Yarra Valley Country Club redevelopment
Bulleen: Cultural Heritage Management Plan

Prepared for Linked Solutions Pty Ltd
10 November 2016
CHMP 13793
Large Activity Area
Complex Assessment
HA Dr Ilya Berelow Gary Vines
Mr Charles Pick  
Level 1, 1 Spring Street,  
Melbourne, Victoria,  
3000  

Dear Mr Pick,  

RE: Cultural Heritage Management Plan 13793 - Yarra Valley Country Club Redevelopment, Bulleen  

I refer to your application to the Wurundjeri Tribe Land & Compensation Cultural Heritage Council dated 10/11/16 seeking approval of the Cultural Heritage Management Plan 13793 entitled Yarra Valley Country Club Redevelopment, Bulleen.  

With reference to s.53 and s.62(a)-(e) of the Aboriginal Heritage Act 2006 (the Act), the Wurundjeri Tribe Land & Compensation Cultural Heritage Council have considered and have approved this plan.  

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

Yours sincerely,  

Alex Parmington  
Manager, Cultural Heritage Unit  

Cc. GVines@biosis.com.au
**Document information**

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<td>Linked Solutions Pty Ltd</td>
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<tr>
<td>Prepared by:</td>
<td>Gary Vines, Martin Lawler (Senior Archaeologist), Stephanie Vick (Research Assistant), Leah Tepper (Research Assistant)</td>
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<td>CHMP Number</td>
<td>13793</td>
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<td>Activity Size</td>
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<td>Linked Solutions Pty Ltd</td>
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<td>Heritage Advisor</td>
<td>Dr. Ilya Berelov, Gary Vines</td>
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<td>CHMP Authors</td>
<td>Gary Vines</td>
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<td>Date of Completion</td>
<td>10 November 2016</td>
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<tr>
<td>Quality Assurance</td>
<td>Melanie Thomson, Senior Consultant Archaeologist, Melbourne Heritage Team</td>
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<td>Mapping:</td>
<td>In accordance with the approved form, the following projected spatial data has been forwarded to AV for this CHMP: Activity Area boundary, ground survey areas and subsurface testing locations.</td>
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<td>20623/20628</td>
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<td>File Name</td>
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Executive Summary

Activity
This is a compulsory Cultural Heritage Management Plan (CHMP) under Section 46(a) of the Aboriginal Heritage Act 2006. Linked Solutions Pty Ltd on behalf of YVCC Pty Ltd is proposing to undertake a residential development and landscaping works in the area of the former Yarra Valley Country Club, club rooms, car park and facilities area and in the southern part of the golf course fairways. The activity includes excavations for environmental water bodies and construction of access roads. A proposed land swap with Parks Victoria will see an area used for an access road to the east, while the majority of the floodplain where the current fairways are located will become parkland.

The proposed activity (the construction of residential development) is considered to be a high impact activity under regulations 45 (Dwellings) and 46 (Subdivision of Land) of the Aboriginal Heritage Regulations 2007. However, a large part of the activity area is not in an area of cultural heritage sensitivity because, despite it being situated within 200 metres of the Yarra River (Aboriginal Heritage Regulation 23(1) Waterways), this area has been subject to significant ground disturbance through excavation, grading, construction and landfill (Aboriginal Heritage Regulation 23(2)).

A Notice of Intention to Prepare a CHMP was submitted on behalf of the Sponsor to the Secretary, Department of Premier and Cabinet (DPC) before the commencement of this CHMP (see Appendix 1).

AV has allocated CHMP number 13793 to this assessment.

Under the Aboriginal Heritage Regulations 2007, the relevant Registered Aboriginal Party (RAP) for the Study Area must be consulted in regards to the project, if any cultural heritage values are identified. The Wurundjeri Tribe Land & Compensation Cultural Heritage Council Inc. (Wurundjeri Council) is the RAP for the region which includes the Activity Area.

Activity area location
The activity area is located at 9-15 Templestowe Road Bulleen on Melway Map 32 E4.

The extent of the activity area covered by this CHMP and is shown in Figure 2.

Cultural heritage assessment
A Desktop Assessment was undertaken to provide background information on the activity and its impacts, other archaeological studies, previously recorded Aboriginal places, the environment and to develop a site prediction model for the activity area. This was followed by a Standard assessment to confirm evidence of previous ground disturbance. Archival aerial photography, documents and Geotechnical evidence was also used to establish the extent of previous ground disturbance.

Based on the findings of the Desktop and Standard Assessments, it was determined that a Complex Assessment would be required to determine the potential cultural heritage values within the areas of relatively intact natural ground surface. Areas identified as having been subject to previous ground disturbance and land filling were excluded from the subsurface testing.

Consultation with the RAP (Wurundjeri Council) was undertaken as part of this assessment. This involved several meetings both in the office and onsite. Two Wurundjeri Council field representatives participated in the field survey.
Cultural heritage assessment results

The Desktop and Standard Assessment demonstrated that the potential for Aboriginal archaeological material within the activity area was low in much of the proposed development area due to previous ground disturbance comprising excavation and filling, construction of buildings, car parks, roads, underground services, installation of irrigation systems, earthmoving for creation of greens and fairways and general landscaping. However, some parts of the floodplain area were potentially intact to the extent of retaining natural ground levels.

Geomorphological analysis and comparisons with nearby archaeological investigations show that the activity area comprises basal Silurian bedrock, recent alluvium on the lower parts of the site, and high alluvial terrace deposits. The latter are of Pleistocene in origin, having been laid down during the previous interglacial period, but pre-dates any likely Aboriginal occupation. This has been confirmed by geomorphological analysis and OSL dating of similar formations at the nearby Birrarung Park (Lawler & Vick, 2013). Therefore there is no likelihood that deeply buried archaeological deposits would occur within the terrace sediments. Surface material would have been disturbed by historical land uses to the point it is unlikely that these could be identified using normal archaeological methods.

The complex assessment identified Aboriginal cultural heritage comprising five flaked stone artefacts from four of fifty one subsurface testing locations, comprising a total of 13.2 square metres of excavation. This result indicates that while Aboriginal cultural heritage is present across the flood plain, it is at a very low density, averaging one artefact per 2.64 square metres. This material was recorded as a Low Density Artefact Distribution as Bulleen LDAD (VAHR7922-1446).

Consideration of Section 61 matters

In accordance with Section 61 of the Aboriginal Heritage Act 2006, a CHMP must consider any contingency plans required in relation to disputes, delays and other obstacles that may affect the conduct of the Activity. As the cultural heritage was determined to be widely dispersed very low density, it was not possibly to modify the activity to avoid or minimise harm.

Measures are contained in the conditions to mitigate the impact caused to the Aboriginal cultural heritage, and in the contingencies in the event that unrecorded Aboriginal cultural heritage is identified during works as part of the Activity.

Management conditions

The following management conditions for the CHMP indicate legislative requirements and actions for the activity so that best cultural heritage practice may be maintained.

Condition 1: Cultural heritage induction

A cross cultural induction training session must be conducted with all site workers/contractors by representatives of the RAP prior to or at the commencement of construction works. A Heritage Advisor/archaeologist may also attend this training session. The training session must include a brief history of the Aboriginal occupation of the region; a summary of the archaeological investigations conducted within the activity area; specific details of all Aboriginal places identified during the CHMP; a summary of the conditions and contingencies contained within the CHMP; and the obligations of site workers/contractors and Sponsors under the Aboriginal Heritage Act 2006 (see Sections 8 and 9).

This training session must be organised and paid for by the site contractors and/or Sponsor.
Condition 2: Archaeological salvage

Prior to the commencement of civil or construction works, archaeological salvage must be undertaken in the vicinity of the locations where Cultural Heritage was found. This must take the form of hand excavation of at least 2 square metres at each salvage excavation using standard archaeological methods. Excavations must be located in the vicinity of T7-TP1 & 2; T11-STP3; and Test Pit 2.

Condition 3: Archaeological inspections

Excavations for construction of services, building foundations and underground car parking may extend below the depth of current fill. In the very remote possibility that pockets of natural ground surface may be exposed in this process, it is recommended that an inspection be undertaken by the RAP at the point where excavations have reached these levels. The level at which inspection will occur will be determined by reference to engineering drawings for the new structures. Two areas for inspection are shown in Figure 14 and are identified as follows:

1. The floodplain in areas of less ground disturbance to a maximum depth of 1 metre. These areas must be inspected when grass and topsoil is stripped off for commencement of civil works.

2. The areas of deep fill to the north of the Sonoco factory if excavations here extend to 3 metres or more. This area must be inspected if excavations for civil works, underground services or building foundations are to be dug below the level of the current fill. This is understood to be about 3 metres.

The inspections must be undertaken by a representative of the RAP, and if any cultural heritage is identified, works must stop within 15 metres of the cultural heritage, a qualified heritage advisor must examine the material, collect and record it, and complete VAHR place inspection records. Any cultural heritage identified must be examined in accordance with proper archaeological standards, including hand excavation to determine the nature, extent and significance of the material. The cultural material must be securely stored until it can be reburied in accordance Wurundjeri standard procedures.

Condition 4: Reburial of artefacts

All cultural heritage material collected during the fieldwork conducted for the CHMP assessment or during implementation of the CHMP must be securely stored at the offices of the Heritage Advisor until it is reburied within the activity area. Following adequate scientific analysis of the cultural heritage material, and at the completion of all ground disturbing works associated with the activity, the Aboriginal cultural heritage material must be reburied at a place that will not be disturbed in the future, as close as possible to the original Place extent boundary. The location for reburial will be chosen in consultation with the Wurundjeri Tribe Land Council and the cultural heritage material must be reburied in an unsealed ceramic container. The reburial must be conducted by representatives of the Wurundjeri Tribe Land Council. Heritage Advisors may be present at the reburial if necessary. The location for reburial of cultural heritage material must be within the activity area.

The location details of the reburied material must be recorded and supplied to the Victorian Aboriginal Heritage Registrar along with all other relevant documentation. A Place Collection Form within the site card for Aboriginal Place Bulleen LDAD (VAHR 7922-1446) must then be updated to show the reburial location.

This procedure must be organised and paid for by the site contractors and/or Sponsor.

Condition 5: Cultural heritage interpretation and strategic partnership

The Joint Venture Development Partner of the Yarra Valley Country Linked Solutions Pty Ltd, has offered and confirmed an in principle strategic partnership with the Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc. This partnership will relate to a contemporary Indigenous focus of the proposed extension of the Heide Museum of Modern Art Sculpture Park, into the YVCC land; Indigenous employment
outcomes involved with the delivery of the landscaping and/or wetlands (through the proposed ‘Wurundjeri Greens Corp’ program associated with the Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc.) and other elements of strategic partnership for Aboriginal cultural heritage input.

An Aboriginal cultural heritage interpretation plan for the activity must be prepared and implemented by the sponsor as part of the development. The form of this interpretation must be determined following consultation with the Registered Aboriginal Party and may include, but not be limited to:

- Installation of interpretation panels in public places which identify the aboriginal cultural heritage of the locality
- Use of Aboriginal place names for roads, lanes, parks, open space and other features
- Inclusion of cultural heritage information in publications, web sites and other promotional material in relation to the development
- Revegetation, landscaping and planting employing indigenous plants with associations to Wurundjeri people for food, medicine, artefact and cultural reasons.

**Condition 6: Protection of adjacent Aboriginal cultural heritage**

The adjacent Aboriginal cultural heritage places including Bulleen Scarred Tree (VAHR 7922-0028) and HEIDE 1 (VAHR 7922-0826) must be protected from harm during the course of the activity by erection of secure temporary construction fencing. The fencing must be located at least 5 metres outside of the site boundaries, including 5 metres from the canopy extent or drip line of the scarred tree. Fencing must be secure chin mesh temporary construction fencing and must be identified on site and plans as "no works to be undertaken beyond fenced area"

These places must also be identified on any site plans, construction drawings and environmental management plans for the project.

**Contingency plans**

The following contingency plans will be required for the proposed activity:

- Contingency for the Discovery of Aboriginal Cultural Heritage;
- Contingency for the Custody of Aboriginal Cultural Heritage;
- Contingency for the Discovery of Human Remains; and
- Contingency Measure for Compliance.

The contingency measures for this CHMP are summarised below.

**Discovery of Aboriginal cultural heritage during the activity**

Contingency measures to manage cultural heritage found during the course of the activity are detailed Section 9. This consists of a structured framework in which the requirements for recording and salvaging of Aboriginal places will be assessed, and action taken, within the course of ground works during the life of the project.

**Custody of all cultural heritage material**

Contingency measures are provided for the appropriate curation and custody of Aboriginal cultural heritage material that may be found during activity.
Discovery of human skeletal remains

Contingency measures are provided that will enable human remains to be detected at an early stage, and to allow the legal requirements for such discoveries to be properly fulfilled.

Contingency measures for compliance

Contingency measures are provided reviewing compliance with this CHMP.
Acknowledgements

Biosis Pty Ltd acknowledges the contribution of the following people and organisations in preparing this CHMP:

Delta Lucille Freedman, Alex Parmington, Ron Jones, Robert Mullins, Allan Wandin, Wurundjeri Council;
- Mark Eccleston and Kellie Clayton, AV;
- Charles Pick, Linked Solutions
- Robyn Overall, Eco-harvest
- Dr Ilya Berelov, Melanie Thomson, and James Shepherd, Biosis Pty Ltd
- Tim Carver, Parks Victoria
- Ian Garner, Yarra Valley Country Club
## Abbreviations

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<tr>
<td>BP</td>
<td>Before Present</td>
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<tr>
<td>HA</td>
<td>Heritage Advisor</td>
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<td>CHMP</td>
<td>Cultural Heritage Management Plan</td>
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<tr>
<td>DGPS</td>
<td>Differential Global Positioning System</td>
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<td>DPCD</td>
<td>Department of Planning and Community Development</td>
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<tr>
<td>EVC</td>
<td>Ecological Vegetation Class</td>
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<td>GDA94</td>
<td>Geodetic Datum Australia 1994</td>
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<tr>
<td>GSV</td>
<td>Ground Surface Visibility</td>
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<td>HV</td>
<td>Heritage Victoria</td>
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<tr>
<td>MCC</td>
<td>City of Manningham</td>
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<tr>
<td>MGA</td>
<td>Map Grid of Australia</td>
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<td>AV</td>
<td>Office of Aboriginal Affairs Victoria</td>
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<td>OSL</td>
<td>Optical Stimulated Luminescence</td>
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<td>RAP</td>
<td>Registered Aboriginal Party</td>
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<td>VAHR</td>
<td>Victorian Aboriginal Heritage Register</td>
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Wurundjeri Council  Wurundjeri Tribe Land and Compensation Cultural Heritage Council
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<td>Test Pit 3 at completion of excavation looking west</td>
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<td>45</td>
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<tr>
<td>46</td>
<td>Transect 13 Shovel Test Pit 1 facing south</td>
<td>65</td>
</tr>
<tr>
<td>47</td>
<td>Transect 13 Shovel Test Pit 6 facing west</td>
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<tr>
<td>48</td>
<td>Artefacts from Aboriginal Place Bulleen LDAD (VAHR 7922-1446)</td>
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</table>
1 Introduction

This is a mandatory Cultural Heritage Management Plan (CHMP) under Section 46(a) of the Aboriginal Heritage Act 2006. Linked Solutions Pty Ltd on behalf of Bruce Mathieson is proposing to undertake a residential development and landscaping works in the area of the former Yarra Valley Country Club, club rooms, car park and facilities area. The project involves construction of a residential development and associated infrastructure, landscaping and amenities. A later stage not included in this CHMP may involve other minor development of parklands, and other landscaping works in the adjacent areas of the present fairways to the north. The proposed activity (the construction of residential development) is considered to be a high impact activity under regulations 45 (Dwellings) and 46 (Subdivision of Land) of the Aboriginal Heritage Regulations 2007. The activity area is in an area of cultural heritage sensitivity because it being situated within 200 metres of the Yarra River (Aboriginal Heritage Regulation 23(1) Waterways). Parts of this area have been subject to significant ground disturbance through excavation, grading, construction and landfill, (Aboriginal Heritage Regulation 23(2). However, not all of the activity can be demonstrated to have been subject to such disturbance. A Notice of Intention to Prepare a CHMP was submitted on behalf of the Sponsor to the Secretary, Department of Planning and Community Development (DPCD) before the commencement of this CHMP (see Appendix 1). AV has allocated CHMP number 13793 to this assessment.

