catchment Management Authority.

Edwards, E. & Bell, J. 2011

Proposed Water Main and Reticulation Network, Murray Valley Highway, Yarrawonga to Bundalong Cultural Heritage Management Plan, Jo Bell Heritage Services Pty Ltd, Euroa.

Ellender, I. and F. Weaver. 1994

An Archaeological Survey of Port Phillip Bay. Manuscript held by Aboriginal Victoria. Unpublished report to the Australian Heritage Commission and Aboriginal Victoria.

Fitzgerald T. & Aitchison M. 2019

Proposed Subdivision, 42-94 Pasley Street, Bundalong. Cultural heritage management plan 16524, Report for Oxley & Company. Authors: Fitzgerald, T. & Aitchison, M, Biosis Pty Ltd, Albury. Project no 29962.

Hawdon, J. 1838 (1952)

The journal of a journey from New South Wales to Adelaide (the capital of South Australia) performed in 1838 by Mr. Joseph Hawdon. Georgian House: Melbourne.

Hayward, A. 1989

Peechelba and District 1840-1989. Back To Peechelba Committee.

Johnson R. & Shiner J. 2018

Car Park at Majors Lane, Bundalong, ACHM, Wangaratta, Victoria.

LCC 1991

The Melbourne Area District 2. Land Conservation Council: Melbourne.

Lomax, K. and D. Lusty. 1994.

Goulburn River Archaeological Survey. Report to the Department of Agriculture and Aboriginal Affairs Victoria.

Long 1996

Southern Murray Basin Aboriginal Sites Survey

Massola, A. 1969

Journey to First Peoples - State Relations. Rigby Limited, Melbourne.

Newby, J. and Muir, S. 1998.

Goulburn Valley Highway, Strathmerton Deviation Phase 1- Archaeological Investigation of Route Corridor Options. Unpublished Report to Vic Roads (Strata Archaeology).

Orr, A. 2009 Victoria Park Lake, Shepparton. Victoria: Cultural Heritage Management Plan. Biosis Research, Melbourne.

Pels, S. 1971.

'River systems and climatic changes in southeastern Australia'; in D.J. Mulvaney and J. Golson (eds.), Aboriginal Man and Environment in Australia. Australian National University Press, Canberra.

Robinson, G. A. 1840.

Journals of George Augustus Robinson January - March 1840. (G. Presland, Ed.) Victoria: Records of the Victorian Archaeological Survey.

Seidel, P. & Hetey, J. 2004,
Summary of Yorta Yorta National Aboriginal Corporation/ State of Victoria Co-operative Management Agreement – Part I. Indigenous Law Bulletin. v 45. [Accessed online 18/03/2013 www.austlii.edu.au/journals/ILB/].

Spreadborough, R. & H. Anderson 1983
Victorian Squatters. Red Rooster Press: Ascot Vale.

Stammers and Dr D. Rovinsky 2019
52 Brears Road, Yarrawonga, Residential subdivision. CHMP 17916.

Sullivan, S. and S. Bowdler (eds.) 1984
Site surveys and Significance Assessment in Australian Archaeology, Proceedings of the 1981 Springwood conference on Australian Prehistory, Research School of Pacific Studies, Australian National University, Canberra.

Sutherland, G. 2010.
Extension of Yarna Gurtji Shared Path Goulburn River, Shepparton Cultural Heritage Management Plan Number: 11112.

Times, W. (1908, October 10). Farming at Bundalong. Weekly Times, p. 44.

Tindale, N.B. 1974 (1940)
Aboriginal Tribes of Australia. ANU press: Canberra.

Vines G. & Orr A. 2008
The Junction Subdivision, Bundalong, Victoria: Cultural Heritage Management Plan 10136, Biosis Pty Ltd, Port Melbourne.

Wall D. & Bell A. 2016.
Proposed Subdivision at 26-28 Pasley Street, Bundalong, Victoria 3730. Cultural Heritage Management Plan No: 14246, Red-Gum Environmental Consulting, Yackandandah.

Wesson, S. 2000
An Historical Atlas of the Aborigines of East Victoria and Far Southeast New South Wales. Monash Publications in Geography and Environmental Science, #53.

