



**Wathaurung
Aboriginal
Corporation**

ICN 3330
trading as Wadawurrung
ABN 11 312 302 330

29th November 2018

*Aboriginal Heritage Act 2006
Section 63*

Cultural Heritage Management Plan – Notice of Approval

The Wathaurung Aboriginal Corporation trading as Wadawurrung, acting as the Registered Aboriginal Party hereby approve the cultural heritage management plan referred to below:

'35 hams Road and 151-229 Anglesea Road, Waurin Ponds – Proposed Residential' Subdivision'

Cultural Heritage Management Plan number: 14600

Sponsor: Echin Pty Ltd & Urban Quarter Pty Ltd

Heritage Advisor: John Young & Matthew Barker

Authors: John Young & Matthew Barker

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Pursuant to s.64(1) of the Act this cultural heritage management plan takes effect upon the granting of this approval and once a copy is lodged with the Secretary of DPCD. *

Bryon Powell
RAP Consultant

Paul Davis
General Manager

Wathaurung Aboriginal Corporation
trading as: Wadawurrung

*This notice of approval should be inserted after the title page and bound with the body of the management plan.

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7.0 Consideration of Section 61 Matters

Section 61 Matters in Relation to ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1)

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.

Can Harm to the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) be Avoided?

During the complex assessment of the Activity Area, the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) was identified.

The activity comprises a residential subdivision that will cause ground disturbance to the entirety of the Activity Area. Harm to the majority of ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) cannot be avoided as:

- The activity will take place within approximately 50% of ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1);
- No further Aboriginal cultural heritage was identified in association with the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1); and
- There are provisions for open space areas within the development plan, therefore harm to the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) can be avoided to 50% of the site;
- Given that the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) is a Low Density Artefact Distribution (LDAD) comprising a total of ten flaked stone artefacts it would not be an appropriate response to alter the design of the proposed activity to avoid harm to the Aboriginal Place.

Can Harm to the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) be Minimised?

During the complex assessment of the Activity Area, the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) was identified.

The activity comprises a residential subdivision that will cause ground disturbance to the entirety of the Activity Area. Harm to the majority of ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) cannot be avoided as:

- The activity will take place within approximately 50% of ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1);
- No further Aboriginal cultural heritage was identified in association with the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1); and
- There are provisions for open space areas within the development plan, therefore harm to the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) can be avoided to 50% of the site;

- Given that the ACHP VAHR 7721-1356 (Hams Road, Waurun Ponds LDAD1) is a Low Density Artefact Distribution (LDAD) comprising a total of ten flaked stone artefacts it would not be an appropriate response to alter the design of the proposed activity to avoid harm to the Aboriginal Place

Are Specific Measures Needed for the Management of the ACHP VAHR 7721-1356 (Hams Road, Waurun Ponds LDAD1)?

Yes, specific measures are required for the management of the ACHP VAHR 7721-1356 (Hams Road, Waurun Ponds LDAD1) prior to, during, and after the proposed activity. In sum, the following specific management measures are required:

- Cultural Heritage Induction prior to works commencing;
- Site Access for CHMP compliance reviews for the Wathaurung Aboriginal Corporation, trading as Wadawurrung prior to, during and after the activity;
- Retention of topsoil in the Activity Area; and
- Reburial of Aboriginal cultural material from the Aboriginal Cultural Heritage Place ACHP VAHR 7721-1356 (Hams Road, Waurun Ponds LDAD1) after the activity.

The specific management measures required for the ACHP VAHR 7721-1356 (Hams Road, Waurun Ponds LDAD1) are detailed in Section 8 in Part Two of this CHMP.

Are there particular Contingency Plans that might be necessary?

There are several contingency plans that may be necessary during the activity. In particular, it is necessary to have a contingency in place for the unexpected discovery of Aboriginal cultural heritage during the activity. The following contingencies are included in Section 8 of this Cultural Heritage Management Plan - Section 9.2 Dispute Resolution; Section 9.3 Discovery of Aboriginal cultural heritage during works; Section 9.4 Reporting discovery of Aboriginal cultural heritage during works; Section 9.5 Management of Aboriginal cultural heritage discovered during works; Section 9.6 Reviewing compliance with the Plan; and Section 9.7 Communication Between Parties.

What Custody and Management Arrangements might be needed?

It is recommended that the Aboriginal cultural heritage recovered during this CHMP be temporarily retained by the archaeologist for cataloguing. The recovered Aboriginal cultural heritage must be catalogued and analysed. The Aboriginal cultural heritage will be held by the cultural heritage advisor until site works have been completed, pending a determination about its eventual relocation/reburial following consultation between the Sponsor and the Wathaurung Aboriginal Corporation, trading as Wadawurrung. Prior to any reburial, cultural material should be stored in a secure location with copies of the catalogue and assessment documentation.

The location of any reburial site must be recorded with a GPS and a site registry card completed and submitted to AV, showing the location of the reburial site. The recording must be carried out by a cultural heritage advisor and a representative of a Registered Aboriginal Party (RAP) in accordance with the Wathaurung Aboriginal Corporation 'Standard Procedure for the Reburial of Cultural Material' (see Appendix 7).

Part 2 – Cultural Heritage Management Recommendations

8.0 Specific Cultural Heritage Management Requirements

Based on the results of the archaeological assessment, the following management conditions are made for the Activity Area. Please note that once this CHMP is approved these management conditions become compliance requirements.

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

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. The following management conditions are made to guide the sponsor through the compliance requirements of this CHMP and to facilitate the sponsors understanding of Aboriginal cultural heritage.

A copy of this management plan must be held on site at all times during construction.

Specific Management Conditions

Management Condition 1: Harm Permitted to the Aboriginal Cultural Heritage Place Hams Road, Waurin Ponds LDAD1 (7721-1356 [VAHR])

This Cultural Heritage Management Plan permits the proposed activity to harm the Aboriginal Cultural Heritage Place Hams Road, Waurin Ponds LDAD1 (7721-1356 [VAHR]) subject to the management conditions detailed in Management Conditions 2-7.

Management Condition 2: Retention of Potentially Artefact Bearing Deposits within the Activity Area

Any topsoils excavated or subject to ground disturbance in the Activity Area during works for, or associated with the activity must not be removed from the Activity Area and must be utilised in the Activity Area post-construction i.e. in landscaping.

For the purposes of this management condition ‘topsoils’ are defined as any soils overlying basal clay or bedrock.

Management Condition 3: Permitted Uses of and Construction Methodology for Infrastructure in the Armstrong Creek Linear Reserve

Pathways

- ❑ Pathways may be constructed in concrete, asphalt, gravel or granitic sand;
- ❑ The alignment of pathways must be sprayed to kill vegetation, and the surface soil stripped to an approximate depth of 50 mm to remove vegetation;
- ❑ Where required, geotechnical fabric must be installed to increase the stability of gravel material (with pegging, if required), and gravel/granitic sand material must be laid to a required height over the ground surface (with wood edging, if required);
- ❑ The area around the pathway must then be backfilled using the skimmed material from surface stripping, and feathered off to match the existing grade of the surrounding ground surface.
- ❑ Revegetation must only be undertaken using shallow-rooted stock and using minimally intrusive excavation measures (e.g. using Hamilton planters and shallow-rooted tube stock).

Boardwalks

- ❑ Footbridges, bridges and boardwalks may be constructed;
- ❑ They must be constructed on concrete pads at each end in an effort to minimise ground disturbance;
- ❑ Where longer boardwalk lengths are required, they must be constructed using either screwed or driven piles at the maximum spacing feasible to minimise ground disturbance; and
- ❑ Any underlying sterile clay sediments, or any sediments deeper than the underlying sterile clay, may be removed from the site.

Playground Construction

- ❑ The area must be sprayed to kill vegetation, and the surface soil stripped to a maximum depth of 50 mm using a machine with a mud bucket or bobcat;
- ❑ This material must be retained adjacent to the site of the playground;
- ❑ Soft fall material must be constructed on top of the existing ground as per the gravel paths;
- ❑ Screw pile footings must be used to anchor playground infrastructure in order to reduce the area of impact to this place;
- ❑ The initial 250 mm of topsoil from the screw pile footings must be spread out within open space adjacent to the playground, where no ground disturbing infrastructure is proposed; and
- ❑ Revegetation must only be undertaken using shallow-rooted stock and using minimally intrusive excavation measures (e.g. using Hamilton planters and shallow-rooted tube stock).

Picnic Shelter and Barbecue Facilities

- ❑ The footings for the shelter and barbecue must be excavated by machine to the underlying sterile clay or deeper; and
- ❑ The initial 250 mm of excavated topsoil must be spread out within open space adjacent to the shelter and barbecue, where no ground disturbing infrastructure is proposed.

Public Furniture, Art and Sculptures

- ❑ Footings for this infrastructure must be built on top of existing topsoil using screw piles; and
- ❑ If this method can not be utilised footings for this infrastructure must be excavated by machine to underlying sterile clay or deeper. The initial 250 mm of excavated topsoil must be spread out within open space adjacent to the furniture, art or sculptures, where no ground disturbing infrastructure is proposed. The nature and character of any artwork/sculptures must be developed in consultation with the RAP.

Signage

- ❑ Signage must be constructed into, or as part of, new paths in order to limit ground disturbance;
- ❑ If this method can not be utilised all attempts should be made to install the signage using screw piles to minimise impacts;
- ❑ If this method can not be utilised footings for signage must be excavated by machine to underlying sterile clay or deeper. The initial 250 mm of excavated topsoil must be spread out within open space adjacent to the signage, where no ground disturbing infrastructure is proposed; and
- ❑ The nature and character of any interpretive signage must be developed in consultation with the RAP as part of a cultural heritage strategy that will be developed between the Sponsor and the RAP.

Revegetation and Landscaping

- ❑ Any revegetation works must be undertaken using shallow-rooted stock and minimally intrusive excavation measures (e.g. using Hamilton planters and shallow-rooted tube stock); and
- Only vegetation management practices that do not penetrate the ground's surface (e.g. slashing of grasses) are permissible.

Turfing

- ❓ Turfing is permitted; however, to reduce the impact of turf installation an alternate cultivation machine must be used that has a vertical spindle which moves the topsoil from left to right.

Creek Bed Maintenance and Stabilisation

- ❓ The installation/construction of rock and/or geotech armouring along the banks of Armstrong Creek is permitted where necessary.

Other works

- ❓ Other works are permitted in the Armstrong Creek *linear reserve* only by consultation with, and agreement by, the Wathaurung Aboriginal Corporation, trading as Wadawurrung.

Management Condition 4: Works on Armstrong Creek including but not limited to rock beaching of the creek and construction of retention basins

Wadawurrung have agreed to an 'on-line water treatment system' in which the retention basins are constructed within the Armstrong Creek linear reserve. This system is shown in the development plan in Figure 1. Wadawurrung have agreed to allow works on Armstrong Creek on the condition that the alignment of the creek is such that it is consistent with the existing hydrology model shown in Figure 2.



Figure 2: Hydrology Model

The construction of the retention basins must be broadly in keeping with the image that were presented to Wadawurrung at the meeting held on 2nd October, 2018 and shown below in Plate 27.



Plate 27: Example of retention basins to be used at Armstrong Creek.

The retention basins must be constructed broadly in keeping with Plate 28 to ensure that they enhance the aesthetic value of the area as required by Wadawurrung.

Works on Armstrong Creek, including rehabilitation works and the installation of rock beaching/armouring must be broadly in keeping with the image that were presented to Wadawurrung at the meeting held on 2nd October, 2018 and shown below in Plate 28.



Plate 28: Example of rock beaching/armouring to be used at Armstrong Creek.

Management Condition 4 is in keeping with the report prepared by Lachlan Inglis – Project Engineer – from Water Technology.

General Management Conditions

In order to provide a system for notification of the discovery of Aboriginal cultural heritage during construction works, it will first be necessary to provide an induction to any future project managers and construction workers about the discovery of Aboriginal cultural heritage onsite. There will also need to be a system of reporting any possible Aboriginal cultural heritage items which are discovered which must be built into any development or environmental management plan (EMP) for the site. Some recommendations for notifying the discovery of Aboriginal cultural heritage are contained below.

Management Condition 5: Cultural Heritage Induction

A cultural heritage induction must be conducted with all site workers/contractors by representatives of the Wathaurung Aboriginal Corporation, trading as Wadawurrung prior to or at the commencement of construction works. A Cultural Heritage Advisor/Archaeologist may also attend this training session if necessary. This session must include a brief history of the Aboriginal occupation of the activity area and broader region; a summary of the archaeological investigations conducted within the activity area; specific details of all Aboriginal Places and cultural material located during the CHMP assessment; a summary of the recommendations and contingencies contained within the CHMP; and the obligations of site workers/contractors and Sponsors under the Victorian Aboriginal Heritage Act 2006.

- The Wadawurrung must be provided with at least two weeks' notice of the requirement to present a cultural heritage induction.
- In addition to this, the Cultural Heritage Advisor must prepare a cultural heritage induction booklet to be provided to all site workers/contractors as a reference. The cultural heritage induction booklet must include the CHMP Executive Summary, Section 61 Matters, Management Recommendations and Contingencies as well as information on how to identify Aboriginal cultural heritage, including the Aboriginal Victoria Mini Posters.
- This procedure must be paid for and organised by the Sponsor.

Management Condition 6: Wadawurrung Access to the Activity Area

Access to the activity area must be provided to representatives of the Wadawurrung before, during and after construction for the purpose of ensuring compliance with the CHMP. The representatives of the Wadawurrung must comply with all OH&S requirements of the activity area.

Management Condition 7: Reburial of Cultural Material

Aboriginal cultural material recovered/collected during the course of the assessment or salvage program or activity, must be reburied and the following must occur:

- a reburial location should be identified in the activity area, and this location must be in an area which is protected from future development or disturbance;
- once reburied, the reburial location must be recorded to sub-metre accuracy by a CHA and be relocatable;
- flagging tape should be laid within the hole, at a depth of 30cm above the reburied cultural material to identify that cultural material is buried below the flagging tape;
- the relevant VAHR site record card must be updated and a 'collection' component form must be completed by the CHA and lodged with AV;
- cultural material to be reburied must be placed in a durable container manufactured by WAC;
- a separate container is to be manufactured for each Aboriginal Place to be reburied;
- where an Aboriginal Place is comprised of a large amount of cultural material it will be necessary to manufacture a number of containers to rebury the cultural material;

- the contents of the container must include the cultural material to be reburied, a catalogue of the cultural material to be reburied both on paper and on an archive quality storage medium, a copy of the relevant sections of the CHMP under which the reburial is being performed, and a handful of soil from the Aboriginal Place from which the cultural material originated;
- a smoking ceremony must be performed prior to the reburial of cultural material;
- the reburial must be attended by Wadawurrung representatives;
- the cost of the manufacture of the container, the analysis and preparation of the cultural material for reburial, smoking ceremony and Wadawurrung attendance at the reburial must be borne by the Sponsor.

In this instance the reburial of cultural material from the ACHP VAHR 7721-1356 (Hams Road, Waurin Ponds LDAD1) must occur within a period not exceeding six months from the completion of the activity. It is recommended that the reburial of cultural material occur at any location within the Activity Area by mutual agreement between the Sponsor and the RAP. If no agreement is able to be reached regarding a reburial location the Sponsor and the RAP may agree to an alternative outcome such as the retention of the artefact by the Wadawurrung for educational purposes.

The reburial process must be carried out in accordance with the Wadawurrung standard procedure for reburial – see Appendix 7. Standard Procedure for the Reburial of Cultural Material.

9.0 Contingency Plans

The contingency procedures contained in Section 9.1 of this report form part of the Cultural Heritage Management Plan and *must* be incorporated into the development or Environmental Management Plan for the project. A copy of this management plan 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 management plan must also include specific contingency plans for:

- a) the resolution of any disputes between the sponsor and the Wathaurung Aboriginal Corporation, trading as Wadawurrung in relation to the implementation of the plan or the conduct of the activity;
- b) the management of Aboriginal cultural heritage found during the activity;
- c) the notification, in accordance with the Act, of the discovery of Aboriginal cultural heritage during the carrying out of the activity; and
- d) reviewing compliance with the Management Plan and mechanisms for remedying non-compliance.

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

9.1 Section 61 Matters

Clause 13(1) Schedule 2 of the Regulations requires that the CHMP must contain a contingency plan for the matters referred to in Section 61 of the Act.

Section 61 of the Victorian Aboriginal Heritage Act 2006 requires consideration of:

- 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.

For the contingency plan relating to disputes, delays and other obstacles that may affect the conduct of the activity see Section 9.2. Resolution of any disputes between the Sponsor and relevant RAPs in relation to the implementation of the CHMP or the conduct of the activity.

For the contingency plan relating to avoiding or minimising harm to Aboriginal cultural heritage located during the activity see Section 9.3. Management of Aboriginal cultural heritage found during the activity.

For the contingency plan relating to reporting the discovery of Aboriginal cultural heritage see Section 9.4 Reporting Discovery of Aboriginal Cultural Heritage during Works.

For the contingency plan relating to the custody and management of Aboriginal cultural heritage during the course of the activity see Section 9.5. Management of Aboriginal cultural heritage found during the activity.

For the contingency plan relating to reviewing compliance see Section 9.6 Reviewing Compliance with the Plan.

9.2 Dispute Resolution

Clause 13(1) Schedule 2 of the Regulations requires that the CHMP must contain a contingency plan for the resolution of any disputes between the Sponsor and relevant RAPs in relation to the implementation of an approved CHMP or the conduct of the activity.

Disputes may occur at various stages during the activity. Procedures for dispute resolution aim to ensure that all parties are fully aware of their rights and obligations, that full and open communication between parties occurs and those parties conduct themselves in good faith.

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

Informal Dispute Resolution

- The party raising the dispute must complete a Dispute Notification Form (included below) and email or fax a copy to all parties listed in Section 9.7. Communication between Parties.
- Project delegates (as listed in Section 9.7. Communication Between Parties) of each party (RAP and Sponsor) must attempt to negotiate a resolution to any dispute related to cultural heritage management of the activity area within 49 hours of written notice being received that a dispute between parties is deemed to exist. If the project delegates cannot reach an agreement, representatives of

both parties must meet to negotiate a resolution to an agreed schedule.

- If representatives of the relevant parties fail to reach an agreement, an independent mediator must be initially sought to assist in resolving the dispute. A timeframe for the independent mediator must be agreed upon by both parties. If an independent mediator cannot be agreed on, mediation shall be effected by a mediator nominated upon the application by either party, by the Victorian Chapter of the Institute of Arbitrators and Mediators or the Dispute Settlement Centre of Victoria.
- If the matter remains unresolved after mediation the Parties shall seek to agree upon the appointment of an independent arbitrator to hear and resolve the matter. In the absence of agreement as to an arbitrator, arbitration shall be effected by an arbitrator nominated upon the application by either Party by the Victorian Chapter of the Institute of Arbitrators and Mediators, or, failing such nomination within 28 days, appointed with the provisions of the *Commercial Arbitration Act (Vic) 1984*.
- A reference to arbitration under this Clause shall be deemed to be a reference to arbitration within the meaning of the laws relating to arbitration in force in the State of Victoria. The arbitrator shall have all the powers conferred by those laws. The arbitrator's decision shall be final, subject to any rights of appeal under the *Commercial Arbitration Act (Vic) 1984*.
- The procedures concerning mediation and arbitration, including payment of costs, shall be agreed between the Parties.
- These arrangements do not preclude any legal recourse open to the Parties being taken but the Parties agree the above avenues will be exhausted before such recourse is made.

In order to facilitate the above procedure:

- The Party with the grievance must notify each other Party of the problem at the earliest opportunity;
- Throughout all stages of the procedure all relevant facts must be clearly identified and recorded;
- All disputes will be jointly investigated; and
- Sensible time limits must be allowed for completion of the various stages of discussion. However, the parties must cooperate to ensure that the dispute resolution procedures are carried out as quickly as possible.

Without prejudice to either party, and except where a bona fide safety issue is involved, and/or when the nature of the work or the area affected by the work concerns the matter in dispute, Work should continue in accordance with this Plan while matters in dispute between them are being negotiated in good faith. No party shall be prejudiced as to final settlement by the continuance of work in accordance with this procedure.

Any corrective or remedial activities required by a resolution to a dispute under this Clause (e.g. repairing damage to sites) will be overseen by representatives from the Wadawurrung and will take place in accordance with their instructions.

DISPUTE RESOLUTION NOTIFICATION FORM					
Cultural Heritage Plan No					
Relevant Party Making the Dispute:					
Contact Person:					
Date:					
Nature of the Dispute:					
Proposed Meeting Time/Date & Place:					
Relevant parties who have been sent (email or fax) this notification (tick box):					
Party to Agreement	Name of Delegate	Fax	Postal Address	Email	Contacted (✓)
RAP		(03) 4308 0421	PO Box 734		
			Ballarat		
			VIC 3353		
The Sponsor					
Site Supervisor					
CHA					

9.3 Discovery of Aboriginal cultural heritage during works

9.3.1 Unexpected discovery of Human Ancestral Remains

Although it is highly unlikely that Aboriginal human burials will occur within the activity area, the consultants are obliged to provide advice in the event that a human burial is discovered.

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

1. Discovery:

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

2. Notification:

- Once suspected human remains have been found, the Coroners Office and Victoria Police must be notified immediately;
- If there is reasonable grounds to believe that the remains are Aboriginal Ancestral Remains, the Coronial Admissions and Enquiries hotline must be contacted on 1300 888 544;
- All details of the location and nature of the human remains must be provided to the relevant authorities;
- If it is confirmed by these authorities that the discovered remains are Aboriginal Ancestral Remains, the person responsible for the activity must, as soon as practicable, report the existence of the Aboriginal Ancestral Remains to the Victorian Aboriginal Heritage Council in accordance with s.17 of the Act.

3. Impact Mitigation or Salvage:

- The Victorian Aboriginal Heritage Council, after taking reasonable steps to consult with any Aboriginal person or body with an interest in the Aboriginal human remains, will determine the appropriate course of action as required by s.18(2)(b) of the Act;
- An appropriate impact mitigation or salvage strategy as determined by the Victorian Aboriginal Heritage Council must be implemented by the Sponsor.

4. Curation and further analysis:

- The treatment of salvaged Aboriginal Ancestral Remains must be in accordance with the direction of the Victorian Aboriginal Heritage Council.

5. Reburial:

- Any reburial site(s) must be fully documented by an experienced and qualified archaeologist, clearly marked and all details provided to AV;
- Appropriate management measures must be implemented to ensure that the remains are not disturbed in the future.
- The Wathaurung Aboriginal Corporation should be involved in any reburial process.

Appropriate management measures must be implemented to ensure that the remains are not disturbed in the future.

9.3.2 Unexpected discovery of Aboriginal cultural heritage (Other than Ancestral Remains)

The Sponsor must at all times avoid unlawful harm to Aboriginal cultural heritage. The following contingency must be followed by the Sponsor if previously unrecorded Aboriginal cultural heritage is identified during the activity.

- a) If suspected Aboriginal cultural heritage is identified during the activity the following process applies:
- b) All works within 25m of the location of suspected Aboriginal cultural heritage must be immediately suspended and the extent of the suspected Aboriginal Place isolated from further disturbance by safety webbing and star pickets. The suspected Aboriginal cultural heritage must not be removed.
- c) The Site Supervisor must be immediately notified and a Heritage Advisor (HA) and the Wadawurrung must be notified within 24 hours of the discovery of suspected Aboriginal cultural heritage.
- d) A HA and a representative of the Wadawurrung must inspect the suspected Aboriginal cultural heritage as soon as is practical. First and foremost it will be necessary to determine if the suspected Aboriginal cultural heritage is indeed Aboriginal cultural heritage. If the suspected Aboriginal cultural heritage is determined not to be Aboriginal cultural heritage by the HA and the representative of the Wadawurrung works may recommence.
- e) If the suspected Aboriginal cultural heritage is determined to be Aboriginal cultural heritage by the HA and the representative of the Wadawurrung a decision or recommendation as to the management of the Aboriginal cultural heritage must be made by the HA and the Wadawurrung.
- f) S61 matters relating to harm avoidance or minimisation measures must be explored by the HA in consultation with the Wadawurrung and the Sponsor. If agreement is not able to be reached between the Wadawurrung and the Sponsor in regards to the management of the Aboriginal cultural heritage this will be classed as a dispute and the procedure detailed in Section 9.2. Resolution of any disputes between the Sponsor and the Wadawurrung in relation to the implementation of the CHMP or the conduct of the activity must be followed.
- g) If protection is not possible then a salvage excavation by a suitably experienced

and qualified archaeologist must occur prior to works proceeding. Any salvage excavation must be carried out in accordance with proper archaeological practice and standards and the WAC Minimum Requirements for Sub-Surface Testing, and an archaeological report detailing the methods, analysis and results of the excavation must be prepared. The extent of the salvage excavation must be to the satisfaction of the Wadawurrung.

- h) Agreement as to the process to be followed to manage the Aboriginal cultural heritage and how to proceed with works must be made within a period not exceeding three working days by the Wadawurrung, the HA and the Sponsor.
- i) The Aboriginal Victoria must be notified of the discovery of Aboriginal cultural heritage through the submission of the appropriate Victorian Aboriginal Heritage Registry forms and (if applicable) a salvage excavation report.
- j) The Wadawurrung may notify the HA who may then advise the Site Supervisor when suspended construction works can proceed. In general, works may recommence:
 - When the appropriate protective measures have been taken;
 - Where the relevant Aboriginal cultural heritage records have been updated and/or completed;
 - Where all parties agree there is no prudent or feasible course of action; or
 - Once any relevant dispute has been resolved.

The Heritage Advisor, the Sponsor and the Wadawurrung must ensure that the above steps are followed and that legal obligations and requirements are complied with at all times.

9.4 Reporting discovery of Aboriginal cultural heritage during works

Clause 13(1) Schedule 2 of the Regulations requires that the CHMP contain a contingency plan for the notification, in accordance with the Act, of the discovery of Aboriginal cultural heritage during the carrying out of the activity.

In accordance with Section 24 of the *Aboriginal Heritage Act 2006* 'Reporting discovery of Aboriginal places and objects' if a person discovers an Aboriginal place or object; and the person knows that the place or object is an Aboriginal place or object the person must report the discovery to the Secretary as soon as practicable unless, at the time of making the discovery, the person had reasonable cause to believe that the Register contained a record of the place or object.

If a discovery of an Aboriginal place or object is made in the course of works being carried out on any land, the person in charge of the works is deemed for the purposes of Section

24 of the *Aboriginal Heritage Act 2006* to be the person who discovered the place or object.

For further information relating to notification, in accordance with the Act, of the discovery of Aboriginal cultural heritage during the carrying out of the activity see 9.3. Management of Aboriginal cultural heritage found during the activity.

In order to provide a system for notification of the discovery of Aboriginal cultural heritage during construction works, it will first be necessary to provide an induction to any future project managers and construction workers about the discovery of Aboriginal cultural heritage on site. There will also need to be a system of reporting any possible Aboriginal cultural heritage items which are discovered which must be built into any development or environmental management plan (EMP) for the site. Some recommendations for notifying the discovery of Aboriginal cultural heritage are contained below.

- A site induction or inductions should be held with project managers and any construction workers on site. The purpose of the inductions will be to describe items of Aboriginal cultural heritage to personnel engaged in construction, to create an awareness of their cultural value and to inform personnel about the procedure for reporting suspected Aboriginal cultural heritage.

This induction must be presented by a Wathaurung Aboriginal Corporation representative and may be attended by a Heritage Advisor.

- The project manager should appoint a qualified Heritage Advisor for the duration of the project, who will be available to advise and act on the discovery of suspected Aboriginal cultural heritage. The Heritage Advisor will need to:
 - Be available to visit the site and inspect any items of suspected Aboriginal cultural heritage that may be found during any development.
 - Document any items of Aboriginal cultural heritage that are found during any development and report the sites to AV by means of completing an AV site card and registering the site.
 - Complete the site documentation in association with a representative of the Registered Aboriginal Party (RAP), should one exist for the Activity Area at the time of works.
 - Advise on appropriate treatment or salvage of any Aboriginal cultural heritage.
 - Provide adequate reporting on the treatment of any Aboriginal cultural

heritage to standards required by AV.

9.5 Management of Aboriginal Cultural Heritage discovered during works

In any case where previously unrecorded Aboriginal cultural material is located during the assessment, it will be the responsibility of the Heritage Advisor to:

- Catalogue the Aboriginal cultural heritage;
- Aboriginal Victoria (AV) must be advised of this through completion and submission of relevant VAHR forms to the Heritage Registrar, AV, by the HA;
- Label and package the Aboriginal cultural heritage with reference to provenance; and
- Once scientific analysis of any cultural heritage is completed, the artefacts recovered from the assessment, salvage and activity phases must be returned to the RAP within 6 months of the completion of the activity.
- The Wadawurrung must be the caretaker of this material and may choose to rebury it in the activity area.
- If the Wadawurrung chooses to rebury the Aboriginal cultural heritage it must be done in accordance with the Wathaurung Reburial Procedures set out in Appendix 8.

9.6 Reviewing Compliance with the Plan

Under Section 67A of the Aboriginal Heritage Act 2006 the Sponsor must comply with approved cultural heritage management plan. The sponsor of an approved cultural heritage management plan is guilty of an offence if:

- a) the sponsor by an act or omission fails to comply with the conditions of the approved cultural heritage management plan; and
- b) at the time of the act or omission the sponsor knew that the act or omission failed to comply with the conditions of the plan.

A sponsor of an approved cultural heritage management plan who is guilty of an offence under is liable to penalties of between 60-300 fee units for a natural person and in the case of a body corporate; 300-3000 fee units.

In order to ensure that there is compliance with the Cultural Heritage Management Plan, a checklist is included below for use by the Sponsor. It lists those matters addressed in this plan with which the Sponsor must comply. This list should be used as a reference in the event that compliance with the plan is questioned.

Part 6 of the Victorian Aboriginal Heritage Act 2006 makes provision for the conduct of cultural heritage audits. The Minister may require an audit if the sponsor of a management plan has, or is likely to, contravene the recommendations of the plan or the

conditions of a permit, or if the impact of the activity on cultural heritage is deemed to be greater than that determined at the time the plan was prepared. The audit must be conducted by, or under the direction of, an inspector. Under S.88 of the Act, if an audit is ordered, a stop order for the activity will be issued until the audit has been completed.

The report of a cultural heritage audit may identify any contravention of an approved management plan, recommend amendments to a plan and other measures in relation to an activity to protect Aboriginal cultural heritage. It may also result in amendments to an approved plan.

If a stop order has been issued in relation to an activity it operates for 30 days or for a period of time specified in the order, or until it is revoked (under the terms of s.93). A stop order may be revoked by the Minister or by the inspector who issued it. Under s.95 of the Act it is an indictable offence to engage in any conduct in contravention of a stop order and monetary penalties also apply.

It is however Wadawurrung policy that all non-compliance issues must result in a stop works until such a time as a meeting can be held between the RAP, Sponsor and HA to discuss the process moving forward. A stop works must be implemented even if the non-compliance has not resulted in harm to Aboriginal cultural heritage.

The sponsor must ensure that compliance with this plan is reviewed. A review process must be incorporated in the Environmental Management Plan or similar document for the project. It is recommended that each of the management actions recommended above be listed in the Environmental Management Plan. There should be a mechanism included in the plan (such as a checklist or database) to indicate when the recommended actions for Aboriginal cultural heritage have been carried out. The project manager should be responsible for maintaining this list. Any associated documentation which accompanies the actions should be recorded on the checklist or database.

The record of compliance must be maintained by the project manager at all times and must be available for inspection by either an Inspector under the Act or other representative of the Secretary.

Wathaurung Aboriginal Corporation representatives may conduct CHMP compliance checks.

It is illegal to harm cultural heritage outside of the recommendations contained within this management plan. Inspectors from Aboriginal Victoria may conduct CHMP compliance audits.

A checklist is provided below that specifies what measures will be undertaken to review compliance with the CHMP. The site manager must verify that the measures specified below have been undertaken.