1.1.1 Activity area location

The activity area is located at 9-15 Templestowe Road Bulleen comprising an irregular shaped block of land of 4.4 hectares in size, situated between the meanders of the Yarra River and parklands to the north, east and west, and fronting Templestowe Road to the south east. The activity area is in the Parish of Bulleen and the local government area of Manningham, and can be found on Melway Map 32 E4. The Activity area extends about 250 metres north from the site entrance on Templestowe Road. The northern boundary is defined by the northern edge of the high voltage transmission line and approximately along the 16 metre contour, which in turn marks the approximate position of the 1 in 100 year flood level. The location of the activity area is shown in Figure 1.

The wider geographic region of the activity area includes the Yarra and Plenty Rivers, as well as Diamond, Ruffy and Kooyong Creeks, lying within the Eastern Victorian Dissected Uplands. The extent of the activity area is indicated in Figure 2 and the cadastral information is included in Table 1. All geographic coordinates in this CHMP are referenced to the Victorian Government Standard GDA94 MGA.

Table 1 Cadastral information for the Activity Area

<table>
<thead>
<tr>
<th>Address</th>
<th>9-15 Templestowe Road, Lower Templestowe, Vic 3107</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Government Authority</td>
<td>City of Manningham</td>
</tr>
<tr>
<td>Parish</td>
<td>Bulleen</td>
</tr>
<tr>
<td>County</td>
<td>Bourke</td>
</tr>
<tr>
<td>Lot/Plan</td>
<td>Lot 1 Plan PS349396</td>
</tr>
<tr>
<td>SPI/PFI</td>
<td>1\PS349396</td>
</tr>
<tr>
<td>GDA94 MGA and Zone</td>
<td>332970E 5819790N (Zone 55)</td>
</tr>
<tr>
<td>Melway Map</td>
<td>32 K5</td>
</tr>
</tbody>
</table>
1.1.2 Description of the Activity Area
The activity area is currently in use as a mixed entertainment and sporting venue – the Yarra Valley Country Club and golf course. The Templestowe Road frontage of the property includes paved parking and hardstand, and large brick and concrete structures which house the indoor entertainment facilities of the Club. To the north, the activity area continues through a narrow corridor adjacent to the Sonoco factory to the east. In this corridor, the activity area is dominated by bowling greens, in-ground swimming pools and tennis courts. These are terraced into the hillside and surrounded to the north and east by a grassed plateau created by landfill. A steep decline at the edge of this plateau leads north to the surrounding open lawns of the Club golf course. Ground surfaces in the golf course are linear flats surrounded by rises or waterbodies. The activity area is currently zoned Special Use Zone (SUZ1). It is also covered by Environmental Significance Overlays ESO1 and ESO3.

1.1.3 Sponsor
The sponsor for this CHMP is:
Company Name: Linked Solutions Pty Ltd
ACN: 161 879 983
ABN: 88 161 879 983
Address: Level 1, 61 Spring Street, Melbourne 3000 Victoria
Contact Person: Charles Pick (0450118611)

1.1.4 Owners/Occupiers of the Activity Area
The owner of the activity area is:
YVCC Property Pty Ltd
9-15 Templestowe Road,
ABN: 29 079 184 713
ACN: 079 184 713

1.1.5 Heritage Advisor
The Heritage Advisor (HA) for this CHMP is Gary Vines Biosis Pty Ltd. Gary is a fully qualified HA as specified in the requirements of the Aboriginal Heritage Act 2006 holding an Honours Degree from Latrobe University majoring in Archaeology. He has worked as a consultant in heritage and archaeology for over 28 years. He has project managed and individually conducted archaeological field surveys for development projects and environmental impact studies, as well as historic site assessments, heritage studies, and archaeological and heritage mitigation works, excavations and conservation plans.

1.1.6 Registered Aboriginal Party
Under the Aboriginal Heritage Regulations 2007, the relevant Registered Aboriginal Party (RAP) for the Study Area must be consulted in regards to the project, if any cultural heritage values are identified. The Wurundjeri Tribe Land & Compensation Cultural Heritage Council Inc. (Wurundjeri Council) is the RAP for the region which includes the Activity Area. The RAP elected to evaluate the plan on 15 September 2015.

1.1.7 Nature of the Activity
The Sponsor proposes undertake a residential development on the site of the Yarra Valley Country Club carpark and facilities area and a small part of the present golf course fairways. The works will involve demolition of existing buildings, excavation of foundations, underground services, roads, paths and car parking, and construction of multi-unit residential buildings. The intended use of the activity area is shown in Plate 1. The extent and nature of the proposed works is the redevelopment of the activity area for a residential development on existing and future high ground within the Activity Area, near Templestowe Road.
The main plateau currently holding the YVCC will be developed as a mixed use development, primarily residential, but including sporting, retail and cultural use. Further development will involve soil extraction mitigation for ecologically designed waterbodies and drainage infrastructure. The anticipated maximum depth of excavation in the plateau areas is 3.5m and floodplain areas below the Q100 level of 18.6m AHD about 2.5m).

Under the development the golf course will no longer be used as such. Some of the land currently used for fairways will be developed as a residents' recreation zone, community gardens, playground, sculpture park and club facilities). The remainder of the golf course will be largely unchanged and maintained by slashing.

The Activity therefore includes the unencumbered land above the Q100 of 18.6 m AHD, including part of the Parks Victoria land to the east and minor works in the Heide car park top the immediate west of the Country Club, land to the south of the power line easement including wetland development in the floodplain area and cut and fill. Construction associated with the activity will include the following impacts on the ground surface and former buried surfaces within the activity area:

- Excavation for road base – 0.3-1m
- Excavation for building footings -1-3.5m
- Underground services – 0.5-1m
- Excavation of environmental wetlands and Drainage infrastructure between 1.5 and 3.5m
1.1.8 Documentation of Consultation

Wurundjeri Tribe Land and Compensation Cultural Heritage Council Inc (Wurundjeri Council) is the RAP for the region that includes the Activity Area. The Wurundjeri Council has been involved in all stages of assessment for this CHMP. Under Section 54 of the Aboriginal Heritage Act 2006, the Sponsor completed the Notice of Intention to Prepare a CHMP and submitted it to AV and the RAP on 15 September 2015 (Appendix
The Wurundjeri Council responded on the same day, indicating its intention to evaluate and participate in the CHMP (Appendix 2).

A record of consultation with all parties is included in Table 2, including the names of the Aboriginal representatives who participated in the assessment.

### Table 2 Participation and consultation between Sponsor, RAP and HA.

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Organisation</th>
<th>Nature of Consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td>15/9/15</td>
<td>Gary Vines</td>
<td>Biosis</td>
<td>Submission of Notice of Intent.</td>
</tr>
<tr>
<td>15/9/15</td>
<td>Alex Parmington</td>
<td>Wurundjeri Council</td>
<td>RAP nominates to evaluate Plan</td>
</tr>
<tr>
<td>1/10/15</td>
<td>Alex Parmington</td>
<td>Wurundjeri Council</td>
<td>Inception meeting held on site.</td>
</tr>
<tr>
<td></td>
<td>Robert Mullins</td>
<td>Wurundjeri Council</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ron Jones</td>
<td>Wurundjeri Council</td>
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<tr>
<td></td>
<td>Gary Vines</td>
<td>Wurundjeri Council</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Robyn Overall</td>
<td>Biosis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Charles Pick</td>
<td>Linked Solutions</td>
<td></td>
</tr>
<tr>
<td>2/11/2015</td>
<td>Ron Jones</td>
<td>Wurundjeri Council</td>
<td>Standard Field Assessment of both Stage 1 and Stage 2 Activity Areas</td>
</tr>
<tr>
<td></td>
<td>Gary Vines</td>
<td>Biosis</td>
<td></td>
</tr>
<tr>
<td>1-2/6/2016</td>
<td>Ann-Marie Chandler</td>
<td>Wurundjeri Council</td>
<td>Complex Assessment</td>
</tr>
<tr>
<td></td>
<td>Perry Wandin</td>
<td>Wurundjeri Council</td>
<td></td>
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<tr>
<td>20/4/16</td>
<td>Robert Jones</td>
<td>Wurundjeri Council</td>
<td>Complex Assessment</td>
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<tr>
<td></td>
<td>Brendan Wandin</td>
<td>Wurundjeri Council</td>
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<tr>
<td>22/4/16</td>
<td>Mark Gardiner</td>
<td>Wurundjeri Council</td>
<td>Complex Assessment</td>
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<tr>
<td></td>
<td>Naomi Zukanovic</td>
<td>Wurundjeri Council</td>
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<td></td>
<td>Robert Mullins</td>
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<tr>
<td></td>
<td>Ron Jones</td>
<td>Wurundjeri Council</td>
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<tr>
<td></td>
<td>Alan Wandin</td>
<td>Wurundjeri Council</td>
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<td></td>
<td>Gary Vines</td>
<td>Wurundjeri Council</td>
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<td></td>
<td>Robyn Overall</td>
<td>Biosis</td>
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<td></td>
<td>Charles Pick</td>
<td>Linked Solutions</td>
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<tr>
<td>1/7/16</td>
<td>Sean Wandin</td>
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<td>Complex Assessment</td>
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<td>Ann-Marie Chandler</td>
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<td></td>
</tr>
<tr>
<td>12/7/2016</td>
<td>Delta Freeman</td>
<td>Wurundjeri Heritage Officer</td>
<td>Discussion of draft report, results of subsurface testing, evidence of prior disturbance</td>
</tr>
<tr>
<td></td>
<td>Robert Mullins</td>
<td>Wurundjeri Council</td>
<td>and management conditions.</td>
</tr>
<tr>
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<td>Ron Jones</td>
<td>Wurundjeri Council</td>
<td></td>
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<tr>
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<td>Alan Wandin</td>
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<tr>
<td></td>
<td>Gary Vines</td>
<td>Wurundjeri Council</td>
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<td></td>
<td>Robyn Overall</td>
<td>Biosis</td>
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<td></td>
<td>Charles Pick</td>
<td>Linked Solutions</td>
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<td>7/8/2016</td>
<td>Alex Parmington</td>
<td>Wurundjeri Council</td>
<td>Submission of CHMP for evaluation</td>
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<tr>
<td>26/8/16</td>
<td>Alex Parmington</td>
<td>Wurundjeri Council</td>
<td>RAP requests stop the clock to undertake additional subsurface testing – to expand</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>shovel test pits that contained artefacts, in accordance with the revised Aboriginal</td>
</tr>
</tbody>
</table>
### 1.1.9 Summary of Outcomes of Consultation

The consultation has informed each stage of the assessment. The requirements for the assessment were discussed between the RAP, the Sponsor and the HA during the inception meeting at the commencement of the CHMP. Discussions were held with the RAP on site during a tour of the Activity Area, and in the offices of the YVCC on 1 October 2015. The meeting discussed the opportunities for separating the CHMP into stages, with a standard assessment conducted for the first stage where only areas of previous ground disturbance would be impacted. It was proposed that a second, separate Stage 2 CHMP would be undertaken for the balance of the Activity Area, including the golf course, and Yarra River floodplain.

Further consultation was conducted between the Wurundjeri Council field teams and the HA on site at the completion of each stage of the assessment. A further meeting was held between the RAP, Sponsor and the HA to discuss the results and to agree on additional requirements for testing to complete the CHMP.

A meeting with the Wurundjeri Elders on 29 April 2016, considered a change of approach to undertake a CHMP for all of the property, rather than the first stage only, and the method for the complex assessment in undisturbed areas on the floodplain was proposed. This was followed up with a formal methodology provided to Wurundjeri before completing the subsurface testing.

A results and recommendation meeting was held with the Wurundjeri Elders on 12 July 2016 to consider the ways to manage cultural heritage values of the activity area. The sponsor explained the limitations on minimising or avoiding harm to the identified cultural heritage and agreement was made on appropriate mitigation in the form of archaeological salvage and cultural interpretation. Management conditions discussed and agreed upon included a cultural heritage induction to be conducted by Wurundjeri, inspections by the RAP in agreed zones when earthworks commence, consultation with RAP over cultural heritage interpretation and reburial of artefacts in public open space of the activity area.

Following submission of the CHMP for evaluation, Wurundjeri requested further subsurface testing where artefacts had been found in shovel test pits. This was in accordance to the revised Aboriginal Victoria Practice Note on subsurface testing (Aboriginal Victoria, 2016).
Figure 1: Location of the Activity Area - Yarra Valley Country Club, 9 Templestowe Rd, Bulleen, Victoria

Acknowledgement: GIS Data © The State of Victoria.

Figure 1: Location of the Activity Area - Yarra Valley Country Club, 9 Templestowe Rd, Bulleen, Victoria

Scale 1:25,000 @ A4, GDA 1994 MGA Zone 5508
2 Desktop Cultural Heritage Assessment

The following section of the CHMP contains the results of the Desktop Assessment. The background research and searches associated with the Desktop Assessment were undertaken by Gary Vines, Biosis Pty Ltd. in September 2015. Much of the following background information is derived from Lawler and Vick (2013). There were no obstacles in completing the Desktop Assessment.

2.1 Geographic Region

The geographic region for the activity area has been selected to represent a range of landforms and resources that would be accessible from the Activity Area. The geographic region is a representational portion of the Yarra River floodplain and its surrounding landscapes. These are areas of low relief to the east of the Yarra River and moderately dissected ridges and valleys to the west. The geographic region extends from Balwyn in the south to Montmorency in the north. The geographic region is shown in Figure 3.

2.1.1 Landform and Geomorphology

The geographic region is situated in the Yarra Valley, within the East Victorian Dissected Uplands geomorphological unit. Dissected Uplands are characterised by terraces of low elevation, fans and floodplains such as those associated with the Yarra and Plenty rivers (State of Victoria Department of Economic Development, Jobs Transport & Resources, 2016). Soil compositions within this unit are typically poorly drained dark clays, loams and yellow duplex soils of moderately weak compaction (State of Victoria Department of Economic Development, Jobs Transport & Resources, 2016).