Appendices

Appendix 1: Notice of Intent to Prepare a Cultural Heritage Management Plan



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: Auburn Consulting Group
 ABN/ACN: 48 135 906 204
 Contact Name: John Lotauro
 Postal Address: 9 Park Lane Point Cook Vic 3029
 Business Number: 0402285869 Mobile: 0468786059
 Email Address: Engineeringcompliance@outlook.com

Sponsor's agent (if relevant)

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

SECTION 2 - Description of proposed activity and location

Project Name: Proposed Residential Subdivision at 28 Francis Elliott Court, Bundalong
 Municipal district: Moira Shire Council

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

Subdivision

SECTION 3 - Cultural Heritage Advisor

Matthew Barker	Benchmark Heritage Management	matthew@benchmarkheritage.com
_____	_____	_____
<i>Name</i>	<i>Company</i>	<i>Email address</i>

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

Start Date: 15-Feb-2022 Finish Date: 31-Aug-2022

Submitted on: 15 Feb 2022



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?

Is any part of the activity an area of cultural heritage sensitivity, as listed in the regulations? 1

- 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.
YORTA YORTA Nation Aboriginal Corporation*

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

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

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

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

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

The plan is to be evaluated by:

- Joint - Registered Aboriginal Party AND The Secretary
 A Registered Aboriginal Party
If checked, list the relevant Registered Aboriginal Party Evaluating:
 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: 15 Feb 2022



Premier
and Cabinet

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: 15 Feb 2022

Appendix 2: Response from the YYNAC



YORTA YORTA NATION ABORIGINAL CORPORATION
ABN: 55 942 996 311 - ICN: 3279 - RTO: 20994

John Lotauro
Auburn Consulting Group
9 Park Lane, Point Cook VIC 3029

17 February 2022

NOTICE OF INTENT TO PREPARE AN CULTURAL HERITAGE MANAGEMENT PLAN: 18622

Proposed Residential Subdivision at 28 Francis Elliott Court, Bundalong

Yorta Yorta Nation Aboriginal Corporation (YYNAC) has received the Notice of Intent (NOI) to prepare an amendment Cultural Heritage Management Plan (CHMP) for the above project which was received 15th February 2022.

The Yorta Yorta Nation Aboriginal Corporation is the Registered Aboriginal Party (RAP) under the *Victorian Aboriginal Heritage Act 2006*. It will evaluate the management plan for the project.

The cost for the evaluation of the management plan is as prescribed in the *Victorian Aboriginal Heritage Regulations 2007*. Costs for consultation with the registered Aboriginal Party are outlined in the Yorta Yorta Nation Aboriginal Corporation's fees and terms of engagement document.

The Yorta Yorta Nation Aboriginal Corporation request an inception meeting be held with the Project Sponsor and the Cultural Heritage Advisor before any works are to commence.

Yours Sincerely,

Wade Morgan
Cultural Heritage Unit Coordinator

Shepparton Depot
2 Mercury Drive
Shepparton Vic 3630
PO Box 1363 Shepparton VIC 3632
PH: 03 5832 0222
reception@yynac.com.au

Barmah Office
35 Schier Street
Barmah Vic 3639
PH: 03 5869 3353
reception@yynac.com.au
web: www.yynac.com.au

Yenbena Training Centre
YYNAC RTO
2-8 Schier Street
Barmah Vic 3639
PH: 03 5869 3336
reception@yynac.com.au

Appendix 3: Glossary

A

Angular fragment: A piece of stone that is blocky or angular, not flake-like.

Archaeology: The study of the remains of past human activity.

Area of Archaeological Sensitivity: A part of the landscape that contains demonstrated occurrences of cultural material. The precise level of sensitivity will depend on the density and significance of the material.

Artefact scatter: A surface scatter of cultural material. Aboriginal artefact scatters are defined as being the occurrence of five or more items of cultural material within an area of about 100m² (First Peoples - State Relations 1993). Artefact scatters are often the only physical remains of places where people have lived camped, prepared, and eaten meals and worked.

B

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

Backed blade (geometric microlith): Backing is the process by which one or more margins contain consistent retouch opposite to the sharp working edge. A backed blade is a blade flake that has been abruptly retouched along one or more margins opposite the sharp working edge. Backed pieces include backed blades and geometric microliths. Backed blades are a feature of the Australian Small Tool Tradition dating from between 5,000 and 1,000 years ago in southern Australia (Mulvaney 1975).