CHECKLIST FOR REVIEWING COMPLIANCE WITH THIS CHMP		
	Yes	No
Prior to works occurring		
1: Have the contingency plans contained in Section 9 of this report been incorporated into the development or JEHA (Job Environment & Heritage Assessment) for the project?		
2: Has the WAC been requested to organise the cultural heritage induction specified in Condition 5?		
8: Has site access been provided to Wadawurrung as specified in Condition 6?		
During works		
1: Has site access been provided to Wadawurrung as specified in Condition 6?		
2: Has potentially artefact bearing topsoil been retained in the Activity Area in accordance with Management Condition 2?		
3: Has works in the Armstrong Creek linear reserve been undertaken in accordance with Condition 3?		
4: Has works on Armstrong Creek including the retention basins been undertaken in accordance with Condition 4?		
Identification of Aboriginal Cultural Heritage		
1: Has all activity within 25m ceased if 1-5 artefacts have been located or within the general area if a dense artefact scatter, <i>in situ</i> deposits, shell midden, hearth feature, stone or earth feature has been located?		
2: Has the WAC been notified, consulted in all discussions		
3: Has the Secretary been notified?		
4: Has a Heritage Advisor been notified?		
5: Have the artefacts been left in place?		
6: Has the find/s been protected (e.g. with fencing) if required?		
7: In relation to suspected human remains, have the Coroner's Office and Victoria Police been notified?		
8: Has the discovery of Aboriginal cultural heritage being managed in accordance with Contingency 9.3		
9: Has the WAC been consulted over the management of the Aboriginal cultural heritage?		
10: Has the sponsor thoroughly considered every possible alternative in terms of harm avoidance and minimisation?		
11: Has an appropriate mitigation/salvage strategy been developed?		
12: Has the mitigation/salvage works been implemented?		

13: Have the salvaged finds/remains been treated in accordance with the direction of the WAC?		
Reburial Procedure: Human Remains		
1: Has a suitably qualified archaeologist been engaged to fully document the reburial site?		
2: Have the relevant authorities and the WAC been informed?		
3: Has the reburial site been clearly marked?		
4: Have all details been provided to AV?		
5: Has a strategy been developed to ensure no further disturbance (such as Section 173 in the Planning and Provision Act)?		
After works		
1: Has site access been provided to Wadawurrung as specified in Condition 6?		
2: Has Aboriginal cultural heritage been reburied in the Activity Area in accordance with Condition 7?		
Changes to Activity		
1: If changes to the activity are proposed has the Sponsor contacted the HA and RAP to ensure that these changes are permissible in accordance with the approved CHMP?		

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

To ensure compliance with the terms of this CHMP The site manager must verify that the measures specified in the above checklist have been undertaken. If any of the following breaches occur the site manager must action the relevant remedy. The aim of this process should be to resolve non-compliance issues by immediately actioning processes to remedy non-compliance through consultation with the Aboriginal representatives, and the Heritage Advisor.

If mechanisms for remedying non-compliance are not actioned and resolution cannot be reached then ultimately, the Minister may order a cultural heritage audit to be carried out. Details of cultural heritage audits can be obtained from Part 6, Division 1 of the Aboriginal Heritage Act 2006.

Potential Breach	Remedy
Prior to works occurring	
1: Contingency plans contained in Section 9 of this report have not been incorporated into the development or	The site manager must ensure that the Contingency plans are incorporated within 48 hours. All employees must be made aware of the contingency requirements.

JEHA (Job Environment & Heritage Assessment) for the project.	
During Development	
1: Activity has not ceased within 25m if Aboriginal cultural heritage has been located.	Works must stop until such a time as a meeting can be held between the RAP, Sponsor and HA to discuss the process moving forward. The Secretary notified within 48 hours. A Heritage Advisor should immediately be notified to assess the find.
2: The Secretary has not been notified of any Aboriginal cultural heritage	Notify the Secretary within 48 hours
3: Harm to Aboriginal cultural heritage has occurred?	Works must stop until such a time as a meeting can be held between the RAP, Sponsor and HA to discuss the process moving forward. The sponsor must notify the Secretary with 48 hours. The sponsor must immediately notify a Heritage Advisor to assess the level of harm with WAC Aboriginal representatives The sponsor and WAC representatives should undertake the following process: • Details of the harm should be documented by the sponsor, the cultural advisor and Aboriginal representatives; • A meeting should be held within 48 hours to attempt to mitigate further harm; • The understanding of the issue by both parties should be clearly stated by the relevant representatives during the course of the meeting; • The parties should reach a resolution; • The objective of the meeting should be to discuss and arrive at an understanding of the matter being disputed and reach a negotiated settlement of the dispute. This may include a formal protocol between the Sponsor and Aboriginal representatives; and

	The resolution to the dispute should be recorded in writing and signed off on by both parties.
4. Activity has not ceased if potential skeletal remains have been located.	Works must stop until such a time as a meeting can be held between the RAP, Sponsor and HA to discuss the process moving forward. The sponsor must immediately action the procedure outlined in Contingency 9.3.1.

It is illegal to harm cultural heritage outside of the recommendations contained within this management plan. Inspectors from Aboriginal Victoria may conduct CHMP compliance audits.

9.7 Communication between Parties

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

The Project Manager should set in place internal processes of communication, which ensure that they are notified prior to any contractors conducting works (including archaeological contractors) at any of the archaeological sites on the property.

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**35 Hams Road and 151-229 Anglesea Road, Waurn Ponds –
Proposed Residential Subdivision: Cultural Heritage Management Plan:
Desktop, Standard and Complex Assessments**

OAAV Management Plan Number: 14600

Sponsor: are Echin Pty Ltd and Urban Quarter Pty Ltd

Date: 31st October, 2018

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Cultural Heritage Management Plan

Title Page

TITLE OF MANAGEMENT PLAN:	35 Hams Road and 151-229 Anglesea Road, Waurin Ponds – Proposed Residential Subdivision: Cultural Heritage Management Plan Desktop, Standard and Complex Assessments
OAAV MANAGEMENT PLAN NUMBER:	14600
SIZE OF ACTIVITY AREA:	Medium
LEVEL OF ASSESSMENT:	Desktop, Standard and Complex
SPONSOR:	Echin Pty Ltd (ACN 009158089) and Urban Quarter Pty Ltd (ABN 89 600 858 160)
HERITAGE ADVISORS:	John Young and Matthew Barker
AUTHORS:	John Young and Matthew Barker
DATE OF COMPLETION:	31 st October, 2018

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The Sponsors:

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The Sponsors Agent:

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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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List of Abbreviations

ACHP: Aboriginal Cultural Heritage Place

AV: Aboriginal Victoria

BHM P/L: Benchmark Heritage Management Pty Ltd

CHMP: Cultural Heritage Management Plan

EVC: Ecological Vegetation Community

HA: Heritage Advisor

LDAD: Low Density Artefact Distribution

MYA: Million Years Ago

PAD/PAS: Potential Archaeological Deposit/Sensitivity

RAP: Registered Aboriginal Party

TP/STP: Test Pit/Shovel Test Pit

VAHR: Victorian Aboriginal Heritage Register

Executive Summary

Activity, Location and Level of Assessment Undertaken

This Cultural Heritage Management Plan (CHMP) has been prepared for the property located at 35 Hams Road and 151-229 Anglesea Road, Waurin Ponds, Victoria, herein referred to as the Activity Area (see Maps 1-2) and covers an approximate area of 23.7ha (237,000m²). The Activity Area is located in the suburb of Waurin Ponds in the City of Greater Geelong, Parish of Barrabool, County of Grant being Lot 1 on TP77822 and Lot 3 on PS644553. The Activity Area is located in GDA94 MGA Zone 54.

The Activity Area is situated within the Geelong suburb of Waurin Ponds, which lies approximately 70km southwest of the Melbourne CBD (see Map 1 and 2).

The proposed activity to be undertaken in relation to the Activity Area is a residential subdivision.

The purpose of the CHMP is to identify and assess the nature, extent and significance of Aboriginal Cultural Heritage Places (ACHPs) 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.

This CHMP has been prepared to the level of a complex assessment.

A glossary of terms is included as Appendix 3.

Results of the Desktop Assessment

The conclusions from the desktop assessment and the basis for the Aboriginal Cultural Heritage Place prediction model are as follows:

- The Activity Area has not previously been subject to previous archaeological assessment;
- There are no previously registered Aboriginal Cultural Heritage Places (ACHPs) located within the Activity Area;
- At the time of the desktop assessment there were no previously registered Aboriginal Cultural Heritage Places (ACHPs) located within 200m of the Activity Area; however, an updated search of the VAHR showed that there are now six (6) previously registered Aboriginal Cultural Heritage Places (ACHPs) located within 200m of the Activity Area:
 - Duneed Aboriginal Reserve 2 (7721-1357 [VAHR]) – an LDAD;
 - Duneed Aboriginal Reserve 3 (7721-1369 [VAHR]) – an LDAD;
 - Surfcoast Highway Connection Armstrong Creek 1 (7721-1263 [VAHR]) – an LDAD;
 - Surfcoast Highway Connection, Ghazeepore Road (7721-1234 [VAHR]) – an LDAD;
 - Western Bypass 23 (7721-0608 [VAHR]) – an artefact scatter; and
 - Duneed Aboriginal Reserve (7721-0903 [VAHR]) – an Aboriginal Historic Place

- There are twenty-three (23) registered Aboriginal Cultural Heritage Places (ACHPs) located within the geographic region as defined for the purposes of this CHMP. The twenty-three (23) registered Aboriginal Cultural Heritage Places (ACHPs) are comprised of twenty-three (23) components, all of these being artefact scatters.
- Artefact scatters and/or Low Density Artefact Distributions (LDADs) are therefore the most likely Aboriginal Cultural Heritage Places to be located in the Activity Area;
- It appears that the distribution of Aboriginal Cultural Heritage Places in the geographic region is, at present, heavily influenced by the following factors –
 - a. The location of archaeological assessments since the introduction of the *Aboriginal Heritage Act 2006* which have focused on inland areas;
 - b. The lack of archaeological assessment under the *Aboriginal Heritage Act 2006* of much of the geographic region;
 - c. Proximity to a waterway within the geographic region; and
 - d. Topography.
- Previous archaeological assessments have shown that –
 - Land in close proximity to waterways i.e. major rivers and creeks, unnamed creeks, swamps and lakes are sensitive for Aboriginal archaeological sites;
 - Elevated ground is sensitive for Aboriginal sites because they provided a higher, drier place where people could undertake a range of activities. Being slightly elevated, they also offered an improved view of the surrounding landscape;
 - Swamps and the surrounding higher points are also considered to be potentially sensitive for Aboriginal sites as swamps would have supported a range of valuable resources available for use by Aboriginal people;
 - Any sites found in these areas are likely to consist of isolated artefacts and low density artefact scatters;
 - The basalt plain in between watercourses and swamps has the potential to contain lower density artefact deposits and isolated artefacts.
- The Activity Area is located within the Wada wurrung language group, who occupied the area of South Central Victoria situated between Beaufort and Port Phillip Bay (Clark 1990, Fig. 11). The Activity Area is located in a region that may have been frequented by two distinct Wada wurrung clans, the Bengalat balug and Wada wurrung balug;
- The Activity Area is located on the Western Plains geomorphic unit, characterised by undulating sedimentary plains generally comprising marine sands deposited by the retreating Pliocene sea (1.6 - 5 million years ago).
- 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;
- The Activity Area is likely to have been subject to some ground disturbance as a result of its use as a school (north-west corner only). Further to this, clearance of native vegetation and pastoral

and possible agricultural activity is likely to have caused ground disturbance within the Activity Area; however, to what extent it is not possible to state.

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

- Stone artefacts scatters (including Low Density Artefact Distributions or 'LDADs') are likely to occur in the Activity Area;
- Other site types i.e. earth features, shell middens etc. are not likely to occur in the Activity Area;
- Multi-component sites have not been recorded in the geographic region therefore, it is unlikely that a multi-component site i.e. an artefact scatter/earth feature/shell midden or a combination thereof, will occur in the Activity Area;
- Aboriginal archaeological sites are most likely to occur in close proximity to watercourses and/or swamps;
- Elevated ground in close proximity to watercourses and/or swamps is likely to be of particular archaeological sensitivity;
- Isolated finds are likely anywhere across the landscape;
- Any surface or near surface archaeological sites may have been disturbed by the removal of native vegetation, pastoralism and/or agriculture.

The site prediction model developed for the Activity Area suggests that due to the Activity Area being bisected by Armstrong Creek the archaeological potential of the Activity Area is regarded as moderate. Areas considered to be of the highest archaeological potential are the undulating rises to the north of Armstrong Creek, the alluvial deposits to the south of Armstrong Creek and the rise in the south-west corner of the Activity Area. Areas considered to be of lower archaeological potential are the flat or gently sloping volcanic plain located to the south of Armstrong Creek and areas that have demonstrably been subject to ground disturbance. The most likely site types to be found within the Activity Area are artefact scatters (including LDADs). Other site types i.e. earth features and shell middens are not likely to occur in the Activity Area.

Results of the Standard Assessment

The Activity Area is located within an established residential area and comprises vacant paddocks (see Map 3). No obvious evidence of ground disturbance was observed during the standard assessment.

The ground surface visibility was very poor (less than 1% with an estimate of actual ground surface visibility being approximately 1%) owing to the constructed infrastructure and dense grass coverage (see Table 2). The soil exposed at the base of the trees was light grey silty loam.

Whilst no Aboriginal cultural heritage was identified during the standard assessment in the Activity Area, one potential area of potential archaeological sensitivity was identified in the Activity Area. This area

includes all parts of the Activity Area that has not been subject to ground disturbance to a depth below potentially artefact bearing deposits.

It is considered to be an area of potential archaeological sensitivity owing to its proximity and elevation to Armstrong Creek. The area of potential archaeological sensitivity may contain an LDAD or artefact scatter.

The field representatives of the Wadawurrung – Justin Entwistle and Jack Clarke agreed that part of the Activity Area was an area of potential archaeological sensitivity and required sub-surface testing. The Wadawurrung representatives agreed that it was prudent to subject the entire Activity Area to sub-surface testing to confirm our understanding of the potential archaeological sensitivity of the Activity Area and the ground disturbance that the Activity Area may, or may not, have been subject to.

In terms of archaeological sensitivity, the following predictive statements can be made:

- Previous archaeological assessments in the geographic region have demonstrated that Aboriginal Cultural Heritage Places (ACHPs) are most likely to be located in close proximity to a waterway or/and an elevated landform;
- The parts of the Activity Area that have not been subject to disturbance to a depth below potentially artefact bearing deposits may contain Aboriginal cultural heritage; and
- It is considered to be highly unlikely that Aboriginal cultural heritage will be located in the parts of the Activity Area that have been subject to ground disturbance.

The low level of ground surface visibility, and the complete absence of it in some locations, made it impossible to confirm the absence or presence of Aboriginal cultural material within the Activity Area based on the ground survey alone; therefore, a complex assessment was required to identify the presence of any subsurface Aboriginal cultural material and associated archaeological sites.

The results of the standard assessment have indicated that the focus of the complex assessment should be the area of potential archaeological sensitivity – that is the parts of the Activity Area that have not been subject to ground disturbance to a depth below potentially artefact bearing layers - as well those parts of the Activity Area not considered to be an area of potential archaeological sensitivity i.e. areas subject to ground disturbance to a depth below potentially artefact bearing layers - to a lesser degree. The purpose of subjecting those parts of the Activity Area not considered to be an area of potential archaeological sensitivity to sub-surface testing is to establish if natural soil deposits are present, to establish the ground disturbance the area have been subject to and to test the site prediction model.

Results of the Complex Assessment

Two 1x1m test pits (TP), 126 shovel test pits (STPs) and 18 mechanical transects 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.

The stratigraphy of the test pit and shovel test pits was generally consistent across the Activity Area; however, some variation was noted. The stratigraphy of the Activity Area was characterised by a light grey loam (5Y 7/N) with grass root inclusions (topsoil) overlying a dark grey silt (5Y 4/N); overlying a compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth; overlying a compact orange clay (5YR 7/16) with impenetrable buckshot inclusions.

The excavation allowed the extent of the disturbance to be determined and revealed that evidence of ground disturbance was limited to the identification of modern detritus in a number of the STPs in Context 1 and Context 2 and evidence of 'tilling' of the soil profile in the form of mottling, inversion and truncation of the natural soil profile.

Aboriginal cultural heritage was identified in STPs 16, 93, 97, 103, 107 and 108. No dating samples of cultural deposits and or stratigraphic layers were obtained due to the lack of suitable datable material in STPs 16, 93, 97, 103, 107 and 108.

In general, the complex assessment has revealed that the nature of the Aboriginal cultural heritage in the Activity Area is that of a low density sub-surface artefact scatter. For this reason, it was considered that the grid excavated was sufficient to have established the extent, nature and significance of the Aboriginal cultural heritage in the Activity Area and that radial extent testing was not necessary.

The Wadawurrung field representatives Justin Entwistle and Jack Clarke agreed that the quantum of testing undertaken in the Activity Area was adequate and that the nature of the Aboriginal cultural heritage in the Activity Area is that of a low density sub-surface artefact scatter. The Wadawurrung field representatives did not request specific management recommendations relating to the Activity Area.

Aboriginal Cultural Heritage in the Activity Area

The complex assessment of the Activity Area resulted in the identification of one (1) Aboriginal Cultural Heritage Place (ACHP), a sub-surface Low Density Artefact Distribution (LDAD) registered as VAHR 7721-1356 (Hams Road, Waurn Ponds LDAD1).

Management Conditions

Based on the results of the archaeological assessment, the following management conditions are made for the Activity Area. Please note that once this CHMP is approved these management conditions become compliance requirements.

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

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. The following management conditions are made to guide the sponsor through the compliance requirements of this CHMP and to facilitate the sponsors understanding of Aboriginal cultural heritage.

A copy of this management plan must be held on site at all times during construction.

Specific Management Conditions

Management Condition 1: Harm Permitted to the Aboriginal Cultural Heritage Place Hams Road, Waurn Ponds LDAD1 (7721-1356 [VAHR])

This Cultural Heritage Management Plan permits the proposed activity to harm the Aboriginal Cultural Heritage Place Hams Road, Waurin Ponds LDAD1 (7721-1356 [VAHR]) subject to the management conditions detailed in Management Conditions 2-7.

Management Condition 2: Retention of Potentially Artefact Bearing Deposits within the Activity Area

Any topsoils excavated or subject to ground disturbance in the Activity Area during works for, or associated with the activity must not be removed from the Activity Area and must be utilised in the Activity Area post-construction i.e. in landscaping.

For the purposes of this management condition 'topsoils' are defined as any soils overlying basal clay or bedrock.

Management Condition 3: Permitted Uses of and Construction Methodology for Infrastructure in the Armstrong Creek Linear Reserve

Pathways

- Pathways may be constructed in concrete, asphalt, gravel or granitic sand;
- The alignment of pathways must be sprayed to kill vegetation, and the surface soil stripped to an approximate depth of 50 mm to remove vegetation;
- Where required, geotechnical fabric must be installed to increase the stability of gravel material (with pegging, if required), and gravel/granitic sand material must be laid to a required height over the ground surface (with wood edging, if required);
- The area around the pathway must then be backfilled using the skimmed material from surface stripping, and feathered off to match the existing grade of the surrounding ground surface.
- Revegetation must only be undertaken using shallow-rooted stock and using minimally intrusive excavation measures (e.g. using Hamilton planters and shallow-rooted tube stock).

Boardwalks

- Footbridges, bridges and boardwalks may be constructed;
- They must be constructed on concrete pads at each end in an effort to minimise ground disturbance;
- Where longer boardwalk lengths are required, they must be constructed using either screwed or driven piles at the maximum spacing feasible to minimise ground disturbance; and
- Any underlying sterile clay sediments, or any sediments deeper than the underlying sterile clay, may be removed from the site.

Playground Construction

- The area must be sprayed to kill vegetation, and the surface soil stripped to a maximum depth of 50 mm using a machine with a mud bucket or bobcat;
- This material must be retained adjacent to the site of the playground;
- Soft fall material must be constructed on top of the existing ground as per the gravel paths;

- Screw pile footings must be used to anchor playground infrastructure in order to reduce the area of impact to this place;
- The initial 250 mm of topsoil from the screw pile footings must be spread out within open space adjacent to the playground, where no ground disturbing infrastructure is proposed; and
- Revegetation must only be undertaken using shallow-rooted stock and using minimally intrusive excavation measures (e.g. using Hamilton planters and shallow-rooted tube stock).

Picnic Shelter and Barbeque Facilities

- The footings for the shelter and barbecue must be excavated by machine to the underlying sterile clay or deeper; and
- The initial 250 mm of excavated topsoil must be spread out within open space adjacent to the shelter and barbecue, where no ground disturbing infrastructure is proposed.

Public Furniture, Art and Sculptures

- Footings for this infrastructure must be built on top of existing topsoil using screw piles; and
- If this method can not be utilised footings for this infrastructure must be excavated by machine to underlying sterile clay or deeper. The initial 250 mm of excavated topsoil must be spread out within open space adjacent to the furniture, art or sculptures, where no ground disturbing infrastructure is proposed. The nature and character of any artwork/sculptures must be developed in consultation with the RAP.

Signage

- Signage must be constructed into, or as part of, new paths in order to limit ground disturbance;
- If this method can not be utilised all attempts should be made to install the signage using screw piles to minimise impacts;
- If this method can not be utilised footings for signage must be excavated by machine to underlying sterile clay or deeper. The initial 250 mm of excavated topsoil must be spread out within open space adjacent to the signage, where no ground disturbing infrastructure is proposed; and
- The nature and character of any interpretive signage must be developed in consultation with the RAP as part of a cultural heritage strategy that will be developed between the Sponsor and the RAP.

Revegetation and Landscaping

- Any revegetation works must be undertaken using shallow-rooted stock and minimally intrusive excavation measures (e.g. using Hamilton planters and shallow-rooted tube stock); and
- Only vegetation management practices that do not penetrate the ground's surface (e.g. slashing of grasses) are permissible.

Turfing

- Turfing is permitted; however, to reduce the impact of turf installation an alternate cultivation machine must be used that has a vertical spindle which moves the topsoil from left to right.

Creek Bed Maintenance and Stabilisation

- The installation/construction of rock and/or geotech armouring along the banks of Armstrong Creek is permitted where necessary.

Other works

- Other works are permitted in the Armstrong Creek *linear reserve* only by consultation with, and agreement by, the Wathaurung Aboriginal Corporation, trading as Wadawurrung.

Management Condition 4: Works on Armstrong Creek including but not limited to rock beaching of the creek and construction of retention basins

Wadawurrung have agreed to an 'on-line water treatment system' in which the retention basins are constructed within the Armstrong Creek linear reserve. This system is shown in the development plan in Figure 1. Wadawurrung have agreed to allow works on Armstrong Creek on the condition that the alignment of the creek is such that it is consistent with the existing hydrology model shown in Figure 2.

The construction of the retention basins must be broadly in keeping with the image that were presented to Wadawurrung at the meeting held on 2nd October, 2018 and shown below in Plate 27.

The retention basins must be constructed broadly in keeping with Plate 27 to ensure that they enhance the aesthetic value of the area as required by Wadawurrung.

Works on Armstrong Creek, including rehabilitation works and the installation of rock beaching/armouring must be broadly in keeping with the image that were presented to Wadawurrung at the meeting held on 2nd October, 2018 and shown below in Plate 28.

Management Condition 4 is in keeping with the report prepared by Lachlan Inglis – Project Engineer – from Water Technology.

General Management Conditions

In order to provide a system for notification of the discovery of Aboriginal cultural heritage during construction works, it will first be necessary to provide an induction to any future project managers and construction workers about the discovery of Aboriginal cultural heritage onsite. There will also need to be a system of reporting any possible Aboriginal cultural heritage items which are discovered which must be built into any development or environmental management plan (EMP) for the site. Some recommendations for notifying the discovery of Aboriginal cultural heritage are contained below.

Management Condition 5: Cultural Heritage Induction

A cultural heritage induction must be conducted with all site workers/contractors by representatives of the Wathaurung Aboriginal Corporation, trading as Wadawurrung prior to or at the commencement of construction works. A Cultural Heritage Advisor/Archaeologist may also attend this training session if necessary. This session must include a brief history of the Aboriginal occupation of the activity area and broader region; a summary of the archaeological investigations conducted within the activity area; specific details of all Aboriginal Places and cultural material located during the CHMP assessment; a summary of

the recommendations and contingencies contained within the CHMP; and the obligations of site workers/contractors and Sponsors under the Victorian Aboriginal Heritage Act 2006.

- The Wadawurrung must be provided with at least two weeks' notice of the requirement to present a cultural heritage induction.
- In addition to this, the Cultural Heritage Advisor must prepare a cultural heritage induction booklet to be provided to all site workers/contractors as a reference. The cultural heritage induction booklet must include the CHMP Executive Summary, Section 61 Matters, Management Recommendations and Contingencies as well as information on how to identify Aboriginal cultural heritage, including the Office of Aboriginal Affairs Victoria Mini Posters.
- This procedure must be paid for and organised by the Sponsor.

Management Condition 6: Wadawurrung Access to the Activity Area

Access to the activity area must be provided to representatives of the Wadawurrung before, during and after construction for the purpose of ensuring compliance with the CHMP. The representatives of the Wadawurrung must comply with all OH&S requirements of the activity area.

Management Condition 7: Reburial of Cultural Material

Aboriginal cultural material recovered/collected during the course of the assessment or salvage program or activity, must be reburied and the following must occur:

- a reburial location should be identified in the activity area, and this location must be in an area which is protected from future development or disturbance;
- once reburied, the reburial location must be recorded to sub-metre accuracy by a CHA and be relocatable;
- flagging tape should be laid within the hole, at a depth of 30cm above the reburied cultural material to identify that cultural material is buried below the flagging tape;
- the relevant VAHR site record card must be updated and a 'collection' component form must be completed by the CHA and lodged with AV;
- cultural material to be reburied must be placed in a durable container manufactured by WAC;
- a separate container is to be manufactured for each Aboriginal Place to be reburied;
- where an Aboriginal Place is comprised of a large amount of cultural material it will be necessary to manufacture a number of containers to rebury the cultural material;
- the contents of the container must include the cultural material to be reburied, a catalogue of the cultural material to be reburied both on paper and on an archive quality storage medium, a copy of the relevant sections of the CHMP under which the reburial is being performed, and a handful of soil from the Aboriginal Place from which the cultural material originated;

- a smoking ceremony must be performed prior to the reburial of cultural material;
- the reburial must be attended by Wadawurrung representatives;
- the cost of the manufacture of the container, the analysis and preparation of the cultural material for reburial, smoking ceremony and Wadawurrung attendance at the reburial must be borne by the Sponsor.

In this instance the reburial of cultural material from the ACHP VAHR 7721-1356 (Hams Road, Waurn Ponds LDAD1) must occur within a period not exceeding six months from the completion of the activity. It is recommended that the reburial of cultural material occur at any location within the Activity Area by mutual agreement between the Sponsor and the RAP. If no agreement is able to be reached regarding a reburial location the Sponsor and the RAP may agree to an alternative outcome such as the retention of the artefact by the Wadawurrung for educational purposes.

The reburial process must be carried out in accordance with the Wadawurrung standard procedure for reburial – see Appendix 7. Standard Procedure for the Reburial of Cultural Material.

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1.0 Introduction

This Cultural Heritage Management Plan (CHMP) has been prepared for the property located at 35 Hams Road and 151-229 Anglesea Road, Waurin Ponds, Victoria, herein referred to as the Activity Area (see Maps 1-2) and covers an approximate area of 23.7ha (237,000m²). The Activity Area is located in the suburb of Waurin Ponds in the City of Greater Geelong, Parish of Barrabool, County of Grant being Lot 1 on TP77822 and Lot 3 on PS644553. The Activity Area is located in GDA94 MGA Zone 54.

The Activity Area is situated within the Geelong suburb of Waurin Ponds, which lies approximately 70km southwest of the Melbourne CBD (see Map 1 and 2).

The proposed activity to be undertaken in relation to the Activity Area is a residential subdivision.

The purpose of the CHMP is to identify and assess the nature, extent and significance of Aboriginal Cultural Heritage Places (ACHPs) 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.

1.1 Reasons for Preparing the Management Plan

This management plan forms a mandatory CHMP as the following conditions have been triggered under the *Aboriginal Heritage Regulations 2018 (Part 2, Division 1, 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.

In this instance the Activity Area is located in an area of cultural heritage sensitivity under R.26 of the *Aboriginal Heritage Regulations 2018* 'waterways' – land within 200m of a waterway is an area of cultural heritage sensitivity. The Activity Area is located within 200m of Armstrong Creek. The proposed activity is a high impact activity under R.49 of the *Aboriginal Heritage Regulations 2018* 'subdivision of land' – the subdivision of land into three or more lots is a high impact activity. The proposed activity is a residential subdivision of three or more lots.

In accordance with Section 61 of the *Aboriginal Heritage Act 2006*, the following mandatory matters are considered by this CHMP:

- Whether the activity will be conducted in a way that avoids harm to Aboriginal cultural heritage;

- 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;
- Any specific measures required for the management of Aboriginal cultural heritage likely to be affected by the activity, both during and after the activity;
- Any contingency plans required in relation to disputes, delays and other obstacles that may affect the conduct of the activity; and
- Requirements relating to the custody and management of Aboriginal cultural heritage during the course of the activity.

1.2 Notice of Intent to Prepare as Cultural Heritage Management Plan

A Notice of Intent (NOI) to prepare this CHMP, as required by Section 54 of the Act was submitted to the Secretary, Aboriginal Victoria (AV) and to the Registered Aboriginal Party (RAP) the Wathaurung Aboriginal Corporation, trading as Wadawurrung on the 24th September, 2016. A copy of the Notice of Intent is included as Appendix 1. A formal written response to the Notice of Intent was received from the Wathaurung on the 4th October, 2016 stating that the RAP would be evaluating the CHMP (see Appendix 2). A response from AV was received on the 24th September, 2016 and allocated the project number 14600.

1.3 Location of the Activity Area and Current Landowner

The Activity Area is located at, and is comprised of, the property known as 35 Hams Road and 151-229 Anglesea Road, Waurin Ponds, Victoria, herein referred to as the Activity Area (see Maps 1-2) and covers an approximate area of 23.7ha (237,000m²). The Activity Area is located in the suburb of Waurin Ponds in the City of Greater Geelong, Parish of Barrabool, County of Grant being Lot 1 on TP77822 and Lot 3 on PS644553. The Activity Area is located in GDA94 MGA Zone 54.

The Activity Area is situated within the Geelong suburb of Waurin Ponds, which lies approximately 70km southwest of the Melbourne CBD (see Map 1 and 2).

The Activity Area is located within an established residential area and is currently densely grassed vacant paddocks (see Map 3, Plates 1-8). The Activity Area is characterised by gently undulating ground; however, has a general downslope from both the north and the south to Armstrong Creek running west to east in the approximately centre of the Activity Area. The Activity Area is bounded by Hams Road to the north, Ghazeepore Road and the Powercor Waurin Ponds Terminal Station to the east, Warrnambool-Geelong

Railway embankment to the south-east, VicRoads Anglesea Road/Warrnambool-Geelong Railway intersection to the south-west and Anglesea Road to the west. The Activity Area is owned by the Sponsors – Echin Pty Ltd and Urban Quarter Pty Ltd. The Activity Area is currently densely grassed vacant paddocks and is unoccupied.

The Activity Area is located in GDA94 MGA Zone 54. All coordinates presented in this CHMP are with reference to GDA94 MGA Zone 54. A more detailed description of the location and extent of the Activity Area, including cadastral details, is included in Section 3 of this CHMP.