The geology of the geographic region predominantly consists of Dargile and Andersons Formation of sandstone, mudstone and shale of Silurian age. This bedrock is overlain with stream alluvium from regular flooding events; a composition of unnamed fluvial alluvium of sedimentary gravel, sand and silt of Quaternary (Holocene) age (Welch, Higgins, & Callaway, 2011). These geological features form the upper Yarra Valley sides in Bulleen and Heidelberg.

The Yarra River floodplain is known as the Yarra Flats, which is a physiographic unit of flood-prone alluvial plains formed by the Yarra River and its tributaries (Land Conservation Council, 1973). The physiography of the Yarra Valley in the mid-north of the geographic region has been identified by Witter and Upcher (1977) as featuring a series of cross sections with various floodplain environments. Terrace sequences representing abandoned floodplains are present in the Yarra Valley upstream which are elevated above the modern floodplain (Witter & Upcher, 1977) and have been considered in prior assessments as being ideal Aboriginal settlement locations (Stone, 2008).

Within the geographic region, the Yarra River has cut a valley through Silurian sandstones and mudstones which contain quartz veins (Geological Survey of Victoria n.d.). In the north-west of the region, the river cuts through a basalt plain, where basalt is visible in creek edges (Cekalovic, 2005, p. 6).

The portion of the Yarra Valley containing the present activity area comprises the plain and slopes above the Yarra River flood level. These are composed of Silurian base rock, unconsolidated Quaternary deposits of dark clays, loams and yellow duplex soils of moderate compaction, alluvial and colluvial deposits, and include Pleistocene terrace formations (State of Victoria Department of Economic Development, Jobs Transport & Resources, 2016).
Figure 3: Geographic region and Victorian Aboriginal Heritage Places

Legend

- **Activity**
- **Geographic**
- **VAHR places**

Geology: 1:250,000

- Basalt, minor scoria and ash: tholeiitic to alkaline
- Fluvial: "gully" alluvium, colluvium: gravel, sand, silt
- Fluvial: alluvium, gravel, sand, silt
- Fluvial: gravel, sand,
- Marine: sandstone, thick to thin bedded, siltstone, minor conglomerate
- Marine: siltstone, thin-bedded sandstone

Acknowledgements: VicMap Data Copyright © The State of Victoria, Department of Environment and Primary Industries 2014

Legends, Activity, Geographic, VAHR places

Geology: 1:250,000

Basalt, minor scoria and ash: tholeiitic to alkaline
Fluvial: "gully" alluvium, colluvium: gravel, sand, silt
Fluvial: alluvium, gravel, sand, silt
Fluvial: gravel, sand,
Marine: sandstone, thick to thin bedded, siltstone, minor conglomerate
Marine: siltstone, thin-bedded sandstone

Dimensions: 1190.2x841.5

Metres

Scale: 1:25,000 @ A3
Coordinate System: GDA 1994 MGA Zone 55

Figure 3: Geographic region and Victorian Aboriginal Heritage Places

Legends, Activity, Geographic, VAHR places

Geology: 1:250,000

Basalt, minor scoria and ash: tholeiitic to alkaline
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Legends, Activity, Geographic, VAHR places

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Figure 3: Geographic region and Victorian Aboriginal Heritage Places

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Geology: 1:250,000

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Fluvial: "gully" alluvium, colluvium: gravel, sand, silt
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Marine: siltstone, thin-bedded sandstone

Acknowledgements: VicMap Data Copyright © The State of Victoria, Department of Environment and Primary Industries 2014

Legends, Activity, Geographic, VAHR places

Geology: 1:250,000

Basalt, minor scoria and ash: tholeiitic to alkaline
Fluvial: "gully" alluvium, colluvium: gravel, sand, silt
Fluvial: alluvium, gravel, sand, silt
Fluvial: gravel, sand,
Marine: sandstone, thick to thin bedded, siltstone, minor conglomerate
Marine: siltstone, thin-bedded sandstone

Dimensions: 1190.2x841.5

Metres

Scale: 1:25,000 @ A3
Coordinate System: GDA 1994 MGA Zone 55

Figure 3: Geographic region and Victorian Aboriginal Heritage Places

Legends, Activity, Geographic, VAHR places

Geology: 1:250,000

Basalt, minor scoria and ash: tholeiitic to alkaline
Fluvial: "gully" alluvium, colluvium: gravel, sand, silt
Fluvial: alluvium, gravel, sand, silt
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Marine: siltstone, thin-bedded sandstone

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Legends, Activity, Geographic, VAHR places

Geology: 1:250,000

Basalt, minor scoria and ash: tholeiitic to alkaline
Fluvial: "gully" alluvium, colluvium: gravel, sand, silt
Fluvial: alluvium, gravel, sand, silt
Fluvial: gravel, sand,
Marine: sandstone, thick to thin bedded, siltstone, minor conglomerate
Marine: siltstone, thin-bedded sandstone

Dimensions: 1190.2x841.5

Metres

Scale: 1:25,000 @ A3
Coordinate System: GDA 1994 MGA Zone 55

Figure 3: Geographic region and Victorian Aboriginal Heritage Places

Legends, Activity, Geographic, VAHR places

Geology: 1:250,000

Basalt, minor scoria and ash: tholeiitic to alkaline
Fluvial: "gully" alluvium, colluvium: gravel, sand, silt
Fluvial: alluvium, gravel, sand, silt
Fluvial: gravel, sand,
Marine: sandstone, thick to thin bedded, siltstone, minor conglomerate
Marine: siltstone, thin-bedded sandstone

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Basalt, minor scoria and ash: tholeiitic to alkaline
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Fluvial: "gully" alluvium, colluvium: gravel, sand, silt
Fluvial: alluvium, gravel, sand, silt
Fluvial: gravel, sand,
Geological mapping of the activity area is not consistent, as seen in Plate 2, Plate 3 and Plate 4, but demonstrates the distinction between the alluvial floodplain (Qra) the higher level terraces (Qrt) and the Silurian base rock (Sla), although the boundaries of these within the activity area cannot be confirmed without detailed geotechnical investigations.

Plate 2  Geological quarter sheet no 1 NE, Geological Survey of Victoria, 1860

Plate 3  Ringwood 1:63 360 geological map, Geological Survey of Victoria
North of the Activity Area, the ground drops steeply to low lying floodplain up to 500 metres wide, which have been disturbed in the past by flooding and landfill (Witter & Upcher, 1977). The alluvial terraces and floodplains, and the alluvial fans such as those that occur where the streams have reached a stable gradient, as with the Yarra Valley, are depositing the sediments that have been derived from the slow, natural ("geological") erosion. This includes the deepening and widening of stream channels. The alluvial flats of the Yarra River include sand, silt, clays and gravels which accumulated from the late Pleistocene and continue to be deposited in the present (Geological Survey of Victoria n.d). Recently deposited floodplain sediments are likely to show clear stratification.

The raised area of ground around the clubhouse is shown in geological mapping as partly Pliocene sedimentary deposits (2.5-5.3 million years old). Where slopes are greater than about 5%, there are erosional surfaces with little new soil formation. As a result it is unlikely that cultural deposits will be contained in layers deeper than the topsoil. North of the elevated Pliocene area is the Pleistocene alluvial deposits of the Yarra River floodplains, which includes a number of terraces varying between 5 and about 200 metres above normal river level.

The results of the OSL dating of the sediments exposed by an eroding drain outfall upstream of the activity area show that the higher flats adjacent to the existing floodplain of the Yarra Flats is a residual late Pleistocene terrace, dating to the latter part of the previous interglacial period (105,000 - 81,000 years ago) (Lawler & Vick, 2013). The consequence for the present study is that these areas will not contain deeply buried cultural deposits as the sediments predate the accepted period for human occupation in Australia.

Floods along the Yarra have historically occurred at regular intervals of 7-10 years as seen in Plate 5. Very high floods inundate a wide floodplain extending in the local area from near Templestowe Road to the Boulevard in Heidelberg. It can be as much as 2km wide.

Downstream of the activity area at the Bolin Bolin Billabong, recent archaeological investigations have demonstrated the floodplain close to the Yarra River has a deep and sometimes stratified deposit of river sediments (Lawler & Vick, 2013). Radiometric dating has been undertaken for the sequence of alluvial deposits which indicates a date range for the sediment chronology of the billabong extending from about AD 1120 to the present. Sediment accumulation in the base of the billabong was slow until about AD 1840 when land clearance and livestock grazing caused a 30-fold increase in sedimentation rates due to increased erosion and run-off. The slow sedimentation rates prior to this indicating a relatively stable land surface for
the surrounding flood plain as well, at least for the last 900 years (Leahy, Tibby, Kershaw, Heijnis, & Kershaw, 2005).

Plate 5  1934 Flood on the Yarra near Burke Road (Burke Road Billabong Reserve, 2016).

2.1.2 Climate of the Geographic Region

The climate of the geographic region has been relatively stable for the last 5,000 years with warm dry summers and mild wet winters. Prior to about 10,000 years ago, particularly at the end of the Last Glacial Maximum, conditions were cooler and drier than today, but may have still resulted in relatively abundant resources on which Aboriginal people depended.

Victoria is within a Temperate Zone signified by a warm summer and cool winter, autumn and spring being the mildest seasons with short occasional rainfall. In the region, the mean maximum temperature in January is 27.8°C, falling to 13.9°C in July and annual rainfall is 652.3 millimetres a year (Australian Government Bureau of Meteorology, 2016).

These climatic conditions, as well as historical climatic extremes such as seasonal drought, the strength of prevailing winds and variation in water abundance would have influenced Aboriginal occupation and settlement patterns due to the particular species of flora and fauna supported by these conditions and hence the practicality of harvesting food and material resources.

2.1.3 Flora of the Geographic Region

The river valleys in the geographic region would have been important to past Indigenous and non-Indigenous land use. The permanent water sources and associated accumulation of fertile, organic soils meant that water bodies contain a great diversity of plant and animal life. For pastoralists, creek and swamp areas also provided essential watering points for introduced animals and water supplies for agricultural activities.

The activity area is within the Gippsland Plain bioregion. The Gippsland Plain includes flat low lying coastal and alluvial plains with a gently undulating terrain dominated by barrier dunes, floodplain and swampy flats (State of Victoria Department of Environment, Land, Water and Planning, 2016).

Classification of native vegetation in Victoria follows a typology in which ecological vegetation classes (EVC) are the primary level of classification. An EVC contains one or more plant (floristic) communities, and represents a grouping of broadly similar environments. Classification of EVCs in this CHMP follows Department of Sustainability and Environment benchmarks.
The Gippsland Plain pre-1750 mapping of the activity area would have previously supported Floodplain Riparian Woodland (EVC 56) within the Yarra River floodplain and Floodplain wetland Complex at the Bolin Bolin Billabong (EVC 172). To the east and west of the river, grew Plains Grassy Woodland (EVC 55) (State of Victoria Department of Environment, Land, Water and Planning, 2016). The EVC mapping identifies remnant native vegetation (EVC 56) over the entire Activity Area.

Likely plant resources available to Aboriginal people in the region would have been the tree canopies of river red gum and Gippsland red gum. In addition to the tree canopy, many species available in the understory were harvested for food and material resources. Examples of these are Black Sheoak Allocautarina littoralis, Blackwood Acacia melanoxylon, Silver Wattle Acacia dealbata, River Bottlebrush Callistemon sieberi, Common Tussock-grass Poa labillardieri on higher and drier banks or terraces. On the wetter river banks there would be Club-sedges Isolepis spp., Rushes Juncus spp., Common Reed Phragmites australis and Water-ribbons Triglochin prorea. Floodplain Wetland Complex includes Marsh Club-sedge Bolboschoenus medianus, Tassel Sedge Carex fascicularis, Tall Sedge Carex appressa and Large Bindweed Calystegia sepium (State of Victoria Department of Sustainability and Environment, 2013)

Roots, such as the Yam Daisy Microserus scapigerus, seeds and fruits were important staples in the Aboriginal diet, as well as for medicine (Coutts, 1979). Yam daisy tubers and water ribbons were roasted in hot coal-fired earth ovens, or ground and mixed with water to form dough which was baked in ovens (Zola & Gott, 1992). Plant resources were also utilised for domestic activities and played an essential role in providing raw material for manufacturing. For example the leaves and stems of grasses provided fibre suitable for making coarse string utilised for bags and fishing nets while the outer bark of trees was used to construct canoes or shelters. Wood was also used for the making of various weapons, such as spears, and implements such as axe handles and digging sticks.

River Red-Gum had a number of uses. The bark was removed for constructing canoes, the gnarled burls were cut off and hollowed out for water containers, the sap could be applied as medicine for burns, and the leaves for a eucalypt steam bath. The young shoots and cones of Black Sheoak were eaten, whilst the wood was made into boomerangs. Blackwood was a material for manufacturing spear-throwers and shields, the bark could be heated and infused in water to bathe rheumatic joints and the fibres of the inner bark provided a resource for string fishing lines (Zola & Gott, 1992; Gott & Conran, 1991).

Silver Wattle timber was used to make stone axe handles, while the gum was mixed with ash to make waterproof cement like paste. The gum was also eaten or mixed with water and nectar from flowers to make a sweet drink. The bark, high in tannin, was used for medicine and fibre. Fibre from grasses was manufactured into string for such things as fishing nets, and the seeds were ground and baked (Zola & Gott, 1992; Gott & Conran, 1991).

2.1.4 Fauna of the Geographic Region

The grassland and woodland would have contained a range of microhabitats prior to alteration by non-Indigenous agricultural and pastoral activities. Aboriginal people maximised the availability of desired fauna, such as practising strict fire regimes to manage kangaroo populations (Aboriginal Affairs Victoria, 1996). Aquaculture technology was developed to exploit waterways such as the Yarra River, which would have provided a reliable water source as well as food sources of fresh-water shellfish, fish, birds and eels.

A vast array of fauna classes are recorded in the 7922 1:100,000 map series. These include kangaroos and wallabies/possums, koala, wombat, platypus, echidna, bandicoot, amphibians, lizards, snakes, dingo and a variety of bat, quoll, pygmy, glider and marsupial mice species (Museum Victoria, 2002). The Yarra River would have been a major source of fish, eel and shellfish. Nets were an efficient form of fishing technology which maximised yields. In addition to the food sources obtained from waterways, nets were also designed to catch birds in flight, as observed by an early settler, Evelyn Pittfield Sturt:
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 ambuscade, 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).

The fauna available in the geographic region would have provided an abundant and varied diet for Aboriginal people, as well as a resource for making clothing and costume, food storing and consuming containers, medicine, shields and tools, instruments and other recreation activities (Gott & Conran, 1991).

### 2.1.5 Victorian Aboriginal Heritage Register Places in the Geographic Region

A search of the Victorian Aboriginal Heritage Register (VAHR) was undertaken on 31 May 2016 for Aboriginal archaeological places and Aboriginal archaeological assessments within the geographic region. Historic maps held at the Public Records Office of Victoria and the Land and Survey Information Centre were consulted and other heritage registers including the Victorian Planning Scheme Heritage Overlay and the Australian Register of the National Trust were also searched to provide background information for the geographic region.