Blade: A stone flake that is at least twice as long as it is wide.

Burial: Usually a sub-surface pit containing human remains and sometimes associated artefacts.

C

Core: A stone piece from which a flake has been removed by percussion (striking it) or by pressure. It is identified by the presence of flake scars showing the negative attributes of flakes, from where flakes have been removed.

E

Ethnography: The scientific description of living cultures.

Exposure: Refers to the degree to which the sub-surface of the land can be observed. This may be influenced by natural processes such as wind erosion or the character of the native vegetation, and by land use practices, such as ploughing or grading. It is generally expressed in terms of the percentage of the sub-surface visible for an observer on foot.

F

Flake: A stone piece removed from a core by percussion (striking it) or by pressure. It is identified by the presence of a striking platform and bulb of percussion, not usually found on a naturally shattered stone.

Formal tool: An artefact that has been shaped by flaking, including retouch, or grinding to a predetermined form for use as a tool. Formal tools include scrapers, backed pieces and axes.

G

GDA94 or Geocentric Datum of Australia 1994: A system of latitudes and longitudes, or east and north coordinates centred at the centre of the earth's mass. GDA94 is compatible with modern positioning techniques such as the Global Positioning System (GPS). It supersedes older coordinate systems (AGD66, AGD84). GDA94 is based on a global framework, the IERS Terrestrial Reference Frame (ITRF), but is fixed to a number of reference points in Australia. GDA94 is the Victorian Government Standard and spatial coordinates for excavations, transects and places in CHMP documents.

H

Hearth: an organic sub-surface feature; it indicates a place where Aboriginal people cooked food. The remains of a hearth are usually identifiable by the presence of charcoal and sometimes clay balls (like brick fragments) and hearth stones. Remains of burnt bone or shell are sometimes preserved within a hearth.

Holocene, recent, or postglacial period: The time from the end of the Pleistocene Ice Age (c. 10,300 BP) to the present day.

I

In-situ: A description of any cultural material that lies undisturbed in its original point of deposition.

L

Land System: Description for an area of land based on an assessment of a series of environmental characteristics including geology, geomorphology, climate, soils, and vegetation

M

Midden: Shell middens vary widely in size composition and Complexity. Deposits vary in Complexity, they range from being homogenous to finely stratified deposits. Material which may be found in middens includes different shell species, stone artefacts, hearths, and animal bones.

Q

Quarry (stone/ochre source): A place where stone or ochre is exposed and has been extracted by Aboriginal people. The rock types most commonly quarried for artefact manufacture in Victoria include silcrete, quartz, quartzite, chert and fine-grained volcanics such as greenstone.

Quartz: A mineral composed of silica with an irregular fracture pattern. Quartz used in artefact manufacture is generally semi-translucent, although it varies from milky white to glassy. Glassy quartz can be used for conchoidal flaking, but poorer quality material is more commonly used for block fracturing techniques. Quartz can be derived from waterworn pebble, crystalline or vein.

P

Pleistocene: The dates for the beginning and end of the Pleistocene generally correspond with the last Ice Age. That is from 3.5 to 1.3 million years ago. The period ends with the gradual retreat of the ice sheets, which reached their present conditions around 10,300 BP.

Pre-contact: Before contact with non-Aboriginal people.

Post-contact: After contact with non-Aboriginal people.

R

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

Registered Aboriginal Places: These are Aboriginal sites registered on the Victorian Aboriginal Heritage Register (VAHR).

Regolith: The mantle of unconsolidated soil/sediments/weathered rock materials forming the surface of the land that rests upon the bedrock.

S

Scarred trees: Aboriginal derived scars are distinct from naturally occurring scars by their oval or symmetrical shape and occasional presence of steel, or more rarely, stone axe marks on the scar's surface. Other types of scarring include toeholds cut in the trunks or branches of trees for climbing purposes and removal of bark to indicate the presence of burials in the area. Generally, scars occur on River red gums (*Eucalyptus camaldulensis*) or grey box (*E. microcarpa*) trees. River red gums are usually found along the margins of rivers, creeks, and swamps with grey box on near and far floodplains. Size and shape of the scar depended on the use for which the bark was intended. For example, bark was used for a variety of dishes and containers, shields, canoes and construction of huts.