1.4 Name of the Sponsors

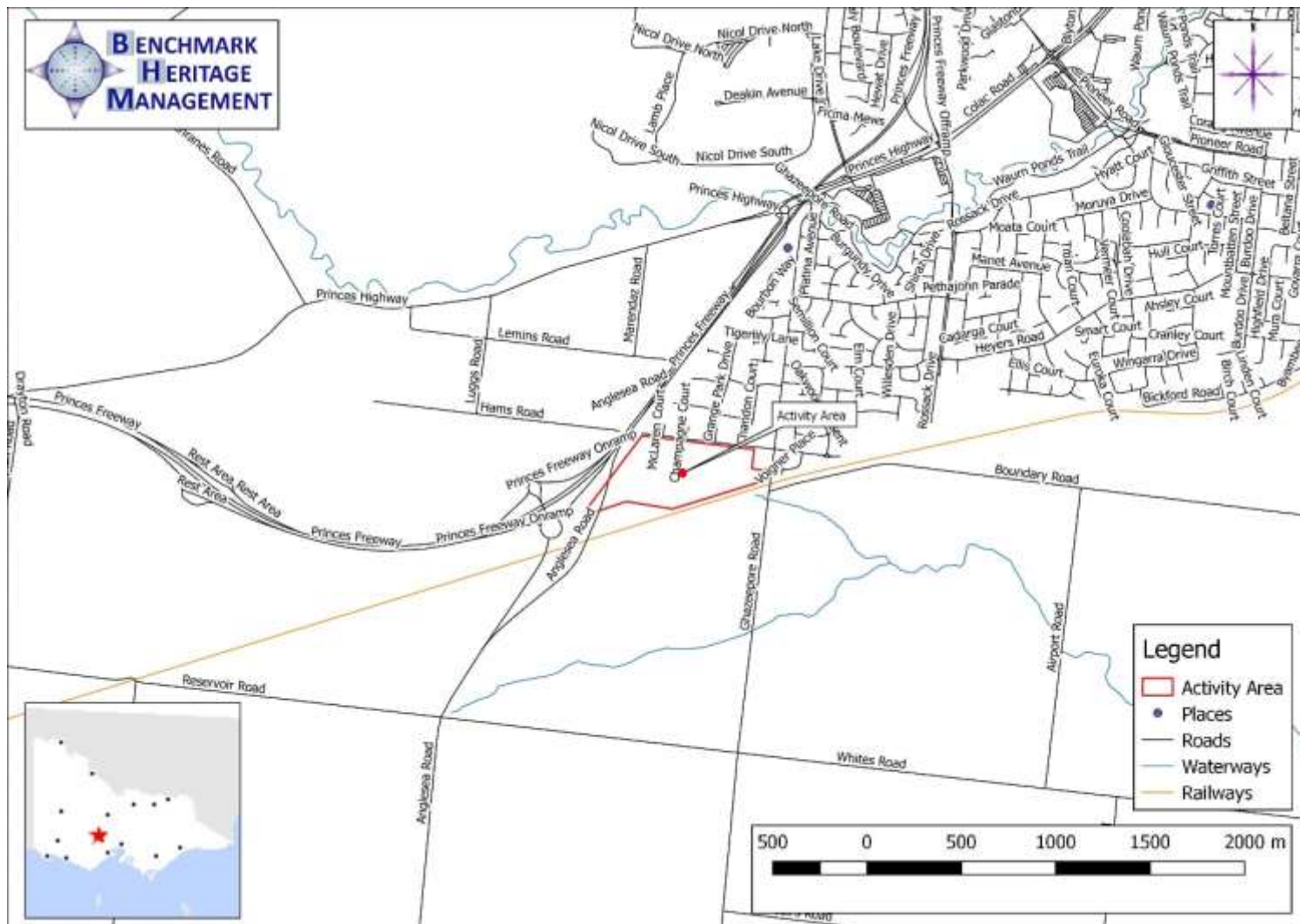
The Sponsors for this CHMP are Echin Pty Ltd (ACN 009158089) and Urban Quarter Pty Ltd (ABN 89 600 858 160). The Sponsor's agent is Roger Cooper – Project Planner – Taylors DS.

1.5 Names, Qualifications and Experience of the Heritage Advisors

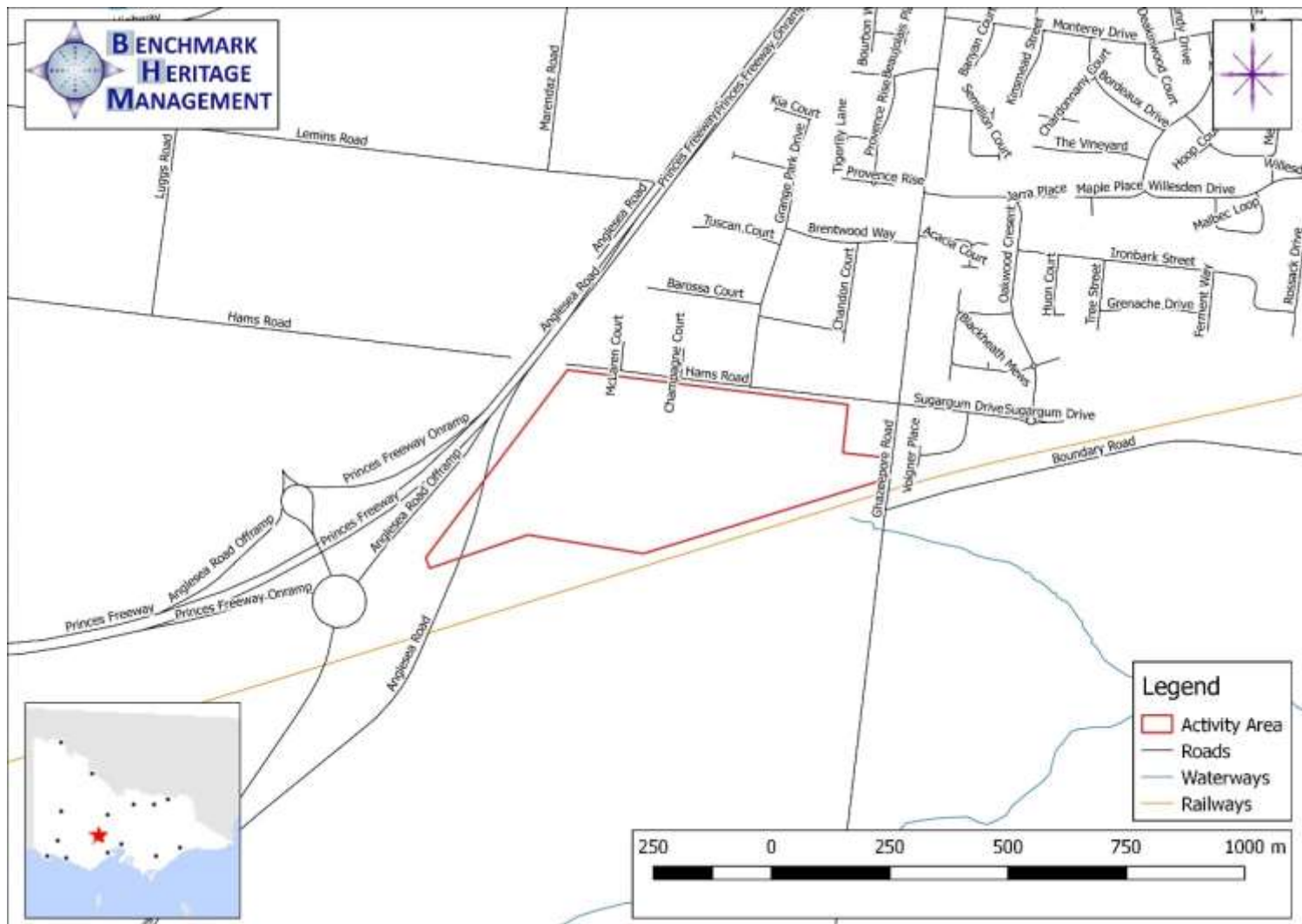
The Heritage Advisor(s) (CHAs) who have undertaken this CHMP are John Young and Matthew Barker. John has a Bachelor of Arts (2004) with Honours (2006) in Archaeology from La Trobe University and has ten years' experience working in Aboriginal cultural heritage management both as a Heritage Advisor and as the Cultural Heritage Manager of a Registered Aboriginal Party. Matthew has a Bachelor of Archaeology (2004) with Honours (2005) in Archaeology from La Trobe University and has over ten years' experience working in the field of Aboriginal Archaeology and Cultural Heritage Management.

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

The Registered Aboriginal Party (RAP) with responsibility for the Activity Area is the Wathaurung Aboriginal Corporation, trading as Wadawurrung. The Wadawurrung responded in writing to the Notice of Intent on 24th September, 2016 outlining their intentions to evaluate the CHMP (Appendix 2).



MAP 1: LOCATION OF ACTIVITY AREA IN A REGIONAL CONTEXT



MAP 2: LOCATION OF ACTIVITY AREA IN A LOCAL CONTEXT

2.0 Activity Description

The proposed activity for the Activity Area is a residential subdivision. The Activity Area is zoned General Residential Zone 1 (GRZ1) and will be developed in accordance with the permitted uses for GRZ1 as stated in the City of Greater Geelong Planning Scheme (Appendix 8).

This residential subdivision (the activity) is the beginning of a development process that will involve some degree of soil disturbance to both surface and buried land surfaces, and it is not possible for development to take place within the Activity Area in a way that will avoid harm to Aboriginal cultural heritage should any such material be found to exist on the property.

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

1. Site preparation;
2. Installation of drainage, utilising heavy machinery through the excavation of open cut trenches only. The top surface of the existing stripped ground 1.0m to either side of the trench may be disturbed during this work;
3. Installation of services (electricity, telecommunications, gas, water) utilising heavy machinery. As the trench excavations are likely to be relatively shallow and narrow, disturbance either side of the trench is of minimal impact;
4. Where possible, shared trenching or common works areas will be used;
5. Construction of roads;
6. Once all works involving excavation are complete, the allotments are then filled (where necessary) and/or shaped in accordance with the design levels;
7. Industry construction will then take place; and
8. Landscaping works will also occur.

For the purposes of this CHMP it is stated that the proposed activity will involve disturbance to the entire Activity Area. NOTE: the activity must be undertaken in compliance with the Management Conditions in Section 8 that detail the nature and extent of ground disturbance that is permitted in the Armstrong Creek corridor.

All of the above activities will involve the removal of topsoil and would therefore have some potential to harm Aboriginal cultural heritage if it was found to exist within the Activity Area. A summary of typical trench widths and depths of excavation of each construction activity is provided below:

Activity	Width of Trench (m)	Depth Range (m)
Drainage	0.9 – 3.0	1.0 – 4.0
Sewer reticulation	0.9 – 2.0	1.0 – 5.0
Water reticulation	0.3 – 1.0	0.8 – 1.0
Electricity	0.3 – 1.0	0.6 – 0.9
Telecommunications	0.3 – 1.0	0.3 – 0.6
Gas	0.3 – 1.0	0.6 – 0.9
Foundations	N/A	0.5 – 2.0

A development plan for the Activity Area is included below as Figure 1. Note: the development plan below may be subject to change as long as any change to the development plan is permitted by, and in compliance with, the Management Conditions in Section 8.

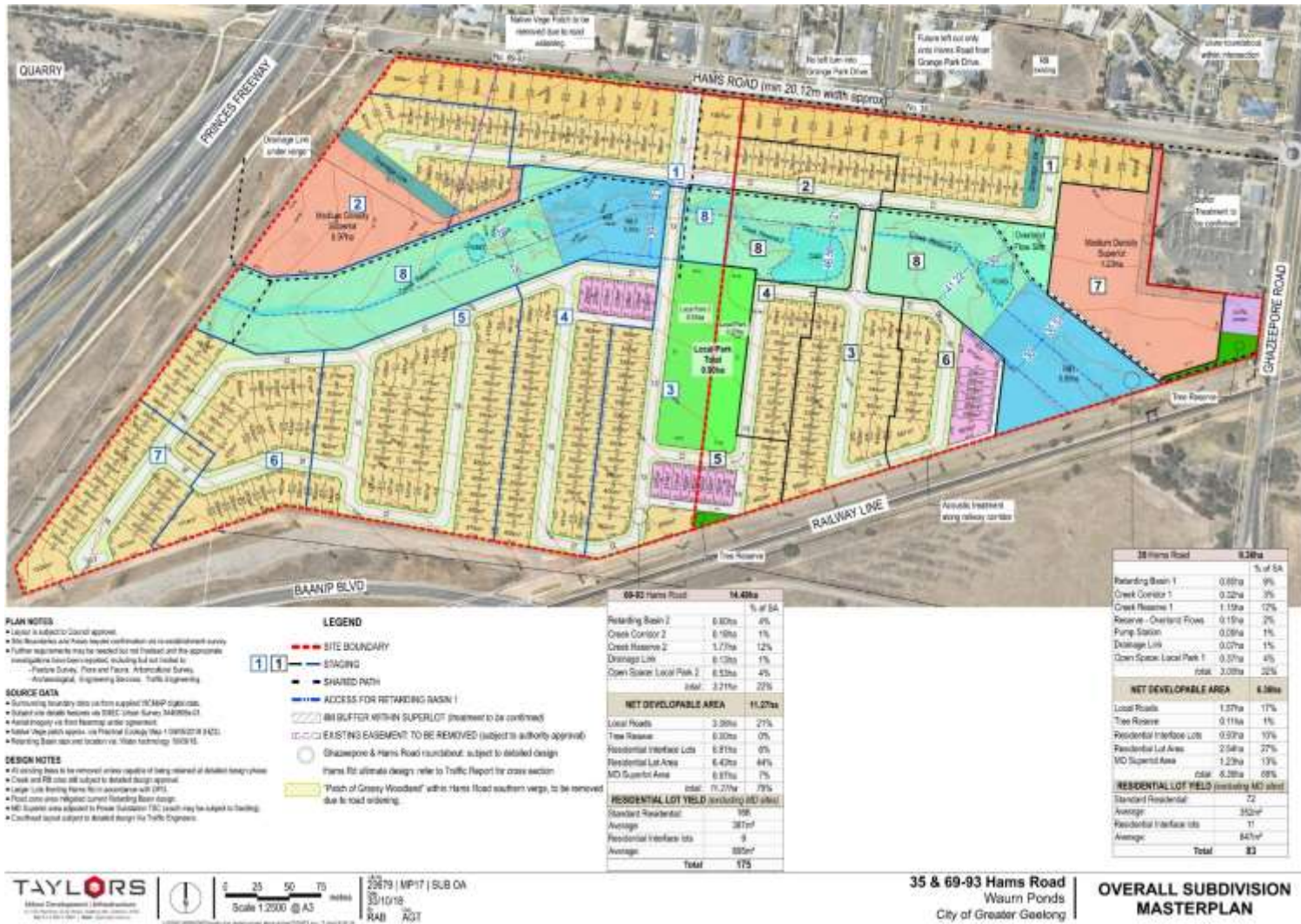


Figure 1: Development Plan

3.0 Extent of the Activity Area Covered by the Management Plan

The Activity Area is located at, and is comprised of, the property known as 35 Hams Road and 151-229 Anglesea Road, Waurin Ponds, Victoria, herein referred to as the Activity Area (see Maps 1-2) and covers an approximate area of 23.7ha (237,000m²). The Activity Area is located in the suburb of Waurin Ponds in the City of Greater Geelong, Parish of Barrabool, County of Grant being Lot 1 on TP77822 and Lot 3 on PS644553. The Activity Area is located in GDA94 MGA Zone 54.

The Activity Area is situated within the Geelong suburb of Waurin Ponds, which lies approximately 70km southwest of the Melbourne CBD (see Map 1 and 2).

The Activity Area is located within an established residential area and is currently densely grassed vacant paddocks (see Map 3, Plates 1-8). The Activity Area is characterised by gently undulating ground; however, has a general downslope from both the north and the south to Armstrong Creek running west to east in the approximately centre of the Activity Area.

The extent of the Activity Area is shown in Maps 1-3. The Activity Area is approximately 23.7ha (237,000m²) in area. The Activity Area is bounded by Hams Road to the north, Ghazeeopore Road and the Powercor Waurin Ponds Terminal Station to the east, Warrnambool-Geelong Railway embankment to the south-east, VicRoads Anglesea Road/Warrnambool-Geelong Railway intersection to the south-west and Anglesea Road to the west.

The Activity Area is located in GDA94 MGA Zone 54. All coordinates presented in this CHMP are with reference to GDA94 MGA Zone 54.

4.0 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.

A Notice of Intent (NOI) to prepare this CHMP, as required by Section 54 of the Act was submitted to the Secretary, Aboriginal Victoria (AV) and to the Registered Aboriginal Party (RAP) the Wathaurung Aboriginal Corporation, trading as Wadawurrung on the 24th September, 2016. A copy of the Notice of Intent is included as Appendix 1. A formal written response to the Notice of Intent was received from the Wathaurung on the 4th October, 2016 stating that the RAP would be evaluating the CHMP (see Appendix 2). A response from AV was received on the 24th September, 2016 and allocated the project number 14600.

4.1 Names and Functions of Representatives Appointed by the Wadawurrung

Stephanie Frydas – Archaeologist
Bryon Powell - Consultant
Katrina Thomas – RAP Manager (former)
Simone Werts – Administration Officer (former)
Sean Kelly – Field Representative
Justin Entwistle – Field Representative
Jack Clarke – Field Representative
Troy Wilkinson – Field Representative

4.2 Consultation in Relation to the Assessment

1. Project Inception Meeting

A Project Inception Meeting was held for this CHMP on 27th September, 2016 at the office of the Wathaurung Aboriginal Corporation, trading as Wadawurrung. The meeting was attended by John Young of Benchmark Heritage Management Pty Ltd and RAP Manager (former) Katrina Thomas of the Wathaurung Aboriginal Corporation, trading as Wadawurrung. The purpose of this meeting was to address the project aims and discuss the methodology for the standard assessment. It was agreed that the standard assessment should include:

- An attempt to identify Aboriginal cultural heritage;
- The identification of any areas of potential archaeological sensitivity (that may require sub-surface testing);
- The documentation of the extent of significant ground disturbance in the Activity Area; and
- Consultation with Wadawurrung field representatives.

Discussion: Standard Assessment

The Wadawurrung field representatives – Justin Entwistle and Jack Clarke – agreed that the Activity Area had potential for Aboriginal cultural heritage and that low ground surface visibility was a limitation to the standard assessment. Justin Entwistle and Jack Clarke agreed that the Activity Area should therefore be subject to a complex assessment.

2. Post-Standard Assessment Meeting

A post-standard assessment meeting was held for this CHMP on 4th November, 2016. The meeting was attended by John Young of Benchmark Heritage Management, Roger Cooper of Taylors DS (Sponsor's agent) and RAP Manager (former) Katrina Thomas of the Wathaurung Aboriginal Corporation, trading as Wadawurrung. The purpose of this meeting was to discuss the results of the standard assessment and to agree on the methodology for the complex assessment. It was agreed that the complex assessment should include:

- The excavation of a test pit (TP);
- The excavation of shovel test pits (STPs) at 20m intervals on the low rises to the north of Armstrong Creek;
- The excavation of shovel test pits (STPs) at 20m intervals on the alluvial terrace to the south of Armstrong Creek; and
- The excavation of shovel test pits (STPs) or machine trenches (MTs) as required on the gentle slopes to the south of Armstrong Creek.

Discussion: Complex Assessment

The Wadawurrung field representatives – Justin Entwistle, Jack Clarke and Troy Wilkinson - were satisfied that the Activity Area had been adequately sampled and that the results showed that the Aboriginal cultural heritage in the Activity Area is comprised of a Low Density Artefact Distribution (LDAD).

4.3 Participation in the Conduct of the Assessment

A standard assessment was undertaken on 3rd November, 2016. Participating in the conduct of the assessment was John Young of Benchmark Heritage Management Pty Ltd and Justin Entwistle and Jack Clarke of the Wathaurung Aboriginal Corporation, trading as Wadawurrung. All participants were engaged in every aspect of the field survey (standard assessment).

A complex assessment was undertaken on 17th -30th of November, 2016 and was undertaken by John Young and Calum Ryan from BHM P/L and Justin Entwistle, Jack Clarke and Troy Wilkinson from the Wadawurrung. John Young (BA (Arch) - Honours) supervised the complex assessment. All participants were engaged in every aspect of the sub-surface

testing (complex assessment).

4.4 Consultation in Relation to Management Recommendations

3. Results/Management Recommendation Meeting

A post-complex assessment meeting was held for this CHMP on 7th March, 2017. The meeting was attended by John Young of Benchmark Heritage Management, Roger Cooper of Taylors DS (Sponsor's agent) and RAP Manager (former) Katrina Thomas of the Wathaurung Aboriginal Corporation, trading as Wadawurrung. The purpose of this meeting was to discuss the results of the complex assessment and to agree on the appropriate management conditions for the Aboriginal Cultural Heritage Place (ACHP) located during the assessment for this Cultural Heritage Management Plan (CHMP). Katrina advised that he was satisfied that the Activity Area had been adequately sampled, agreed with the proposal to register the Aboriginal cultural heritage located in the Activity Area as a Low Density Artefact Distribution, and agreed with the draft management conditions proposed by John Young (BHM P/L); however, Katrina Thomas expressed concern re: the treatment of the Armstrong Creek corridor and requested that the creek alignment not be altered or subject to disturbance. It was agreed that John Young would draft 'guiding principles' for inclusion in the CHMP and forward them to Katrina Thomas for discussion prior to submission of the CHMP. The draft 'guiding principles' were forwarded to Katrina Thomas for comment on 4th April, 2017.

4. Follow Up Meeting

A follow-up meeting was held for this CHMP on 30th May, 2018. The meeting was attended by John Young of Benchmark Heritage Management, Roger Cooper of Taylors DS (Sponsor's agent), RAP Archaeologist Stephanie Frydas and RAP Consultant Bryon Powell of the Wathaurung Aboriginal Corporation, trading as Wadawurrung. The purpose of this meeting was to discuss the draft 'guiding principles' agreed to by RAP Manager (former) Katrina Thomas of the Wathaurung Aboriginal Corporation, trading as Wadawurrung and to seek approval for the current development plan. Bryon and Stephanie advised that they felt the revised development plan was an improvement on previous versions; however, they still had some concerns relating to works on, and near to, Armstrong Creek. They restated their position that they didn't want any excavation of, or change to, the banks and alignment of Armstrong Creek. In particular, Wadawurrung expressed concern relating to the retarding basins RB1 (located on Armstrong Creek near to the centre of the Activity Area) and RB2 (located in the south-east corner of the Activity Area); however, after initially stating that they would not support the construction of RB1 and RB2, Wadawurrung advised that if the design of RB1 and RB2 is such that it enhances the aesthetic of the area i.e. a wetland environment they would support it. It was agreed that Wadawurrung would be provided with further information re: the design of RB1 and RB2 and a further meeting would be held to determine if the design is such that they would support the development plan for inclusion in the CHMP.

5. Final Meeting

A final meeting was held for this CHMP on 2nd October, 2018. The meeting was attended by John Young of Benchmark Heritage Management, Roger Cooper of Taylors DS (Sponsor's agent), Lachlan Inglis (Project Engineer) of Water Technology and RAP Archaeologist Stephanie Frydas of the Wathaurung Aboriginal Corporation, trading as Wadawurrung. The purpose of this meeting was to discuss the revised development plan to determine if the retention basins had been designed in such a manner as to meet Wadawurrung's request for RB1 and RB2 to enhance the aesthetic of the area. Lachlan Inglis presented information on why the creek corridor and retention basins had been designed as they had and showed sketches and images of what the creek corridor and retention basin would likely look like after construction. Stephanie agreed that the design of the creek corridor and retention basins are such that it enhances the aesthetic of the area and consented to the inclusion of the current development plan in the CHMP to be approved. Stephanie advised that the management conditions should not make reference to 'guiding principles' but rather asked that the design and images presented by Lachlan Inglis be included in the CHMP and that the management conditions state that the creek corridor and retarding basins must look similar to these images.

4.5 Summary of Outcomes of Consultation

The Wadawurrung were generally satisfied with the level of excavation undertaken during the complex assessment and acknowledged that the results showed that the Aboriginal cultural heritage in the Activity Area is comprised of a Low Density Artefact Distribution (LDAD). The Wadawurrung were satisfied with, and agreed to the management conditions included in Section 8, including the Wathaurung Aboriginal Corporation, trading as Wadawurrung, standard management conditions.

5.0 Report on the Results of the Assessment

5.1 Report on the Results of the Desktop Assessment

This section contains the results of the desktop assessment.

5.1.1 Methodology for Desktop Assessment

The aim of the desktop assessment was to produce an archaeological site 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 recommendations. 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 site registry at Aboriginal Victoria (AV) and previous archaeological studies, to identify any previously registered Aboriginal archaeological sites either within or surrounding the Activity Area and the results of previous archaeological assessments;
- The land-use history of the Activity Area, particularly evidence for the extent and nature of past land disturbance; and
- The landforms or geomorphology of the Activity Area and identification and determination of the geographic region of which the Activity Area forms a part that is relevant to the Aboriginal cultural heritage that may be present in the Activity Area.

This information was used to produce an archaeological site prediction model (Section 5.1.3). The site prediction model assists in determining the type of archaeological sites which may potentially occur within the Activity Area, the possible contents of these sites, the possible past use of the landscape by Aboriginal people and the likely extent of ground disturbance to archaeological sites. 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 archaeological sites. No obstacles were encountered during the preparation of this desktop assessment.

5.1.2 Results of Desktop Assessment

5.1.2.1 Search of the Victorian Aboriginal Heritage Register

The Victorian Aboriginal Heritage Register (VAHR) on-line database maintained by Aboriginal Victoria (AV) was searched to identify any previously registered Aboriginal Cultural Heritage Places (ACHPs) within the Activity Area and surrounding geographic region, as well as the results of previous archaeological assessments. The Register was accessed on the 24th November, 2016. There has been no previous archaeological assessment of the Activity Area. There are no previously registered ACHPs located within the Activity Area. At this time there were no previously registered ACHPs located within 200m of the Activity Area. At this time the Aboriginal Cultural Heritage Place (ACHP) in closest proximity to the Activity Area was Mulwallah's Grave (7622-0218 [VAHR]) located approximately 500m west of the Activity Area.

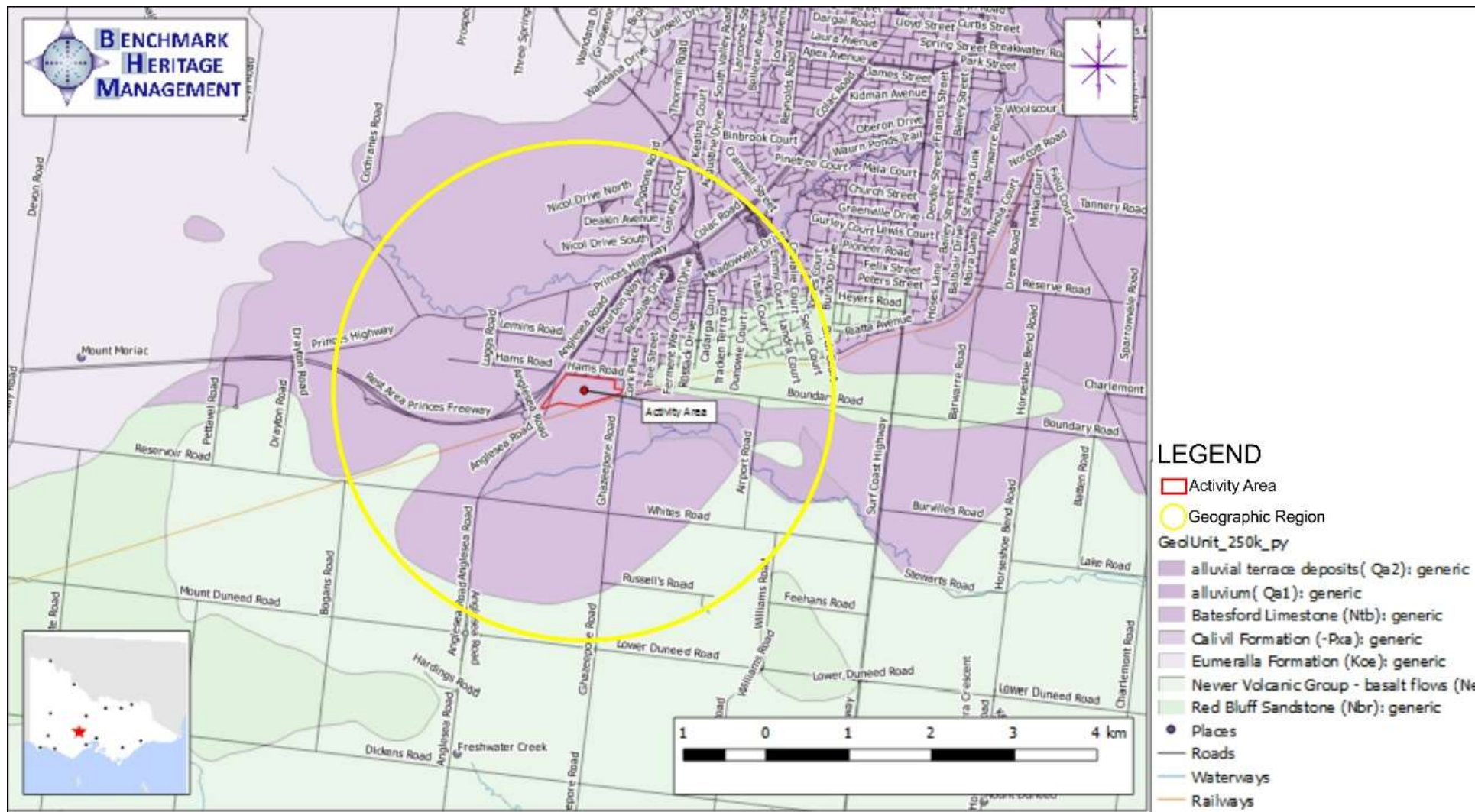
An updated search of the Victorian Aboriginal Heritage Register (VAHR) was undertaken on 31st October, 2018. The updated search showed that there are six (6) previously registered Aboriginal Cultural Heritage Places (ACHPs) located within 200m of the Activity Area. The previously registered Aboriginal Cultural Heritage Places (ACHPs) located within 200m of the Activity Area are Duneed Aboriginal Reserve 2 (7721-1357 [VAHR]) – and LDAD; Duneed Aboriginal Reserve 3 (7721-1369 [VAHR]) – an LDAD; Surfcoast Highway Connection Armstrong Creek 1 (7721-1263 [VAHR]) – an LDAD; Surfcoast Highway Connection, Ghazeepore Road (7721-1234 [VAHR]) – an LDAD; Western Bypass 23 (7721-0608 [VAHR]) – an artefact scatter; and Duneed Aboriginal Reserve (7721-0903 [VAHR]) – an Aboriginal Historic Place. The Aboriginal Cultural Heritage Place (ACHP) in closest proximity to the Activity Area is Duneed Aboriginal Reserve 2 (7721-1357 [VAHR]) a Low Density Artefact Distribution (LDAD) located approximately 90m south of the Activity Area (see Map 4).



MAP 4: ABORIGINAL CULTURAL HERITAGE PLACES (ACHPs) LOCATED WITHIN 200M OF THE ACTIVITY AREA

5.1.2.2 The Geographic Region

The geographic region in which the Activity Area is located is defined for the purposes of this Cultural Heritage Management Plan (CHMP) as a 3km radius of the Activity Area (Map 5). This area has 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 near to, the Activity Area. The geographic region as defined can be considered a microcosm of the broader Armstrong Creek environs and is characteristic of the areas affected by pastoral and agricultural activities and the residential conditions that occur adjacent to the Activity Area, and therefore provide an appropriate area within which to assess the archaeological background specific to the Activity Area.



MAP 5: GEOGRAPHIC REGION IN RELATION TO THE ACTIVITY AREA

5.1.2.3 Registered Aboriginal Places in the Geographic Region

The Victorian Aboriginal Heritage Register (VAHR) held at Aboriginal Victoria (AV) was searched to identify any previously registered Aboriginal Cultural Heritage Places (ACHPs) within the Activity Area and surrounding geographic region, as well as the results of previous archaeological assessments. The Register was accessed on the 24th October, 2016.

The Activity Area has not been subject to previous archaeological assessment and no Aboriginal Places are located in the Activity Area. There are 23 registered Aboriginal Cultural Heritage Places within the geographic region all comprising artefact scatters.

There are no historical (post contact) references to Aboriginal occupation within the geographic region. The closest known historical place to the Activity Area is the Mt Duneed Reserve (Aboriginal Historic Place 7.1-6) adjacent to Ghazeepore Road along Armstrong Creek (only 150m south of the Activity Area), where local Aboriginal people were known to have camped during the 1860s, indicating that Aboriginal populations inhabited the region prior to and during European contact.

An updated search of the Victorian Aboriginal Heritage Register (VAHR) was undertaken on 31st October, 2018. The updated search showed that there are six (6) previously registered Aboriginal Cultural Heritage Places (ACHPs) located within 200m of the Activity Area. The previously registered Aboriginal Cultural Heritage Places (ACHPs) located within 200m of the Activity Area are Duneed Aboriginal Reserve 2 (7721-1357 [VAHR]) – and LDAD; Duneed Aboriginal Reserve 3 (7721-1369 [VAHR]) – an LDAD; Surfcoast Highway Connection Armstrong Creek 1 (7721-1263 [VAHR]) – an LDAD; Surfcoast Highway Connection, Ghazeepore Road (7721-1234 [VAHR]) – an LDAD; Western Bypass 23 (7721-0608 [VAHR]) – an artefact scatter; and Duneed Aboriginal Reserve (7721-0903 [VAHR]) – an Aboriginal Historic Place. The Aboriginal Cultural Heritage Place (ACHP) in closest proximity to the Activity Area is Duneed Aboriginal Reserve 2 (7721-1357 [VAHR]) a Low Density Artefact Distribution (LDAD) located approximately 90m south of the Activity Area (see Map 4).