A search of the VAHR has identified 39 previously recorded Aboriginal archaeological places located within the geographic region (Table 3). The predominant Aboriginal archaeological place types in the geographic region are scarred trees (72%). Artefact scatters (20%) and low density artefact scatters (8%) are also found on the landscape. The preponderance of scarred trees is most likely a consequence of the high level of development in the region and ground disturbance in the areas of greatest archaeological potential. That is, most of the surface artefact sites have been destroyed, removed or obscured by construction of roads and buildings. Scarred trees by contrast, have survived because much of the area on the Yarra floodplain has been reserved from development.

<table>
<thead>
<tr>
<th>Scarred Tree</th>
<th>Artefact Scatter</th>
<th>Low Density Artefact Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>72%</td>
<td>20%</td>
<td>8%</td>
</tr>
</tbody>
</table>

**Plate 6  Proportion of site types in the geographic region**

There are no Aboriginal archaeological places recorded within the activity area, however there are two Aboriginal archaeological places within 200 metres south of the activity area, and another place within 500m to the south-west of the Activity Area.
HEIDE 1 (7922-0826) comprises two flaked stone artefacts located just outside of the activity area in the adjoining Heide land. This site comprised a silcrete blade found in fill in a post hole and a ‘possible’ quartz bipolar core found in overlaying fill. These were uncovered during excavation of a historical ruin on the Heide property in 2003 (Goulding Heritage consultants, 2004). The location was inspected during field assessment but the place was not evident. The stone ruin that was the subject of the excavation was not evident, presumably as the area had been subsequently cleared. It is therefore likely that further cultural heritage does not survive in this location due to this disturbance.

Plate 7  General location of HEIDE 1 (7922-0826) looking

BULLEEN SCARRED TREE (7922-0028) is located just south of the activity area in the garden at Heide (Plate 8). This is a red gum tree with a bark removal scar measuring 2.4m in height and 0.55 m in width. It was recorded in 1973 and reinspection indicated that the grid reference recorded on the VAHR is in error. The grid reference on the VAHR locates the tree to the south of the original Heide homestead, when in fact it is located to the north of Heide I and immediately east of Heide II (the art gallery) close to the car park. The correct grid reference is GDA94 MGA55 331223 5819268.
TEMPELESTOWE 4 (VAHR 7922-0052) is another stone artefact surface site located approximately 400m further west of the activity area and also consists of poorly preserved surface distributions of artefacts of various raw materials. The site was not inspected during the assessment.

Table 3  VAHR places in the geographic region.

<table>
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<tr>
<th>VAHR No.</th>
<th>Name</th>
<th>Type</th>
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<td>BULLEEN SCARRED TREE</td>
<td>Scarred Tree</td>
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<tr>
<td>7922-0039</td>
<td>BONDS ROAD 1</td>
<td>Scarred Tree</td>
</tr>
<tr>
<td>7922-0040</td>
<td>BONDS ROAD 2</td>
<td>Scarred Tree</td>
</tr>
<tr>
<td>7922-0041</td>
<td>BONDS ROAD 3</td>
<td>Scarred Tree</td>
</tr>
<tr>
<td>7922-0042</td>
<td>BONDS ROAD 4</td>
<td>Scarred Tree</td>
</tr>
<tr>
<td>7922-0043</td>
<td>BONDS ROAD 5</td>
<td>Scarred Tree</td>
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<td>BONDS ROAD 7</td>
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<td>BONDS ROAD 8</td>
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<td>CLEVELAND AVE 5</td>
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<td>Templestowe 6 LDAD</td>
<td>Low Density Artefact Distribution</td>
</tr>
</tbody>
</table>

### 2.1.6 Archaeological assessments within the geographic region

There are a total of 11 archaeological reports and assessments from within the geographic region. The most common type of report is a Complex Assessment CHMP (n=5) and survey (n=4), followed by desktop, paper, due diligence or other (n=1) and Standard CHMP (n=1). One Standard Assessment CHMP and two surveys have been completed within 2 kilometres of the Activity Area. No sub-surface investigations have been
previously undertaken within 500m of the current Activity Area. A detailed summary of reports which share a similar geographical and environmental context as the activity area is included below.

The most recent and relevant Archaeological assessment near the current activity area was carried out in 2012-3 by Martin Lawler for mitigation works at a stormwater outlet in Birrarung Park to the north east of the activity area (Lawler & Vick, 2013). This is discussed further below.

Witter and Upcher (1977) conducted a survey of the proposed Yarra Valley Metropolitan Park, located between Burke Road Bridge in Ivanhoe and Pound Bend, Warrandyte. The present activity area was part of this study. As a result of the survey, four artefact distributions, a single ground stone axe and 20 scarred trees were identified. The artefact distributions were found on the river terraces.

Ellender (1991) conducted archaeological surveys within the municipal boundaries of the City of Doncaster and Templestowe over a period of six weeks. During that time five artefact scatters, eight scarred trees and two isolated artefacts were recorded. They identified the river flats as being the most sensitive location for Aboriginal sites, identifying the riverbank as containing the highest potential for scarred trees and the higher terraces as likely to contain artefact scatters. Ellender noted that many of the tracks along the Yarra either contained gravel toppings or had natural surfaces. They surveyed 0.2% (0.022 square kilometres) of 11 square kilometres of the river flats. In total, on the river flats surveyed, it was generally found that 20% of the ground surface was visible and six places were recorded. Ellender (1991) suggests that the river flats of Bulleen have been highly disturbed and are of low sensitivity, probably due to landscaping and flooding. Based on Ellender’s zones of archaeological sensitivity, the section around and including the present activity area contains both “high archaeological sensitivity – areas known to have archaeological sites” and “moderate to high archaeological sensitivity – areas requiring further survey and/or sub surface testing” (Ellender I., 1991, p. 49).

Goulding Heritage Consultants (2004) undertook an assessment of a historic ruin in the grounds of the Heide Art Gallery in 2003. Two flaked stone artefacts were located, one of quartz and the other of silcrete, within the extent of the stone ruin, which is located just outside of the activity area in the adjoining Heide land. The surrounding ground surface, although modified for paths and garden landscaping, had evidently retained intact natural topsoil. The previously recorded scar tree (7922-0028) is located close to this site.

Cekalovic (2005) undertook a survey of a proposed track upgrade at Bolin Bolin Billabong, which is to the south of the current Activity Area. A two kilometre section of the track on the river flat was proposed to be upgraded. The study area was found to have earth disturbance from flooding, land clearance, grazing and possibly agriculture. Landfill had also been placed within the track alignment. It was predicted that artefact scatters and burials may be located in areas of minimal disturbance. Ground surface visibility was generally good throughout the study area, as the track was mainly bare earth. No Aboriginal archaeological material was identified as a result of the survey. A small rise approximately 80 metres long and 50 metres from Bolin Bolin Billabong was identified as an area of potential archaeological sensitivity; however after inspection it was considered to contain landfill. It was recommended that this small rise be monitored during excavation.

Ward, Ricardi and Canning (2008) prepared a Complex CHMP (10409) for The Roman Catholic Trusts Corporation for the Diocese of Melbourne, who planned to subdivide a portion of the property of St Kevin's Primary School, Herlihsy Road, Templestowe Lower, 1.2 kilometres east of the present Activity Area. The proposed subdivision lies within 200 metres of Ruffey Creek. The desktop and standard assessment identified that no Aboriginal archaeological sites were present and that areas of potential sensitivity had suffered significant prior ground disturbance. Intensive farming, gold mining, the construction of a primary school, and quarrying have all severely impacted the activity area. It is therefore highly unlikely that any Aboriginal archaeological material has survived in situ within the activity area. Although sections of the activity area lie within an area of cultural heritage sensitivity, (200 metres of Ruffey Creek), the degree of prior ground disturbance rendered the potential for archaeological material to survive in this area as low.
Stone (2008) prepared a CHMP (10533) for a proposed wetland located on the western side of the Yarra River in Banksia Street, Heidelberg, 750 metres south west of the current Activity Area. This area is within the highly urbanised middle reaches of the Yarra River, which does not feature the terrace sequences representing abandoned floodplains in the Yarra Valley upstream (elevated above the modern floodplain and considered ideal Aboriginal settlement locations). The wetland is within a single low-lying floodplain which had been subject to significant ground disturbance from flooding and landfill. Artificial landforms such as earthen ridges constructed to raise roads were adjoining the proposed wetland area. Depressions left by extractive industries are not former natural billabongs but soil quarries which were excavated in the early-mid 1970s. Subsequently, the excavated area was used as a private waste disposal tip. A survey was carried out for the CHMP assessment. No cultural material was identified as a result of the survey due to significant ground disturbance over the entirety of the activity area which had removed all original ground surfaces, including trees.

Luebbers (2010) prepared a Complex CHMP (11140) for a residential subdivision of three blocks at 15 Atkinson St Templestowe, 2.8 kilometres north-east of the current Activity Area. A survey and excavation of four 1 x 1 meter square test pits at the lower and mid-point elevations to maximum depths of 320 millimetres resulted in a small collection of 20th century domestic artefacts but no Aboriginal heritage materials were identified.

Freedman, Cavanagh, Lawler, Berelov, and Vick (2012) prepared a voluntary Complex CHMP (11713) at 191 Bulleen Road, for the Bolin Bolin Billabong Wetland Project, a water treatment, harvesting and redistribution project undertaken in partnership between Manningham City Council, Boroondara City Council, the Commonwealth Government, Melbourne Water, Parks Victoria and Carey Baptist Grammar School. The survey 1.5 kilometres south of the activity area identified Aboriginal archaeological material and significant ethnographic values related to Yarra Flats 4 (VAHR 7922-1299) an isolated quartz artefact found on the surface of an alluvial terrace. The Complex Assessment subsurface testing revealed a stratigraphy of silty clay which in some places had been disturbed by historic activities. Yarra Flats 5 (VAHR 7922-1300) is a subsurface artefact scatter consisting of silcrete flaked material. The billabong area was found to be lacking in archaeological remains, but it retains its ethnographic significance.

Lawler and Vick (2013) undertook a CHMP for mitigation works at a stormwater outlet in Birrarung Park 1.3 kilometres north east of the present Activity Area. Aboriginal stone artefacts were found eroding out of the scoured sediments near the outfall, and so a complex CHMP investigated the nature of the cultural heritage, the archaeological and stratigraphic context and the sedimentary deposits in which they were found. The results of the OSL dating of these provided a date range of 105,000 - 81,000 years ago for a deep deposit identified as a residual late Pleistocene terrace, formed during the latter part of the previous interglacial period (Lawler & Vick, 2013). This deposit was characterised by distinctive stiff clays with gravel layers. It is also marked by its elevation above the current river and floodplain levels, being at least 10-15 metres higher than the current floodplain. While these areas may have provided good vantage for occupation during floods, the sediments were too old to contain stratified cultural remains, and so it was determined that the material found had eroded out of the topsoil at the top of the scour.

Conclusions from Archaeological Assessments in the geographic region

A total of five Cultural Heritage Management Plans (CHMPs) and a number of desktop and survey level heritage assessments have been completed within the geographic region. Within 500 metres of the activity area three Aboriginal places have been recorded on the VAHR within both surface and subsurface contexts. Many of these sites which are scarred trees and artefact scatters have been located on river terraces, river banks and river flats. The majority of CHMPs in the geographic region have been limited in their investigations by low ground visibility and high levels of previous ground disturbance.
Part of the current activity area has been subject to a previous archaeological investigation, which identified the potential for Aboriginal archaeological material to occur within river flats and terraces. Varying levels of disturbance have been identified, predominantly associated with flooding episodes, grass removal, construction and pastoral activities. Similar conditions can be expected across the activity area and it is likely that subsurface investigation will be required to accurately gauge the presence, absence and/or extent of any archaeological material present within the Activity Area.

2.2 Historical and Ethno-historical Accounts in the Geographic Region

For the purposes of this assessment, information about Aboriginal Victorian pre and post contact history has been sourced from nineteenth and twentieth century primary and secondary ethnographic/historical records.

2.2.1 Ethno-historical Accounts of Aboriginal People

Linguistic boundaries and social organisation

Prior to European colonisation, the Victorian landscape was delineated by socio-dialectical groups who shared a common language and who as a group identified as owning particular areas of land, with individually owned tracts of country. This was a system of spatial organisation based on land tenure (Clark I., 1990).

Aboriginal groups mapped natural features as boundaries for their ranges, estates and economic territories. The activity area lies within the boundaries of the language group Woi-wurrung. A wurrung consists of four clans, occupying the Yarra River and Maribyrnong River watershed, bounded on the north by the Dividing Range from Mt Bawbaw westward to Mt William and Mt Macedon, and on the west by the Werribee River (Clark I., 1990). The Woi-wurrung language group forms part of the larger body known as the Kulin federation (Ellender & Christianen, People of the Merri Mel. The Wurundjeri in Colonial Days, 2001). The Kulin people were linked by intermarriage and a common language (Barwick D., 1984).

Land ownership and access rights or responsibilities centred on the smaller named groups that formed the broader language grouping. These groups are often called ‘clans’ or ‘local descent groups’, however as (Wesson, 2000, p. 8) reasons, they are better described as ‘named groups’, as the membership structure of these groups, and their degree of division from other groups, could vary. In most instances, primary allegiance was owed to this named group, although this could vary according to context and location. Commonly, named groups were led by senior elders who exercised internal political and religious authority, as well as being recognised as their spokesperson when dealing with other groups (Atkinson & Berryman, 1983). Particularly influential group leaders could also assume authority over the leaders of other culturally affiliated groups (Wesson, 2000). The named group who occupied the activity area were the Wurundjeri willam, who are one of the two Wurundjeri balug patriline (Clark I., 1990). The Wurundjeri willam occupied the Yarra River from its northern sources at Mt Baw Baw to its junction with the Maribyrnong River at Melbourne, with their name meaning ‘white gum dwellers’ referencing this (Clark I., 1990). At the time of contact, Wurundjeri willam consisted of three interrelated families, each occupying their own tract of land (Ellender & Christianen, People of the Merri Merri. The Wurundjeri in Colonial Days, 2001). It is thought that the banks of Merri Creek as used as an important place to conduct ceremonial activities (Presland, 1994).

Social activity involving neighbouring named or socio-dialectical groups was usually held in warmer periods, held at the intersection of group boundary's and arranged by a person assigned of the responsibility of travelling between groups to organise the time, place, and events of the meeting. This person could speak a number of different dialects and acted as intermediaries in negotiations between the groups. Activities would include sports and dancing, with up to 500 men, women and children attending (Atkinson & Berryman, 1983).

The succession or inheritance of lands and named-group estates could occur in a number of ways. Individuals and groups could inherit lands from their father, their mother, through their birthplace, conception place, the burial place of their ancestors, and through totemic connections (Wesson, 2000). Access rights also crossed generations and marriage partners. Howitt wrote that:
The right to hunt and to procure food in any particular tract of country belonged to the group of people born there, and could not be infringed by others without permission. But there were places which such a group of people claimed for some special reason, and in which the whole of the tribe had interest. Such a place was the stone quarry at Mt. William near Lancefield, from which the material for making tomahawks was procured. The family proprietorship in the quarry had wide ramifications... when neighbouring wished for some stone they sent a messenger to Bill-billeri saying that they would send goods in exchange for it, for instance, skin-rugs (1904, p. 311).