Significance: The importance of a heritage place or place for aesthetic, historic, scientific, or social values for past, present, or future generations.

Silcrete: Soil, clay or sand sediments that have silicified under basalt through groundwater percolation. It ranges in texture from very fine grained to coarse grained. At one extreme it is cryptocrystalline with very few clasts. It generally has characteristic yellow streaks of titanium oxide that occur within a grey and less commonly reddish background. Used for flaked stone artefacts.

Spit: Refers to an arbitrarily defined strata of soil removed during excavation.

Stratification: The way in which soil forms in layers.

Stratified deposit: Material that has been laid down, over time, in distinguishable layers.

Stratigraphy: The study of soil stratification (layers) and deposition.

Stone Artefact: A piece of stone that has been formed by Aboriginal people to be used as a tool or is a by-product of Aboriginal stone tool manufacturing activities. Stone artefacts can be flaked such as points and scrapers or ground such as axes and grinding stones.

T

Tool: A stone flake that has undergone secondary flaking or retouch.

Transect: A fixed path along which one excavates or records archaeological remains.

V

Victorian Aboriginal Heritage Register: A list of all registered Aboriginal cultural heritage places (Aboriginal Places) in Victoria.

Visibility: Refers to the degree to which the surface of the ground can be observed. This may be influenced by natural processes such as wind erosion or the character of the native vegetation, and by land use practices, such as ploughing or grading. It is generally expressed in terms of the percentage of the ground surface visible for an observer on foot.

REFERENCES

First Peoples - State Relations 1997 *Guidelines for Conducting and Reporting upon Archaeological Surveys in Victoria*. First Peoples - State Relations, Melbourne.

Mulvaney, D. J. 1975 *The Prehistory of Australia*. Harmondsworth, Penguin.

Holdaway, S & N Stern

2004 *A Record in Stone: The Study of Australia's Flaked Stone Artefacts*.

Museum Victoria and Aboriginal Studies Press, Australian Institute of Aboriginal and Torres Strait Islander Studies, Canberra

Appendix 4: AP Listing Report for the Geographic Region Showing AP Components

Place Number	Name	Number	Type
8125-0094	BATHUMI 1	8125-0094-1	Scarred Tree
8125-0095	BATHUMI 2	8125-0095-1	Scarred Tree
8125-0096	BATHUMI 3	8125-0096-1	Scarred Tree
8125-0353	Ovens River Terrace Bundalong 1	8125-0353-1	Artefact Scatter
8125-0464	Major's Lane LDAD	8125-0464-1	Low Density Artefact Distribution
8125-0464	Major's Lane LDAD	8125-0464-2	Low Density Artefact Distribution

Appendix 5: Site Gazetteer

Name	VAHR 8125-0485 (26 Francis Elliot Court LDAD)
GDA 94/MGA 55 Coordinates	425518.785e, 6011421.253n
Cultural Materials	1 silcrete angular fragment
Aspect	Open
Condition and Integrity	Disturbed topsoils comprising mixed clay loam and clay
Vertical Artefact Distribution	50mm
Landform	Plain
Vegetation	Grass
Nearest Distance to Potable Water	Ovens River – 137m east

Appendix 6: Artefact Catalogue

CHMP 18622: Proposed Residential Subdivision at 26 Francis Elliott Court, Bundalong

<i>Easting</i>	<i>Northing</i>	<i>Zone</i>	<i>Depth (m)</i>	<i>Raw Material</i>	<i>Primary Form</i>	<i>Cortex %</i>	<i>% of edge with retouch/ usewear (flakes, blades and angular fragments only)</i>	<i>Length - axial for flakes and blades (mm)</i>	<i>Width - axial for flakes and blades (mm)</i>	<i>Thickness (mm)</i>	<i>Maximum Dimension (mm)</i>
425518.785	6011421.253	55	0.05	Silcrete	Angular Fragment	None	None	15	10	4	18