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

Regional Investigations

Bellarine Peninsula: Archaeological Site Assessment and Management Activity (Rhoads 1986)

This archaeological assessment of the Bellarine Peninsula was undertaken for the Victorian Archaeological Survey in order to provide information to assist in the management and conservation of Aboriginal places on the Bellarine Peninsula. The Activity Area consisted of the Shire of Bellarine, City of South Barwon and the Borough of

Queenscliff (approximately 50,000 ha), including the current activity area. The assessment was undertaken in two stages. Stockton undertook Stage 1 of this project, involving a coastal field survey, over a six month period. The aim was to understand the distribution of places on the Peninsula. Although Stockton identified 77 Aboriginal places during the survey, a report was not completed (Rhoads 1986: 7-56).

Rhoads undertook Stage 2 of this project. The aims of this stage were to identify significant Aboriginal places and areas of archaeological potential, and assess archaeological places in the Drysdale/Clifton Springs area. Pedestrian and vehicle surveys, carried out over 19 days, resulted in the identification of 15 Aboriginal places, mostly on the Bellarine Peninsula to the east of the activity area. Rhoads targeted reserves, dirt tracks, surface exposures and road cut exposures covering approximately 75% of the Bellarine Peninsula's thoroughfares. The density of Aboriginal places inland was estimated to be 1 place per 6 km² (cf. Richards & Jordan 1995: 142), compared with 1 per km on the coast (Rhoads 1986: 56).

Smaller Scale Investigations – Pre Aboriginal Heritage Act 2006

Rhodes, D. 1999. Archaeological Survey of a Proposed Koorie Residential College Site, Deakin University. Unpublished report to Institute Of Koorie Education.

Rhodes (1999) conducted an archaeological survey of a 2.9 ha property within the Deakin University Waurin Ponds campus for proposed student accommodation, c.1.1km north of the current Activity Area. The Activity Area was located 145m north of Waurin Ponds Creek and characterised by parkland, containing a row of cypress pine trees. Imported landfill was also noted in some parts of the Activity Area (Rhodes 1999: 1-2). One Aboriginal place was identified during the field survey (VAHR 7721-0419) consisting of a marine chert core and a broken quartzite flake located near the intersection of Nicol South Drive and Reserve Road. Rhodes noted that marine chert would have been brought in to the area, or traded from the coast, while the quartzite artefact, most likely used for wood working, was made on locally available material (Rhodes 1999:13). Rhodes (1999: 12-15) determined that while both artefacts were identified in a disturbed context, they were not brought into the Activity Area with fill, and rather, most likely represented the remains of a larger Aboriginal place that had since been destroyed by agricultural land use practices. The Activity Area was considered to have provided a suitable camping location for Aboriginal people, overlooking Waurin Ponds Creek and a swamp 150 m to the south. The Activity Area was determined to have potential to contain additional stone artefacts in disturbed subsurface deposits. Rhodes (1999a:1-2) conducted a place inspection of stone artefacts that were identified during monitoring of works within the vicinity of VAHR 7721-0419. These comprised four silcrete cores, four silcrete flakes and a broken quartz flake identified in black/brown clay loam up to 400 mm below the ground surface. Charcoal was identified in association with the artefacts, which was later determined to be non-cultural in origin. The high proportion of cores within the

assemblage was interpreted as representing a stone working site rather than a camp site, with a camp site possibly located further up the hill slope to the north.

It was determined that the additional stone artefacts represented part of VAHR 7721-0149 had been dispersed by circular ploughing, and that the artefact scatter was unlikely to extend any further south or east. Deposits in which this cultural material was identified contained introduced fill and gravel, indicating that the area has been subject to extensive soil mixing as a result of ploughing and university development works (Rhodes 1999a:1-3).

Weaver, F. 2001. Ghazeepore Road Waurm Ponds Victoria. Unpublished Report To Grant St. Quentin Surveyors And Great Craft Pty Ltd.

Weaver (2001) conducted a field survey of a 10 ha property to the east of Ghazeepore Road at Waurm Ponds for a proposed residential development. The Activity Area was characterised by pastoral land comprising an extant house, outbuildings and pine windrow, with Waurm Ponds Creek forming the northern boundary. The property formed part of a dairy complex and has been extensively disturbed by prior land use practices (Weaver 2001:1-3). One Aboriginal place (VAHR 7721-0461) was identified during the field survey, comprising four stone artefacts located on the inner slope of a dam bank within the south west corner of the Activity Area. Artefacts comprised three flaked pieces and a broken blade made on silcrete, quartz and quartzite. These artefacts were not in situ and were rated as having low archaeological significance (Weaver 2001:10). Weaver (2001:10) concluded that Aboriginal stone artefacts occur in the Waurm Ponds Creek valley between 50-300 m from the creek banks and are likely to occur in undisturbed alluvial deposits below areas that have been built up with fill during more recent development.

Paynter, N. and B. Marshall, 2003. An Archaeological Investigation at Rossack Drive, Waurm Ponds. Unpublished report to Fagg Brothers P/L.

Paynter and Marshall (2003) conducted a cultural heritage assessment of a parcel of land on the corner of the Princes Hwy and Rossack Drive at Waurm Ponds, c. 700 m east of the activity area. The report identified that registered Aboriginal places within the region are generally stone artefact scatters associated with the Waurm Ponds Creek floodplain and surrounding elevated land overlooking the creek, however Aboriginal scars on River Red Gums and burials may also occur (Paynter and Marshall 2003:1-14). A field survey was undertaken, however due to the long pasture grass, ground surface visibility was very poor. One Aboriginal place was identified during the field survey (VAHR 7721-0576) associated with disturbed clay soil redeposited on the ground surface by the construction of Rossack Drive and the installation of an electricity easement, indicating that artefacts were derived from subsurface deposits. Artefacts comprised 16 flakes and angular fragments made on quartz and silcrete (Paynter and Marshall 2003:16-17). A program of subsurface testing, in the form of rotary hoe transects, was undertaken across the Activity Area to determine the nature and extent of surface stone artefacts. A total of nine transects were excavated across the Activity Area, ranging from 100 to 200 m in length.

Transects were examined for artefacts and sample sieving undertaken every 20 m. An additional 12 stone artefacts were identified within proximity to VAHR 7721-0576 and included in this registration. Two additional stone artefacts were located within the western section of the Activity Area and registered as VAHR 7721-0604. Both Aboriginal places were considered to be of low archaeological significance and were not in situ, having been disturbed by prior land use practices and infrastructure construction (Paynter and Marshall 2003:17-20).

Marshall, B. 2007. An Archaeological Assessment at the Geelong and East Belmont Saints Baseball Clubs on Pioneer Road, Grovedale.

In 2007, Terra Culture undertook archaeological investigations of the Geelong Regional Baseball Centre and surrounding parklands. Marshall (2007) conducted an archaeological survey of part of the Pioneer Road reserve on the eastern bank of Waurm Ponds Creek at the Geelong and East Belmont Saints Baseball Clubs on Pioneer Road (approximately 2 km east of the current activity area). This assessment was required for the construction of a new baseball field to allow the existing complex to be removed for the construction of the proposed Waurm Ponds Leisurelink Aquatic Centre. Two low density artefact scatters were recorded during the survey (VAHR 7721-0828, VAHR 7721-0829).

Cultural Heritage Management Plans

Webb, C., Butcher, L., and Cooper, S. 2007. Geelong Ring Road Section 3. CHMP # 10097.

In 2007, Webb et al. prepared a CHMP for the proposed construction of Geelong Ring Road Section 3. During the Desktop Assessment, 18 Aboriginal archaeological sites within approximately one kilometre of Section 3 of the Geelong Ring Road were known and listed on the Victorian Aboriginal Heritage Register. One of these sites (AAV7721-0504) is located on the alignment, and thus is likely to be affected by construction of the Ring Road (Section 3). During the Standard Assessment, three additional archaeological sites were located and registered with the Victorian Aboriginal Heritage Register. Two of these sites (AAV7721-0605, AAV7721-0606) are likely to be affected by construction of Section 3 of the Geelong Ring Road. During the Complex Assessments, twelve additional archaeological sites were located on the alignment. These are AAV7721-0801, AAV7721-0804, AAV7721-0805, AAV7721-0844, AAV7721-0845, AAV7721-0846 and AAV7721-0858, AAV7721-0859, AAV7721-0860, AAV7721-0861, AAV7721-0862 and AAV7721-0863. In total, the investigation identified fifteen Aboriginal archaeological sites that will be impacted by construction of Section 3 of the Geelong Ring Road. No Aboriginal Historic Places have been identified in the vicinity of Section 3 of the Geelong Ring Road.

Marshall, B. and Hyett, J. 2007. Leisurelink Aquatic Site, Waurm Ponds. CHMP #10039.

Marshall and Hyett (2007) undertook archaeological investigation of the proposed Waurm Ponds Leisurelink Aquatic Centre at the corner of Colac Road and Pioneer Road at Waurm

Ponds (formerly the Geelong Regional Baseball Centre). Despite high numbers of artefacts being recovered during the original construction of the Baseball Centre, no Aboriginal cultural material was identified by Marshall and Hyett (2007, 13).

Marshall, B., Toscano, M., and Kaskadanis, C. 2008. Construction of a Shopping Centre Princes Highway, Waurin Ponds, CHMP #10174.

In 2008, Marshall et al. prepared a CHMP for the proposed construction of a shopping centre on the Princes Highway, Waurin Ponds. The results of the desktop assessment showed that it is likely that the Activity Area will contain Aboriginal cultural heritage in the form of archaeological sites, particularly low density stone artefact scatters. The results of the standard assessment showed that the Activity Area is characterised in dense grass coverage and no Aboriginal cultural heritage was identified; however, landforms known to be sensitive for Aboriginal cultural heritage were identified as requiring sub-surface testing. Two Aboriginal Cultural Heritage Places (both stone artefact scatters) were recorded within the Activity Area during the complex assessment - Princes Hwy, Waurin Ponds A (AAV 7721-0869) and Princes Hwy, Waurin Ponds B (AAV 7721-0895).

Kaskadanis, C. 2008. Section 4a Of The Geelong Ring Road, Waurin Ponds. CHMP #10011.

Kaskadanis (2008) undertook a cultural heritage assessment for Section 4A of the Geelong Ring Road, extending from the Princes Hwy at Waurin Ponds to Anglesea Road located c.250 m east of the activity area. The Activity Area is characterised by cleared undulating land that was formerly used for agricultural practices (Kaskadanis 2008:1-9). The desktop review determined that all registered Aboriginal places within a 1 km radius of the Activity Area comprised stone artefact scatters, most likely influenced by the presence of Waurin Ponds Creek. The review also established that the entire Activity Area had been subject to some degree of disturbance by prior agricultural land use activities, as well as the more recent installation of major services (e.g. sewer, gas and water), adversely affecting the integrity of the ground (Kaskadanis 2008:11-12, 20-21). No field survey was undertaken as part of the assessment, however a subsurface investigation proceeded utilising a variety of methods, including excavation pits and shovel test pits, geotechnical test pits and machine transects. The placement of subsurface testing pits/transects was 'judgement based', and sampled various landforms in the activity area. A total of 93 subsurface testing locations were excavated across the Activity Area, recovering 61 stone artefacts from six Aboriginal places (VAHR 7721-0844 – 7721-0849). The Activity Area was changed during the process of the investigation, which resulted in VAHR 77210844 – 7721-0846, to occur outside of the Activity Area. As a result the assessment report only discusses the three Aboriginal places occurring within the revised Activity Area (Kaskadanis 2008:25-29).

- VAHR 7721-0847 – 27 stone artefacts including complete and broken flakes, flaking debris, a backed blade and a core were identified at this Aboriginal place. The Aboriginal place is located on a hill slope overlooking Waurin Ponds Creek to

the south and west, and would have provided a good vantage point over the area. Artefacts were not identified in situ, and were recovered from a maximum depth of 200 mm, often in association with metal debris. The Aboriginal place had been impacted by ploughing, which had vertically displaced artefacts. The presence of a backed blade was considered indicative of the Australian Small Tool Tradition, generally associated with the past 5000 years of Aboriginal occupation (Kaskadanis 2008:30-31, 38).

- VAHR 7721-0848 – 14 stone artefacts including complete and broken flakes, flaking debris, a broken tool and a core were identified at this Aboriginal place. The Aboriginal place is located on a hill slope overlooking Waurin Ponds Creek to the south and west, and would have provided a good vantage point over the area. Artefacts were not identified in situ, and were recovered from a maximum depth of 200 mm, often in association with metal debris. The Aboriginal place had been impacted by ploughing, which had vertically displaced artefacts (Kaskadanis 2008:33-34).
- VAHR 7721-0849 – 4 stone artefacts including broken flakes, flaking debris, and a core were identified at this Aboriginal place. The Aboriginal place is located on a lower hill slope overlooking Waurin Ponds Creek to the south and west. Artefacts were not identified in situ, and were recovered from a maximum depth of 100 mm, often in association with brick debris, possibly overlying clay fill (Kaskadanis 2008:34).

Based on these results, Kaskadanis (2008:41-42) identified the following characteristics common across all three Aboriginal places:

1. Archaeological deposits have experienced some degree of ground disturbance such as historical land-use practices (e.g. clearance of native vegetation, ploughing/ grazing activities). Such activities may have 're-distributed' stone artefacts on the landscape;
2. Results of the complex assessment indicate that the site stratigraphy associated with these sites are shallow and that soil profiles are uniform, i.e., no distinctive texture boundaries with no distinctive layers that would be considered 'occupation' layers; and,
3. In addition to the absence of any distinctive occupational layers, all of these sites are low-density artefact scatters with no distinctive stone-knapping or butchery sites, i.e., primary (in situ) archaeological deposits.

Marshall, B. and Toscano, M. 2009. Waurin Ponds Retirement Village, Waurin Ponds. CHMP #10528.

Marshall and Toscano (2009) undertook an archaeological assessment of a proposed retirement village in Waurin Ponds. The property is located on the Princes Highway adjacent to the proposed Waurin Ponds Shopping Centre (archaeologically assessed in 2008, see Marshall et al. 2008). Within the original survey area seven Aboriginal cultural heritage places were identified; all artefact scatters associated with the banks and terraces of Waurin Ponds Creek (VAHR 7721-0865, VAHR 7721-0867, VAHR 7721-0868,

VAHR 7721-0907, VAHR 7721-0908, VAHR 7721-0909, VAHR 7721-0910). Each site was assessed for its scientific significance and, as a result of these findings, the proposed site boundary was realigned and the development plans significantly altered to preserve three of these sites (VAHR 7721-0865, VAHR 77210867, VAHR 7721-0868). The remaining four sites were not considered significant enough to warrant further change to the development.

Mialanes, J. Kiddell, Howell-Meurs, J and Mathews. D. 2010. Geelong Ring Road, Section 4C, Surf Coast Highway Connection, Waurin Ponds. CHMP #10692.

In 2010, Mialanes et al. prepared a CHMP for the proposed construction of Section 4C of the Geelong Ring Road. The results of the desktop assessment show that there was one previously registered Aboriginal Cultural Heritage Place within the activity area, VAHR 7721-0608. The presence of an unnamed tributary of Armstrong Creek also suggested that there is a likelihood that Aboriginal Cultural Heritage places may occur within the vicinity of its banks. The field survey for the standard assessment was carried out on the 13th June 2008. The purpose of this survey was to identify and record any Aboriginal cultural heritage sites that may be present and to identify any areas or landscape features that have the potential to contain Aboriginal cultural heritage places. The previously recorded stone artefact scatter (VAHR 7721-0608) could not be relocated during the field survey. A previously recorded post contact place, the Duneed Reserve, was rerecorded as VAHR 7721-0903, as the desktop assessment had shown that this place had been recorded previously in the wrong location. Both of these places are located within the activity area. In addition, one new Aboriginal cultural heritage place was identified during the field survey (VAHR 7721-0896 – an artefact scatter), located close to the unnamed tributary of Armstrong Creek. During the complex assessment one new Aboriginal Cultural Heritage place was identified (VAHR 7721-0939). This is a low-density surface stone artefact scatter (two surface artefacts) found to the east of the unnamed creek in an area measuring 7m x 1m. The complex assessment of place VAHR 7721-0896 found it to be a lowdensity stone artefact scatter (three stone artefacts found at depths ranging between 100 and 200mm), covering an area measuring approximately 10m x1m.

Whincop, M. 2011. 23-29 Ghazeepore Road, Waurin Ponds Residential Subdivision. CHMP #11470.

In 2011, Whincop prepared a CHMP for the proposed residential subdivision of 23-29 Ghazeepore Road, Waurin Ponds. The assessment for the CHMP concluded that no Aboriginal cultural heritage places are located within the activity area. The results of the evaluation have also determined that no dense deposits of stone artefacts or other materials of cultural origin representing Aboriginal cultural heritage places of high significance are likely to occur in the activity area. Given the rigor applied to the evaluation methodology, through a standard assessment and complex assessment, it is possible to conclude that there is low potential for any deposits of stone artefacts or other materials of cultural origin to be disturbed by the proposed activity.

Collins, S. 2012 Deakin University Waurin Ponds Campus Student Housing, CHMP #12031

In 2012, Collins prepared a CHMP for the proposed construction of student housing at the Deakin University, Waurin Ponds Campus, Waurin Ponds. The results of the desktop assessment showed that it was possible that Aboriginal cultural heritage would occur in the Activity Area. No Aboriginal cultural heritage was identified in the Activity Area during the Standard Assessment. Previous archaeological assessments in the geographic region have involved subsurface testing of landforms represented in the activity area. The results of these assessments indicate there is potential for the activity area to contain Aboriginal cultural heritage in shallow subsurface deposits, particularly within Holocene alluvium in the southern section of the Activity Area. The Complex Assessment identified three stone artefacts in three STPs (STP 1-1, 1-1S and 5-2), all within a disturbed context up to 200 mm below the ground surface. These artefacts are not considered to be in situ, as the soil horizons within which they were identified have been either disturbed or redeposited during prior land use activities, including the installation of roads and underground services associated with the development of Deakin University. Two Aboriginal places, VAHR 7721-1200 and -1206 occur in the activity area. These Aboriginal places comprise a quartz and silcrete artefact identified in a disturbed subsurface deposit c. 200 mm below the ground surface identified in STP 1-1 and STP 1-1S (VAHR 7721-1206), and an isolated quartzite flake identified in STP 5-2 (VAHR 7721-1200). The boundary of these Aboriginal places was determined by the spatial extent of Aboriginal cultural material within STPs.

Collins, S. 2012. Subdivision – Armstrong Creek Road, Whites Road, Mount Duneed. CHMP #11920.

In 2012, Collins prepared a CHMP for the proposed subdivision at Armstrong Creek Road and Whites Road, Mount Duneed. Six Aboriginal places were identified in the activity area – all comprising stone artefact scatters in surface and subsurface contexts and at lower densities than that recorded elsewhere along Armstrong Creek. The results were argued to reflect the strong association between Aboriginal places and the Armstrong Creek corridor, with the overall lower artefact densities suggested to reflect the lower volume of water available in the upper reaches of Armstrong Creek.

Collins, S., Spry, C., and van der Linde, S. 2013. Armstrong Creek West Residential Development – Stage 1, Torquay Road, Mount Duneed. CHMP #11385.

In 2013, Collins et al. prepared a CHMP for the proposed residential development at Torquay Road, Mount Duneed. The results of the desktop assessment identified three previously registered Aboriginal places (VAHR 7721-0822, 7721-0146 and 7721-0147) in the Activity Area. During the assessment for the CHMP two scarred trees (VAHR 7721-1076 and 7721-1078) and four stone artefact scatters (VAHR 7721-1016, 7721-1017, 7721-1079 and 7721 -1082) were identified. Concluded that the margins of Armstrong Creek and rises overlooking this landform were the focus of Aboriginal occupation, with

high densities of stone artefact deposits along the creek margins and isolated stone artefacts occurring on the volcanic plain away from the creek; these most likely represent the transient use of this landform when moving between resources.

Toscano, M. 2013. Proposed Sewer Easement off Rossack Drive, Grovedale. CHMP #12634.

In 2013, Toscano prepared a CHMP for a proposed sewer easement off Rossack Drive, Grovedale. The results of the desktop assessment showed that it is likely that the Activity Area will contain stone artefacts, either in the form of isolated finds or low density scatters. It is also possible that any sites that are found could potentially be within disturbed contexts. No standard assessment was undertaken due to the small size of the Activity Area and the low ground surface visibility due to dense grass coverage. The Complex Assessment was conducted via the excavation of one 1m x 1m Test Pit and eight 50 cm x 50 cm Test Pits. The larger pit and three of the smaller pits were excavated within the 2 metre easement, with the rest of the pits sampling the outer areas. The stratigraphy of the pits varied with three different stratigraphic profiles that were spread from east to west. These profiles consisted of brown silt over brown clay (TP 1, 2, 6 and 7), brown silt over light grey silt over brown clay (TP 3, 4 and 8), and vegetation layer over clay (TP 10). No Aboriginal Cultural material was recorded during the complex Assessment.

Toscano, M. 2013. Proposed Victoria Police and State Emergency Services Complex, Rossack Drive, Grovedale. CHMP #12357.

In 2013, Toscano prepared a CHMP for the proposed construction of a police station and SES complex on Rossack Drive, Grovedale. The results of the desktop assessment showed that it is likely that the Activity Area will contain stone artefacts, either in the form of isolated finds or low density scatters. No artefacts were recorded during the Standard Assessment. Results show that the Activity Area retained very little ground visibility with the majority of the area covered in long grasses, which could attribute to the lack of surface material recorded. Overall the Activity Area gently rises from south to north, however the highest point is outside the Activity Area on the neighbouring land to the north. The Complex Assessment was conducted via the excavation of two 1m x 1m test pits and twenty-seven 50cm x 50cm test pits. Out of the twenty-nine holes that were excavated throughout the Activity Area, only thirty-three artefacts were recorded. The majority of these artefacts came from the larger test pits that were excavated within 50 metres of previously registered sites. While artefacts were found, so were modern materials such as glass and ceramics. These modern items were recorded within artefact bearing deposit and in some instances underneath. In addition, the testing displayed evidence of past disturbance with some pits showing deposits that had obviously been previously excavated, with clay overlying silt deposits. One low density artefact distribution, made up of thirty-three artefacts, was recorded during the Assessment. This site has been registered with Aboriginal Affairs Victoria as Rossack Drive 7721-1232.

De Maria, N. 2014. Proposed Residences on Nicol Drive South, Deakin University, Waurin Ponds, Victoria. CHMP # 12919.

In 2014, De Maria prepared a CHMP for the proposed construction of residences on Nicol Drive South at the Deakin University, Waurin Ponds Campus, Waurin Ponds. The results of the Desktop Assessment have indicated there is a potential for unidentified Aboriginal cultural heritage material within the Activity Area. No Aboriginal places were located during the Standard Assessment. The Complex Assessment undertaken in the eastern section of the Activity Area did not locate any Aboriginal cultural heritage places. A total of one test pit and seven shovel probes were manually excavated. The stratigraphy on the sloping landform was noted to match the findings of nearby CHMPs and geotechnical testing results from within the Activity Area. The soil was a clayey silt with an increasing percentage of clay until a depth of around 400 mm where it encountered highly compacted black clay layer which previous studies on the landform considered to be culturally sterile. Upper layers of the soil were found to contain modern rubbish in some cases and appeared to have been disturbed by construction and utility installation. In consultation with the RAP representatives during the complex assessment it was agreed that excavation would cease at this sterile clay layer. No Aboriginal cultural heritage was identified in the Activity Area during the assessment for the CHMP.

Tuechler, A., and Porter, A. 2014. Armstrong Creek West Housing Development - 75 Airport Road, Mount Duneed.

In 2014 a CHMP was prepared by Tuechler and Porter for the proposed Armstrong Creek West Housing Development. The Desktop Assessment found that two previously registered Aboriginal places, VAHR 7721-0824 and VAHR 7721-1205, occur in the CHMP 13039 activity area. These Aboriginal places consist of single stone artefacts located on the northern margin of Armstrong Creek. The desktop assessment established that there was high potential for additional Aboriginal cultural heritage to occur within the activity area, particularly in the form of surface and subsurface stone artefacts. Scarred trees were also identified as a site type likely to be present. The area in proximity to Armstrong Creek was considered to have high potential to contain Aboriginal cultural heritage (Tuechler and Porter 2014: 65-91). Although there was poor ground surface visibility within the activity area at the time, one stone artefact was recorded on the volcanic plain north of Armstrong Creek and a mature River Red Gum which holds cultural value to the WAC was identified in the Armstrong Creek corridor during the Standard Assessment (ground surface survey). No cultural heritage associated with previously registered Aboriginal places VAHR 7721-0824 and VAHR 7721-1205 was re-identified during the survey - this result was attributed to low ground surface visibility. One area of potential archaeological sensitivity, a low rise on the volcanic plain north of Armstrong Creek, was also identified during the Standard Assessment (Tuechler and Porter 2014: 93-101). The Complex Assessment involved the excavation of a series of 53 excavation pits (EPs), one mechanically excavated trench, and 90 shovel test pits (STPs) across the two landforms (floodplain and volcanic plain) present in the CHMP 13039 activity area. A total of 312

Aboriginal stone artefacts were discovered as a result of this work. They were recorded as five individual Aboriginal places (VAHR 7721-1272, 7721-1273, 7721-127410, 7721-1275 and 7721-1276).

Thomas, D., Collins, S., and Turnbull, J. 2014. Armstrong Creek West Housing Development – Precincts 4-5, Boundary Road, Mount Duneed. CHMP #12748.

In 2014, Thomas et al. prepared a CHMP for the proposed Armstrong Creek West Housing Development Precincts 4-5, Boundary Road, Mount Duneed. The results of the desktop assessment showed that there was one previously registered Aboriginal place (VAHR 7721-0870) located in the Activity Area. During the assessment for the CHMP four LDADs (VAHR w7721-1251, 7721-1252, 7721- 1253 and 7721-1254) were identified. It was concluded that low density surface and subsurface stone artefact deposit were recorded across volcanic plain in association with palaeochannels and were indicative of the deliberate discard and / or accidental loss of artefacts over an undetermined but probably lengthy amount of time during repeated movement across the landscape.

Collins, S., and Schell, P. 2015. Bose Street Road and Sewer Construction, Mount Duneed. CHMP #13577.

In 2015 Collins and Schell prepared a CHMP for the proposed construction of Bose Street road and sewer construction in Mount Duneed. This current CHMP is informed by the results of the Standard and Complex Assessment from CHMP 13039.

5.2.1.5 Historical and Ethno-historical accounts in the Geographic Region

The desktop assessment must include a review of historical and ethnohistorical accounts of Aboriginal occupation in the geographic region identified in section 5.1 (r.57 (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 to 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.

The activity area and surrounding lands were utilised by Aboriginal people for thousands of years. The activity area is located within the groups identified as Kulin who shared a common language, social, religious and economic lifeway. Throughout the regions numerous different (yet related) ‘wurrung’ (or dialects) were spoken. At the time of

European contact, Ballarat and the surrounding region lay within the traditional lands of the Wada wurrung language group (Clark 1990: Figure 11, Tasire and MacManus 2011). The Wada wurrung were divided into 25 clans and each clan was responsible for a specific section of Wada wurrung territory. Wada wurrung territory extended from Fiery Creek in the west through to Werribee River in the east, and from Aireys Inlet and Cressy in the south to just north of Mt Misery in the north.

The Activity Area is located within the Wada wurrung language group, who occupied the area of South Central Victoria situated between Beaufort and Port Phillip Bay (Clark 1990, Fig. 11). The Activity Area is located in a region that may have been frequented by two distinct Wada wurrung clans, the Bengalat balug and Wada wurrung balug.

- The Bengalat balug are described as occupying land encompassing Indented Head (Clark 1990, 316-7). The word Bengala was the Aboriginal word for Indented Head and Bengalat balug means 'people of Indented Head'. In his 1835 journal, William Todd gave the names of five male members of the Bengalat balug and noted that they had seven wives and fifteen children between them (Clark 1990, 317).
- The Wada wurrung balug are described as occupying the Barrabool Hills, south west of Geelong, and the area south to the coast (Clark 1990, 330-4). It is not clear how much of the Bellarine Peninsula can be considered Wada wurrung balug land, though Tindale (1974) includes most of the peninsula with this clan. The escaped convict William Buckley was adopted into the Wada wurrung balug after he was recognised as the resuscitated Murrangurk, a member of the clan long since dead (Clark 1990, 331). Buckley remained with the clan from 1803 until 1835. In 1860, John Garratt reported that the Wada wurrung balug had a good shelter hut erected at Duneed, 5km south of the activity area.

George Armytage, an early landholder in the Geelong area, noted that the Wada wurrung depended upon fishing in the summer and autumn periods and hunting and the plant food murnong in the winter and spring periods (in Bride 1969, 173). The uneven distribution of particular resources, such as greenstone for ground-edge axes, resulted in a trade and exchange network between different clan groups across the study region. For example, the Wada wurrung attended meetings at Mount Noorat and at Mirrewuae Swamp (approximately 140 and 160 km west of Geelong, respectively). Dawson (1881) described such trade at Mount Noorat.

"...the Aborigines from the Geelong district brought the best stones for making axes and a kind of wattle gum celebrated for its adhesiveness. The Geelong gum is so useful in fixing handles of stone axes and splinters of flint in gum and for cementing the joins of bark buckets, that it is carried in large lumps all over the Western District. (Dawson 1881, 78)".

Anne Drysdale, the owner of Boronggook Station, which is located south of Geelong near Lake Connewarre, reported seeing Aboriginal people in the forest between Corio and her homestead on 18th August, 1841 (Brown 1958, 84). However, in October 1841, she

reported that 'There have been very few natives here since we came, & these only passing...' (Brown 1958, 114). In November of the same year Drysdale reported having fish that were caught in the Barwon River by Aboriginal people. They reportedly caught large quantities in the river beside the station (Clark 1990, 291).

In 1861, the surviving Wada wurrung were gathered onto a parcel of land at Mt Duneed, known as the Duneed Aboriginal Reserve, on which a 'shelter hut' had been installed (Clark 1990, 300). The remnant population, which at that time appears to have numbered eleven people, were encouraged to stay at the Duneed Reserve and were prohibited from staying in the Geelong Township after sundown. There is considerable historic detail on the fate of particular individuals. The Duneed Aboriginal Reserve is located approximately 150m south of the current Activity Area and has always been considered to be of high social significance by local Aboriginal communities.

It is thought that the Wada wurrung balug were the clan who adopted William Buckley in 1803 (Clark 1990: 331). Robinson considered that the Wada wurrung balug exercised considerable influence over other clans in the eastern section of the Western District (Clark 1990:). Located around Geelong, the Wada wurrung balug were highly exposed to Europeans in the early days of Victorian settlement, and members of the clan were being employed by settlers to collect stray stock and cut wood from as early as about 1839 (Clark 1990: 331-332). This contact led to the rapid demise of traditional lifeways and indeed to the Wada wurrung balug themselves. Recorded to number 300 people in 1837, by 1853 there were only 17 surviving clan members. The survivors refused to occupy a reserve set up along the Barwon River at Buntingdale, as it was not in their territory (Clark 1990: 293, 332). The last full-blood male of the clan reportedly died in 1885 (Brownhill 1955, in Clark 1990: 333).

This summary of Aboriginal behaviour patterns within the study region during the mid-nineteenth century indicates that occupation in the region was undertaken on a seasonal basis, characterised by temporary encampments shifting between resource-rich zones at different times of the year. Large campsites were often placed close to rivers and creeks. Such camps were generally occupied by smaller family groups for a few days, or longer in resource-rich areas. Camps were shifted regularly to take advantage of foods as they came into season. Camps and travel routes were also located to take advantage of resources such as stone for making tools. In the western district, silcrete outcrops would have been exploited for tool-making material. Physical evidence of such activities would have been left behind as stone working debris and discards at quarry and camp sites.