People would often travel or reside in the territory of another named-group so that they could fulfil religious or family obligations, or exercise the privilege, granted to them by family or moiety associations, of exploiting the resources of another estate (Barwick D., 1984). For daily activities and the exploitation of local estates, people are thought to have travelled in small residential units or extended family groups - often termed bands (Wesson, 2000).

Moiety Affiliation
A further level of social organisation was moiety affiliation. The moiety of the Woi-wurrung is Waa (crow). Membership to a named group is variably defined by a localised matrilineal or patrilineal descent group, with female member of the group partnering with men outside of their group (exogamous) and across moiety lines; however they maintained an identity of belonging to their father's group. Men then had to adhere to certain duties such as providing food to their father-in-law. Social engagement could be influenced by appropriate conduct between family members, for example men had avoidance behaviours they had to adhere to in the presence of their mother-in-law, and there were other speech or special duties which were expected in family relationships (Atkinson & Berryman, 1983).

Religion
Knowledge of Aboriginal religion was recorded and maintained through visual and oral tradition which ensured the maintenance of social structures through generations. Such knowledge was not always readily shared with non-Indigenous social observers and as such limited written versions from early settlers, explorers or government employees exist for Victoria. Ceremonies were occasionally performed to entertain Europeans however the meaning behind these performances was never fully explained (Robinson, 1840). Private ceremonies and locations, such as age initiations were actively kept secret (Presland, 1994).

Economy and Resource Utilisation
Certain individuals within Aboriginal groups had responsibilities assigned to them for the management of natural resources. Anthropogenic manipulation of the environment was observed by the first Europeans within northern Victoria, for example fire regimes which cleared tracks also aided in hunting and dissuaded settlers for entering Aboriginal territory (Atkinson & Berryman, 1983).

Canoes were cut from the bark of river red-gums and box trees with stone axe heads in spring to early summer, shaped over a fire, seasoned in the sun, then the end blocked with clay (Edwards, 1975). Hooped nets made from fibre were used to catch crayfish, yabbies and fish, while cross-line nets were strung low above the water for catching ducks or below the water to catch schools of fish (Gott & Conran, 1991). Line nets were also used to catch emus and kangaroos; a strategically placed group of people drove the animals towards the nets. Reed spears with hafted bone, carved barbs, stone pieces or hardened wooden points set into the head were used for catching larger marsupials. Oven mounds (cooking pits), were then constructed to bake the game or large volumes of vegetables (Atkinson & Berryman, 1983).
2.2.2 Historical Accounts of Aboriginal People

The rapid spread of European colonisation of the Melbourne region altered Victorian Aboriginal society. The increased presence of settlers on Aboriginal land resulted in dispossession from land and diminished access to resources. These factors combined with population decline from introduced diseases and conflict, transformed Aboriginal pre-contact society to be orientated around colonial activity; such as movement onto camps to the outskirts of towns or relying on European industry for livelihood.

The Melbourne region and country belonging to the Woi wurrung were among the first tracts of land to be taken up for grazing. A group of pastoralists headed by John Batman established the Port Phillip Association in 1835 after moving from Van Diemens Land, where military rule by force had been enacted upon the Aboriginal Tasmanians. In a change of approach, the Association drew up a treaty to negotiate with Aboriginal people of Port Phillip. Batman met with senior and ngurungaeta Woi wurrung men to negotiate the acquisition of their land. In payment, Batman offered an immediate transaction of blankets, knives, tomahawks, scissors, mirrors, necklaces and coloured handkerchiefs for several woven baskets, weaponry and two uniquely decorated possum skin cloaks. Batman then filled out the title deeds for 243,000 hectares and secured the signatures of the Woi wurrung men. Present at the signing of the treaty was eleven year old William Barak. Despite this seemingly formal agreement, the British Crown claimed all land of New Holland without recognising Aboriginal forms of land tenure. Hence, Sir Richard Bourke, the Governor of the colony of New South Wales, refused to recognise the treaty and issued a formal proclamation declaring it invalid (Zola & Gott, 1992, pp. 16-20).

While the treaty was not officially recognised by the British Crown or colonial government, its purpose was to open up Port Phillip for grazing and to bypass Governor Richard Bourke's decision not to extend settlement into areas remote from the Sydney government (Wiencke, 1984). By 1837 there were over 50,000 sheep grazing in the Port Phillip district and the advent of pastoralism resulted in the drastic reduction of food and water sources for Aboriginal people. William Thomas wrote "I do not think that of the five tribes who visit Melbourne that there is in the whole five districts enough food to feed one" (Thomas in Christie, 1979). Governor Bourke sent William Lonsdale to act as a Police Magistrate in the Port Phillip district to ensure that Aboriginal people were protected by encroaching settlement and he established an Anglican mission in South Yarra for displaced Aboriginal people to be ‘civilised’ (Wiencke, 1984).

Sheep and cattle grazing from the 1830s destroyed large areas of grassland and food staples such as the Murnong. The presence of intruders onto Aboriginal land and their subsequent loss of resources was the catalyst for much serious conflict between colonial settlers and the Aboriginal population. Aboriginal farming practices of clearing large tracts of land meant when colonial settlers went searching for suitable pastoral areas, these places were ideal and became quickly occupied.

In 1839 an Aboriginal Protectorate Scheme was established, with appointed Protectorates to provide religious instruction, rations, homes and medical care to Aboriginal people whilst recording population information; a pretext of encouraging Aboriginal Victorians to adopt a European lifestyle (Atkinson & Berryman, 1983). The Assistant Protector of the Melbourne region was William Thomas. Thomas attempted to remove Aboriginal people away from the Melbourne settlement to stations established at Narre Warren, Mordialloc and Warrandyte or at Dandenong Creek whereby residents could receive rations in return for growing wheat and vegetables (Presland, 1994, p. 103).

The Protectorate Scheme was abolished in 1849, after which time official inquiries into the welfare of Aboriginal people were held in 1849 and again in 1858. In 1859 two members of the Woi wurrung and five of the Taungurung requested from Thomas a tract of land at the junction of the Acheron and Little Rivers (Land Conservation Council, 1991, p. 23). They were granted 4,500 acres for a reserve and 90 people settled there, but in the following year the station was closed (Land Conservation Council, 1991, p. 21).
Although informants at the inquiries remarked on the rapid fall in the Aboriginal population, it was a number of years before any action was taken. The latter inquiry led to the formation of the Aboriginal Protection Board in 1860 which encouraged Aboriginal people to move onto reserves.

Barak and his cousin Simon Wonga and other elders of the Woi wurrung led over 40 Aboriginal people from Acheron down to a spot between Watts River and Badger Creek, near present-day Healesville. Under the Superintendent John Green, the government granted them 2,300 acres for a temporary reserve, which they named Coranderrk. Nine slab and bark two-roomed huts were built for married families, while the rest of the population was housed in mia-mias. Many Kulin people moved to Coranderrk to live and for employment as labourers and farmers.

After an outbreak of measles, calls were made to move the station to an isolated area on the Murray River (Land Conservation Council, 1991, p. 24). The Aboriginal Protection Board argued that:

There has sprung up in certain quarters a large amount of so-called interest of the Coranderrk natives. It has been suggested that for the benefit of their health, they ought to be shifted up to the Murray (The Age, 19 February 1876)

Deputations were sent to the Victorian government during the 1870s and 1880s, stating the lack of rights Aboriginal people experienced in regard to their country and the closure of the station. William Barak sent a petition on behalf of the Aboriginal residents of Coranderrk requesting the non-conditional freedoms experienced by white people to be extended to Aboriginal people and he questioned the increasing authority of the Board. A Royal Commission into the situation was held in 1877 and a Parliamentary Board of Inquiry in 1881, which both supported the retention of Coranderrk and funding for the station.

After the successful campaign to retain the reserve, the passing of Simon Wonga left William Barak as the sole remaining Wurundjeri-willam Ngurungaet. Barak named three men as his successors as ngurungaeta: his nephew Wandoon, a Daung wurrung man named Birdarak and Thomas Dunnolly a spokesperson for Wada wurrung and Djadja wurrung who inherited his mother’s rights to speak for Wurundjeri Balluk land (Clark I., Aboriginal Languages and Clans. An Historical Atlas of Western and Central Victoria, 1990, p. 385). Despite Barak having named these men as his successors, they were not initiated; hence Barak was the last ngurungaeta (Ron Jones, pers. comm. 29 August 2012).

Coranderrk Reserve was closed in 1924 and most were forced to Lake Tyers by police escort or by train despite their reluctance and distress (Twigg, 1996, p. 20). All but 50 acres of the original reserve was leased for grazing in 1924 (Foxcroft, 1995). The remaining 50 acres were left for the use of six Aboriginal people. All of the buildings at Coranderrk Reserve, except for the double storey Superintendent’s residence, were demolished during the 1940s (Foxcroft, 1995). In 1950, 1,310 acres between Healesville-Kooweerup Road and the Yarra River were set aside for soldier settlement and the remaining portion of the reserve was encompassed in the Healesville Sanctuary on the eastern side of Healesville-Koo Wee Rup Road in 1955 (Fels, 1998).

Many Wurundjeri descendants remain living in the broader Melbourne region. The activity area is presently represented by the Wurundjeri Tribe Land and Compensation Cultural Heritage Council (Registered Aboriginal Party). While little information about Aboriginal activity and relationships can be specifically ascribed to the present Activity Area, there are some small pieces of historical data that can assist in understanding how the Activity May have been utilised by Aboriginal people.

A brief reference in the history of the Reeds at Heide, notes that the previous owner, Mrs Lang related to John Reed shortly before her death, that Aboriginal people had camped in the vicinity of the homestead when she was young. This would place the original conversation in the 1930s (when the Reeds acquired Heide) and Mrs Lang memory back to the mid to late 19th century. Her family had leased the property from the 1870s and bought it in 1888 (Harding & Morgan, 2012).
This story is supported by the recollections of Wurundjeri Elder Ron Jones, who noted that his wife lived on the opposite side of the river flats in the Heidelberg area and also related a story of an Aboriginal camp originally existing in the Bulleen area near the edge of the Yarra floodplain (pers. com. Ron Jones to Gary Vines 2/11/2015).

2.2.3 Regional History

In 1834 John Batman, a grazier and businessman, arrived in Port Phillip from Van Diemen’s Land. With John Fawkner, Batman formed the Port Philip Association to legitimise land claims in the settled districts (Calder, 2002). The Port Phillip district was proclaimed open to settlement in 1836, allowing the sale of unoccupied land by auction. Between 1839 and 1846 grazing licenses for cattle and sheep were taken up, as well as squating licenses of ten pounds per year.

In the area known as Bulen-bulen by Woi wurrung people, meaning lyrebird and which Robinson referred to as camping place of Woi wurrung peoples in 1840 (Clark & Heydon, 2002, p. 45), the colonial settler W. Wood settled on the Yarra where a creek fed into the River in 1837 (possibly Koonung Creek). Wood established a sheep run which operated for three years (Poulter, 1985, p. 1). Other people in the area were the Ruffey Brothers who had a cattle run also along the Yarra River in Bulleen (Poulter, 1985, p. 108).

The area then became incorporated into a Special Survey allocated to Frederick Unwin in 1841, who was a solicitor from Sydney (Poulter, 1985, p. 1). A Special Survey was an area up to 8 square miles (20.7 square kilometres) that was sold at one pound per acre. With the Melbourne market on in such close proximity, farmers cleared the flats and planted crops and began dairying (Poulter, 1985, p. 18). The river flats became quagmires in winter and corduroy roads, consisting of tree trunks laid side by side to make a road for wagons, were built. Saw pits were located along the Yarra River and the red gums were quickly turned into timber (Poulter, 1985, p. 25).

From 1847 new regulations were gazetted, allowing squatters to purchase pre-emptive rights to their household blocks. In addition, in 1849 new regulations were applied in the Settled Districts, and run holders were permitted to buy a 640 acre block containing their homestead and other improvements. After the initial gold rush and formalisation of the Colony of Victoria in 1851, a series of Government Acts encouraged closer settlement of land. Squatting licences were cancelled and many of the large pastoral leases were subdivided and sold at auction or made open for selection for farming and agricultural purposes.

From the onset of colonial settlement, the Yarra River floodplain was cleared for sheep and cattle grazing (Lemon, 1990). As Melbourne developed and created an economic demand for agricultural produce, the floodplain was further cleared and drained to allow for market gardens and dairying (Poulter, 1985). Eucalypts were logged for building material, roads for wagons and fuel, which rendered areas of the floodplain into a muddy bog in winter (Poulter, 1985). Frequent flooding events and large floods in 1863, 1891 and 1934 destroyed market gardens and livestock (Cekalovic, 2005). The construction of dams and diversions in the upper Yarra Valley in the 1850s significantly reduced the severity and volume of flooding. Regular flooding is no longer a feature of the rivers hydrological system (Stone, 2008).

More recently, the Yarra River environs have been used as the Yarra Flat Parkland. The following information was provided in Stone (2008):

The entrance to the Yarra Flats Park is off The Boulevard and constructed in the early 1980s. Fill had to be imported and laid on the floodplain to raise the entrance road above the level of major flood events. The raised Banksia Street roadway forms the northern margin and has been in existence longer. Groves of medium-sized eucalypts stand between the raised entrance road and Banksia Street. These also probably date from this period. The proposed Banksia Street Wetland basins occupy depressions left by extractive industries prior to the land being taken over by the MMBW. These depressions are clearly not former billabongs because their alignment is discordant to the flow direction of the river channel. Garry French
explained (on-site) that the floodplain had been quarried for silty loam to be used as garden soil or for landscaping more generally. The quarrying occurred in the early-mid 1970s and lasted only a few years.

### 2.2.4 Land Use History of the Activity Area

A short-lived sheep station was established on the Yarra near Bulleen by the Ruffy brothers in 1837 and the Wood brothers in 1838, although they had moved on within two years.

Early parish maps of the area show the sale of land which covered the activity area as part of F.W. Unwin's Special Survey. In 1841, the Bulleen part of the Yarra River was allocated to Frederick Unwin by the Colonial Government as part of a Special Survey purchase of 5000 acres. William Thomas of the Port Phillip Aboriginal Protectorate protested the sale, observing that the area was of great importance to Aboriginal people. This did not prevent the sale. Thomas then addressed the Colonial Governor directly to point out the impact that the Special Survey would have on Aboriginal people who relied on access to that part of the Yarra River as a source of eels for a month each year (Thomas' memorandum to the Governor 22.6.1841 (Lemon, 1990, p. 16).

Unwin's Special Survey was contained in an area bounded by Koonung Creek, Church Road, Foote Street and the Yarra River (Plate 9). Although an absentee landlord, Unwin's main objective was to get land as close to Melbourne as possible (Poulter, 1985, p. 1). Unwin and James Atkinson, a Sydney-based solicitor and land speculator, subdivided the property into 100 to 200 acre farms which fronted onto the Yarra River or Koonung Creek (Collyer, 1994, p. 6). The farms came with seven year leases, on the provision that the leaseholder improved the land through clearing and enclosed the farms with post and rail fencing. Such works were undertaken, as well as cultivation (Shaw, 2003, p. 159). It was described that 'the rich river flats supported the growth of cereal and rotation crops and sawyers operated on the high ground which was thickly timbered' (Leaney, 1991, p. 8).