Appendix 7: GDA94/MGA55 Co-ordinates

Test Pits

Test Pit No	GDA94/MGA 55 Easting	GDA94/MGA 55 Northing
1	425518.785	6011421.253

Shovel Test Pits

Shovel Test Pit No	GDA94/MGA 55 Easting	GDA94/MGA 55 Northing
1	425553.4597	6011390.357
2	425524.5321	6011394.551
3	425495.6408	6011400.07
4	425456.3626	6011404.615
5	425458.4185	6011423.767
6	425495.1003	6011421.386
7	425543.241	6011402.967
8	425547.6788	6011424.364
9	425462.0976	6011443.244
10	425498.2385	6011439.132
11	425523.451	6011439.35
12	425564.1257	6011439.015
13	425519.6493	6011426.064
14	425524.5176	6011420.243
15	425518.8291	6011415.03
16	425512.4526	6011420.957
17	425436.2262	6011406.643
18	425439.0572	6011434.16
19	425442.8937	6011457.417
20	425445.8834	6011481.52
21	425448.397	6011507.529
24	425564.7839	6011417.275

Appendix 8: Shire of Moira Township Zone

VICTORIA PLANNING PROVISIONS PLANNING SCHEME

32.05
31/07/2018
VC148

TOWNSHIP ZONE

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

Purpose

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

To provide for residential development and a range of commercial, industrial and other uses in small towns.

To encourage development that respects the neighbourhood character of the area.

To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.

32.05-1
27/03/2017
VC110

Neighbourhood character objectives

A schedule to this zone may contain the neighbourhood character objectives to be achieved for the area.

32.05-2
26/05/2020
VC175

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. Must meet the requirements of Clause 32.05-3.
Domestic animal husbandry	Must be no more than 2 animals.
Dwelling (other than Bed and breakfast)	Must meet the requirements of Clause 32.05-3.
Home based business	
Informal outdoor recreation	
Medical centre	The gross floor area of all buildings must not exceed 250 square metres.

VICTORIA PLANNING PROVISIONS PLANNING SCHEME

Use	Condition
Place of worship	The gross floor area of all buildings must not exceed 250 square metres.
Racing dog husbandry	Must be no more than 2 animals.
Railway	
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, Apiculture, Domestic animal husbandry and Racing dog husbandry)	
Dependent person's unit - if the Section 1 condition is not met	Must meet the requirements of Clause 32.05-3.
Domestic animal husbandry (other than Domestic animal boarding) – if the Section 1 condition is not met	Must be no more than 5 animals.
Grazing animal production	
Industry (other than Transfer station and Refuse disposal)	Must not be a purpose listed in the table to Clause 53.10.
Leisure and recreation (other than Informal outdoor recreation and Motor racing track)	
Office (other than Medical centre)	
Place of assembly (other than Carnival, Circus and Place of worship)	

VICTORIA PLANNING PROVISIONS PLANNING SCHEME

Use	Condition
Retail premises (other than Adult sex product shop)	
Transfer station	Must meet the threshold distance requirements in the table to Clause 53.10.
Utility installation (other than Minor utility installation and Telecommunications facility)	Must not be a purpose listed in the table to Clause 53.10.
Warehouse	Must not be a purpose listed in the table to Clause 53.10.
Any other use not in Section 1 or 3	

Section 3 - Prohibited

Use
Adult sex product shop
Animal production (other than Grazing animal production)
Brothel
Dwelling – if the Section 1 condition is not met
Extractive industry
Motor racing track
Refuse disposal
Saleyard

32.05-3
01/07/2021
VC203

Use for a dwelling or a dependent person’s unit

A lot may be used for a dwelling provided the following requirements are met:

- Each dwelling must be connected to reticulated sewerage, if available. If reticulated sewerage is not available, all wastewater from each dwelling must be treated and retained within the lot in accordance with the requirements of the Environment Protection Regulations under the *Environment Protection Act 2017* for an on-site wastewater management system.
- Each dwelling must be connected to a reticulated potable water supply or have an alternative potable water supply, with appropriate storage capacity, to the satisfaction of the responsible authority.
- Each dwelling must be connected to a reticulated electricity supply or have an alternative energy supply to the satisfaction of the responsible authority.

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

32.05-4
27/03/2017
VC110

Use for industry and warehouse

VICTORIA PLANNING PROVISIONS PLANNING SCHEME

Amenity of the neighbourhood

The use of land for an industry or warehouse must not adversely affect the amenity of the neighbourhood, including through:

- The transport of materials or goods to or from the land.
- The appearance of any stored materials or goods.
- Traffic generated by the use.
- Emissions from the land.