At the time of contact, there were at least twenty-five Wada wurrung local named groups. The Activity Area appears to be located in the lands of the Burrumbeet balug, whom Clark (1990: 311) identifies as having occupied the lands around Lake Burrumbeet and Ballarat. In 1909, Ellen Richards, one of the last people to identify with the Burrumbeet balug, told the ethno-historian, John Matthews that the land around Ballarat to Smythesdale was bunjil territory (Clark 1990: 277). The earliest known Nourenit/Arweet of the Burrumbeet balug was Noonallaboon (1842-1844). Also

influential at this time was Balybalip, also known as 'King Billy of Ballarat', who later became the Nourenit/Arweet in 1860.

From early ethnographic accounts and contemporary research, it is known that the Aboriginal people of the Melbourne region hunted, fished, or trapped a wide variety of fauna. This dependence on local flora and fauna demanded extensive knowledge of variations in seasonal availability and ecology (Coutts, 1981). The animals hunted throughout the Melbourne region included kangaroo, emus, possum, bandicoot, koala, echidna, wombat, and a variety of reptiles and smaller marsupials (Bunce, 1859). Bunce (1859) believed that possum was the most common target in upland areas as they were common than kangaroos or wallabies. He commented that their diet was 'varied occasionally by wombat, native bear and porcupine' (Bunce 1859). Birds were caught in nets, traps or by hand. Fishing by trap or spear and eel harvesting were also widely used modes of food procurement throughout south-eastern Australia (Bunce, 1859; Coutts, 1981b).

Aboriginal people also placed great reliance upon the procurement of plant foods from their clan estates. While hunting activities often receive priority in contemporary accounts of prehistoric ways of life, the procurement and processing of various plant taxa was of vital economic importance (Gott, 1982: 59-67). The ethno-botanist Gott estimated that vegetable foods gathered from the areas surrounding Melbourne approximated half of the diet of the Aboriginal population of the region.

Certain plant foods are regarded as having been staples in Aboriginal diets prior too European settlement. The 'Yam Daisy' (Frankel, 1982: 43-45) or 'Murnong' (Gott, 1982: 59-67; 1983: 2-18) -*Microseris scapigera* - is particularly noted as having been a staple food throughout the region, and indeed many parts of Victoria. Other plants contributed to nutritional requirements, as well as having medicinal uses or a more utilitarian function in the manufacture of utensils, string, baskets or clothing.

A passage written by Aboriginal Protector William Thomas to colonial Superintendent Charles La Trobe describes the daily activities of members of the Kulin tribes near Melbourne.

“In the Kulin tribes they seldom travel more than six miles a day. In their migratory movements, all are employed. Children getting gum, knocking down birds; women are digging up roots, killing bandicoots, getting grubs, the men hunting and scaling trees for opossums. They are mostly at the encampment an hour before sundown... (Thomas, 1854: 397-434, Walther et al. (2013))”

Many early European settlers were often struck by the ease with which the Aboriginal inhabitants of the area could procure sufficient resources for themselves. This is almost to be expected in one sense, as some of the early European settlements of the Melbourne region initially struggled in the new and strange conditions (Shaw, 1996: 116).

Another early settler, Evelyn Pittfield Sturt appeared impressed at the skill shown by Aboriginal people in the procurement of ducks:

“it is curious to observe the skill shown by the natives in their pursuit of game. They catch vast numbers of ducks in an ingenious manner. The lagoons run for some length, narrowing at the end, where the trees close in; two or three blacks plant themselves near this narrow pass, having extended a large net from tree to tree, the others then proceed to the top of the lagoon driving the ducks before them. As they fly by the ambushade, they throw their boomerangs whizzing over the heads of the birds, which dreading that their enemy, the hawk, is sweeping at them, make a dash for the trees, strike the net, and fall as if shot, when the natives dash in after them. I imagine it is a panic, which seizes the poor birds, for I have seen a hundred caught by such means’ (Sturt 1853 following Walther et al. 2013)”.

Thomas Learmonth (Thomas 1854) noted,

“near our encampment we found a fishing weir of the natives, in which were small conical nets of good workmanship. Nearly a bushel of delicious little fish like whitebait was in the nets, part of which we took, and faithfully remunerated the owners by giving provisions to a couple of men whom we induced to approach”.

In 1839 the Aboriginal Protectorate Scheme was introduced in Victoria. Four Assistant Protectors were appointed under a Chief Protector, George Augustus Robinson. The role of the protectorates was to provide food, shelter and medical supplies, record cultural and population information and to indoctrinate Aboriginal peoples in to the western European cultural and economic systems. Aboriginal reserves and stations were established across Victoria and Aboriginal peoples were encouraged to move to them (Clark 1990: 311-329, Tasire and Terrence MacManus 2011). Wada wurrung clans moved to the reserves and stations set up at Wesleyan Mission station and Buntingdale station (Clark 1990: 293, Tasire and Terrence MacManus 2011). The Protectorate was largely unsuccessful and was disbanded in 1849.

The Central Board for the Protection of the Aborigines was founded in 1860 to provide an administrative structure to manage Aboriginal people in Victoria. Under their direction a series of missions and government stations were set up throughout Victoria where Aboriginal people could live (DPCD, OAAV Website accessed 14/3/15). By the end of 1861 three reserves were established for the Wada wurrung; Steiglitz, Kargun, and Mt. Duneed (Clark 1990: 300, Tasire and MacManus 2011), as well as the Framlingham and Coranderrk missions within a 200 kilometre radius of Ballarat. In addition a rations station was established at Stockyard Hill in 1860, which operated until 1874. Between 1901 and 1906, all three reserves were handed back to the Department of Lands as they were no longer required due to the decrease in Aboriginal population (Clark 1990: 307, Tasire and MacManus 2011).

There is a Registered Aboriginal Party (RAP) that has been appointed for the region which covers the Activity Area; the Wathaurung Aboriginal Corporation (Wada wurrung).

5.1.2.6 Landforms and Geomorphology of the Activity Area

This section includes information about the geomorphological context of the Activity Area because of the crucial role natural processes play in influencing archaeological deposits. Previous geomorphological events and corresponding soil profiles are of interest to archaeologists because their order of superposition, depth, age, geo-chemistry and formation processes have an important bearing on the preservation, spatial integrity and age of archaeological deposits that may be associated with them.

The Activity Area is located in the Western Plains geomorphic unit, characterised by undulating sedimentary plains generally comprising marine sands deposited by the retreating Pliocene sea (1.6 - 5 million years ago). These plains have been dissected by water bodies such as Waurin Ponds Creek, exposing the underlying Oligocene age limestone and marl, and allowing the development of Holocene alluvial silts (Robinson et.al. 2003: 1-32).

The Activity Area and surrounding hills comprise the Jan Juc Formation, containing calcareous clays, marine marls, and limestone dating to a marine incursion around 4 million years ago (Oligocene). Sediments laid down during this cycle comprise calcareous soils exposed by the weathering of limestone and marl exposed along the valleys. Soils have yellow-brown calcareous sodic texture contrast soils, and are coarse in structure (DPI 2014).

The Activity Area comprises the shallow valley of Armstrong Creek West Branch and has sustained ground disturbance caused by a number of processes, including a complete clearance of natural vegetation.

5.1.2.7 Resources Available to Aboriginal People within the Activity Area

Prior to European settlement, the Activity Area and surrounding land would have offered a number of resources such as plants and animals that could have been utilised by the traditional Indigenous owner.

Climate

Temperature averages at nearby Geelong 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

Sources of fresh water exist in the Activity Area. Armstrong Creek West Branch traverses the Activity Area.

Water sources in the geographic region would have supported a number of food resources for Aboriginal people, such as fresh water fish and shell fish species and water birds, as well as animal resources on the adjacent plains.

Description of Existing and Pre-Contact Vegetation

Vegetation across the Activity Area today comprises thick grass and introduced plant and weed species. The Activity Area lies within a single Ecological Vegetation Community (EVC) within the Activity Area prior to 1750; EVC Name: Grassy Woodland, EVC No: 175. Grassy Woodland (EVC 175); a variable open eucalypt woodland to 15 m tall or occasionally Sheoak woodland to 10 m tall over a diverse ground layer of grasses and herbs. The shrub component is usually sparse. It occurs on sites with moderate fertility on gentle slopes or undulating hills on a range of geologies.

Burning activity by Aboriginal people may also have influenced the increase in biodiversity that occurred during the period (Aitken and Kershaw 1993: 78). Burning served to open the area for access, facilitate new growth, and flush out animals for hunting.

The existing vegetation of the Activity Area bears no resemblance to the description of above. The only vegetation is dense grass and bushes around the west branch of Armstrong Creek. No remnant native vegetation remains within the Activity Area. There are no native trees on the subject land.

Information on Fauna of the Activity Area

Birds, such as emu and bustards, were also eaten, as were bird eggs. Birds were caught with throwing sticks or in traps. Fish and eels were important resources and were speared in rivers or caught in nets (Thomas cited in Sullivan 1981: 24). Although use of the hook and line was observed, it is likely that this was a practice resulting from contact with sealers (Sullivan 1981: 24).

Plant foods were extensively exploited and included berries, fungi, roots, tubers, bulbs, leaves, and pith from fleshy plants, seeds and sap. Gum was also collected from the wattle and stored in known locations for seasons when food was less abundant (Thomas cited in Sullivan 1981: 25).

A number of animals would have been present within the Activity Area and are likely to have been hunted by traditional owners. These include the Eastern Grey Kangaroo (*Macropus giganteus*), Common Brushtail Possum (*Trichosurus vulpecula*), Common

Ringtail Possum (*Pseudocheirus peregrinus*), Short Beaked Echidna (*Tachyglossus aculeatus*) and the Wombat (*Vomatus Ursinus*). Birds, bird eggs and reptiles may have also been utilised.

Stone Resources

No stone resources and outcrops suitable for the manufacture of stone tools are found within the Activity Area.

5.1.2.8 Land Use History

In 1836 the first wave of squatters arrived. In 1837, in response to a petition from local settlers wanting protection from the Aborigines, the Governor of the colony, Governor Bourke, appointed Captain Foster Fyans to the Magistracy and 'instructed the Surveyor General of New South Wales to lay out two townships in Geelong – one near the bay the other near the river'. Hoddle reserved the land at the junction between the Moorabool and Barwon Rivers for this town but the bridge further upstream became the focus of settlement. Fyans was also appointed to issue pasturing licenses in the area, the first official recognition that Geelong existed. A town was surveyed between the Barwon River and Corio Bay and the town of Geelong officially came into existence on 24th October 1838, though the first sale of town lots was not held until February 1839. Large parcels of land were purchased from the Crown from 1840 onwards.

Shire of Barrabool

The municipalities of Highton, Grovedale and Waurin Ponds are located in the Shire of Barrabool, which stretches from the Barwon River to the north and south toward Lorne along the Great Ocean Road. These settlements were located predominantly along major waterways such as the Barwon River and local creeks including Waurin Ponds Creek and Thompson Creek. The most attractive land within the Barrabool shire was located along Waurin Ponds Creek, with land to the southwest considered too rough to settle (Wynd 1992: 9). John Charles Dark was one of the earliest pastoralists in the Barrabool shire area, developing a sheep run in 1836 near today's Pollocksford. A surveyor who had worked in Tasmania prior to coming to Port Philip Bay, Dark left the area a year later but was rapidly followed by Captain Frederick Dewing and William Roadknight, who settled to the east of Pollocksford along the Barwon River (Wynd 1992: 7-8). The introduction of squatters into the area was characterised by the occupation of large pastoral runs close to major rivers and creeks. By 1842 most of the available land within the Barrabool Shire was occupied, with squatters now moving further south to areas previously deemed unappealing, predominantly scrub land (Pescott 1985: 28). Dr. Alexander Thompson also settled in the area during late 1836, developing "Thompson's Old Station" close to the junction of the Barwon and Moorabool rivers. By 1840 he had moved south of the township of Geelong, purchasing 640 acres of land east of the Barwon River and creating the homestead he named 'Kardinia', as well as another run extending south from the

Barwon River to Spring Creek. Parish of Barrabool The first sale of divided lots within the Barrabool shire occurred in 1840 and continued until the mid 1850s. The sale was of 25 blocks of varying sizes of land in the newly defined Barrabool parish, located between the Barwon River and Waurin Ponds Creek, with land in the Barrabool hills proving particularly popular. The shire was slowly divided into eight parishes, although by 1847 only the parishes of Barrabool, Duneed, Modewarre, and Gnarwarre were mapped and proclaimed. The remaining shires were slowly divided up and sold over the next 30 years.

A census for the Parish of Barrabool in 1854 shows a total population of 857 and commented on the variety of immigrant populations inhabiting the area (Wynd 1992: 16). This shift in land ownership and sale put considerable pressure on squatters in the area who were forced to relinquish the land or buy it from the government. Much of the land within the Parish of Barrabool was bought by speculators and subsequently sold or leased to settlers and pastoralists. This created an area between the Barwon River and Waurin Ponds chain of ponds that was predominantly agricultural, with large farms located on both sides of the Barwon River. Barrabool maintained a reputation as a farming area where it was common to subdivide larger farms into smaller holdings to maintain agricultural growth and development in wheat, oats, and hay production (Wynd 1992: 21-22). Waurin Ponds One of the largest homesteads in Waurin Ponds was the Claremont estate. Built in the 1850s, the property included 245 acres of land between the Geelong-Colac Railway line and Waurin Ponds Creek. The homestead had been built with bricks that were baked in a kiln on the property in 1857 and contained a farm, dairy, fruit and vegetables. The property was sold in the 1880s to the Baum family who grew fruit and vegetables.

European settlement would have significantly impacted on Aboriginal archaeological sites in the Activity Area. Past land use together with the clearing of the original vegetation means that any surface lithic site would now retain little spatial or temporal integrity and as such have reduced scientific significance.

Specific Land Use History

The Activity Area has been modified as a result of previous land clearing and possible agricultural activity. Additionally, the north-western corner of the Activity Area was previously used as a school with some galvanised iron sheds still visible. Aside from thick surface grass and introduced trees, plant and weed species across the Activity Area, the property contains no native or remnant native vegetation. The modifications that have occurred throughout the Activity Area may have impacted the survival of intact archaeological deposits; however, the potential for archaeological materials cannot be discounted, particularly in association with Armstrong Creek.

5.1.3 Conclusions of Desktop Assessment and Site Prediction

The conclusions from the desktop assessment and the basis for the Aboriginal Cultural Heritage Place prediction model are as follows:

- The Activity Area has not previously been subject to previous archaeological assessment;
- There are no previously registered Aboriginal Cultural Heritage Places (ACHPs) located within the Activity Area;
- At the time of the desktop assessment there were no previously registered Aboriginal Cultural Heritage Places (ACHPs) located within 200m of the Activity Area; however, an updated search of the VAHR showed that there are now six (6) previously registered Aboriginal Cultural Heritage Places (ACHPs) located within 200m of the Activity Area:
 - Duneed Aboriginal Reserve 2 (7721-1357 [VAHR]) – an LDAD;
 - Duneed Aboriginal Reserve 3 (7721-1369 [VAHR]) – an LDAD;
 - Surfcoast Highway Connection Armstrong Creek 1 (7721-1263 [VAHR]) – an LDAD;
 - Surfcoast Highway Connection, Ghazeepore Road (7721-1234 [VAHR]) – an LDAD;
 - Western Bypass 23 (7721-0608 [VAHR]) – an artefact scatter; and
 - Duneed Aboriginal Reserve (7721-0903 [VAHR]) – an Aboriginal Historic Place
- There are twenty-three (23) registered Aboriginal Cultural Heritage Places (ACHPs) located within the geographic region as defined for the purposes of this CHMP. The twenty-three (23) registered Aboriginal Cultural Heritage Places (ACHPs) are comprised of twenty-three (23) components, all of these being artefact scatters.
- Artefact scatters and/or Low Density Artefact Distributions (LDADs) are therefore the most likely Aboriginal Cultural Heritage Places to be located in the Activity Area;
- It appears that the distribution of Aboriginal Cultural Heritage Places in the geographic region is, at present, heavily influenced by the following factors –
 - e. The location of archaeological assessments since the introduction of the *Aboriginal Heritage Act 2006* which have focused on inland areas;
 - f. The lack of archaeological assessment under the *Aboriginal Heritage Act 2006* of much of the geographic region;
 - g. Proximity to a waterway within the geographic region; and
 - h. Topography.
- Previous archaeological assessments have shown that –

- Land in close proximity to waterways i.e. major rivers and creeks, unnamed creeks, swamps and lakes are sensitive for Aboriginal archaeological sites;
 - Elevated ground is sensitive for Aboriginal sites because they provided a higher, drier place where people could undertake a range of activities. Being slightly elevated, they also offered an improved view of the surrounding landscape;
 - Swamps and the surrounding higher points are also considered to be potentially sensitive for Aboriginal sites as swamps would have supported a range of valuable resources available for use by Aboriginal people;
 - Any sites found in these areas are likely to consist of isolated artefacts and low density artefact scatters;
 - The basalt plain in between watercourses and swamps has the potential to contain lower density artefact deposits and isolated artefacts.
- The Activity Area is located within the Wada wurrung language group, who occupied the area of South Central Victoria situated between Beaufort and Port Phillip Bay (Clark 1990, Fig. 11). The Activity Area is located in a region that may have been frequented by two distinct Wada wurrung clans, the Bengalat balug and Wada wurrung balug;
 - The Activity Area is located on the Western Plains geomorphic unit, characterised by undulating sedimentary plains generally comprising marine sands deposited by the retreating Pliocene sea (1.6 - 5 million years ago).
 - 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;
 - The Activity Area is likely to have been subject to some ground disturbance as a result of its use as a school (north-west corner only). Further to this, clearance of native vegetation and pastoral and possible agricultural activity is likely to have caused ground disturbance within the Activity Area; however, to what extent it is not possible to state.

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

- Stone artefacts scatters (including Low Density Artefact Distributions or 'LDADs') are likely to occur in the Activity Area;
- Other site types i.e. earth features, shell middens etc. are not likely to occur in the Activity Area;

- Multi-component sites have not been recorded in the geographic region therefore, it is unlikely that a multi-component site i.e. an artefact scatter/earth feature/shell midden or a combination thereof, will occur in the Activity Area;
- Aboriginal archaeological sites are most likely to occur in close proximity to watercourses and/or swamps;
- Elevated ground in close proximity to watercourses and/or swamps is likely to be of particular archaeological sensitivity;
- Isolated finds are likely anywhere across the landscape;
- Any surface or near surface archaeological sites may have been disturbed by the removal of native vegetation, pastoralism and/or agriculture.

The site prediction model developed for the Activity Area suggests that due to the Activity Area being bisected by Armstrong Creek the archaeological potential of the Activity Area is regarded as moderate. Areas considered to be of the highest archaeological potential are the undulating rises to the north of Armstrong Creek, the alluvial deposits to the south of Armstrong Creek and the rise in the south-west corner of the Activity Area. Areas considered to be of lower archaeological potential are the flat or gently sloping volcanic plain located to the south of Armstrong Creek and areas that have demonstrably been subject to ground disturbance. The most likely site types to be found within the Activity Area are artefact scatters (including LDADs). Other site types i.e. earth features and shell middens are not likely to occur in the Activity Area.

5.2 Report on the Results of the Standard Assessment

5.2.1 Justification for Survey

R.58 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. Whilst the results of the desktop assessment show that there is a low probability that Aboriginal Cultural Heritage Places (ACHPs) will occur within the Activity Area it is still 'reasonably possible' that Aboriginal cultural heritage is located in the Activity Area; therefore, it was necessary to proceed to a standard assessment.

5.2.2 Aims of the Standard Assessment

The aims of the standard assessment (archaeological survey) were to:

- Attempt to identify Aboriginal cultural heritage;
- Undertake consultation with Wadawurrung field representatives;
- 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.

5.2.3 Standard Assessment Methodology

The standard assessment was conducted on the 3rd November, 2016 and was undertaken by John Young of Benchmark Heritage Management P/L, with Justin Entwistle and Jack Clarke from the Wathaurung Aboriginal Corporation, trading as Wadawurrung.

Owing to the dense grass coverage observed upon arrival the decision was made, in consultation with the Aboriginal representatives, to survey the Activity Area on an opportunistic basis rather than walking linear transects (see Map 6). Thus, the Activity Area was surveyed by four participants using an opportunistic sampling method that targeted areas of ground surface visibility (Burke and Smith 2004: 65-68).

Focus was concentrated on areas of high ground surface visibility. All mature native 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. Ground surface visibility and surface exposure was recorded in order to determine the effective ground survey coverage. There were no significant constraints to carrying out the survey. A range pole with 20cm increments was included in all photographs (Plates 1-8).

5.2.4 Standard Assessment Limitations

The Activity Area is almost entirely covered by grass and vegetation - other than exposed soils from stock rubbing around the banks of Armstrong Creek- therefore, ground surface visibility in the Activity Area was generally less than 1%.

The property comprises the Activity Area shown in Map 3. The Activity Area comprises open grazing land that slopes gently down to the west branch of Armstrong Creek in the centre of the Activity Area (Plates 1-8 in Table 1). All parts of the Activity Area have been cleared of the original native vegetation and most of the Activity Area has been used for agricultural purposes since at least the 1850s. No remnant native vegetation remains in the Activity Area.

No Indigenous archaeological sites were identified within the Activity Area during the field investigation (this includes artefact scatters, scarred trees, caves, cave entrances and rock shelters).

The absence of any evidence for Indigenous cultural sites may be due to the Activity Area having incurred disturbance in the past, including the clearance of native vegetation.

Initially the entire property would have been cleared of native vegetation. This would have contributed to soil erosion and the movement of any Aboriginal cultural material that may have existed on the ground surface; thus the removal of topsoils and the destruction of any surface or near surface Aboriginal cultural materials.



MAP 6: SURVEY AREA

Plate 1: View of the Activity Area from western boundary (M. Barker 3/11/16), facing east.



Plate 2: View of the Activity Area showing gently sloping land from northeast corner (M. Barker 3/11/16), facing west.



Plate 3: View of the dam in the centre east of the Activity Area (M. Barker 3/11/16), facing southwest



Plate 4: View of drainage line in centre east (M. Barker 3/11/16), facing west.



Plate 5: View of the dammed section of Armstrong Creek West Branch in the centre east of the Activity Area (M. Barker 3/11/16), facing west



Plate 6: View of dry bed and banks of Armstrong Creek West Branch in the centre of the Activity Area (M. Barker 3/11/16), facing west



Plate 7: View of rabbit burrows in the alluvial banks of Armstrong Creek West Branch in the centre of the Activity Area (M. Barker 3/11/16), facing west



Plate 8: View of creek bed of Armstrong Creek West Branch in the centre of the Activity Area (M. Barker 3/11/16), facing west



TABLE 1: PHOTOS FROM STANDARD ASSESSMENT

5.2.5 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 the Activity Area investigated.

Ground surface visibility is a major factor in obscuring 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;

- 75-100%: More than half the bare ground; ploughed fields.

Ground surface visibility in the majority of the Activity Area (Plates 1-8 in Table 1) was low (10%), and therefore there was little possibility of identifying archaeological deposits on the surface. It is estimated that the effective survey coverage was less than 10%. Ground surface visibility was higher (20-30%) on the northern bank the Armstrong Creek tributary (Plates 6-8) which has been subject to considerable exposure due to grazing and rabbit burrows allowing for a greater effective survey coverage of between 20-30%.

5.2.6 Results of the Ground Survey

The results of the archaeological survey indicate that the Activity Area comprises land that is potentially sensitive to Aboriginal archaeological sites and is a landform that previous studies within the vicinity of the Activity Area have shown to contain Aboriginal cultural material. The area within 100m of the west branch of Armstrong Creek (Map 4) is considered to be of moderate to high archaeological sensitivity with the remainder of low potential sensitivity.

One area of potential archaeological sensitivity was identified in the Activity Area. This area comprises all of the Activity Area that has not been subject to ground disturbance to a depth below potentially artefact bearing deposits. Conversely, the only parts of the Activity Area that are not considered to be an area of potential archaeological sensitivity are those areas that have been subject to ground disturbance to a depth below potentially artefact bearing deposits. It remains to be established the depth and extent to which ground disturbance has occurred in the Activity Area.

The area of potential archaeological sensitivity may contain an LDAD or an artefact scatter – both of which have been located in the geographic region.

It is considered to be an area of potential archaeological sensitivity owing to its proximity and elevation to/above Armstrong Creek.

No caves, rock shelters, or cave entrances were noted within the Activity Area.

5.2.7 Aboriginal Cultural Heritage Identified

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

An area of potential archaeological sensitivity was identified during the standard assessment. This area comprises all of the Activity Area that has not been subject to ground disturbance to a depth below potentially artefact bearing deposits. Conversely, the only parts of the Activity Area that are not considered to be an area of potential archaeological sensitivity are those areas that have been subject to ground disturbance to a depth below potentially artefact bearing deposits. It remains to be established the depth and extent to which ground disturbance has occurred in the Activity Area.

The area of potential archaeological sensitivity may contain an LDAD or an artefact scatter – both of which have been located in the Ballarat region.

5.2.8 Conclusions of the Standard Assessment

The Activity Area is located within an established residential area and comprises vacant paddocks (see Map 3). No obvious evidence of ground disturbance was observed during the standard assessment.

The ground surface visibility was very poor (less than 1% with an estimate of actual ground surface visibility being approximately 1%) owing to the constructed infrastructure and dense grass coverage (see Table 2). The soil exposed at the base of the trees was light grey silty loam.

Whilst no Aboriginal cultural heritage was identified during the standard assessment in the Activity Area, one potential area of potential archaeological sensitivity was identified in the Activity Area. This area includes all parts of the Activity Area that has not been subject to ground disturbance to a depth below potentially artefact bearing deposits. It is considered to be an area of potential archaeological sensitivity owing to its proximity and elevation to Armstrong Creek. The area of potential archaeological sensitivity may contain an LDAD or artefact scatter.

The field representatives of the Wadawurrung – Justin Entwistle and Jack Clarke agreed that part of the Activity Area was an area of potential archaeological sensitivity and required sub-surface testing. The Wadawurrung representatives agreed that it was prudent to subject the entire Activity Area to sub-surface testing to confirm our understanding of the potential archaeological sensitivity of the Activity Area and the ground disturbance that the Activity Area may, or may not, have been subject to.

In terms of archaeological sensitivity, the following predictive statements can be made:

- Previous archaeological assessments in the geographic region have demonstrated that Aboriginal Cultural Heritage Places (ACHPs) are most likely to be located in close proximity to a waterway or/and an elevated landform;
- The parts of the Activity Area that have not been subject to disturbance to a depth below potentially artefact bearing deposits may contain Aboriginal cultural heritage; and

- It is considered to be highly unlikely that Aboriginal cultural heritage will be located in the parts of the Activity Area that have been subject to ground disturbance.

The low level of ground surface visibility, and the complete absence of it in some locations, made it impossible to confirm the absence or presence of Aboriginal cultural material within the Activity Area based on the ground survey alone; therefore, a complex assessment was required to identify the presence of any subsurface Aboriginal cultural material and associated archaeological sites.

The results of the standard assessment have indicated that the focus of the complex assessment should be the area of potential archaeological sensitivity – that is the parts of the Activity Area that have not been subject to ground disturbance to a depth below potentially artefact bearing layers - as well those parts of the Activity Area not considered to be an area of potential archaeological sensitivity i.e. areas subject to ground disturbance to a depth below potentially artefact bearing layers - to a lesser degree. The purpose of subjecting those parts of the Activity Area not considered to be an area of potential archaeological sensitivity to sub-surface testing is to establish if natural soil deposits are present, to establish the ground disturbance the area have been subject to and to test the site prediction model.

5.3 Report on the Results of the Complex Assessment

5.3.1 Justification for Subsurface Testing

R.60 of the *Aboriginal Heritage Regulations 2018* states that a complex assessment is required if the desktop assessment or standard assessment shows that Aboriginal cultural heritage is, or is likely to be, present in the Activity Area; and it is not possible to identify the extent, nature and significance of the Aboriginal cultural heritage in the Activity Area unless a complex assessment is carried out.

One area of potential archaeological sensitivity was identified in the Activity Area. This area comprises all of the Activity Area that has not been subject to ground disturbance to a depth below potentially artefact bearing deposits. Conversely, the only parts of the Activity Area that are not considered to be an area of potential archaeological sensitivity are those areas that have been subject to ground disturbance to a depth below potentially artefact bearing deposits. It remains to be established the depth and extent to which ground disturbance has occurred in the Activity Area.

It is considered to be an area of potential archaeological sensitivity owing to its proximity to Armstrong Creek.

The area of potential archaeological sensitivity may contain an LDAD or an artefact scatter.

As it is considered possible that Aboriginal cultural heritage is located in the Activity Area it was considered necessary to proceed to a complex assessment.

5.3.2 The Subsurface 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 site prediction model developed in the desktop assessment and refined in the standard assessment;
- Record the subsurface stratigraphic composition of the landform and investigate a representative sample of subsurface sediments;
- Identify any undisturbed (in-situ) subsurface deposits;
- Use shovel test pit (STP) and machine excavation to provide improved sample size and investigate the extent of subsurface disturbance; 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 subsurface 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 17th -30th of November, 2016 and was undertaken by John Young and Calum Ryan from BHM P/L and Justin Entwistle, Jack Clarke and Troy Wilkinson from the Wadawurrung. John Young (BA (Arch) - Honours) supervised the complex assessment.

5.3.3 Subsurface Testing Methodology

The proposed methodology was discussed during a meeting with RAP Manager Katrina Thomas of the Wathaurung Aboriginal Corporation, trading as Wadawurrung on 4th November, 2016 and on-site prior to the commencement of fieldwork with Justin Entwistle and Jack Clarke.

Excavation of Test Pit

As required by the Aboriginal Heritage Regulations 2018, a test pit was first excavated to determine the soil stratigraphy (see Map 7, Table 3).

Controlled excavation was undertaken in accordance with the guidelines set out in Burke and Smith (2004). The test pit was excavated in order to examine the soil stratigraphy within the property and determine whether there were sub-surface deposits of cultural materials.

The test pit was excavated by context using a flat edged shovel with a 30cm blade, trowels and 30cm hand shovels. Excavation was undertaken on a stratigraphic basis by context and ceased when a new soil layer was encountered. Hand excavated deposits were initially excavated in arbitrary 10cm spits. As clear stratigraphic units became apparent, excavation continued according to the stratigraphic unit (context). Excavation continued until a sterile deposit, which was agreed upon by all parties, was reached.

A surface plan and plans of the base of each context were made during the excavation. Soil sections were drawn of the northern section of the test pit once excavation was completed. A photographic record of the surface, base of each context and the soil section was made. A range pole(s) with increments of 20cm was included in all photographs of excavation. Soil descriptions and other natural and cultural features were recorded on standard excavation forms. PH levels were taken of each context and a Munsell Chart was consulted to provide soil colour descriptions.

All of the soil excavated from the test pit was passed through a sieve with a 5mm mesh. All spoil heaps and sieving areas were kept a minimum of 1m away from the test pit to prevent contamination. In the event that any cultural material was uncovered, the procedure was to place the artefacts in bags labelled with the date, CHMP number, artefact number, pit ID, and location (either from sieve or their spatial co-ordinates, i.e. x-y-z measurements). By agreement

with the WAC, any artefacts recovered from the excavation were to be retained for later analysis at the office of BHM Pty Ltd. The WAC were to be notified of any “rare” item of Aboriginal cultural heritage significance was found, such as a ground-edged axe, and appropriate management of the item was to be implemented.

The centre of the test pit was spatially recorded using a Topcon GRS-1 DGPS with sub one metre accuracy as per AV (2008) target standard for recording Aboriginal heritage places. All spatial coordinates were taken in and presented with reference to the GDA94 (Geocentric Datum of Australia) MGA54.

The excavated test pit location is shown in Map 6. A stratigraphic section of the test pit is shown in Table 2. A second 1x1m test pit was excavated to assess the stratigraphic nature of the stone artefacts located in STP16 (Table 3).

In addition to the test pits (Test Pit 1 and Test Pit 2) a total of 126 shovel test pits (STPs) and 16 mechanical transects (MTs) were excavated to assess the potential of the Activity Area to contain Aboriginal cultural heritage and to confirm evidence of ground disturbance.

Excavation of Shovel Test Pits

The excavation of 126 50x50cm shovel test pits or shovel probes (STPs) was undertaken during subsurface testing (Table 4, Map 7). STPs were undertaken to examine the general stratigraphy; changes in stratigraphy and presence/absence of Aboriginal cultural heritage within the Activity Area. The STPs were excavated (where possible) on a grid in the Activity Area in areas free of the dwelling/sheds/dam/trees etc.