![Plate 9  Unwin's Special Survey 1860, Parish of Bulleen (activity area in red) State Library of Victoria Map](image-url)
In 1843 Unwin asked for his Special Survey to be moved closer to the Melbourne township, which was approved. The Special Survey was resurveyed and defaulted back to the Crown in 1845. James Atkinson purchased most of the lands covered by the original survey (Lands & Survey, 1948). Atkinson named the leasehold farming area Carlton Estate (Collyer, 1994, p. 6).

The Chatsworth Estate portion of Unwin’s Special Survey was subdivided in the 1870s and subsequent suburban subdivision occurred through the late nineteenth and early twentieth century (Plate 10). Most of this was confined to the east side of Bulleen Road. The Heide Homestead was built in the early 1870s to the south west of the Activity Area.

Sidney Ricardo was the first owner to cultivate the property, growing potato and cabbage crops from 1851. Ricardo continued to farm it until the late 1870s, when it was sold to Thomas Dowd. Dowd leased the land to James Lang and his brother William in the 1880s. The Lang brothers built a new house in about 1891,
described in that year in the Road District rate records as "house and garden of four acres of land Templestowe road". The Langs also farmed 140 acres of adjacent land owned by Dowd. By 1893 the Langs had purchased the house and land from Dowd. Part of the Lang property was also taken up for soldier settlement in the 1930s, while the block immediately west and south of the current activity area was purchased by John and Sunday Reed from the Langs in 1934. By this time the Heide property was a run-down dairy farm and virtually treeless.

The Reeds renovated the late 19th century homestead, renamed it 'Heide', and developed it as the centre of the Melbourne bohemian artists in the mid-20th century. Photographs from this period reveal the open paddocks of the current activity area (Plate 12).

Plate 12 View from Heide looking the north 1943 (SLV H2010.72/71)

The earliest available image is dated to 1943 when the activity area appears as chiefly pastoral or broad-acre agricultural land, with more intensive tilled agriculture to the north east and east. The plough-lines in this paddock extend from the south west corner of the property north east towards a minor drainage line or waterway. They provide evidence of major alteration to the current site of the Sonoco Factory and the YVCC hub.

The light blue line in Plate 13 indicates the approximate location of the foot of the current sharp rise of the plateau on which much of the Sonoco Factory and YVCC are located. The paddocks show ploughed or mown in straight lines, directly through the location of the current sharp rise of the plateau. This direct ploughing would be impossible in the current landform, and strongly suggests that much of the plateau currently within the YVCC and Sonoco Factory properties is a man-made feature.

A small, apparently natural rise is evident in the earliest Aerial photos along the Templestowe Road frontage. It appears that the initial YVCC and Sonoco infrastructure were constructed on this natural rise, and subsequently the surrounding land was levelled with large amounts of fill to the north.
Plate 13 Study Area in 1946 Light blue line denotes approximate location of foot of current rise.

The sponsor of this report and information provided by the golf course groundsman, indicated that the activity area had been used for excavation of soils for fill to be used at infrastructure for the 1956 Melbourne Olympic Games (Overall, 2015). This can be verified from aerial photographs. The 1954 photo shows an extensive area of the floodplain in bend of the river as bare soil indicating it was being excavated while a clear haul road runs south east to Templestowe road (Plate 14). The 1956 photo shows this area, and a further area just to the south, having been rehabilitated to some extent, with uneven ground, tracks and what appears to be piles of soil suggesting other material has been brought in to fill the area previously excavated (Plate 15).
By the 1960s several features are evident including a driveway and structures in the south west, a road in the west, and some alterations to the fencing of internal parts (Plate 16). For the most part however the activity area appears to be in continued agricultural use. A major point of difference is the construction of the Sonoco Factory on a small rise. The presence of large quantities of soil in mounds to the left of the factory may be evidence of fill to augment the natural rise – or may be the result of excavation and grading to level the local rise for the Sonoco Factory.
Plate 16 Activity area on 11 March 1964

Plate 17 Activity area flooded on 9 November 1971
Plate 17 demonstrates the effect of floodwater around the Sonoco Factory with clearly visible dumped fill to its north. Some of this fill is likely to have come from the Glen Iris Brickworks (later operated by Boral) located on the opposite side of Templestowe Road. The area of the YVCC clubhouse shows significant earthworks, in particular to its north in what appears works preparatory to the construction of the terraced sporting area of swimming pools and courts.

In Plate 18, the extension of fill and excavation for the YVCC carpark and buildings can be seen as light-coloured areas. Smaller areas of soil disturbance and dumping are visible throughout the activity area and are indicated with arrows. To the north, marked with an arrow and a star, considerable dumping has taken place, apparently to block the course of a natural drainage channel.

The subsequent construction of the YVCC golf course has not been captured in available aerial imaging. The current landform of this golf course differs somewhat from the aerial images presented here. While this difference in landform indicates that some alteration to ground surfaces has taken place, the aerial evidence and site inspection (following section) would suggest that alterations to ground surfaces would likely have been predominantly of an additive, rather than extractive nature. Irrigation lines have been laid to service the golf course.

Plate 18 Aerial photo on 29 February 1972 showing Activity Area
2.3 Geotechnical Investigations

A number of bore test holes were made for geotechnical investigations both on the floodplain area, and the elevated ground where land fill and disturbance has occurred. This has assisted in establishing the character of the underlying geology and sediments, and also the history of land use and land fill. Testing carried out by NSP Geotechnics Pty Ltd in 2015 involved several boreholes excavated across the golf course area (Plate 20).

Typical soil profiles included the following:

- **TOPSOIL:** SILT/SAND to 100mm and FILL: SANDY/ SILTY CLAY, high plasticity clays, fine to medium sands, brown, orange and grey, dry to moist, medium dense or stiff and typically extending to depths ranging from 0.1 to 0.8m.

- Overlying **CLAYEY SILT (ML),** low plasticity, brown and grey, moist, stiff and typically extending to depths ranging from 0.3 metres to 1.4 metres.

- Overlying **SILTY/SANDY CLAY (CH),** medium to high plasticity, orange, brown and grey, moist, stiff to very stiff and extending to depths ranging from 0.7 to 3.0 metres.

- Overlying (BH1 only) **CLAYEY SANDY SILT (ML),** low plasticity, brown and grey, dry to moist, stiff and extending to the borehole termination depth in BH1 of 3.0 metres.

Fill material comprising clay and silt with various intrusions including crushed rock and gravel was found in most of the bore test locations, up to 0.8 metres depth. The deeper fill levels probably relate to filling of the former waterway and backfilling of areas excavated to provide topsoil for constructing greens and levelling fairways.

Plate 19 Geotechnical investigation typical soil profile (NSP Geotechnics Pty Ltd, 2015)
Plate 20 Geotechnical investigation locations (NSP Geotechnics Pty Ltd, 2015).
Additional geotechnical testing was carried out by Alpha Environmental in 2016 for the area of the landfill and disturbance around the clubhouse and Sonoco factory. This testing indicated that fill was encountered at all testing locations, which are shown in Plate 21. Depth of fill ranged from 0.5 to 3.5 metres deep and averaged about 2 metres deep (Alpha Environmental, 2016).

The fill unit identified in the testing generally comprised light brown silty clay with variable amounts of foreign inclusions, as follows: bonded asbestos cement sheeting fragments, millboard, vinyl tile, bricks and brick fragments, concrete, foreign gravel and boulders, glass bottles, ceramic tile and pot fragments, asphalt, burnt timber, pieces of wire and metal, plastic, putrescible waste and other rubbish, slag, ash and coke, golf balls, and fabrics. This fill layer overlayed a cement slurry layer in some parts which corresponds with the (Alpha Environmental, 2016, p. 17).

Plate 21 Geotechnical investigation locations in fill areas (Alpha Environmental, 2016)

It can be concluded from the geotechnical investigations, that while extensive areas of the activity area have been subject to previous ground disturbance to the extent that large areas will no longer have potential for Aboriginal cultural heritage, there are some parts that are likely to be relatively intact. The extent of areas identified as having been subject to previous ground disturbance area shown in Figure 5.
Plate 22 Typical bore log profile showing fill to 3.5 metres

2.4 Conclusions from the Desktop Assessment

The activity area encompasses the second tier geographic region *Dissected landscapes at a range of elevations* (1.4). The activity area is located within close proximity to the Yarra and Plenty Rivers, as well as Diamond, Ruffey and Kooyong Creeks. The Activity area extends about 250 metres north from Templestowe Road to within 6 metres of banks of the Yarra River. The northern boundary is defined by the approximately 16 metre contour, which marks the approximate position of the 1 in 100 year flood level. The eastern alignment of the activity area slopes upwards towards the eastern most point, to being almost 100 metres higher than the northern alignment. The activity area lies on a Silurian base rock overlain by unconsolidated Quaternary
deposits of dark clays, loams and yellow duplex soils of moderate compaction, alluvial and colluvial deposits, and include Pleistocene terrace formations.

A search of the VAHR revealed there are 39 Aboriginal places within the geographic region. Scarred trees followed by artefact scatters and low density artefact scatters are the predominant place types in the geographic region.

There are three Aboriginal places Heidi 1 (7922-0826), Bulleen Scarred Tree (7922-0028) and Templestowe 4 (VAHR 7922-0052) within 500 metres of the Activity Area. Previous CHMPs in the vicinity of the activity area found that Aboriginal places were generally located on river terraces, river banks and river flats, while Ellender (1991) and Freedman et al (2012) found the geographic region was heavily influenced by its history of disturbance. The land use history indicates that although the activity area has had a continuous occupation for agricultural, housing, industrial and transport uses since 1837, there is potential for Aboriginal places in less disturbed areas where irrigation lines have not been installed.

2.5 Place Prediction Model

Based on the above review of the geographic region, including its environment, recorded Aboriginal places, previous archaeological assessments and information on the activities of Aboriginal people, a place prediction model has been developed. The place prediction model utilises the existing regional information in order to target landforms which might have archaeological potential during the Standard Assessment. The place prediction model acts as a guideline for designing the ground survey strategy and identifies key points for consideration.

Therefore the following Aboriginal place types likely to be found within the activity area are:

- **Scarred trees** represent cultural modifications of trees to obtain the bark for use as shelters, canoes and shields. Despite widespread removal of native forest which has resulted in little remnant vegetation; scarred trees may occur where remnant vegetation exists. Although the study area has been subjected to previous land clearance to open the landscape for grazing after European settlement and exploitation of the forest for timber, some remnant old natives remain, and scarred trees are located within 500 metres of the Activity Area.

- **Artefact distributions** consisting of one or more stone artefacts are associated with tool production, domestic activities and resource procurement. Scatters and isolated finds are most likely to occur on river or creek flats, terraces or slopes within 100 metres of major water courses. The present activity area is nearby Yarra and Plenty, and is located on a natural rise.

- **The following place types are considered unlikely to be identified with the Activity Area:**
  - **Stone arrangements** are places where Aboriginal people have positioned stones deliberately to form shapes or patterns. The purpose of these arrangements is often unknown. One stone arrangement has been located within the geographic region, there is therefore low-moderate potential for stone arrangements to be present within the Activity Area.
  - **Earth features and mounds** can include evidence of occupation such as charcoal, burnt clay, lithic material, animal bones and shells. They are usually identified in preserved landscapes where the material has been covered by successive deposits of alluvium and elevated ridges or rises, or within proximity to water sources. The activity area is located within close proximity to a freshwater source which was utilised by Aboriginal people for subsistence practices. However, the activity area has been subjected to significant disturbance from agricultural activities and modern infrastructure installation. There is low potential for earth features to be present within the Activity Area.
  - **Burials** of human remains can occur where the subsurface deposit is suitable for digging, with soft soil and sand being the most probable. Burials have not been recorded within the geographic region.
and the activity area is located in an area of compact stratified profiles which are not easily excavated and would not have provided an ideal environment for the burial of human remains by Aboriginal people. There is therefore low potential for burials to be present within the Activity Area.

- **Quarries** consist of negative flaking scars on rocky outcrops where Aboriginal people procured their lithic resources. As there are no limestone caves or any other appropriate medium which would have provided opportunity to create rock art, it is not likely that rock art will be recorded within the Activity Area.

- **Rock art** includes stencils, prints and drawings in rock shelters and engravings in limestone caves. The activity area is located on a geomorphic landform where limestone caves and other appropriate surfaces are not found. It is therefore unlikely that stone arrangements will be present within the Activity Area.

- **Shell middens** contain the remains of consumed shellfish are located in coastal areas or associated with inland waterways. As no middens have been recorded within the geographic region, there is low potential for them to be present within the Activity Area.

The results of the Desktop Assessment have indicated there is a potential for unidentified Aboriginal cultural heritage material within the Activity Area. For completion of this CHMP, it is therefore necessary to undertake a Standard Assessment to assess the presence of potential unidentified Aboriginal cultural heritage and the sensitivity of landforms within the activity area to contain such material.
3 Standard Cultural Heritage Assessment

A standard assessment was undertaken to assess the potential Aboriginal cultural heritage in the activity area. The field survey was carried out on Monday 2nd November 2015, by Gary Vines from Biosis with the participation of Ron Jones from the Wurundjeri Council. There were no obstacles to completing the Standard Assessment.

3.1 Objectives

The Standard Assessment was undertaken to identify and record any surface Aboriginal archaeological places and to identify landforms with the potential for sub-surface Aboriginal cultural heritage material within the activity area. The requirement to complete the assessment is based on the findings of the Desktop Assessment. The objectives also include assessing whether a Complex Assessment is required.

3.2 Methods

The Standard Assessment was undertaken in accordance with the techniques described in Burke and Smith (2004) and prescribed by AV (2008). A detailed method for ground survey is described below.

3.2.1 Survey Methodology

The activity area was initially inspected as part of a due diligence assessment by Michael Lever of Biosis on 3 June 2015. All surfaces were surveyed through a combination of vehicular (golf buggy) and pedestrian survey. The activity area was accessed from the existing vehicle track which extends through the activity area along the escarpment above the river.

Inspection of the activity area by foot and golf buggy was carried out with the client during a preliminary inspection on 1 October 2015 by Gary Vines for Biosis and Ron Jones, Robert Mullins and Allan Wandin of the Wurundjeri.

A detailed site survey was carried out on Monday 2nd November 2015, by Gary Vines from Biosis and Ron Jones from the Wurundjeri Council.

The Standard Assessment was completed by traversing the activity area on foot at intervals of five metres between the HA and the two Aboriginal representatives. Full survey coverage was undertaken of the major portion of the proposed development area (within which groundworks are proposed) with the exception of areas covered by buildings and structures. The ground survey examined the ground surface of the Activity Area, taking into account ground surface visibility (GSV) and ground surface exposure (GSE).

Views of the activity area were photographed. Field notes were taken recording ground conditions, specific locations and condition of areas of GSV and GSE, the vegetation type, slope and details of areas of potential for Aboriginal cultural heritage.