32.05-5
01/07/2021
VC203

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
16 or more lots	Clauses 56.02-1, 56.03-5, 56.04-2 to 56.04-5, 56.05-1, 56.05-2, 56.06-2, 56.06-4, 56.06-5, 56.06-7, 56.06-8 and 56.07-1 to 56.09-4.
3 – 15 lots	Clauses 56.03-5, 56.04-2 to 56.04-5, 56.05-1, 56.06-2, 56.06-4, 56.06-5, 56.06-7 and 56.06-8 to 56.09-4.
2 lots	Clauses 56.03-5, 56.04-2, 56.04-3, 56.04-5 and 56.06-8 to 56.09-2.

Each lot must be provided with reticulated sewerage, if available. If reticulated sewerage is not available, the application must be accompanied by:

- In the absence of reticulated sewerage, include a Land Capability Assessment on the risks to human health and the environment of an on-site wastewater management system constructed, installed or altered on the lot in accordance with the Environment Protection Regulations under the *Environment Protection Act 2017*.
- A plan which shows a building envelope and effluent disposal area for each 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

VICTORIA PLANNING PROVISIONS PLANNING SCHEME

Class of application	Information requirements and decision guidelines
<p>Subdivide land to realign the common boundary between 2 lots where:</p> <ul style="list-style-type: none"> The area of either lot is reduced by less than 15 percent. The general direction of the common boundary does not change. 	<p>Clause 59.01</p>
<p>Subdivide land into lots each containing an existing building or car parking space where:</p> <ul style="list-style-type: none"> The buildings or car parking spaces have been constructed in accordance with the provisions of this scheme or a permit issued under this scheme. 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. 	<p>Clause 59.02</p>
<p>Subdivide land into 2 lots if:</p> <ul style="list-style-type: none"> The construction of a building or the construction or carrying out of works on the land: <ul style="list-style-type: none"> Has been approved under this scheme or by a permit issued under this scheme and the permit has not expired. Has started lawfully. The subdivision does not create a vacant lot. 	<p>Clause 59.02</p>

32.05-6
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 of less than 300 square metres.
- A lot of between 300 square metres and 500 square metres if specified in a schedule to this zone.

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

- The fence is associated with one dwelling on:
 - A lot of less than 300 square metres, or
 - A lot of between 300 and 500 square metres if specified in a schedule to this zone, and
- The fence exceeds the maximum height specified in Clause 54.06-2.

A development must meet the requirements of Clause 54.

VICTORIA PLANNING PROVISIONS PLANNING SCHEME

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"> • Does not exceed a building height of 5 metres. • Is not visible from the street (other than a lane) or a public park. • Meets the requirements in the following standards of Clause 54: <ul style="list-style-type: none"> • A10 Side and rear setbacks. • A11 Walls on boundaries. • A12 Daylight to existing windows. • A13 North-facing windows. • A14 Overshadowing open space. • A15 Overlooking. <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 59.14</p>
<p>Construct or extend a front fence within 3 metres of a street if the fence is associated with one dwelling.</p>	<p>Clause 59.03</p>

32.05-7
20/12/2021
VC174

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

Permit requirement

VICTORIA PLANNING PROVISIONS PLANNING SCHEME

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
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

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.
- 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.

Clauses 55 and 58 of this scheme, as in force immediately before the approval date of Amendment VC174, continue 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.

VICTORIA PLANNING PROVISIONS PLANNING SCHEME

32.05-8 **Requirements of Clause 54 and Clause 55**
27/03/2017
VC110

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.

32.05-9 **Residential aged care facility**
26/10/2018
VC152

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.

32.05-10 **Buildings and works associated with a Section 2 use**
04/12/2020
VC180

A permit is required to construct a building or construct or carry out works for a use in Section 2 of Clause 32.05-2.