In addition, the proposed methodology was discussed on-site prior to the commencement of fieldwork with Justin Entwistle and Jack Clarke from the Wathaurung Aboriginal Corporation, trading as Wadawurrung.

The shovel test pits were excavated using a shovel with a 30cm blade. Initially, the grass and surface soil was stripped off each hole to a depth of approximately 5cm. Soil within the shovel test pit hole was then excavated in increments of 10cm until the basal layer was reached.

The soil from each shovel test pit was sieved by the field team using hand sieves with a 5mm mesh. Soil data and the location of any cultural materials were recorded on field forms. A section of the vertical soil profile of each shovel test pit was recorded. A range pole with increments of 20cm was included in all photographs of excavation.

The outlined procedure for dealing with cultural materials, if found, was to place any cultural material in bags with labels identifying their context. A photographic record of each shovel test pit was also made. By agreement with the Aboriginal community representatives, any artefacts recovered were to be retained for later analysis at the office of BHM Pty Ltd. The centre of each

shovel test pit was spatially recorded using a Topcon GRS-1 DGPS with sub one metre accuracy as per AV (2008) target standard for recording Aboriginal heritage places.

As the excavation of the shovel test pits was carried out in contexts and the soil from each context were sieved separately, it was possible to assess both the vertical and horizontal distribution of cultural materials within the soil profile.

The excavated shovel test pit locations are shown in Map 6. The stratigraphy of the shovel test pits is shown in Table 4.

Excavation of Machine Trenches

The excavation of eighteen (18) Machine Trenches (MTs) was undertaken during subsurface testing (Maps 7-8 and Table 5). MTs were undertaken to examine the general stratigraphy; changes in stratigraphy and presence/absence of Aboriginal cultural heritage within the Activity Area. MTs were undertaken at locations where it was considered unlikely that Aboriginal cultural heritage would be identified. The MTs were excavated with a focus on the flat and gently sloping ground to the south of Armstrong Creek (see Maps 7-8)

The Machine Trenches were dug using an excavator on rubber tracks with a 1000mm flat-edged mud bucket. Initially, the surface soil was stripped off each trench to a depth of approximately 50mm. Soil along the length of each trench was then excavated in increments of 100mm until the basal clay was reached. All soil excavated from the Machine Trenches was passed through a mechanical sieve with a 5mm mesh.

In the event that an in-situ artefact or feature was encountered, a test pit would be excavated adjacent to the feature. This method aims to establish site stratigraphy, the extent of the feature or artefact and was conducted in order to comply with Regulation 65(5 & 6) of the *Aboriginal Heritage Regulations 2018*.

The soil from each cut or scrape along the Machine Trenches was sieved. Mechanical excavation ceased while the soils from each cut or scrape was sieved. Once 100% of the soils from the cut or scrape were sieved, excavation continued and the process repeated until a basal clay layer was reached.

Soil data and the location of any cultural materials were recorded on field forms. A section of the vertical soil profile of each machine transect was recorded. A range pole with increments of 20cm or 30cm was included in all photographs of excavation. The outlined procedure for dealing with cultural materials, if found, was to place any cultural material in bags with labels identifying their context.

A photographic record of each machine transect was also made. By agreement with the Aboriginal community representatives, any artefacts recovered were to be retained for later analysis at the office of BHM Pty Ltd. The extent of each machine transect was spatially recorded

using a Topcon GRS-1 DGPS with sub one metre accuracy as per AV (2008) target standard for recording Aboriginal heritage places.

As the excavation of the Machine Trenches was carried out in contexts and the soil from each context were sieved separately, it was possible to assess both the vertical and horizontal distribution of cultural materials within the soil profile.

The excavated Machine Trenches locations are shown in Maps 7-8. The stratigraphy of the Machine Trenches are shown in Table 5. GDA 94 MGA Zone 55 co-ordinates are shown in Appendix 6.

5.3.4 Obstacles

There were no significant constraints to carrying out the sub-surface testing.



MAP 8: EXCAVATION MAP DETAIL

5.3.5 Results of the Subsurface 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. The test pit was located near to the northern boundary of the Activity Area. The test pit was excavated on the upper slope in the Activity Area which had been identified as an area of potential archaeological sensitivity and was 1x1m in size. The test pit was excavated to a maximum depth of 420mm at which depth an archaeologically sterile orange clay (5YR 7/16) with impenetrable buckshot inclusions was established. The test pit was excavated by arbitrary 10cm spits. As clear stratigraphic units became apparent, excavation continued according to the stratigraphic unit (context). All members of the field team agreed that the orange clay (5YR 7/16) with impenetrable buckshot inclusions was an archaeologically sterile deposit and that excavation could cease.

The test pit was excavated to a maximum depth of 420mm (Plates 8-9, Table 3) at which depth an archaeologically sterile orange clay (5YR 7/16) with impenetrable buckshot inclusions base was established. The stratigraphy of the test pit was characterised by four clear contexts, albeit with diffuse boundaries between each context. Context 1 (0-120mm) is described as a dark grey loam (5Y 4/N) with grass root inclusions (topsoil); Context 2 (120-180mm) is described as a light grey silt (5Y 7/N); Context 3 (180-400mm) is described as a compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth; and Context 4 (400-420mm) is described as a compact orange clay (5YR 7/16) with impenetrable buckshot inclusions. All members of the field team agreed that Context 4 – a compact orange clay (5YR 7/16) with impenetrable buckshot inclusions - was a natural clay base and an archaeologically sterile deposit and agreed excavation could cease.

No evidence of disturbance was noted during the excavation of TP1.

No Aboriginal cultural heritage was identified during the excavation of TP1. No dating samples of cultural deposits and or stratigraphic layers were obtained due to the lack of Aboriginal cultural heritage identified in TP1.

The provenance and stratigraphic data from the test pit is contained in Table 3. The location of the test pit can be found in Map 6. A photograph of the test pit is shown in Plates 9-10.

TABLE 2: SUMMARY EXCAVATION DATA FROM TEST PIT 1.

Test Pit	1
Field Team	John Young and Callum Ryan (BHM P/L) and Justin Entwistle and Jack Clarke (WAC)
GDA94 /MGA Zone 54 Coordinates	753458.679E/5842145.775N

Size	1x1m
Stratigraphy	
Context 1	Context 1 (0-120mm) is described as a dark grey loam (5Y 4/N) with grass root inclusions (topsoil)
Context 2	Context 2 (120-180mm) is described as a light grey silt (5Y 7/N)
Context 3	Context 3 (180-400mm) is described as a compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth
Context 4	Context 4 (400-420mm) is described as a compact orange clay (5YR 7/16) with impenetrable buckshot inclusions
Depth of Excavation	420mm
Evidence of Disturbance	No evidence of disturbance was noted during the excavation of TP1.

**Plate 9: TP1
Stratigraphy (J.
Young 11/11/16)
facing north**



**Plate 10: TP1
Stratigraphy (J.
Young 11/11/16)
facing north**



**Vertical artefact
distribution**

No Aboriginal cultural heritage was identified during the excavation of TP1

Excavation of Test Pit 2

As required by the Aboriginal Heritage Regulations 2018, a second test pit was excavated to determine the soil stratigraphy of the stone artefacts located in STP93. The test pit was excavated to a maximum depth of 420mm at which depth an archaeologically sterile orange clay

(5YR 7/16) with impenetrable buckshot inclusions was established. The test pit was excavated by arbitrary 10cm spits. As clear stratigraphic units became apparent, excavation continued according to the stratigraphic unit (context). All members of the field team agreed that the orange clay (5YR 7/16) with impenetrable buckshot inclusions was an archaeologically sterile deposit and that excavation could cease.

The test pit was excavated to a maximum depth of 420mm (Plates 11-12, Table 4) at which depth an archaeologically sterile orange clay (5YR 7/16) with impenetrable buckshot inclusions base was established. The stratigraphy of the test pit was characterised by four clear contexts, albeit with diffuse boundaries between each context. Context 1 (0-120mm) is described as a dark grey loam (5Y 4/N) with grass root inclusions (topsoil); Context 2 (120-180mm) is described as a light grey silt (5Y 7/N); Context 3 (180-400mm) is described as a compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth; and Context 4 (400-420mm) is described as a compact orange clay (5YR 7/16) with impenetrable buckshot inclusions. All members of the field team agreed that Context 4 – a compact orange clay (5YR 7/16) with impenetrable buckshot inclusions - was a natural clay base and an archaeologically sterile deposit and agreed excavation could cease.

No evidence of disturbance was noted during the excavation of TP2.

No Aboriginal cultural heritage was identified during the excavation of TP1. No dating samples of cultural deposits and or stratigraphic layers were obtained due to the lack of Aboriginal cultural heritage identified in TP2.

The provenance and stratigraphic data from the test pit is contained in Table 4. The location of the test pit can be found in Map 6. A photograph of the test pit is shown in Plates 11-12.

TABLE 3: SUMMARY EXCAVATION DATA FROM TEST PIT 2.

Test Pit	2
Field Team	John Young and Callum Ryan (BHM P/L) and Justin Entwistle and Jack Clarke (WAC)
GDA94 /MGA Zone 54 Coordinates	753458.679E/5842145.775N
Size	1x1m
Stratigraphy	
Context 1	Context 1 (0-120mm) is described as a dark grey loam (5Y 4/N) with grass root inclusions (topsoil)
Context 2	Context 2 (120-180mm) is described as a light grey silt (5Y 7/N)
Context 3	Context 3 (180-400mm) is described as a compact orange silty clay (5YR 8/16)

	with buckshot inclusions and clay content increasing with depth
Context 4	Context 4 (400-420mm) is described as a compact orange clay (5YR 7/16) with impenetrable buckshot inclusions
Depth of Excavation	420mm
Evidence of Disturbance	No evidence of disturbance was noted during the excavation of TP1.

Plate 11:
TP2
Stratigraph
y (J. Young
11/11/16)
facing north



Plate 12:
TP2
Stratigraph
y (J. Young
11/11/16)
facing north



Vertical
artefact
distribution

No Aboriginal cultural heritage was identified during the excavation of TP2

Shovel Test Pits

In order to try and determine the extent of soil disturbance in the Activity Area and to provide a more extensive sample of the surface and sub-surface soils, a total of 126 shovel test pits were excavated in the Activity Area.

The shovel test pits were excavated to:

1. Further assess the likelihood of Aboriginal cultural material being located within the Activity Area;
2. Test the site prediction model developed in the desktop assessment and refined in the standard assessment; and
3. To determine the extent of ground disturbance (if any).

The provenance and stratigraphic data from the shovel test pits is contained in Table 4. The locations of the shovel test pits can be found in Map 6. Table 4 summarises the details of each shovel test pit.

Shovel Test Pits 1-126

In order to try and determine the extent of soil disturbance in the Activity Area and to provide a more extensive sample of the surface and sub-surface soils, a total of thirty-two (32) 50x50cm shovel test pits were excavated (where possible) on a grid in the Activity Area. It was agreed that the Project Inception Meeting with RAP manager Katrina Thomas of the Wathaurung Aboriginal Corporation, trading as Wadawurrung on 4th November, 2016 that the complex assessment should include:

- The excavation of a 1x1m test pit on the highest point of the property;
- The excavation of shovel probes on a 10m grid on the highest points of the property;
- The excavation of shovel probes on a 20m grid in the lower parts of the property;
- The quantum of testing is to be flexible on basis of interim results i.e. if disturbance noted number of pits to excavate can be reduced.

The shovel test pits were excavated to:

1. Further assess the likelihood of Aboriginal cultural material being located within the Activity Area; and
2. To determine the extent of ground disturbance.

The provenance and stratigraphic data from the shovel test pits is contained in Table 4. The locations of the shovel test pits can be found in Map 6. Table 4 summarises the details of each shovel test pit.

Shovel Test Pits 1-126

The shovel test pits were excavated by John Young and Calum Ryan of Benchmark Heritage Management P/L and Justin Entwistle, Jack Clarke and Troy Wilkinson from the Wathaurung Aboriginal Corporation, trading as Wadawurrung (WAC). John Young (BA (Hons)) supervised the complex assessment. Shovel Test Pits were excavated with the use of a shovel with a 30cm blade.

The stratigraphy was investigated by excavating a series of shovel test pits measuring 50x50cm wide (Map 6) where possible depending on areas to be impacted by the proposed development, areas subject to prior ground disturbance and the density of the vegetation.

The stratigraphy of the shovel test pits was generally consistent across the Activity Area; despite some evidence of ground disturbance. The stratigraphy of the shovel test pits was characterised by a similar stratigraphy to that of TP1 namely a light grey loam (5Y 7/N) with grass root inclusions (topsoil) overlying a dark grey silt (5Y 4/N); overlying a compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth; overlying a compact orange clay (5YR 7/16) with impenetrable buckshot inclusions. All members of the field team agreed that the compact orange clay (5YR 7/16) with impenetrable buckshot inclusions was a natural clay base and an archaeologically sterile deposit and agreed excavation could cease.

The main variations to the above were as follows:

- In STP3 the dark grey loam (5Y 4/N) overlies construction fill;
- In STPs 4, 22 the soil profile is 'mottled' and is characterised by a dark grey loam (5Y 4/N) with mottled orange silty clay (5Y 8/16) inclusions; overlying a mottled dark grey loam (5Y 4/N) and orange silty clay (5Y 8/16); overlying an orange silty clay (5Y 8/16) with mottled compact orange clay (5YR 7/16) inclusions. In sum, the soil profile is similar to that of TP1 with mottling that has resulted in the 'grading' of contexts. This is likely due to ground disturbance that has 'turned over' the soil profile i.e. ploughing (though no distinct 'plough zone' was noted);
- In STPs 5, 8, 10, 18, 20, 26, 28 and 32 the light grey loam (5Y 7/N) is absent;
- In STPs 11, 12, 15, 16, 19, 24, 29 and 31 the dark grey silt (5Y 4/N) is absent;
- In STP25 the dark grey silt (5Y 4/N) and compact orange silty clay (5YR 8/16) are absent;
- In STP30 the soil profile is characterised by a light grey loam (5Y 7/N) in between the dark grey silt (5Y 4/N) and compact orange silty clay (5YR 8/16).

Evidence of ground disturbance was limited to the identification of modern detritus in a number of the STPs in Context 1 and Context 2 and evidence of 'tilling' of the soil profile in the form of mottling, inversion and truncation of the natural soil profile.

Aboriginal cultural heritage was identified in STPs 10, 14, 17 and 32 in the form of four (4) stone artefacts identified at a depth of 100-200mm (STPs 10 and 32); 200-300mm (STP17); and 300-400mm (STP14) in an undisturbed context. No dating samples of cultural deposits and or stratigraphic layers were obtained due to the lack of suitable datable material in STPs 10, 14, 17 and 32.

The stratigraphic profiles of the individual shovel test pits are contained in Table 4. Photographs showing examples of the shovel test pits excavated are shown in Plates 10-13.



Plate 13: STP1 Base (J. Young 21/11/2016) facing north



Plate 14: STP 22 Base (J. Young 8/11/2016) facing north



Plate 15: STP 47 Base (J. Young 23/11/2016) facing north



Plate 16: STP93 Base (J. Young 9/10/2016) facing north



Plate 17: STP97 Base (J. Young 8/10/2016) facing north



Plate 18: STP 103 Base (J. Young 8/11/2016) facing north



Plate 19: STP107 Base (J. Young 9/11/2016) facing north



Plate 20: STP108 Base (J. Young 9/10/2016) facing north



Plate 21: STP126 Base (J. Young 8/10/2016) facing north

TABLE 4: STPs 1-126 SUMMARY DETAIL

STP	Stratigraphy	Aboriginal Cultural Heritage (Y/N?)
1	Context 1 (0-170mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (170-300mm) dark grey silt (5Y 4/N) Context 3 (300-440mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (440-460mm) compact orange clay (5YR 7/16)	N
2	Context 1 (0-90mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (90-300mm) dark grey silt (5Y 4/N) Context 3 (300-320mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (320-340mm) compact orange clay (5YR 7/16)	N
3	Context 1 (0-60mm) dark grey silt (5Y 4/N) Context 2 (60-200mm) construction fill Context 3 (200-500mm) dark grey silt (5Y 4/N) Context 4 (500-780mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 5 (780-800mm) compact orange clay (5YR 7/16)	N
4	Context 1 (0-200mm) dark grey silt (5Y 4/N) with orange silty clay (5YR 8/16) inclusions Context 2 (200-400mm) mottled dark grey silt (5Y 4/N) and orange silty clay (5YR 8/16) Context 3 (400-560mm) mottled compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth and compact orange clay (5YR 7/16) Context 4 (560-580mm) compact orange clay (5YR 7/16)	N
5	Context 1 (0-90mm) dark grey silt (5Y 4/N) Context 2 (90-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
6	Context 1 (0-60mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (60-280mm) dark grey silt (5Y 4/N) Context 3 (280-500mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (500-520mm) compact orange clay (5YR 7/16)	N
7	Context 1 (0-100mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (100-240mm) dark grey silt (5Y 4/N) Context 3 (240-420mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (420-440mm) compact orange clay (5YR 7/16)	N
8	Context 1 (0-220mm) dark grey silt (5Y 4/N) Context 2 (220-420mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (420-440mm) compact orange clay (5YR 7/16)	N
9	Context 1 (0-140mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil)	N

	Context 2 (140-280mm) dark grey silt (5Y 4/N) Context 3 (280-500mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (500-520mm) compact orange clay (5YR 7/16)	
10	Context 1 (0-120mm) dark grey silt (5Y 4/N) Context 2 (120-400mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (400-420mm) compact orange clay (5YR 7/16)	N
11	Context 1 (0-150mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (150-400mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (400-420mm) compact orange clay (5YR 7/16)	N
12	Context 1 (0-140mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (140-420mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (420-440mm) compact orange clay (5YR 7/16)	N
13	Context 1 (0-40mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (40-380mm) dark grey silt (5Y 4/N) Context 3 (380-400mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (400-420mm) compact orange clay (5YR 7/16)	N
14	Context 1 (0-120mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (120-300mm) dark grey silt (5Y 4/N) Context 3 (300-320mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (320-340mm) compact orange clay (5YR 7/16)	N
15	Context 1 (0-120mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (120-440mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (440-460mm) compact orange clay (5YR 7/16)	N
16	Context 1 (0-110mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (110-280mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (280-300mm) compact orange clay (5YR 7/16)	Y
17	Context 1 (0-80mm) dark grey loam (5Y 4/N) with grass root inclusions (topsoil) Context 2 (80-300mm) light grey silt (5Y 7/4/N) Context 3 (300-340mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (340-360mm) compact orange clay (5YR 7/16)	N
18	Context 1 (0-220mm) dark grey silt (5Y 4/N) Context 2 (220-260mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (260-280mm) compact orange clay (5YR 7/16)	N
19	Context 1 (0-80mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (80-270mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (270-290mm) compact orange clay (5YR 7/16)	N

20	Context 1 (0-300mm) dark grey silt (5Y 4/N) Context 2 (300-340mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (340-360mm) compact orange clay (5YR 7/16)	N
21	Context 1 (0-220mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (220-340mm) dark grey silt (5Y 4/N) Context 3 (340-430mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (430-450mm) compact orange clay (5YR 7/16)	N
22	Context 1 (0-100mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (100-200mm) dark grey silt (5Y 4/N) and compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth mottled Context 3 (280-300mm) compact orange clay (5YR 7/16)	N
23	Context 1 (0-120mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (120-240mm) dark grey silt (5Y 4/N) Context 3 (240-480mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (480-500mm) compact orange clay (5YR 7/16)	N
24	Context 1 (0-140mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (140-200mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (200-220mm) compact orange clay (5YR 7/16)	N
25	Context 1 (0-220mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (220-240mm) compact orange clay (5YR 7/16)	N
26	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
27	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
28	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
29	Context 1 (0-190mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (190-420mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (420-440mm) compact orange clay (5YR 7/16)	N
30	Context 1 (0-80mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (80-180mm) dark grey silt (5Y 4/N) Context 3 (180-280mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil)	N

	Context 4 (280-320mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (320-340mm) compact orange clay (5YR 7/16)	
31	Context 1 (0-180mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (180-360mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (360-380mm) compact orange clay (5YR 7/16)	N
32	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N
33	Context 1 (0-100mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (100-200mm) dark grey silt (5Y 4/N) and compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth mottled Context 3 (280-300mm) compact orange clay (5YR 7/16)	N
34	Context 1 (0-120mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (120-240mm) dark grey silt (5Y 4/N) Context 3 (240-480mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (480-500mm) compact orange clay (5YR 7/16)	N
35	Context 1 (0-140mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (140-200mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (200-220mm) compact orange clay (5YR 7/16)	N
36	Context 1 (0-220mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (220-240mm) compact orange clay (5YR 7/16)	N
37	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
38	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
39	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
40	Context 1 (0-190mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (190-420mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (420-440mm) compact orange clay (5YR 7/16)	N
41	Context 1 (0-80mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (80-180mm) dark grey silt (5Y 4/N) Context 3 (180-280mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil)	N

	Context 4 (280-320mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (320-340mm) compact orange clay (5YR 7/16)	
42	Context 1 (0-180mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (180-360mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (360-380mm) compact orange clay (5YR 7/16)	N
43	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N
44	Context 1 (0-100mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (100-200mm) dark grey silt (5Y 4/N) and compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth mottled Context 3 (280-300mm) compact orange clay (5YR 7/16)	N
45	Context 1 (0-120mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (120-240mm) dark grey silt (5Y 4/N) Context 3 (240-480mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (480-500mm) compact orange clay (5YR 7/16)	N
46	Context 1 (0-140mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (140-200mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (200-220mm) compact orange clay (5YR 7/16)	N
47	Context 1 (0-220mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (220-240mm) compact orange clay (5YR 7/16)	N
48	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
49	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
50	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
51	Context 1 (0-190mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (190-420mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (420-440mm) compact orange clay (5YR 7/16)	N
52	Context 1 (0-80mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (80-180mm) dark grey silt (5Y 4/N)	N

	Context 3 (180-280mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 4 (280-320mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (320-340mm) compact orange clay (5YR 7/16)	
53	Context 1 (0-180mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (180-360mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (360-380mm) compact orange clay (5YR 7/16)	N
54	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N
55	Context 1 (0-100mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (100-200mm) dark grey silt (5Y 4/N) and compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth mottled Context 3 (280-300mm) compact orange clay (5YR 7/16)	N
56	Context 1 (0-120mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (120-240mm) dark grey silt (5Y 4/N) Context 3 (240-480mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (480-500mm) compact orange clay (5YR 7/16)	N
57	Context 1 (0-140mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (140-200mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (200-220mm) compact orange clay (5YR 7/16)	N
58	Context 1 (0-220mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (220-240mm) compact orange clay (5YR 7/16)	N
59	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
60	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
61	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
62	Context 1 (0-190mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (190-420mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (420-440mm) compact orange clay (5YR 7/16)	N

63	Context 1 (0-80mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (80-180mm) dark grey silt (5Y 4/N) Context 3 (180-280mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 4 (280-320mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (320-340mm) compact orange clay (5YR 7/16)	N
64	Context 1 (0-180mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (180-360mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (360-380mm) compact orange clay (5YR 7/16)	N
65	Context 1 (0-100mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (100-200mm) dark grey silt (5Y 4/N) and compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth mottled Context 3 (280-300mm) compact orange clay (5YR 7/16)	N
66	Context 1 (0-120mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (120-240mm) dark grey silt (5Y 4/N) Context 3 (240-480mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (480-500mm) compact orange clay (5YR 7/16)	N
67	Context 1 (0-140mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (140-200mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (200-220mm) compact orange clay (5YR 7/16)	N
68	Context 1 (0-220mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (220-240mm) compact orange clay (5YR 7/16)	N
69	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
70	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
71	Context 1 (0-200mm) dark grey silt (5Y 4/N) Context 2 (200-240mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (240-260mm) compact orange clay (5YR 7/16)	N
72	Context 1 (0-190mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (190-420mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (420-440mm) compact orange clay (5YR 7/16)	N
73	Context 1 (0-80mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (80-180mm) dark grey silt (5Y 4/N)	N

	Context 3 (180-280mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 4 (280-320mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 4 (320-340mm) compact orange clay (5YR 7/16)	
74	Context 1 (0-180mm) light grey loam (5Y 7/N) with grass root inclusions (topsoil) Context 2 (180-360mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (360-380mm) compact orange clay (5YR 7/16)	N
75	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N
76	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N
77	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N
78	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N
79	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N
80	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N
81	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N
82	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N
83	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N
84	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N
85	Context 1 (0-160mm) dark grey silt (5Y 4/N)	N

	Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	
125	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N
126	Context 1 (0-160mm) dark grey silt (5Y 4/N) Context 2 (160-180mm) compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth Context 3 (180-200mm) compact orange clay (5YR 7/16)	N

Machine Trenches 1-18

The machine trenches were excavated by John Young and Calum Ryan of Benchmark Heritage Management P/L and Justin Entwistle, Jack Clarke and Troy Wilkinson from the Wathaurung Aboriginal Corporation, trading as Wadawurrung (WAC). John Young (BA (Hons)) supervised the complex assessment. Machine Trenches were excavated with the use of an excavator on rubber tracks with a 1000mm mud bucket.

The stratigraphy of the Machine Trenches was generally consistent across the Activity Area – this is likely due to all of the Machine Trenches having been excavated on the same landform - flat to gently sloping ground to the south of Armstrong Creek. The stratigraphy of the shovel test pits was characterised by either a dark grey brown loam (5YR 2/2) overlying a dark brown clay (5YR 1/4) or a light grey brown loam (5YR 5/4) overlying a light grey brown clay (5YR 5/4). All members of the field team agreed that the dark brown clay (5YR 1/4) or light grey brown clay (5YR 5/4) was a natural clay base and an archaeologically sterile deposit and agreed excavation could cease.

The only variations to the above was as follows:

- MT5 was characterised by a mid brown loam (5YR 4/8) overlying a mid brown clay (5YR 3/8).

As mentioned above all of the MTs were excavated on the same landform – flat to gently sloping ground to the south of Armstrong Creek. It is quite possible that the variation in stratigraphy recorded is simply due to water content in each MT as each MT is characterised by loam overlying a clay.

No evidence of ground disturbance was identified during the excavation of MTs 1-18.

No Aboriginal cultural heritage was identified during the excavation of MTs 1-18.

The stratigraphic profiles of the individual shovel test pits are contained in Table 5. Photographs showing examples of the Machine Trenches (MTs) excavated are shown in Plates 22-24.



Plate 22: MT2 Stratigraphy



Plate 23: MT14 Stratigraphy



Plate 24: MT18 Stratigraphy

MT	Stratigraphy	Aboriginal Cultural Heritage (Y/N?)
1	Context 1 (0-250mm) dark grey brown loam (5YR 2/2) Context 2 (250-300mm) dark brown clay (5YR 1/4)	N
2	Context 1 (0-170mm) dark grey brown loam (5YR 2/2) Context 2 (170-200mm) dark brown clay (5YR 1/4)	N
3	Context 1 (0-150mm) dark grey brown loam (5YR 2/2) Context 2 (150-180mm) dark brown clay (5YR 1/4)	N
4	Context 1 (0-120mm) dark grey brown loam (5YR 2/2) Context 2 (120-150mm) dark brown clay (5YR 1/4)	N
5	Context 1 (0-120mm) mid brown loam (5YR 4/8) Context 2 (120-150mm) mid brown clay (5YR 3/8)	N
6	Context 1 (0-250mm) light grey brown loam (5YR 5/4) Context 2 (250-300mm) light grey brown clay (5YR 5/4)	N
7	Context 1 (0-250mm) light grey brown loam (5YR 5/4) Context 2 (250-300mm) light grey brown clay (5YR 5/4)	N
8	Context 1 (0-150mm) dark grey brown loam (5YR 2/2) Context 2 (150-180mm) dark brown clay (5YR 1/4)	N
9	Context 1 (0-300mm) light grey brown loam (5YR 5/4) Context 2 (300-350mm) light grey brown clay (5YR 5/4)	N
10	Context 1 (0-200mm) dark grey brown loam (5YR 2/2) Context 2 (200-220mm) dark brown clay (5YR 1/4)	N
11	Context 1 (0-150mm) dark grey brown loam (5YR 2/2) Context 2 (150-180mm) dark brown clay (5YR 1/4)	N
12	Context 1 (0-200mm) light grey brown loam (5YR 5/4) Context 2 (200-220mm) light grey brown clay (5YR 5/4)	N
13	Context 1 (0-350mm) light grey brown loam (5YR 5/4) Context 2 (350-400mm) light grey brown clay (5YR 5/4)	N
14	Context 1 (0-170mm) dark grey brown loam (5YR 2/2)	N

	Context 2 (170-200mm) dark brown clay (5YR 1/4)	
15	Context 1 (0-80mm) dark grey brown loam (5YR 2/2) Context 2 (80-100mm) dark brown clay (5YR 1/4)	N
16	Context 1 (0-130mm) dark grey brown loam (5YR 2/2) Context 2 (130-150mm) dark brown clay (5YR 1/4)	N
17	Context 1 (0-200mm) dark grey brown loam (5YR 2/2) Context 2 (200-220mm) dark brown clay (5YR 1/4)	N
18	Context 1 (0-150mm) dark grey brown loam (5YR 2/2) Context 2 (150-300mm) dark brown clay (5YR 1/4)	N

TABLE 5: MT EXCAVATION DETAIL

5.3.6 Conclusions of the Subsurface Testing

Two 1x1m test pits (TP), 126 shovel test pits (STPs) and 18 mechanical transects 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.

The stratigraphy of the test pit and shovel test pits was generally consistent across the Activity Area; however, some variation was noted. The stratigraphy of the Activity Area was characterised by a light grey loam (5Y 7/N) with grass root inclusions (topsoil) overlying a dark grey silt (5Y 4/N); overlying a compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth; overlying a compact orange clay (5YR 7/16) with impenetrable buckshot inclusions.

The excavation allowed the extent of the disturbance to be determined and revealed that evidence of ground disturbance was limited to the identification of modern detritus in a number of the STPs in Context 1 and Context 2 and evidence of ‘tilling’ of the soil profile in the form of mottling, inversion and truncation of the natural soil profile.

Aboriginal cultural heritage was identified in STPs 16, 93, 97, 103, 107 and 108. No dating samples of cultural deposits and or stratigraphic layers were obtained due to the lack of suitable datable material in STPs 16, 93, 97, 103, 107 and 108.

In general, the complex assessment has revealed that the nature of the Aboriginal cultural heritage in the Activity Area is that of a low density sub-surface artefact scatter. For this reason, it was considered that the grid excavated was sufficient to have established the extent, nature and significance of the Aboriginal cultural heritage in the Activity Area and that radial extent testing was not necessary.

The Wadawurrung field representatives Justin Entwistle and Jack Clarke agreed that the quantum of testing undertaken in the Activity Area was adequate and that the nature of the Aboriginal cultural heritage in the Activity Area is that of a low density sub-surface artefact scatter. The Wadawurrung field representatives did not request specific management recommendations relating to the Activity Area.

Comparison with the Aboriginal Heritage Place Prediction Model

The archaeological research undertaken in preparation of the CHMP was comprehensive and has resulted in an overall understanding of the nature of Aboriginal cultural heritage within the activity area.

The Aboriginal heritage place prediction model stated that:

There is a probability that Aboriginal Cultural Heritage Places (ACHPs) will occur within the Activity Area.

The Activity area has most likely been subject to pastoral agricultural land use, which may have included significant amounts of ploughing. If so, any subsurface archaeological deposits located in the area may have been disturbed by this activity. Also, it is highly likely that any scarred trees on the site were cleared in the 1800s for use as fuel or building materials. If Aboriginal cultural heritage is located in the Activity Area it is most likely to be in the form of a low density artefact deposit or isolated artefact.

It is considered that the results of the complex assessment generally support the Aboriginal heritage place prediction model stated in Section 5.1.3. It is considered that the results of the complex assessment have demonstrated that the nature of the Aboriginal cultural heritage in the Activity Area is that of a low density sub-surface artefact scatter.

6.0 Details of Aboriginal Cultural Heritage in the Activity Area

6.1 Aboriginal Cultural Heritage in the Activity Area

The complex assessment of the Activity Area resulted in the identification of one (1) Aboriginal Cultural Heritage Place (ACHP), a sub-surface Low Density Artefact Distribution (LDAD) registered as VAHR 7721-1356 (Hams Road, Waurn Ponds LDAD1).