Mature indigenous trees were inspected to determine if scars, carvings or other modifications were present and all potential artefacts were inspected for evidence of human modification.

Locations of identified Aboriginal cultural heritage and areas of potential for Aboriginal cultural heritage were recorded using a Trimble DGPS and post-processed to within one metre accuracy, in accordance with the AV target standard for recording Aboriginal archaeological places.

3.3 Results of the standard assessment

Bulleen Scarred Tree (VAHR 7922-0028) and HEIDE 1 (VAHR 7922-0826) are located immediately adjacent to the activity area in the Heide property to the south. The location of the Bulleen Scarred Tree was determined...
to be inaccurately shown on the VAHR and this has been corrected by submitting a site inspection form. No other culturally scarred trees were observed within the Activity Area. The activity area is currently more thickly treed than at any time shown in aerial imaging above, however the vast majority of this growth consists of Sugar Gum (*Eucalyptus cladocalyx*), a hardy species which is not native to Victoria. Further, as evidenced from aerial imaging, these trees do not date to a sufficiently early date to have likely been culturally scarred. No areas of potentially highly archaeologically sensitive landforms were identified, and no artefact or shell scatters were observed.

The entire frontage of the activity area along and extending approximately 200m from Templestowe Road, has been subject to previous ground disturbance as evidenced by the levelled and sealed tarmac carpark, the substantial club house, and terraced sporting facilities (Plate 23).

![Plate 23 Panorama of Templestowe Road frontage of the Study Area View from south east to north west](image)

To the rear of the club buildings and terraced areas, the landform drops steeply by 4 metres (Plate 24). Inspection of the banks of this rise confirms evidence from aerial photography, that the entire plateau fronting Templestowe Road is a man-made feature resulting from dumping of fill. Inspection of soil surfaces demonstrates that this fill is largely demolition rubble, including bricks, bluestone, metals and general waste. This waste includes large amounts of plastics and bricks dating to no earlier than the mid 1960’s (Hancock Brick Company, 2015). No structures dating to the 1960's era or of sufficient size to generate this volume of fill are apparent in aerial images of the Study Area. It appears certain that this fill was imported from demolition sites outside the Study Area.
Plate 24 Edge of fill at north of driving range area

The landform adjoining this plateau to the north is not sharply levelled, but slumps unevenly suggesting fill using imported soil rather than natural surfaces. The dumping of soils is clearly evident to the direct north of the Sonoco Factory (Plate 25).

Plate 25 Slumping slope - Sonoco Factory roof visible at rear (south).

Elsewhere in the Activity Area, soils are generally very level as would be expected on the fairways of a golf course (Plate 25, Plate 26). Given the previous agricultural use of the Activity Area, and its natural floodplain...
geomorphology, this degree of level landform is likely to be the outcome of a combination of pre-existing naturally level ground and agricultural ploughing.

Plate 26 Characteristic level fairway

The rises of the sand bunkers are generally neither high nor extensive and may well have been formed through the deposition of fill.

The water hazard on the course would also not appear to be the result of excavation, but represents the remnant presence of a natural waterbody at the eastern terminus of a drainage line visible (Plate 27, Plate 28)

Plate 27 Excavated pond on former creek line with levelled ground around it.
Plate 28 Extensive landscaping and excavated ponds at base of fill area.

3.3.1 Ground Surface Visibility

A number of factors hinder the identification of surface Aboriginal cultural heritage material. GSV can be defined as how much of the ground surface is visible and what other factors (such as vegetation, gravels or leaf litter) may limit the detection of Aboriginal cultural heritage material (Burke & Smith, 2004). The higher the level of GSV, the more easily Aboriginal cultural heritage material can be identified; therefore a landform with a good GSV will enable a better representation of surface Aboriginal cultural heritage material than a landform where the ground surface is obscured (Ellender & Weaver, 1994). Ground surface visibility ranged from 25% in areas of erosion, beneath trees and on the margins of the erosion gully to 1% or less on the vegetated slopes of the river bank, along the escarpment and the planted stands to the south of the vehicle track.

Plate 29 Ground Surface Visibility along track near river
3.3.2 Effective Survey Coverage

Closely associated with GSV is GSE, which looks at the prevailing sedimentation conditions within the activity area. This includes whether survey units are aggrading, eroding or stable; and the kinds of exposures that are apparent as a result of these processes (Burke & Smith, 2004). This is used to indicate the effective survey coverage of the activity area and provide an indication of the potential for Aboriginal cultural heritage material to be found.

The survey coverage is shown in Figure 4. Effective survey coverage (Table 4) achieved during the survey was low because of poor visibility, and considered to represent approximately 1% of the total Activity Area.

### Table 4 Effective survey coverage

<table>
<thead>
<tr>
<th>Survey Unit</th>
<th>Features</th>
<th>Ground Surface Exposure</th>
<th>Effective Survey Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escarpment edge 0.5 ha</td>
<td>Steep slope leading down to floodplain</td>
<td>1% average visibility with up to 50% in eroded areas (still on fill)</td>
<td>0.001 ha</td>
</tr>
<tr>
<td>Level area of development and prior landfill 4 ha</td>
<td>Level terrace with paved roads and car park, buildings and sports facilities – some landscaped areas</td>
<td>1% average visibility with up to 50% in landscaped areas</td>
<td>0.001 ha</td>
</tr>
</tbody>
</table>

3.3.3 Ground Disturbance

The ground survey identified a number of areas of previous ground disturbance within the activity area (see Figure 5).

Even where soil or grass surfaces are evident, these are within areas of disturbance and introduced fill with no potential for the presence of undisturbed or in situ Aboriginal cultural heritage.

- Land Fill – constructed with bulldozers in the 1960s and 70s (Plate 21)
- Water features – excavated in 1970s – spoil used for raising areas around Green, Tee box, sand traps and other features (Plate 27)
- Graded fairways with trenched irrigation and power lines down each (Plate 24)
- Main track running north from club house graded by 1960s
- Club house, car park and tennis court areas – constructed by late 1970s (Plate 23)
- Former creek line – filled and levelled in 1980s
- Overbank fill – eroded areas shown on 1940s aerial photo, subsequently filled with dumped soil and rubble
- Cut and fill along south west boundary to form drain and block water flow to adjacent Heide property
- Foundation base of high tension power line and associated soil scrape for levelling it.
- Works shed and surrounding area, and sunken pump shed
- Soil borrow areas in bends of river (Plate 14)
- Car park construction adjacent to Heide site (Plate 31)
- Ploughing, grading and woody weed ripping along east boundary of Sonoco site in Parks Victoria land
Figure 4: Map of survey coverage, transects and locations of photopoints

Coordinate System: GDA 1994 MGA Zone 55

Acknowledgements: Vicmap (c) State of Victoria
Figure 5: Ground disturbance
3.3.4 Mature Indigenous Tree Species
No mature, suitable species of indigenous tree showing signs of cultural modification by Aboriginal people were recorded within the activity area. (note this is apart from the previously recorded Bulleen Scar Tree (VAHR 7922-0028) which is located just outside the Activity Area.

3.3.5 Caves, Rock Shelters and Cave Entrances
No caves, rock shelters or cave entrances were located in the Activity Area. The river terrace geology of the Yarra Flats does not support features of this type.

3.3.6 Aboriginal Places
No previously recorded Aboriginal places lie within or adjacent to the Activity Area. No new Aboriginal places were found during the ground survey for the Standard Assessment.

3.3.7 Areas of Potential Archaeological Potential
While no cultural heritage was identified during the standard assessment, potential was considered to exist for buried or obscured artefacts in areas that had not been subject to disturbance. Such areas comprised the undeveloped floodplain and a small area of higher ground near the power line tower and along the eastern margin of the Sonoco site in Parks Victoria land.

3.3.8 Constraints to the Standard Assessment
There were no constraints to undertaking the standard assessment.

Plate 30 Ridge near transmission line tower – area of higher archaeological potential
Plate 31 Ground Visibility/disturbance in Heide carpark

3.4 Conclusions from the Standard Assessment

The results of the Standard Assessment generally agreed with the evidence of previous studies and the predictive model derived from the Desktop Assessment. The ground survey showed that, due to the effects of historical clearance, ploughing and subsequent construction of building, car parks and other works, there is no potential for sub-surface archaeological deposits.

3.4.1 Terrace mapping

YVCC lies entirely within the basin of the Yarra River and its geology and geomorphology closely reflect the successive stages of the river’s development. The basal geology is Silurian sandstones and shales known as the Anderson Formation, which rises to a height of 40m as a broad, dissected ridge south of Templestowe Road. To the north of the river, the same geology is manifested as more prominent hills, rising to heights of more than 50m across the suburbs of Viewbank and Lower Plenty.

To the south of this loop, between the river bend and Templestowe Road, is an extensive floodplain which rises markedly to the south, and descends north in a series of shallow terraces to the lowest flats along the river frontage. This floodplain has been partly masked by landscaping and planting for the modern golf course but earlier air photographs show a series of features typical of broad fluvial meander belts. These comprise a succession of abandoned channels which represent the northwards avulsion of the river bend from a position much closer to Templestowe Road, more than 600m of the present course of the river. The relict channels included a number of ponds which were still extant in 1958. The hills to the south were drained by a series of consequent streams which have supplied the ponds and billabong on the YVCC floodplain and drained north to the river.
The terraces along this section of the river have been variously subdivided into one or two levels, reflecting relict stages in the river's development. In their archaeological survey for the proposed Yarra Valley Metropolitan Park, Witter and Upcher (1977) divided the river basin into (a) the valley bottom and present channel, (b) low level terraces and (c) high level terraces. The bulk of the golf course area is considered to be low level terraces. The area covered by the current buildings and club facilities is considered to be Pliocene deposits and high level terraces. The high level terraces were judged to be earlier than the low level terraces, and were compared with the Pleistocene terraces which had been identified on the Maribyrnong River.

The most recent 1:250,000 mapping of the Yarra region by the Geological Survey of Victoria (Welch, Higgins, & Callaway, 2011) divides this portion of the Yarra floodplain into two main units: Quaternary alluvium (Qa1) which includes all of YVCC, and Quaternary alluvial terrace deposits (Qa2) which commence upstream of YVCC, to the east of Bonds Road. The geological mapping also recognised Quaternary colluvial deposits, located at the heads of smaller valleys where slopewash deposits have created separate landforms. The Qa1 deposits comprise: Gravel, sand, silt; variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits.

These deposits are dated broadly from the Pleistocene to the Holocene. The mapping and identification of the river terraces at the 1:250,000 level, though a useful overall view, is too limited to interpret the geomorphology of the Activity Area. For the present assessment, the activity area has been divided into the following principal landforms:

### Table 5  Landforms within the activity area.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Description</th>
<th>Presence within Activity Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terrace</td>
<td>Raised terrace, at heights of 16m to 29m. This is likely to include more than one sedimentary unit, encompassing both Pliocene deposits as well as early Pleistocene terraces. Deeper clays identified in geotech testing may represent a higher terrace along the southern margin of the valley, possibly analogous to the high level terraces identified further upstream.</td>
<td>The escarpment at the eastern edge of the activity area lies at 20m - 21m height, and dips notably to the north.</td>
</tr>
<tr>
<td>Floodplain</td>
<td>Alluvial floodplain with relict channels, ponds and billabong, at heights of 10m to 15m, probably of mid to late Holocene date. This section of the river no longer forms an active meander belt and the former alluvial floodplain features are now decayed.</td>
<td>Between clubhouse and river, but extensively disturbed. Part may be buried under up to 5m of fill.</td>
</tr>
<tr>
<td>River channel</td>
<td>The modern course of the river, which follows a pronounced loop to the north of the park, where it is joined by the Plenty River. The eastern section of the river has been more stable and is constrained within a steep-sided gorge.</td>
<td>Not in the activity area</td>
</tr>
</tbody>
</table>

Dating of the terrace land unit has been undertaken during investigations at Birrarung Park about 1 km upstream to the northeast. (Lawler & Vick, 2013). This has demonstrated that the higher alluvial terrace
landforms are dated to 80-120,000 years ago and so indicate that deeply buried Aboriginal cultural heritage is not likely to be present.

Plate 32 Location of Birrarung Park OSL sample BIR2 at 16.0m AHD, taken from a cutting on the SW side of the erosion gully, looking SW.

3.5 RAP Information about the Aboriginal Cultural Heritage

As part of the consultation for the CHMP, the results of each stage of the Complex Assessment were discussed on site with the Wurundjeri Council field teams. The Aboriginal representatives noted that the escarpment had been subject to a range of previous disturbances, but that the sediment profile below about 300mm was less disturbed.

The Aboriginal representatives also considered that the floodplain of the Yarra River, with its surrounding elevated terraces and valley slopes, would have been a rich resource for Aboriginal people.
4 Complex Assessment

The results of the Standard Assessment indicated that the activity area has the potential for unrecorded Aboriginal archaeological places. The following section of the CHMP contains the results of the Complex Assessment. The Complex Assessment was supervised by the Heritage Advisors, Gary Vines, William Truscott and Amy Wood Biosis Pty Ltd on 20, 22 and 28 April 2016 who were assisted by Robert Jones, Brendan Wandin and Naomi Zukanovic (Wurundjeri Council) and William Truscott and Leah Tepper Biosis Pty Ltd on 1 and 3 June and 1 July 2016 assisted by Ann-Marie Chandler, Brendan Wandin and Perry Wandin (Wurundjeri Council). There were no obstacles in carrying out the Complex Assessment.

Attentional subsurface testing was undertaken on 26 & 28/9/16, by William Truscott and Martin Lawler Biosis Pty Ltd, with Robert Jones and Mark Gardiner (Wurundjeri Council), to expand shovel test pits into 1x1 hand excavated test pits as requested by Alex Parmington (Wurundjeri Council), according to the newly updated subsurface testing practice note issued by Aboriginal Victoria.

4.1 Objectives

The Complex Assessment was designed to investigate the areas of potential to determine whether Aboriginal cultural heritage material was present and if so, to ascertain the nature, extent and significance of subsurface Aboriginal archaeological places.

4.2 Methods and results

The Complex Assessment was undertaken in accordance with the techniques described in Burke and Smith (2004) and prescribed by AV (2008). Detailed methods for each subsurface testing strategy are described below.

4.2.1 Establishment of Stratigraphy

The stratigraphy and general subsurface nature of the activity area was determined by hand controlled excavation of a 1x1 metre test pits. Three test pits were excavated to cover the different landforms: TP1 on the potential raised terrace near the power line, TP2 on the alluvial floodplain, and TP3 on the elevated Silurian area east of the Sonoco factory on Parks Victoria land. An additional three test pits were excavated at the locations of artefacts found in shovel test pits to comply with the Aboriginal Victoria revised subsurface testing practice note. The locations of the test pits and shovel test pits are shown in Figure 12.

The test pits were excavated with trowels, shovels and a crowbar where the sediment was particularly hard and compacted until a sterile layer was reached and 100 per cent of excavated soil was sieved through a five millimetre hand sieve. In the test pits, each layer was excavated in spits of 50 millimetres with soil sieved through a five millimetre hand sieve. All soil heaps and sieving activities were kept at a reasonable and safe distance from the test pits and holes were backfilled on completion.