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
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Construct a building or construct or carry out works where:	Clause 59.04
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- The building or works are not associated with a dwelling, primary school or secondary school and have an estimated cost of up to \$100,000; or
- The building or works are associated with a primary school or secondary school and have an estimated cost of up to \$500,000; and
- The requirements in the following standards of Clause 54 are met, where the land adjoins land in a residential zone used for residential purposes:
 - A10 Side and rear setbacks.
 - A11 Walls on boundaries.
 - A12 Daylight to existing windows.
 - A13 North-facing windows.
 - A14 Overshadowing open space.

Class of application

Information requirements and decision guidelines

- A15 Overlooking.

For the purposes of this class of VicSmart application, the Clause 54 standards specified above are mandatory.

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.

32.05-11
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 requirement set out in the relevant standard of Clause 54 and Clause 55 applies.

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 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.

32.05-12
01/07/2021
VC203

Application requirements

Use for industry and warehouse

Unless the circumstances do not require, an application to use land for an industry or warehouse must

VICTORIA PLANNING PROVISIONS PLANNING SCHEME

be accompanied by the following information:

- The purpose of the use and the types of activities to be carried out.
- The type and quantity of materials and goods to be stored, processed or produced.
- Whether a Development Licence, Operating Licence, Permit or Registration is required from the Environment Protection Authority.
- Whether a notification under the Occupational Health and Safety Regulations 2017 is required, a licence under the *Dangerous Goods Act 1985* is required, or a fire protection quantity under the Dangerous Goods (Storage and Handling) Regulations 2012 is exceeded.
- How land not required for immediate use is to be maintained.
- The likely effects, if any, on the neighbourhood, including noise levels, traffic, air-borne emissions, emissions to land and water, light spill, glare, solar access and hours of operation (including the hours of delivery and despatch of materials and goods).
- Any other application requirements specified in a schedule to this zone.

32.05-13 Decision guidelines

01/07/2021
VC203

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

General

- The Municipal Planning Strategy and the Planning Policy Framework.
- The objectives set out in a schedule to this zone.
- The protection and enhancement of the character of the town and surrounding area including the retention of vegetation.
- The availability and provision of utility services, including sewerage, water, drainage, electricity, gas and telecommunications.
- In the absence of reticulated sewerage, a Land Capability Assessment on the risks to human health and the environment of an on-site wastewater management system constructed, installed or altered on the lot in accordance with the requirements of the Environment Protection Regulations under the *Environment Protection Act 2017*.
- The design, height, setback and appearance of the proposed buildings and works including provision for solar access.
- The need for a verandah along the front or side of commercial buildings to provide shelter for pedestrians.
- Provision of car and bicycle parking and loading bay facilities and landscaping.
- The effect that existing uses on adjoining or nearby land may have on the proposed use.
- The scale and intensity of the use and development.
- The safety, efficiency and amenity effects of traffic to be generated by the proposal.
- The impact of overshadowing on existing rooftop solar energy systems on dwellings on adjoining lots in a General Residential Zone, Mixed Use Zone, Neighbourhood Residential Zone, Residential Growth Zone or Township Zone.
- Any other decision guidelines specified in a schedule to this zone.

Use for industry and warehouse

Before deciding on an application to use land for an industry or warehouse, in addition to the decision

VICTORIA PLANNING PROVISIONS PLANNING SCHEME

guidelines in Clause 65, the responsible authority must consider, as appropriate:

- The Municipal Planning Strategy and the Planning Policy Framework.
- The effect that existing uses on adjoining or nearby land may have on the proposed use.
- The design of buildings, including provision for solar access.
- The availability and provision of utility services.
- The effect of traffic to be generated by the use.
- The interim use of those parts of the land not required for the proposed use.
- Any other decision guidelines specified in a schedule to this zone.

Subdivision

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

- The Municipal Planning Strategy and the Planning Policy Framework.
- The 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.
- Any other decision guidelines specified in a schedule to this zone.

Construction and extension of one dwelling on a lot

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

- The Municipal Planning Strategy and the Planning Policy Framework.
- The objectives, standards and decision guidelines of Clause 54.
- Any other decision guidelines specified in a schedule to this zone.

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

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

- The Municipal Planning Strategy and the Planning Policy Framework.
- For 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 an apartment development of five or more storeys, excluding a basement, the objectives, standards and decisions guidelines of Clause 58.
- Any other decision guidelines specified in a schedule to this zone.

32.05-14 Signs

26/10/2018
VC152

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