The Aboriginal Cultural Heritage Place VAHR 7721-1356 (Hams Road, Waurn Ponds LDAD1) is comprised of a total of ten (10) flaked stone artefacts manufactured on quartzite (5) quartz (n=2) and silcrete (n=3) and representing the artefact types complete flake (n=3), angular fragment (n=4) and broken flake (n=3). Aboriginal cultural heritage was identified in six (6) pits excavated in the Activity Area (STPs 16, 93, 97, 103, 107 and 108) at depths of 100-400mm in an undisturbed context.

The following section comprises artefact data compiled from the complex assessment. Summary details of the Aboriginal Cultural Heritage Place VAHR 7721-1356 (Hams Road, Waurn Ponds LDAD1) are contained in the Site Gazetteer (Table 6 and Appendix 5) below. Raw data on the flaked stone artefacts comprising the ACHP VAHR 7721-1356 (Hams Road, Waurn Ponds LDAD1) is contained in Appendix 4. The primary GDA 94 co-ordinates can be found in Table 5 and Appendix 5. An artefact catalogue is included as Appendix 4. A plan of the stone artefact locations within the Activity Area is shown in Map 9.

Cadastral and Zone Details:

The Aboriginal Cultural Heritage Place (ACHP) VAHR 7721-1356 (Hams Road, Waurn Ponds LDAD1) is located at the property known 35 Hams Road and 151-229 Anglesea Road, Waurn Ponds, Victoria, Municipality of the City of Greater Geelong at Waurn Ponds, Parish of Barrabool, Lot 1 on TP77822 and Lot 3 on PS644553. GDA94/MGA Zone 54.

6.1.1 Assessment of the Aboriginal Cultural Heritage – ACHP VAHR 7721-1356 (Hams Road, Waurn Ponds LDAD1)

6.1.1.1 Extent

The ACHP VAHR 7721-1356 (Hams Road, Waurn Ponds LDAD1) was investigated during the complex assessment. The ACHP comprises of a total of 10 flaked stone artefacts identified in six (6) pits excavated in the Activity Area (STPs 16, 93, 97, 103, 107 and 108) at depths of 100--400mm in an undisturbed context (Map 9, Plate 25-26).

It was considered that the 20x20m grid excavated was sufficient to have established the extent, nature and significance of the Aboriginal cultural heritage in the Activity Area and that radial extent testing was not necessary.

6.1.1.2 Nature

The Aboriginal Cultural Heritage Place VAHR 7721-1356 (Hams Road, Waurin Ponds LDAD1) is comprised of a total of ten (10) flaked stone artefacts manufactured on quartzite (5) quartz (n=2) and silcrete (n=3) and representing the artefact types complete flake (n=3), angular fragment (n=4) and broken flake (n=3). Aboriginal cultural heritage was identified in six (6) pits excavated in the Activity Area (STPs 16, 93, 97, 103, 107 and 108) at depths of 100-400mm in an undisturbed context.

The small size of the artefact assemblage makes further inference problematic; indeed, there are no registered Aboriginal Cultural Heritage Places (ACHPs) in close proximity to the Activity Area with which to compare and contrast nor seek to undertake further analysis of the broader cultural landscape of which the ACHP VAHR 7721-1356 (Hams Road, Waurin Ponds LDAD1) is a part.

6.1.1.3 Significance

The ACHP VAHR 7721-1356 (Hams Road, Waurin Ponds LDAD1) is assessed as having low scientific value, because in total the ACHP comprises of 10 sub-surface artefacts located in an undisturbed context. An assessment of the significance of the Aboriginal Cultural Heritage Place VAHR 7721-1356 (Hams Road, Waurin Ponds LDAD1) in accordance with S.4 of the *Aboriginal Heritage Act 2006* is included in Section 6.2.

TABLE 6: VAHR 7721-1356 (HAMS ROAD, WAURIN PONDS LDAD1)

Name	VAHR 7721-1356 (Hams Road, Waurin Ponds LDAD1)		
GDA 94 Coordinates	STP16	263261.5734e	5766902.794n
	STP93	263214.532e	5766792.828n
	STP97	263291.2788e	5766777.994n
	STP103	263211.1185e	5766775.876n
	STP107	263417.5818e	5766756.946n
	STP108	263397.1544e	5766760.261n
Cultural Materials	10 flaked stone artefacts		
Aspect	360 degrees		
Condition and Integrity	Undisturbed		
Context and Evidence of Disturbance	Context 2 – dark grey silt (5Y 4/N) and Context 3 - a compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth		
Vertical Artefact Distribution	100-400m		
pH	7		

Landform	Hill slope
Landform Element	Lower, mid and upper slope
Vegetation	Grass
Nearest Distance to Potable Water	Armstrong Creek is located in the centre of the Activity Area.

Plate 25: Site
Photograph
showing
general
location of
STP93. Photo
by J. Young
(9/11/16)
facing south



Plate 26:
Artefact
Photo by J.
Young
(1/1/17)





MAP 9: ACHP VAHR 7721-1356 (HAMS ROAD, WAURN PONDS LDAD1): LOCATION MAP

6.2 Assessment of Archaeological ACHP Significance

The significance of the ACHP VAHR 7721-1356 (Hams Road, Waurin Ponds LDAD1) located during the sub-surface testing, 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 ACHP contents and condition are given below.

Criteria for Scientific Significance Assessment – Archaeological ACHPs

Scientific significance is assessed by examining the research potential and representativeness of archaeological sites (see Table 7). 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 takes into account the contents and condition of a site. For example, in any region there may only be a limited number of sites of any type that have suffered minimal disturbance. Such sites would therefore be given a high significance rating for representativeness, although they may occur commonly within the region.

The representativeness ratings used for archaeological sites are:

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

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

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

The assessment of significance is presented below and in Table 7.

Aesthetic Value

The ACHP recorded has no particular aesthetic value. This is largely because of the significant alteration of the landscape context of the ACHP, which includes modifications to the landforms on which the archaeological ACHP 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 ACHPs by sympathetic landscape treatment in future.

Historic Value

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

Scientific Value

The ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) is assessed as having low scientific value, because in total the ACHP comprises of ten (10) sub-surface artefacts located in an undisturbed context. In terms of the artefactual content, the ACHP has little potential to add to existing knowledge of Aboriginal history in the region.

Social Value

Many Aboriginal people regard ACHPs 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 ACHPs and land or 'country'. Protection of ACHPs 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 ACHP VAHR 7721-1356 (Hams Road, Wauru Ponds LDAD1) is likely to be regarded as being of high social and cultural value to the Aboriginal community in general.

It is apparent that the site retains some historical and social significance, particularly to the Wathaurung Aboriginal Corporation, trading as Wadawurrung.

No indication of any spiritual values attached to the ACHP has been expressed by Aboriginal community representatives to date.

TABLE 7: SCIENTIFIC ASSESSMENT OF ACHP VAHR 7721-1356 (HAMS ROAD, WAURN PONDS LDAD1)

VAHR NO	ACHP Contents	ACHP Condition	Representativeness	Overall Scientific Significance
VAHR 7721-1356 (Hams Road, Wauru Ponds LDAD1)	1	2	1	4 low

Definitions

Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations

Criteria

Aesthetic value includes 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 encompasses the history of aesthetics, science and society, and therefore to a large extent underlies all of the terms set out in this section.

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.

The scientific or research value of a place will depend 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 embraces the qualities for which a place has become a focus of spiritual, political, national or other cultural sentiment to a majority or minority group.

6.2.1 Statement of Significance in Accordance with Aboriginal Tradition

It is important to note that cultural and scientific significance generally does not follow the same set of criteria in that archaeological sites of low scientific significance may be highly valued by the local Aboriginal community and vice versa. It is not solely up to the Cultural Heritage Advisor to assess cultural significance of a place. Rather, it is the responsibility of the local Aboriginal Community to assess the cultural significance of a site within its area of custodianship (Australia ICOMOS 1999).

All sites within the Wada wurrung area are significant in cultural terms as they are a tangible link to our past and a non-renewable source of information about the lifestyle of our ancestors.

The cultural significance afforded to the sites by the Aboriginal community must be given a higher standing than the scientific rating as the scientific ratings is based on a European perspective without due regard to the value of Aboriginal culture as a whole.

Bryon Powell

Chairperson

No further cultural values were communicated to BHM P/L.

7.0 Consideration of Section 61 Matters

Section 61 Matters in Relation to ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1)

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.

Can Harm to the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) be Avoided?

During the complex assessment of the Activity Area, the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) was identified.

The activity comprises a residential subdivision that will cause ground disturbance to the entirety of the Activity Area. Harm to the majority of ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) cannot be avoided as:

- The activity will take place within approximately 50% of ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1);
- No further Aboriginal cultural heritage was identified in association with the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1); and
- There are provisions for open space areas within the development plan, therefore harm to the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) can be avoided to 50% of the site;
- Given that the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) is a Low Density Artefact Distribution (LDAD) comprising a total of ten flaked stone artefacts it would not be an appropriate response to alter the design of the proposed activity to avoid harm to the Aboriginal Place.

Can Harm to the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) be Minimised?

During the complex assessment of the Activity Area, the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) was identified.

The activity comprises a residential subdivision that will cause ground disturbance to the entirety of the Activity Area. Harm to the majority of ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) cannot be avoided as:

- The activity will take place within approximately 50% of ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1);
- No further Aboriginal cultural heritage was identified in association with the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1); and
- There are provisions for open space areas within the development plan, therefore harm to the ACHP VAHR 7721-1356 (Hams Road, Waurnd Ponds LDAD1) can be avoided to 50% of the site;

- Given that the ACHP VAHR 7721-1356 (Hams Road, Waurun Ponds LDAD1) is a Low Density Artefact Distribution (LDAD) comprising a total of ten flaked stone artefacts it would not be an appropriate response to alter the design of the proposed activity to avoid harm to the Aboriginal Place

Are Specific Measures Needed for the Management of the ACHP VAHR 7721-1356 (Hams Road, Waurun Ponds LDAD1)?

Yes, specific measures are required for the management of the ACHP VAHR 7721-1356 (Hams Road, Waurun Ponds LDAD1) prior to, during, and after the proposed activity. In sum, the following specific management measures are required:

- Cultural Heritage Induction prior to works commencing;
- Site Access for CHMP compliance reviews for the Wathaurung Aboriginal Corporation, trading as Wadawurrung prior to, during and after the activity;
- Retention of topsoil in the Activity Area; and
- Reburial of Aboriginal cultural material from the Aboriginal Cultural Heritage Place ACHP VAHR 7721-1356 (Hams Road, Waurun Ponds LDAD1) after the activity.

The specific management measures required for the ACHP VAHR 7721-1356 (Hams Road, Waurun Ponds LDAD1) are detailed in Section 8 in Part Two of this CHMP.

Are there particular Contingency Plans that might be necessary?

There are several contingency plans that may be necessary during the activity. In particular, it is necessary to have a contingency in place for the unexpected discovery of Aboriginal cultural heritage during the activity. The following contingencies are included in Section 8 of this Cultural Heritage Management Plan - Section 9.2 Dispute Resolution; Section 9.3 Discovery of Aboriginal cultural heritage during works; Section 9.4 Reporting discovery of Aboriginal cultural heritage during works; Section 9.5 Management of Aboriginal cultural heritage discovered during works; Section 9.6 Reviewing compliance with the Plan; and Section 9.7 Communication Between Parties.

What Custody and Management Arrangements might be needed?

It is recommended that the Aboriginal cultural heritage recovered during this CHMP be temporarily retained by the archaeologist for cataloguing. The recovered Aboriginal cultural heritage must be catalogued and analysed. The Aboriginal cultural heritage will be held by the cultural heritage advisor until site works have been completed, pending a determination about its eventual relocation/reburial following consultation between the Sponsor and the Wathaurung Aboriginal Corporation, trading as Wadawurrung. Prior to any reburial, cultural material should be stored in a secure location with copies of the catalogue and assessment documentation.

The location of any reburial site must be recorded with a GPS and a site registry card completed and submitted to AV, showing the location of the reburial site. The recording must be carried out by a cultural heritage advisor and a representative of a Registered Aboriginal Party (RAP) in accordance with the Wathaurung Aboriginal Corporation 'Standard Procedure for the Reburial of Cultural Material' (see Appendix 7).

Part 2 – Cultural Heritage Management Recommendations

8.0 Specific Cultural Heritage Management Requirements

Based on the results of the archaeological assessment, the following management conditions are made for the Activity Area. Please note that once this CHMP is approved these management conditions become compliance requirements.

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

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. The following management conditions are made to guide the sponsor through the compliance requirements of this CHMP and to facilitate the sponsors understanding of Aboriginal cultural heritage.

A copy of this management plan must be held on site at all times during construction.

Specific Management Conditions

Management Condition 1: Harm Permitted to the Aboriginal Cultural Heritage Place Hams Road, Waurin Ponds LDAD1 (7721-1356 [VAHR])

This Cultural Heritage Management Plan permits the proposed activity to harm the Aboriginal Cultural Heritage Place Hams Road, Waurin Ponds LDAD1 (7721-1356 [VAHR]) subject to the management conditions detailed in Management Conditions 2-7.

Management Condition 2: Retention of Potentially Artefact Bearing Deposits within the Activity Area

Any topsoils excavated or subject to ground disturbance in the Activity Area during works for, or associated with the activity must not be removed from the Activity Area and must be utilised in the Activity Area post-construction i.e. in landscaping.

For the purposes of this management condition ‘topsoils’ are defined as any soils overlying basal clay or bedrock.

Management Condition 3: Permitted Uses of and Construction Methodology for Infrastructure in the Armstrong Creek Linear Reserve

Pathways

- Pathways may be constructed in concrete, asphalt, gravel or granitic sand;
- The alignment of pathways must be sprayed to kill vegetation, and the surface soil stripped to an approximate depth of 50 mm to remove vegetation;
- Where required, geotechnical fabric must be installed to increase the stability of gravel material (with pegging, if required), and gravel/granitic sand material must be laid to a required height over the ground surface (with wood edging, if required);
- The area around the pathway must then be backfilled using the skimmed material from surface stripping, and feathered off to match the existing grade of the surrounding ground surface.
- Revegetation must only be undertaken using shallow-rooted stock and using minimally intrusive excavation measures (e.g. using Hamilton planters and shallow-rooted tube stock).

Boardwalks

- Footbridges, bridges and boardwalks may be constructed;
- They must be constructed on concrete pads at each end in an effort to minimise ground disturbance;
- Where longer boardwalk lengths are required, they must be constructed using either screwed or driven piles at the maximum spacing feasible to minimise ground disturbance; and
- Any underlying sterile clay sediments, or any sediments deeper than the underlying sterile clay, may be removed from the site.

Playground Construction

- The area must be sprayed to kill vegetation, and the surface soil stripped to a maximum depth of 50 mm using a machine with a mud bucket or bobcat;
- This material must be retained adjacent to the site of the playground;
- Soft fall material must be constructed on top of the existing ground as per the gravel paths;
- Screw pile footings must be used to anchor playground infrastructure in order to reduce the area of impact to this place;
- The initial 250 mm of topsoil from the screw pile footings must be spread out within open space adjacent to the playground, where no ground disturbing infrastructure is proposed; and
- Revegetation must only be undertaken using shallow-rooted stock and using minimally intrusive excavation measures (e.g. using Hamilton planters and shallow-rooted tube stock).

Picnic Shelter and Barbecue Facilities

- The footings for the shelter and barbecue must be excavated by machine to the underlying sterile clay or deeper; and
- The initial 250 mm of excavated topsoil must be spread out within open space adjacent to the shelter and barbecue, where no ground disturbing infrastructure is proposed.

Public Furniture, Art and Sculptures

- Footings for this infrastructure must be built on top of existing topsoil using screw piles; and
- If this method can not be utilised footings for this infrastructure must be excavated by machine to underlying sterile clay or deeper. The initial 250 mm of excavated topsoil must be spread out within open space adjacent to the furniture, art or sculptures, where no ground disturbing infrastructure is proposed. The nature and character of any artwork/sculptures must be developed in consultation with the RAP.

Signage

- Signage must be constructed into, or as part of, new paths in order to limit ground disturbance;
- If this method can not be utilised all attempts should be made to install the signage using screw piles to minimise impacts;
- If this method can not be utilised footings for signage must be excavated by machine to underlying sterile clay or deeper. The initial 250 mm of excavated topsoil must be spread out within open space adjacent to the signage, where no ground disturbing infrastructure is proposed; and
- The nature and character of any interpretive signage must be developed in consultation with the RAP as part of a cultural heritage strategy that will be developed between the Sponsor and the RAP.

Revegetation and Landscaping

- Any revegetation works must be undertaken using shallow-rooted stock and minimally intrusive excavation measures (e.g. using Hamilton planters and shallow-rooted tube stock); and
- Only vegetation management practices that do not penetrate the ground's surface (e.g. slashing of grasses) are permissible.

Turfing

- Turfing is permitted; however, to reduce the impact of turf installation an alternate cultivation machine must be used that has a vertical spindle which moves the topsoil from left to right.

Creek Bed Maintenance and Stabilisation

- The installation/construction of rock and/or geotech armouring along the banks of Armstrong Creek is permitted where necessary.

Other works

- Other works are permitted in the Armstrong Creek *linear reserve* only by consultation with, and agreement by, the Wathaurung Aboriginal Corporation, trading as Wadawurrung.

Management Condition 4: Works on Armstrong Creek including but not limited to rock beaching of the creek and construction of retention basins

Wadawurrung have agreed to an 'on-line water treatment system' in which the retention basins are constructed within the Armstrong Creek linear reserve. This system is shown in the development plan in Figure 1. Wadawurrung have agreed to allow works on Armstrong Creek on the condition that the alignment of the creek is such that it is consistent with the existing hydrology model shown in Figure 2.



Figure 2: Hydrology Model

The construction of the retention basins must be broadly in keeping with the image that were presented to Wadawurrung at the meeting held on 2nd October, 2018 and shown below in Plate 27.



Plate 27: Example of retention basins to be used at Armstrong Creek.

The retention basins must be constructed broadly in keeping with Plate 28 to ensure that they enhance the aesthetic value of the area as required by Wadawurrung.

Works on Armstrong Creek, including rehabilitation works and the installation of rock beaching/armouring must be broadly in keeping with the image that were presented to Wadawurrung at the meeting held on 2nd October, 2018 and shown below in Plate 28.



Plate 28: Example of rock beaching/armouring to be used at Armstrong Creek.

Management Condition 4 is in keeping with the report prepared by Lachlan Inglis – Project Engineer – from Water Technology.

General Management Conditions

In order to provide a system for notification of the discovery of Aboriginal cultural heritage during construction works, it will first be necessary to provide an induction to any future project managers and construction workers about the discovery of Aboriginal cultural heritage onsite. There will also need to be a system of reporting any possible Aboriginal cultural heritage items which are discovered which must be built into any development or environmental management plan (EMP) for the site. Some recommendations for notifying the discovery of Aboriginal cultural heritage are contained below.

Management Condition 5: Cultural Heritage Induction

A cultural heritage induction must be conducted with all site workers/contractors by representatives of the Wathaurung Aboriginal Corporation, trading as Wadawurrung prior to or at the commencement of construction works. A Cultural Heritage Advisor/Archaeologist may also attend this training session if necessary. This session must include a brief history of the Aboriginal occupation of the activity area and broader region; a summary of the archaeological investigations conducted within the activity area; specific details of all Aboriginal Places and cultural material located during the CHMP assessment; a summary of the recommendations and contingencies contained within the CHMP; and the obligations of site workers/contractors and Sponsors under the Victorian Aboriginal Heritage Act 2006.

- The Wadawurrung must be provided with at least two weeks' notice of the requirement to present a cultural heritage induction.
- In addition to this, the Cultural Heritage Advisor must prepare a cultural heritage induction booklet to be provided to all site workers/contractors as a reference. The cultural heritage induction booklet must include the CHMP Executive Summary, Section 61 Matters, Management Recommendations and Contingencies as well as information on how to identify Aboriginal cultural heritage, including the Office of Aboriginal Affairs Victoria Mini Posters.
- This procedure must be paid for and organised by the Sponsor.

Management Condition 6: Wadawurrung Access to the Activity Area

Access to the activity area must be provided to representatives of the Wadawurrung before, during and after construction for the purpose of ensuring compliance with the CHMP. The representatives of the Wadawurrung must comply with all OH&S requirements of the activity area.

Management Condition 7: Reburial of Cultural Material

Aboriginal cultural material recovered/collected during the course of the assessment or salvage program or activity, must be reburied and the following must occur:

- a reburial location should be identified in the activity area, and this location must be in an area which is protected from future development or disturbance;
- once reburied, the reburial location must be recorded to sub-metre accuracy by a CHA and be relocatable;
- flagging tape should be laid within the hole, at a depth of 30cm above the reburied cultural material to identify that cultural material is buried below the flagging tape;
- the relevant VAHR site record card must be updated and a 'collection' component form must be completed by the CHA and lodged with AV;
- cultural material to be reburied must be placed in a durable container manufactured by WAC;
- a separate container is to be manufactured for each Aboriginal Place to be reburied;
- where an Aboriginal Place is comprised of a large amount of cultural material it will be necessary to manufacture a number of containers to rebury the cultural material;

- the contents of the container must include the cultural material to be reburied, a catalogue of the cultural material to be reburied both on paper and on an archive quality storage medium, a copy of the relevant sections of the CHMP under which the reburial is being performed, and a handful of soil from the Aboriginal Place from which the cultural material originated;
- a smoking ceremony must be performed prior to the reburial of cultural material;
- the reburial must be attended by Wadawurrung representatives;
- the cost of the manufacture of the container, the analysis and preparation of the cultural material for reburial, smoking ceremony and Wadawurrung attendance at the reburial must be borne by the Sponsor.

In this instance the reburial of cultural material from the ACHP VAHR 7721-1356 (Hams Road, Waurin Ponds LDAD1) must occur within a period not exceeding six months from the completion of the activity. It is recommended that the reburial of cultural material occur at any location within the Activity Area by mutual agreement between the Sponsor and the RAP. If no agreement is able to be reached regarding a reburial location the Sponsor and the RAP may agree to an alternative outcome such as the retention of the artefact by the Wadawurrung for educational purposes.

The reburial process must be carried out in accordance with the Wadawurrung standard procedure for reburial – see Appendix 7. Standard Procedure for the Reburial of Cultural Material.

9.0 Contingency Plans

The contingency procedures contained in Section 9.1 of this report form part of the Cultural Heritage Management Plan and *must* be incorporated into the development or Environmental Management Plan for the project. A copy of this management plan 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 management plan must also include specific contingency plans for:

- a) the resolution of any disputes between the sponsor and the Wathaurung Aboriginal Corporation, trading as Wadawurrung in relation to the implementation of the plan or the conduct of the activity;
- b) the management of Aboriginal cultural heritage found during the activity;
- c) the notification, in accordance with the Act, of the discovery of Aboriginal cultural heritage during the carrying out of the activity; and
- d) reviewing compliance with the Management Plan and mechanisms for remedying non-compliance.

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

9.1 Section 61 Matters

Clause 13(1) Schedule 2 of the Regulations requires that the CHMP must contain a contingency plan for the matters referred to in Section 61 of the Act.

Section 61 of the Victorian Aboriginal Heritage Act 2006 requires consideration of:

- 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.

For the contingency plan relating to disputes, delays and other obstacles that may affect the conduct of the activity see Section 9.2. Resolution of any disputes between the Sponsor and relevant RAPs in relation to the implementation of the CHMP or the conduct of the activity.

For the contingency plan relating to avoiding or minimising harm to Aboriginal cultural heritage located during the activity see Section 9.3. Management of Aboriginal cultural heritage found during the activity.

For the contingency plan relating to reporting the discovery of Aboriginal cultural heritage see Section 9.4 Reporting Discovery of Aboriginal Cultural Heritage during Works.

For the contingency plan relating to the custody and management of Aboriginal cultural heritage during the course of the activity see Section 9.5. Management of Aboriginal cultural heritage found during the activity.

For the contingency plan relating to reviewing compliance see Section 9.6 Reviewing Compliance with the Plan.

9.2 Dispute Resolution

Clause 13(1) Schedule 2 of the Regulations requires that the CHMP must contain a contingency plan for the resolution of any disputes between the Sponsor and relevant RAPs in relation to the implementation of an approved CHMP or the conduct of the activity.

Disputes may occur at various stages during the activity. Procedures for dispute resolution aim to ensure that all parties are fully aware of their rights and obligations, that full and open communication between parties occurs and those parties conduct themselves in good faith.

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

Informal Dispute Resolution

- The party raising the dispute must complete a Dispute Notification Form (included below) and email or fax a copy to all parties listed in Section 9.7. Communication between Parties.
- Project delegates (as listed in Section 9.7. Communication Between Parties) of each party (RAP and Sponsor) must attempt to negotiate a resolution to any dispute related to cultural heritage management of the activity area within 49 hours of written notice being received that a dispute between parties is deemed to exist. If the project delegates cannot reach an agreement, representatives of

both parties must meet to negotiate a resolution to an agreed schedule.

- If representatives of the relevant parties fail to reach an agreement, an independent mediator must be initially sought to assist in resolving the dispute. A timeframe for the independent mediator must be agreed upon by both parties. If an independent mediator cannot be agreed on, mediation shall be effected by a mediator nominated upon the application by either party, by the Victorian Chapter of the Institute of Arbitrators and Mediators or the Dispute Settlement Centre of Victoria.
- If the matter remains unresolved after mediation the Parties shall seek to agree upon the appointment of an independent arbitrator to hear and resolve the matter. In the absence of agreement as to an arbitrator, arbitration shall be effected by an arbitrator nominated upon the application by either Party by the Victorian Chapter of the Institute of Arbitrators and Mediators, or, failing such nomination within 28 days, appointed with the provisions of the *Commercial Arbitration Act (Vic) 1984*.
- A reference to arbitration under this Clause shall be deemed to be a reference to arbitration within the meaning of the laws relating to arbitration in force in the State of Victoria. The arbitrator shall have all the powers conferred by those laws. The arbitrator's decision shall be final, subject to any rights of appeal under the *Commercial Arbitration Act (Vic) 1984*.
- The procedures concerning mediation and arbitration, including payment of costs, shall be agreed between the Parties.
- These arrangements do not preclude any legal recourse open to the Parties being taken but the Parties agree the above avenues will be exhausted before such recourse is made.

In order to facilitate the above procedure:

- The Party with the grievance must notify each other Party of the problem at the earliest opportunity;
- Throughout all stages of the procedure all relevant facts must be clearly identified and recorded;
- All disputes will be jointly investigated; and
- Sensible time limits must be allowed for completion of the various stages of discussion. However, the parties must cooperate to ensure that the dispute resolution procedures are carried out as quickly as possible.

Without prejudice to either party, and except where a bona fide safety issue is involved, and/or when the nature of the work or the area affected by the work concerns the matter in dispute, Work should continue in accordance with this Plan while matters in dispute between them are being negotiated in good faith. No party shall be prejudiced as to final settlement by the continuance of work in accordance with this procedure.

Any corrective or remedial activities required by a resolution to a dispute under this Clause (e.g. repairing damage to sites) will be overseen by representatives from the Wadawurrung and will take place in accordance with their instructions.

DISPUTE RESOLUTION NOTIFICATION FORM					
Cultural Heritage Plan No					
Relevant Party Making the Dispute:					
Contact Person:					
Date:					
Nature of the Dispute:					
Proposed Meeting Time/Date & Place:					
Relevant parties who have been sent (email or fax) this notification (tick box):					
Party to Agreement	Name of Delegate	Fax	Postal Address	Email	Contacted (\)
RAP		(03) 4308 0421	PO Box 734		
			Ballarat		
			VIC 3353		
The Sponsor					
Site Supervisor					
CHA					

9.3 Discovery of Aboriginal cultural heritage during works

9.3.1 Unexpected discovery of Human Ancestral Remains

Although it is highly unlikely that Aboriginal human burials will occur within the activity area, the consultants are obliged to provide advice in the event that a human burial is discovered.

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

1. Discovery:

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

2. Notification:

- Once suspected human remains have been found, the Coroners Office and Victoria Police must be notified immediately;
- If there is reasonable grounds to believe that the remains are Aboriginal Ancestral Remains, the Coronial Admissions and Enquiries hotline must be contacted on 1300 888 544;
- All details of the location and nature of the human remains must be provided to the relevant authorities;
- If it is confirmed by these authorities that the discovered remains are Aboriginal Ancestral Remains, the person responsible for the activity must, as soon as practicable, report the existence of the Aboriginal Ancestral Remains to the Victorian Aboriginal Heritage Council in accordance with s.17 of the Act.

3. Impact Mitigation or Salvage:

- The Victorian Aboriginal Heritage Council, after taking reasonable steps to consult with any Aboriginal person or body with an interest in the Aboriginal human remains, will determine the appropriate course of action as required by s.18(2)(b) of the Act;
- An appropriate impact mitigation or salvage strategy as determined by the Victorian Aboriginal Heritage Council must be implemented by the Sponsor.

4. Curation and further analysis:

- The treatment of salvaged Aboriginal Ancestral Remains must be in accordance with the direction of the Victorian Aboriginal Heritage Council.

5. Reburial:

- Any reburial site(s) must be fully documented by an experienced and qualified archaeologist, clearly marked and all details provided to AV;
- Appropriate management measures must be implemented to ensure that the remains are not disturbed in the future.
- The Wathaurung Aboriginal Corporation should be involved in any reburial process.

Appropriate management measures must be implemented to ensure that the remains are not disturbed in the future.

9.3.2 Unexpected discovery of Aboriginal cultural heritage (Other than Ancestral Remains)

The Sponsor must at all times avoid unlawful harm to Aboriginal cultural heritage. The following contingency must be followed by the Sponsor if previously unrecorded Aboriginal cultural heritage is identified during the activity.

- a) If suspected Aboriginal cultural heritage is identified during the activity the following process applies:
- b) All works within 25m of the location of suspected Aboriginal cultural heritage must be immediately suspended and the extent of the suspected Aboriginal Place isolated from further disturbance by safety webbing and star pickets. The suspected Aboriginal cultural heritage must not be removed.
- c) The Site Supervisor must be immediately notified and a Heritage Advisor (HA) and the Wadawurrung must be notified within 24 hours of the discovery of suspected Aboriginal cultural heritage.
- d) A HA and a representative of the Wadawurrung must inspect the suspected Aboriginal cultural heritage as soon as is practical. First and foremost it will be necessary to determine if the suspected Aboriginal cultural heritage is indeed Aboriginal cultural heritage. If the suspected Aboriginal cultural heritage is determined not to be Aboriginal cultural heritage by the HA and the representative of the Wadawurrung works may recommence.
- e) If the suspected Aboriginal cultural heritage is determined to be Aboriginal cultural heritage by the HA and the representative of the Wadawurrung a decision or recommendation as to the management of the Aboriginal cultural heritage must be made by the HA and the Wadawurrung.
- f) S61 matters relating to harm avoidance or minimisation measures must be explored by the HA in consultation with the Wadawurrung and the Sponsor. If agreement is not able to be reached between the Wadawurrung and the Sponsor in regards to the management of the Aboriginal cultural heritage this will be classed as a dispute and the procedure detailed in Section 9.2. Resolution of any disputes between the Sponsor and the Wadawurrung in relation to the implementation of the CHMP or the conduct of the activity must be followed.
- g) If protection is not possible then a salvage excavation by a suitably experienced

and qualified archaeologist must occur prior to works proceeding. Any salvage excavation must be carried out in accordance with proper archaeological practice and standards and the WAC Minimum Requirements for Sub-Surface Testing, and an archaeological report detailing the methods, analysis and results of the excavation must be prepared. The extent of the salvage excavation must be to the satisfaction of the Wadawurrung.

- h) Agreement as to the process to be followed to manage the Aboriginal cultural heritage and how to proceed with works must be made within a period not exceeding three working days by the Wadawurrung, the HA and the Sponsor.
- i) The Aboriginal Victoria must be notified of the discovery of Aboriginal cultural heritage through the submission of the appropriate Victorian Aboriginal Heritage Registry forms and (if applicable) a salvage excavation report.
- j) The Wadawurrung may notify the HA who may then advise the Site Supervisor when suspended construction works can proceed. In general, works may recommence:
 - When the appropriate protective measures have been taken;
 - Where the relevant Aboriginal cultural heritage records have been updated and/or completed;
 - Where all parties agree there is no prudent or feasible course of action; or
 - Once any relevant dispute has been resolved.

The Heritage Advisor, the Sponsor and the Wadawurrung must ensure that the above steps are followed and that legal obligations and requirements are complied with at all times.

9.4 Reporting discovery of Aboriginal cultural heritage during works

Clause 13(1) Schedule 2 of the Regulations requires that the CHMP contain a contingency plan for the notification, in accordance with the Act, of the discovery of Aboriginal cultural heritage during the carrying out of the activity.

In accordance with Section 24 of the *Aboriginal Heritage Act 2006* 'Reporting discovery of Aboriginal places and objects' if a person discovers an Aboriginal place or object; and the person knows that the place or object is an Aboriginal place or object the person must report the discovery to the Secretary as soon as practicable unless, at the time of making the discovery, the person had reasonable cause to believe that the Register contained a record of the place or object.

If a discovery of an Aboriginal place or object is made in the course of works being carried out on any land, the person in charge of the works is deemed for the purposes of Section

24 of the *Aboriginal Heritage Act 2006* to be the person who discovered the place or object.

For further information relating to notification, in accordance with the Act, of the discovery of Aboriginal cultural heritage during the carrying out of the activity see 9.3. Management of Aboriginal cultural heritage found during the activity.

In order to provide a system for notification of the discovery of Aboriginal cultural heritage during construction works, it will first be necessary to provide an induction to any future project managers and construction workers about the discovery of Aboriginal cultural heritage on site. There will also need to be a system of reporting any possible Aboriginal cultural heritage items which are discovered which must be built into any development or environmental management plan (EMP) for the site. Some recommendations for notifying the discovery of Aboriginal cultural heritage are contained below.

- A site induction or inductions should be held with project managers and any construction workers on site. The purpose of the inductions will be to describe items of Aboriginal cultural heritage to personnel engaged in construction, to create an awareness of their cultural value and to inform personnel about the procedure for reporting suspected Aboriginal cultural heritage.

This induction must be presented by a Wathaurung Aboriginal Corporation representative and may be attended by a Heritage Advisor.

- The project manager should appoint a qualified Heritage Advisor for the duration of the project, who will be available to advise and act on the discovery of suspected Aboriginal cultural heritage. The Heritage Advisor will need to:
 - Be available to visit the site and inspect any items of suspected Aboriginal cultural heritage that may be found during any development.
 - Document any items of Aboriginal cultural heritage that are found during any development and report the sites to AV by means of completing an AV site card and registering the site.
 - Complete the site documentation in association with a representative of the Registered Aboriginal Party (RAP), should one exist for the Activity Area at the time of works.
 - Advise on appropriate treatment or salvage of any Aboriginal cultural heritage.
 - Provide adequate reporting on the treatment of any Aboriginal cultural

heritage to standards required by AV.

9.5 Management of Aboriginal Cultural Heritage discovered during works

In any case where previously unrecorded Aboriginal cultural material is located during the assessment, it will be the responsibility of the Heritage Advisor to:

- Catalogue the Aboriginal cultural heritage;
- Aboriginal Victoria (AV) must be advised of this through completion and submission of relevant VAHR forms to the Heritage Registrar, AV, by the HA;
- Label and package the Aboriginal cultural heritage with reference to provenance; and
- Once scientific analysis of any cultural heritage is completed, the artefacts recovered from the assessment, salvage and activity phases must be returned to the RAP within 6 months of the completion of the activity.
- The Wadawurrung must be the caretaker of this material and may choose to rebury it in the activity area.
- If the Wadawurrung chooses to rebury the Aboriginal cultural heritage it must be done in accordance with the Wathaurung Reburial Procedures set out in Appendix 8.

9.6 Reviewing Compliance with the Plan

Under Section 67A of the Aboriginal Heritage Act 2006 the Sponsor must comply with approved cultural heritage management plan. The sponsor of an approved cultural heritage management plan is guilty of an offence if:

- a) the sponsor by an act or omission fails to comply with the conditions of the approved cultural heritage management plan; and
- b) at the time of the act or omission the sponsor knew that the act or omission failed to comply with the conditions of the plan.

A sponsor of an approved cultural heritage management plan who is guilty of an offence under is liable to penalties of between 60-300 fee units for a natural person and in the case of a body corporate; 300-3000 fee units.

In order to ensure that there is compliance with the Cultural Heritage Management Plan, a checklist is included below for use by the Sponsor. It lists those matters addressed in this plan with which the Sponsor must comply. This list should be used as a reference in the event that compliance with the plan is questioned.

Part 6 of the Victorian Aboriginal Heritage Act 2006 makes provision for the conduct of cultural heritage audits. The Minister may require an audit if the sponsor of a management plan has, or is likely to, contravene the recommendations of the plan or the

conditions of a permit, or if the impact of the activity on cultural heritage is deemed to be greater than that determined at the time the plan was prepared. The audit must be conducted by, or under the direction of, an inspector. Under S.88 of the Act, if an audit is ordered, a stop order for the activity will be issued until the audit has been completed.

The report of a cultural heritage audit may identify any contravention of an approved management plan, recommend amendments to a plan and other measures in relation to an activity to protect Aboriginal cultural heritage. It may also result in amendments to an approved plan.

If a stop order has been issued in relation to an activity it operates for 30 days or for a period of time specified in the order, or until it is revoked (under the terms of s.93). A stop order may be revoked by the Minister or by the inspector who issued it. Under s.95 of the Act it is an indictable offence to engage in any conduct in contravention of a stop order and monetary penalties also apply.

It is however Wadawurrung policy that all non-compliance issues must result in a stop works until such a time as a meeting can be held between the RAP, Sponsor and HA to discuss the process moving forward. A stop works must be implemented even if the non-compliance has not resulted in harm to Aboriginal cultural heritage.

The sponsor must ensure that compliance with this plan is reviewed. A review process must be incorporated in the Environmental Management Plan or similar document for the project. It is recommended that each of the management actions recommended above be listed in the Environmental Management Plan. There should be a mechanism included in the plan (such as a checklist or database) to indicate when the recommended actions for Aboriginal cultural heritage have been carried out. The project manager should be responsible for maintaining this list. Any associated documentation which accompanies the actions should be recorded on the checklist or database.

The record of compliance must be maintained by the project manager at all times and must be available for inspection by either an Inspector under the Act or other representative of the Secretary.

Wathaurung Aboriginal Corporation representatives may conduct CHMP compliance checks.

It is illegal to harm cultural heritage outside of the recommendations contained within this management plan. Inspectors from Aboriginal Victoria may conduct CHMP compliance audits.

A checklist is provided below that specifies what measures will be undertaken to review compliance with the CHMP. The site manager must verify that the measures specified below have been undertaken.

CHECKLIST FOR REVIEWING COMPLIANCE WITH THIS CHMP		
	Yes	No
Prior to works occurring		
1: Have the contingency plans contained in Section 9 of this report been incorporated into the development or JEHA (Job Environment & Heritage Assessment) for the project?		
2: Has the WAC been requested to organise the cultural heritage induction specified in Condition 5?		
8: Has site access been provided to Wadawurrung as specified in Condition 6?		
During works		
1: Has site access been provided to Wadawurrung as specified in Condition 6?		
2: Has potentially artefact bearing topsoil been retained in the Activity Area in accordance with Management Condition 2?		
3: Has works in the Armstrong Creek linear reserve been undertaken in accordance with Condition 3?		
4: Has works on Armstrong Creek including the retention basins been undertaken in accordance with Condition 4?		
Identification of Aboriginal Cultural Heritage		
1: Has all activity within 25m ceased if 1-5 artefacts have been located or within the general area if a dense artefact scatter, <i>in situ</i> deposits, shell midden, hearth feature, stone or earth feature has been located?		
2: Has the WAC been notified, consulted in all discussions		
3: Has the Secretary been notified?		
4: Has a Heritage Advisor been notified?		
5: Have the artefacts been left in place?		
6: Has the find/s been protected (e.g. with fencing) if required?		
7: In relation to suspected human remains, have the Coroner's Office and Victoria Police been notified?		
8: Has the discovery of Aboriginal cultural heritage being managed in accordance with Contingency 9.3		
9: Has the WAC been consulted over the management of the Aboriginal cultural heritage?		
10: Has the sponsor thoroughly considered every possible alternative in terms of harm avoidance and minimisation?		
11: Has an appropriate mitigation/salvage strategy been developed?		
12: Has the mitigation/salvage works been implemented?		

13: Have the salvaged finds/remains been treated in accordance with the direction of the WAC?		
Reburial Procedure: Human Remains		
1: Has a suitably qualified archaeologist been engaged to fully document the reburial site?		
2: Have the relevant authorities and the WAC been informed?		
3: Has the reburial site been clearly marked?		
4: Have all details been provided to AV?		
5: Has a strategy been developed to ensure no further disturbance (such as Section 173 in the Planning and Provision Act)?		
After works		
1: Has site access been provided to Wadawurrung as specified in Condition 6?		
2: Has Aboriginal cultural heritage been reburied in the Activity Area in accordance with Condition 7?		
Changes to Activity		
1: If changes to the activity are proposed has the Sponsor contacted the HA and RAP to ensure that these changes are permissible in accordance with the approved CHMP?		

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

To ensure compliance with the terms of this CHMP The site manager must verify that the measures specified in the above checklist have been undertaken. If any of the following breaches occur the site manager must action the relevant remedy. The aim of this process should be to resolve non-compliance issues by immediately actioning processes to remedy non-compliance through consultation with the Aboriginal representatives, and the Heritage Advisor.

If mechanisms for remedying non-compliance are not actioned and resolution cannot be reached then ultimately, the Minister may order a cultural heritage audit to be carried out. Details of cultural heritage audits can be obtained from Part 6, Division 1 of the Aboriginal Heritage Act 2006.

Potential Breach	Remedy
Prior to works occurring	
1: Contingency plans contained in Section 9 of this report have not been incorporated into the development or	The site manager must ensure that the Contingency plans are incorporated within 48 hours. All employees must be made aware of the contingency requirements.

JEHA (Job Environment & Heritage Assessment) for the project.	
During Development	
1: Activity has not ceased within 25m if Aboriginal cultural heritage has been located.	Works must stop until such a time as a meeting can be held between the RAP, Sponsor and HA to discuss the process moving forward. The Secretary notified within 48 hours. A Heritage Advisor should immediately be notified to assess the find.
2: The Secretary has not been notified of any Aboriginal cultural heritage	Notify the Secretary within 48 hours
3: Harm to Aboriginal cultural heritage has occurred?	Works must stop until such a time as a meeting can be held between the RAP, Sponsor and HA to discuss the process moving forward. The sponsor must notify the Secretary with 48 hours. The sponsor must immediately notify a Heritage Advisor to assess the level of harm with WAC Aboriginal representatives The sponsor and WAC representatives should undertake the following process: • Details of the harm should be documented by the sponsor, the cultural advisor and Aboriginal representatives; • A meeting should be held within 48 hours to attempt to mitigate further harm; • The understanding of the issue by both parties should be clearly stated by the relevant representatives during the course of the meeting; • The parties should reach a resolution; • The objective of the meeting should be to discuss and arrive at an understanding of the matter being disputed and reach a negotiated settlement of the dispute. This may include a formal protocol between the Sponsor and Aboriginal representatives; and

	The resolution to the dispute should be recorded in writing and signed off on by both parties.
4. Activity has not ceased if potential skeletal remains have been located.	Works must stop until such a time as a meeting can be held between the RAP, Sponsor and HA to discuss the process moving forward. The sponsor must immediately action the procedure outlined in Contingency 9.3.1.

It is illegal to harm cultural heritage outside of the recommendations contained within this management plan. Inspectors from Aboriginal Victoria may conduct CHMP compliance audits.

9.7 Communication between Parties

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

The Project Manager should set in place internal processes of communication, which ensure that they are notified prior to any contractors conducting works (including archaeological contractors) at any of the archaeological sites on the property.

Contact Details for Sponsor

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AND

Waurin Ponds Trust c/o **Urban Quarter Pty Ltd**
 Senior Development Manager: David Barham
david.barham@urbanquarter.net.au
 ABN 89 600 858 160
 Level 2, 48 Kishorn Road
 Applecross WA 6153

Ph 08 9315 4100

Contact Details for RAP

Stephanie Frydas
Archaeologist
Wathaurung Aboriginal Corporation
Address: 99 Mair Street East Ballarat VIC, Australia 3353
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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: Echin Pty Ltd c/o Taylors Development Strategists P/L
 ABN/ACN: ACN 009158089
 Contact Name: Roger Cooper
 Postal Address: 8/270 Ferntree Gully Road, Notting Hill VIC 3168
 Business Number: 9501 2800 Mobile:
 Email Address: r.cooper@taylorsds.com.au

Sponsor's agent (if relevant)

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

SECTION 2 - Description of proposed activity and location

Project Name: Residential Subdivision at 35 & 69-93 Hams Road Waurn Ponds
 Municipal district: Greater Geelong City Council

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

Subdivision

SECTION 3 - Cultural Heritage Advisor

Matthew Barker Benchmark Heritage Management matthew@benchmarkheritage.com.au
 Name Company Email address

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

Start Date: 24-Sep-2016 Finish Date: 28-Feb-2017

Submitted on: 24 Sep 2016

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

- ☒ A cultural heritage management plan is required by the Aboriginal Heritage Regulations 2007
What is the high Impact Activity as it is listed in the regulations?
 Subdivision
 Is any part of the activity an area of cultural heritage sensitivity, as listed in the regulations? Yes
- ☐ Other Reasons (Voluntary)
- ☐ An Environmental Effects Statement is required
- ☐ A Cultural Heritage Management Plan is required by the Minister for Aboriginal Affairs.

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

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

Wathaurung Aboriginal Corporation

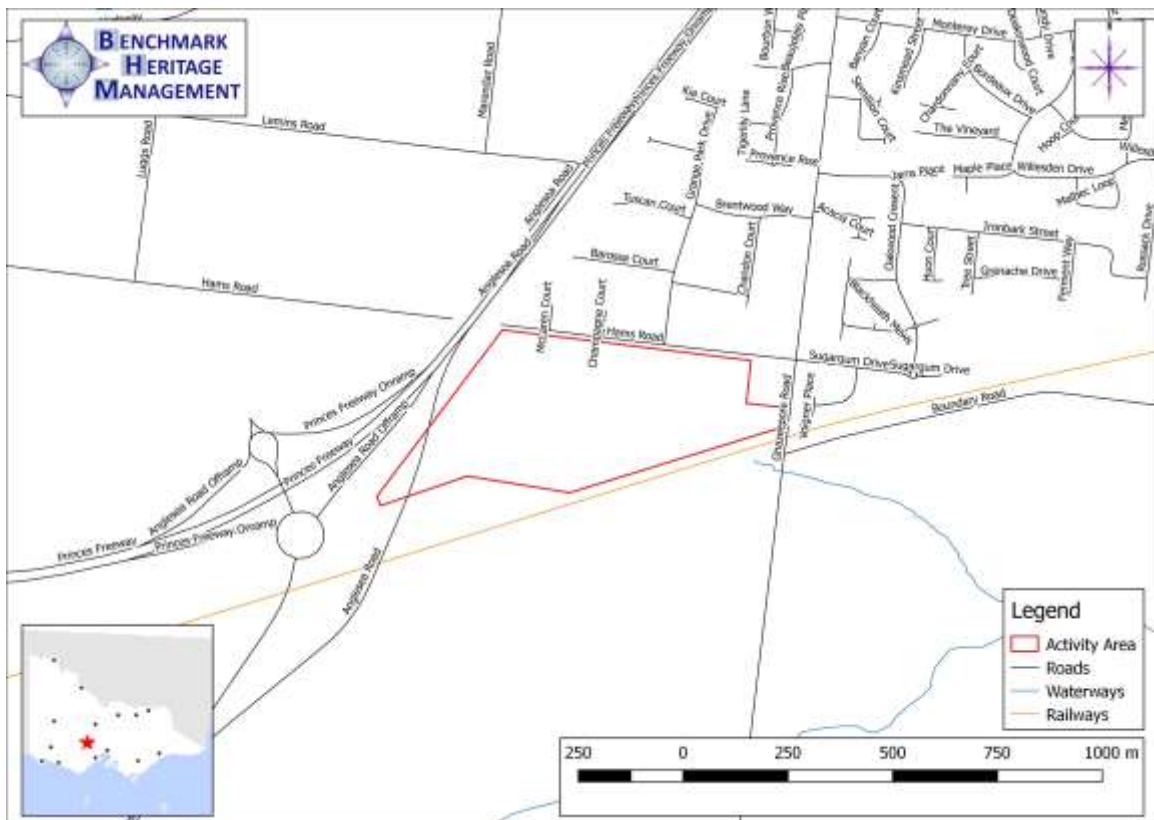
SECTION 7 - Notification checklist

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

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: 24 Sep 2016



Appendix 2: Notice to Evaluate Cultural Heritage Management Plan



Wadawurrung

Wathaurung Aboriginal Corporation
trading as Wadawurrung

ABN 11 212 302 200
KN 3335

99 Main Street East
BALLARAT VIC 3350

T: 03 4308 0420
F: 03 4308 0421
www.wathcorp.com.au

4th October 2016

Echin Pty Ltd and Waurn Ponds Trust c/o Urban Quarter Pty Ltd
C/- David Barham and Adeline Choo
8/270 Ferntree Gully Road
NOTTING HILL VIC 3186

To Whom It May Concern,

NOTICE OF INTENT TO PREPARE A CULTURAL HERITAGE MANAGEMENT PLAN

I am writing to acknowledge your written notice of intention to prepare a management plan, received on the 24th September 2016, for the Subdivision – Residential Subdivision at 35 & 69-93 Hams Road, Waurn Ponds project.

Wathaurung Aboriginal Corporation (WAC) trading as Wadawurrung is the Registered Aboriginal Party (RAP) for the proposed activity area and will:

1. Evaluate the plan when it is completed and
2. Pursuant to s.60 of the *Aboriginal Heritage Act 2006* give notice that the WAC will do all or any of the following:
 - (a) Consult with the sponsor in relation to the assessment of the area for the purposes of the plan.
 - (b) Consult with the sponsor in relation to the recommendations to be included in the plan.
 - (c) Participate in the conduct of the assessment.

To aid in the development of the CHMP, the following process is requested as a minimum:

At least one pre-planning meeting with Sponsor/Cultural Heritage Advisor to determine process and methodology.

One post-investigation meeting to develop appropriate management recommendations.

And for the evaluation of the CHMP, the following is required:

1 hard copy, 1 electronic (PDF or word) copy and full payment to the Wadawurrung Office for evaluation. Once all three are received the 30 day evaluation period will begin.

For further information regarding this advice, please contact

Katrina Thomas on:
0457 008 616
katrina@wathcorp.com.au
Yours sincerely,

Katrina Thomas
RAP Manager
Wathaurung Aboriginal Corporation
trading as: Wadawurrung

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 (Aboriginal Affairs Victoria 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 Cultural Heritage 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.

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Appendix 4: Artefact Catalogue

P IT	DE PT H (m m)	RAW MAT ERIA L	ART EFAC T TYPE	Ret ouc h	CO RTE X	PLAT FOR M TYPE	TERMI NATIO N TYPE	TO OL TYP E	MA X LEN GT H (m m)	ORIE NTE D LEN GTH (mm)	ORIE NTE D WID TH (mm)	ORIE NTED THIC KNES S (mm)	COM MENT S
16	0-100 m	Quar tz	angu lar frag men t	No	0%				15	12	15	14	
93	100- 200 m	Quar tzite	Dista l Blad e	1- 32%	0%		Feathe r		21	10	4	21	
97	0-100 m	Silcr ete	Dista l Blad e	1- 32%	0%		Feathe r		15	15	14	2	
103	200- 300 m	Quar tz	Com plete Flake	32- 67%	0%	Plain	Feathe r	not che d	35	35	18	4	hafte d tool
107	200- 300 m	Silcr ete	Com plete Flake	1- 32%	0%	Plain	Feathe r		24	24	10	4	
108	100- 200 m	Quar tzite	Brok en Flake (Prox imal)		0%	Plain	N/A		28	28	22	7	
108	100- 200 m	Quar tzite	Com plete Flake		0%	Abra ded	Feathe r		12	12	6	2	
108	100- 200 m	Quar tzite	angu lar frag men t		0%				12				
108	100- 200	Quar tzite	angu lar frag		0%				4				

	m m		men t										
1 0 8	100 - 200 m m	Silcr ete	angu lar frag men t		0%				7				

Appendix 5: Site Gazetteer

Name	VAHR 7721-1356 (Hams Road, Waurrn Ponds LDAD1)
GDA 94 Coordinates	STP16 263261.5734e 5766902.794n STP93 263214.532e 5766792.828n STP97 263291.2788e 5766777.994n STP103 263211.1185e 5766775.876n STP107 263417.5818e 5766756.946n STP108 263397.1544e 5766760.261n
Cultural Materials	10 flaked stone artefacts
Aspect	360 degrees
Condition and Integrity	Undisturbed
Context and Evidence of Disturbance	Context 2 – dark grey silt (5Y 4/N) and Context 3 - a compact orange silty clay (5YR 8/16) with buckshot inclusions and clay content increasing with depth
Vertical Artefact Distribution	100-400m
pH	7
Landform	Hill slope
Landform Element	Lower, mid and upper slope
Vegetation	Grass
Nearest Distance to Potable Water	Armstrong Creek is located in the centre of the Activity Area.

Site
Photograph
showing
general
location of
STP93.
Photo by J.
Young
(9/11/16)
facing south



Artefact
Photo by J.
Young
(1/1/17)



Appendix 6: GDA94/MGA54 Coordinates for Sub-Surface Testing

Test Pit:

1X1A	5766856	263196.9	63.7096
1X1B	5766795	263190.4	62.3629

Shovel Test Pits:

STP1	5766896	263381.5
STP2	5766894	263360
STP3	5766899	263340.1
STP4	5766898	263319.1
STP5	5766903	263297.6
STP6	5766893	263296.3
STP7	5766889	263318.7
STP8	5766882	263337.1
STP9	5766878	263355.3
STP10	5766879	263379.2
STP11	5766858	263378.1
STP12	5766861	263356.3
STP13	5766861	263337.4
STP14	5766863	263318.6
STP15	5766868	263300.1
STP16	5766903	263261.6
STP17	5766882	263260
STP18	5766864	263260.1
STP19	5766841	263260.5
STP20	5766909	263240.5
STP21	5766912	263219.2
STP22	5766892	263217.4
STP23	5766875	263215.6
STP24	5766915	263200.4
STP25	5766894	263198.6
STP26	5766875	263198.1
STP27	5766856	263195.6
STP28	5766916	263181.9
STP29	5766896	263181.3
STP30	5766879	263181.2
STP31	5766862	263180.8
STP32	5766918	263162.8
STP33	5766900	263161.4
STP34	5766879	263159.3
STP35	5766860	263158.3

STP36	5766841	263160.6
STP37	5766840	263139.9
STP38	5766860	263140.1
STP39	5766879	263140.9
STP40	5766901	263146
STP41	5766921	263148.1
STP42	5766922	263129.2
STP43	5766900	263125.7
STP44	5766880	263126.1
STP45	5766862	263123.5
STP46	5766843	263121.7
STP47	5766883	263105.3
STP48	5766898	263106.8
STP49	5766920	263111.7
STP50	5766861	263104.5
STP51	5766841	263105.2
STP52	5766862	263072.7
STP53	5766887	263079.9
STP54	5766906	263082.2
STP55	5766923	263087.5
STP56	5766927	263073.7
STP57	5766909	263066.5
STP58	5766895	263065.2
STP59	5766870	263053.6
STP60	5766874	263032.2
STP61	5766878	263003.4
STP62	5766800	263021.5
STP63	5766814	263002
STP64	5766824	262982.9
STP65	5766830	262965.4
STP66	5766812	262958.7
STP67	5766802	262980
STP68	5766787	262970.9
STP69	5766801	262947
STP70	5766775	262953.2
STP71	5766763	262970.8
STP72	5766794	262933.8
STP73	5766782	262920.5
STP74	5766770	262935
STP75	5766757	262945.3
STP76	5766757	262924.1
STP77	5766769	262908.4
STP78	5766829	263010.1

STP79	5766841	262992.3
STP80	5766849	262978.4
STP81	5766891	263237
STP82	5766857	263594.7
STP83	5766860	263575.5
STP84	5766863	263557.5
STP85	5766845	263555.7
STP86	5766823	263560.1
STP87	5766833	263595.8
STP88	5766821	263577.1
STP89	5766815	263595.5
STP90	5766795	263592.3
STP91	5766838	263575.8
STP92	5766797	263174.3
STP93	5766793	263214.5
STP94	5766790	263234.7
STP95	5766789	263255.1
STP96	5766783	263272.1
STP97	5766778	263291.3
STP98	5766759	263288.6
STP99	5766760	263268.9
STP100	5766803	263270.3
STP101	5766769	263251.7
STP102	5766772	263231.5
STP103	5766776	263211.1
STP104	5766777	263191.5
STP105	5766776	263420.5
STP106	5766777	263396.8
STP107	5766757	263417.6
STP108	5766760	263397.2
STP109	5766737	263401.6
STP110	5766737	263420.6
STP111	5766787	263152.6
STP112	5766771	263152.6
STP113	5766760	263170.8
STP114	5766778	263171.6
STP115	5766757	263188.7
STP116	5766755	263212.5
STP117	5766754	263232.7
STP118	5766747	263255.4
STP119	5766743	263269.9
STP120	5766724	263265.4
STP121	5766728	263243.4

STP122	5766734	263225.6
STP123	5766738	263206.2
STP124	5766739	263179.5
STP125	5766742	263157.4
STP126	5766750	263138.5

Machine Trenches:

MT1	5766574	262784.6
MT2	5766607	262898.6
MT3	5766613	263027.4
MT4	5766583	263130.9
MT5	5766596	263230.7
MT6	5766622	263334.8
MT7	5766660	263445.4
MT8	5766682	263527.5
MT9	5766707	263478.2
MT10	5766707	263396.2
MT11	5766689	263301
MT12	5766742	263350.6
MT13	5766674	263226.2
MT14	5766662	263153
MT15	5766664	263088.3
MT16	5766723	263112.9
MT17	5766770	263107.4
MT18	5766689	262997.1

Appendix 7: WAC Standard Procedure for Reburial

- A reburial location should be identified in the activity area, and this location must be in an area which is protected from future development or disturbance;
- once reburied, the reburial location must be recorded to sub-metre accuracy by a CHA and be relocatable;
- flagging tape should be laid within the hole, at a depth of 30cm above the reburied cultural material to identify that cultural material is buried below the flagging tape;
- the relevant VAHR site record card must be updated and a 'collection' component form must be completed by the CHA and lodged with AV;
- cultural material to be reburied must be placed in a durable container manufactured by WAC;
- a separate container is to be manufactured for each Aboriginal Place to be reburied;
- where an Aboriginal Place is comprised of a large amount of cultural material it will be necessary to manufacture a number of containers to rebury the cultural material;
- the contents of the container must include the cultural material to be reburied, a catalogue of the cultural material to be reburied both on paper and on an archive quality storage medium, a copy of the relevant sections of the CHMP under which the reburial is being performed, and a handful of soil from the Aboriginal Place from which the cultural material originated;
- a smoking ceremony must be performed prior to the reburial of cultural material;
- the reburial must be attended by Wadawurrung representatives;
- the cost of the manufacture of the container, the analysis and preparation of the cultural material for reburial, smoking ceremony and Wadawurrung attendance at the reburial must be borne by the Sponsor.

Appendix 8: Permitted Uses

32.0801/07/2014
VC116**GENERAL RESIDENTIAL ZONE**

Shown on the planning scheme map **GRZ, R1Z, R2Z or R3Z** with a number (if shown).

Purpose

To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.

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

To implement neighbourhood character policy and adopted neighbourhood character guidelines.

To provide a diversity of housing types and moderate housing growth in locations offering good access to services and transport.

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

32.08-101/07/2013
VB**Table of uses****Section 1 - Permit not required**

Use	Condition
Animal keeping (other than Animal boarding)	Must be no more than 2 animals.
Bed and breakfast	No more than 10 persons may be accommodated away from their normal place of residence. At least 1 car parking space must be provided for each 2 persons able to be accommodated away from their normal place of residence.
Dependent person's unit	Must be the only dependent person's unit on the lot.
Dwelling (other than Bed and breakfast)	
Home occupation	
Informal outdoor recreation	
Medical centre	The gross floor area of all buildings must not exceed 250 square metres. Must not require a permit under clause 52.06-3. The site must adjoin, or have access to, a road in a Road Zone.
Minor utility installation	
Place of worship	The gross floor area of all buildings must not exceed 250 square metres. The site must adjoin, or have access to, a road in a Road Zone.
Railway	
Residential aged care facility	

32.0801/07/2014
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Minor utility installation	
Place of worship	The gross floor area of all buildings must not exceed 250 square metres. The site must adjoin, or have access to, a road in a Road Zone.
Railway	
Residential aged care facility	

Use	Condition
Utility installation (other than Minor utility installation and Telecommunications facility)	
Any other use not in Section 1 or 3	

Section 3 – Prohibited

Use
Amusement parlour
Animal boarding
Animal training
Brothel
Cinema based entertainment facility
Horse stables
Industry (other than Car wash)
Intensive animal husbandry
Motor racing track
Nightclub
Office (other than Medical centre)
Retail premises (other than Community market, Convenience shop, Food and drink premises, Plant nursery)
Saleyard
Stone extraction
Transport terminal
Warehouse (other than Store)

32.08-2

01/07/2013
V8

Subdivision

Permit requirement

A permit is required to subdivide land.

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

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

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

32.08-3
01/07/2013
VB

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.

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.

32.08-4
22/08/2013
VC104

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

Permit requirement

A permit is required to:

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

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

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

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

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

Transitional provisions

Despite the amendments made to Clause 55 by Amendment VC100, Clause 55 does not apply to:

- an application to construct or extend a development of four or more storeys made before the approval date of the planning scheme amendment that introduces those amendments into the planning scheme; and
- an application under section 69 of the Act to extend a permit to construct or extend a development of four or more storeys granted on or before the approval date of Amendment VC100.

32.08-5 Requirements of Clause 54 and Clause 55

01/07/2013
V8

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.

32.08-6 Buildings and works associated with a Section 2 use

01/07/2013
V8

A permit is required to construct a building or construct or carry out works for a use in Section 2 of Clause 32.08-1.

32.08-7 Maximum building height requirement for a dwelling or residential building

01/07/2013
V8

The maximum height of a building used for the purpose of a dwelling or residential building must not exceed the building height specified in a schedule to this zone.

This does not apply to:

- An extension of an existing building that exceeds the specified building height, provided that the extension does not exceed the existing building height.
- A building which exceeds the specified building height for which a valid building permit was in effect prior to the introduction of this provision.

If no building height is specified, the requirement set out in the relevant standard of Clause 54 and Clause 55 applies.

32.08-8 Application requirements

01/07/2013
V8

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

- For a residential development of four storeys or less, the neighbourhood and site description and design response as required in Clause 54 and Clause 55.
- For residential development of five or more storeys, an urban context report and design response as required in Clause 52.35.
- For an application for subdivision, a site and context description and design response as required in Clause 56.
- Plans drawn to scale and dimensioned which show:
 - Site shape, size, dimensions and orientation.
 - The siting and use of existing and proposed buildings.

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

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

32.08-9

01/07/2013
V8

Exemption from notice and review

Subdivision

An application to subdivide land into lots each containing an existing dwelling or car parking space is exempt from the notice requirements of Section 52(1)(a), (b) and (d), the decision requirements of Section 64(1), (2) and (3) and the review rights of Section 82(1) of the Act.

32.08-10

01/07/2013
V8

Decision guidelines

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

General

- The State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- The purpose of this zone.
- Any other decision guidelines specified in a schedule to this zone.

Subdivision

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

Dwellings and residential buildings

- For the construction and extension of one dwelling on a lot, the objectives, standards and decision guidelines of Clause 54.
- For the construction and extension of two or more dwellings on a lot, dwellings on common property and residential buildings, the objectives, standards and decision guidelines of Clause 55.
- For a development of five or more storeys, excluding a basement, the Design Guidelines for Higher Density Residential Development (Department of Sustainability and Environment 2004).

Non-residential use and development

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

32.08-11 Advertising signs

01/07/2013
V8

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

Notes: Refer to the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement, for strategies and policies which may affect the use and development of land.

Check whether an overlay also applies to the land.

Other requirements may also apply. These can be found at Particular Provisions.