A test pit log was recorded with soil colour (Munsell), pH and description (Appendix 5). The stratigraphic details of each test pit, including inclusions and observations were noted on individual recording forms. Each test pit was spatially recorded using a Topcon GRS-1 DGPS and post-processed to sub one metre accuracy as per AAV (2008) target standard for recording Aboriginal places.

Subsurface testing was focused on determining where natural intact ground surface survived and assessing potential for presence of Aboriginal artefacts in these areas. Testing sites were chosen by overlaying historical disturbance mapping, with the proposed development plan and identifying locations likely to be impacted by development that had the best potential for survival of natural ground surface.
Test Pit 1

Test pit 1 was located in the north eastern section of the Activity Area, which featured a small rise. Two stratigraphic layers were identified, the first being a friable, humic silt with occasional roots and rootlets and water worn pebbles and road gravel inclusions to a depth of 35 millimetres. The second layer, reaching depths of 65 millimetres consisted of firm clay which increased in hardness. Water worn pebbles were present in the interface with the above unit. After discussions with the Wurundjeri Council Representative on site, excavation was ceased at this level.

The nature of the soil suggested that the original surface had only very thin topsoil over sterile clay subsoil which had decayed from the ancient Silurian bedrock. An alternative was that the topsoil had been previously been removed by erosion or grading. In any case it was considered unlikely that any cultural layers could have survived in this context.

Plate 33 General view of complex assessment (Test Pit 2)
Test Pit 2

Test pit 2 was located in the north eastern section of the Activity Area, which featured a small rise. Four stratigraphic layers were identified, the first being moist, friable, humic silt with occasional roots and rootlets to a depth of 30 millimetres. The second layer, reaching a depth of 250 millimetres consisted of firm, clayey silt which was moist in patches, which merged with a dry firm to cemented silty clay context which increased in compaction to a depth of 520 millimetres. Dry, cemented silty clay mottled with orange was identified underneath.

Aboriginal cultural heritage was recovered from the second context. This comprised a 1 blocky silcrete core with multiple striking platforms, and a small quartz flake, which did not have diagnostic features, but on the basis that it appeared to be in a relatively undisturbed context and there was little other similar material in the vicinity, on the balance of probability was considered to be of Aboriginal origin.
Plate 35 Test Pit 2 looking west

Test Pit 02 Western Section

Figure 7 Test Pit 2 Western Section
Test Pit 3

Test pit 3 was excavated near the top of the ridge on the eastern side of the Sonoco factory in Parks Victoria land. This location appeared to have less disturbance or fill than the surrounding areas, although historical photographs indicated it was formerly ploughed under agricultural practices. The soil in this area is a more friable silty loam than the heavier clay on the lower slopes, and overlays a deeper crumbly subsoil in some places. However, various inclusions including brick, crushed rock and road gravels as well as some historical artefacts attest to disturbance.

The 1x1 metre test pit showed a disturbed topsoil layer with brick and gravel inclusions for the first 100-200 millimetres, overlying light grey silt, which may represent either a relic flood sediment or decomposed clay from the Silurian mudstone which forms the sterile base of the test pit at about 250 millimetre.

Plate 36 Test Pit 3 at completion of excavation looking west
Plate 37 Test Pit 3 looking west

Test Pit 03 Western Section

Figure 8 Test Pit 3 Western Section
4.2.2 Expanding shovel test pits with artefacts

Three of the shovel test pits that contained artefacts were expanded into 1x1 metre hand excavated test pits following consultation with the RAP who requested that the testing be done in accordance with Aboriginal Victoria Practice Note on subsurface testing. No further Aboriginal artefacts were identified in the expanded test pits.

These shovel test pits were:

- Test Pit 4 (on T7 STP1)
- Test Pit 5 (on T7 STP2)
- Test Pit 6 (on T11 STP3)

Test Pit 4 revealed that the location was on top of disturbed soil cut into be a series of electricity conduits and water pipes, which are part of the irrigation control system of the golf course. The initial shovel hole, despite containing an artefact, was therefore proven to contain disturbed material, probably deposited here from elsewhere within the golf course, during the various landscaping works. No further Aboriginal heritage was found.
Test Pit 5 was an expansion of T7 STP2 and was found to contain further evidence of disturbance, in this case in the form of glass, ceramic and other inclusions. Down to about 200 millimetres, and a sterile silty clay at about 400 millimetres. No further Aboriginal heritage was found. This was consistent with the results from the original shovel test pit.

A further shovel test pit was also excavated to the west of Test Pt 5 to test the possible extent of cultural heritage in this direction. No further Aboriginal heritage was found in this STP confirming the assessment that the artefacts represent isolated low density occurrences in a disturbed context.
Test Pit 6 was located at T11 STP3. Soils in this area appeared to be more intact with few inclusions and a finer consistent silty sediment. A sharp change in the contact between the top and second layers, and again between the second and third layers, suggests that soil had been deposited here in recent times as part of landscaping. No further Aboriginal heritage was found in this test pit.
4.2.3 Shovel Test pits

To further assess landforms and areas of archaeological potential within the Activity Area, a series of 40 x 40 centimetre shovel test pits were excavated. STPs were excavated in order to establish the nature of the soils, evidence of prior ground disturbance and determine the extent of ground conditions identified in stratigraphic test pits.

Each shovel test pit was excavated with a shovel and mattock until a sterile layer was reached and 100 per cent of excavated soil was sieved through a three millimetre hand sieve. A shovel test pit log was recorded with soil colour (Munsell), pH and description. The stratigraphic details of each shovel probe, including inclusions and observations were noted on individual recording forms. Each shovel test pit was spatially recorded using a Topcon GRS-1 DGPS and post-processed to sub-one metre accuracy as per AV (2008) target standard for recording Aboriginal places (see Appendix 5).

Forty-eight shovel probes were placed across the activity area in the areas where impacts to the ground surface will occur. The shovel test pits were excavated in the floodplain area generally close to tree rows, where fewer disturbances have been caused by shaping fairways, excavation and filling of the former creek and new water bodies, or construction of underground irrigation lines.

The shovel test pits identified similar stratigraphy across the activity area with variations of friable silt occurring at depths of between 100 millimetres and 300 millimetres. This variability is interpreted as evidence of disturbance from activities associated with cropping, such as ploughing. Quartz pebbles were frequently appearing as inclusions across the Activity Area. The shovel test pits were excavated to maximum depths of 30 to 430 millimetres.

Shovel test pits T7 STP1, T7 STP2 and T11 STP3 contained artefacts at between 30 and 200 millimetres in a dry friable silt context. These cannot be considered to be in situ, due to the disturbance described above. However, in accordance with the recently amended Aboriginal Victoria practice note on subsurface testing the

Figure 11 Test Pit 6 Northern Section
shovel test pits that included artefacts were subsequently expanded to 1x1 metre hand excavated test pits (see above).

Plate 41 Shovel Test Pit Transect 6 looking north east
Plate 42 Transect 1 Shovel Test Pit 3 facing west

Plate 43 Transect 3 Shovel Test Pit 3 facing south

Plate 44 Transect 7 Shovel Test Pit 4 facing east
An additional shovel test pit (T7 STP4 Plate 44) was excavated to the west of the expanded Test Pit 4 (T7 STP1), as this shovel test pit contained an artefact and was subsequently expanded to a 1x1m hand excavated test pit (TP4), in order to test the possible extent of cultural heritage. No further artefacts were found in this shovel test pit, or the expanded test pits 4 and 5, confirming that the artefacts found were isolated low density occurrences. The test pit also demonstrated that the area was disturbed and the soils comprised fill material.

Shovel Test Pit Transect 13 was undertaken near Test Pit 3, extending up and down the slope. While various levels of disturbance and fill were evident, the underlying sediments were similar, with grey silt overlaying the dense mottled yellow/brown Silurian Clay. STP6 at the base of the hill had similar characteristics to the other flood plain test pits. The amount of foreign material indicates that this area must have been subject to bulldozing and rubbish dumping in the past – see for example brick inclusions in Plate 46.

Plate 45 Shovel Test Pit Transect 13 looking north
Plate 46 Transect 13 Shovel Test Pit 1 facing south

Plate 47 Transect 13 Shovel Test Pit 6 facing west
4.2.4 Aboriginal places

One new Aboriginal cultural heritage place was recorded as a result of the Complex Assessment (VAHR7922-1446). This comprised a low density artefact distribution, based on five artefacts found in four subsurface testing locations (Test Pit 2, STP 7.1 expanded to Test Pit 4, STP 7.2 expanded to Test Pit 5, STP 11.3 expanded to Test Pit 6). These were all located on the alluvial floodplain.

All artefacts were found between 30 and 200 millimetres of the surface, and either in humic ploughzone or disturbed contexts. At least one test pit without artefacts was located adjacent to each positive excavation. Radial testing around the artefact locations was limited by the ground disturbance nearby. That is, grading and excavation for the fairways, sand traps, water features and irrigation system confined the areas of potential testing to the tree rows between fairways. Therefore testing was conducted along the line of the tree rows and not into the disturbed fairways. As intervening tests did not produce further artefacts, it can be concluded that the artefacts do not form part of any more extensive or greater density occupation deposit.

4.3 Conclusions from the Complex Assessment

To substantiate the results of the Desktop and Standard Assessments, the Complex Assessment subsurface testing program was designed to test for the presence and extent of Aboriginal cultural heritage and determine the nature of the stratigraphy of the sand dune. Artefacts were located in test pit 1, and three shovel test pits, between depths of 0-200 millimetres in friable silts. Test pits were excavated along alignments of tree rows dividing the fairways, but not into the fairways, as these had been determined to have been extensively disturbed in the Desktop and Standard Assessment.

In addition to historical disturbance mapping, geotechnical investigation results were used to identify levels of sediment, fill and disturbance (NSP Geotechnics Pty Ltd, 2015). These investigations indicated deep silty clay sediments on the floodplain, with thin topsoil. The sediments showed little differentiation and are consistent with the older sediments identified at Birrarung Park (Lawler & Vick, 2013).

The predictive model anticipated that artefact scatters were the most likely site type and the results of the Complex Assessment aligns with this.
5 Details of Aboriginal Cultural Heritage within Activity area

5.1 Aboriginal Place Formation Processes

One new Aboriginal places were recorded as part of this CHMP (Bulleen LDAD VAHR7922-1446). The Aboriginal place comprises a very low density of isolated and dispersed artefacts, probably disturbed from their original depositional context by effects of flooding and sedimentation. They do however demonstrate occupation of the floodplain area, probably on an intermittent and opportunistic basis, rather than in relation to any specific camp site or resource use. Artefacts were found between are distributed over an area of about 300 metres east to west and 60 metres wide.

Plate 48 Artefacts from Aboriginal Place Bulleen LDAD (VAHR 7922-1446)

5.2 Artefact Analysis

All artefacts identified during the CHMP were entered into a catalogue for analysis. The catalogue contains information on location, raw material and artefact types. As the quantities of artefacts found within the activity area are too small to provide a meaningful statistical analysis, a summary for each Aboriginal place is described below. Analysis of these artefacts was conducted by Rhiannon Ashton, Biosis Pty Ltd and based on stone artefact identification and terminology from Holdaway and Stern (2004).

The artefacts all represent flaking reduction, although no cores or debitage were present. The flakes range in size from 9 to 38 millimetres, with a single core, a potential notched scraper and small debitage pieces.

Stone material comprised about silcrete and quartz. These are the most common materials found in assemblages in the region.

The recovery of five artefacts from four of the fifty-one subsurface testing locations comprising a total of 13.2 square metres of excavation, indicates that while Aboriginal cultural heritage is present across the flood plain, it is at very low density, averaging one artefact per 2.64 square metres.
5.3 **Faunal Analysis**

No faunal analysis was undertaken as no suitable material was recorded.

5.4 **Dating**

In order to obtain radiocarbon dates, undisturbed charcoal, shell and other organic material found in association with cultural heritage material needs to be found (The University of Waikato, 2013). Currently the main requirements for successful Optical Stimulated Luminescence dating are a deposit that has been fully exposed to light in the past and has been sealed after deposition and the presence of quartz in the sediment (The University of Adelaide, 2013). In all subsurface testing of the Activity Area, no material suitable for dating was obtained.

5.5 **Statistical Analysis**

Due to the small sample size of the assemblage, no statistical analysis was able to be done.

5.6 **Information from Aboriginal Representatives about the Cultural Heritage Material**

The Wurundjeri Council field representatives considered that, while all places are significant to their community, the information that the place could provide was limited because of the nature of past land disturbances along the escarpment. No other specific traditional information about the Aboriginal cultural heritage within the activity area was available.

5.7 **Aboriginal Place Bulleen LDAD (VAHR 7922-1446)**

5.7.1 **Extent**

The extent of Aboriginal Place Bulleen LDAD (VAHR 7922-1446) is shown in Figure 13 and the cadastral details are listed in Table 6. The extent of the cultural heritage places has been determined by the location of artefacts within test pits. Adjacent test pits having no artefacts determined that the place would be recorded as a low density artefact distribution (LDAD). The method for testing near the identified artefacts was restricted by the location of subsurface irrigation systems, areas of previous ground disturbance (see) and tree location.

**Table 6 Aboriginal Place Bulleen LDAD (VAHR7922-1446) cadastral information**

<table>
<thead>
<tr>
<th>Address</th>
<th>9 Templestowe Road, Bulleen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Government Authority</td>
<td>Manningham</td>
</tr>
<tr>
<td>Parish</td>
<td>Bulleen</td>
</tr>
<tr>
<td>County</td>
<td>Bourke</td>
</tr>
<tr>
<td>Lot/Plan</td>
<td>Lot 1 PS349396</td>
</tr>
<tr>
<td>GDA94 MGA and Zone</td>
<td>E331243 S5819608 Zone 55</td>
</tr>
<tr>
<td>Melway Map</td>
<td>32 E4</td>
</tr>
</tbody>
</table>

5.7.2 **Nature**

The Aboriginal place is a typical low density artefact occurrence, characteristic of those found throughout the Melbourne region but relatively rare in the highly urbanised areas due to poor survival. The artefacts may reflect resource exploitation in a local context – for example use of spears for hunting game, or blades and
scrapers for processing meat or vegetable foods. Equally they might be tools for manufacturing or maintaining wooden artefacts.

5.7.3 Cultural significance in Accordance with Aboriginal Tradition

No specific cultural significance has been ascribed to this Aboriginal place beyond it being evidence of Aboriginal presence, occupation and utilisation of the land and its resources in the period prior to White settlement.

5.7.4 Anthropological significance

No anthropological significance has been ascribed to this Aboriginal place.

5.7.5 Historical significance

No historic significance has been ascribed to this Aboriginal place.

5.7.6 Social significance

No social significance has been ascribed to this Aboriginal place.

5.7.7 Scientific & Archaeological Significance

The scientific assessment for Aboriginal place (VAHR 7922-1446) is based on the descriptions in Appendix 5 and is detailed in Table 9.

- Place Contents is determined as ranking 1 as the place contains a small number of artefacts and limited range of cultural material with no evident stratification.
- Place Condition is ranked at 1 as the place is in a deteriorated condition due to ground disturbance both within and around the place but still with some cultural materials remaining.
- Representativeness is ranked at 1 as this place type (low density surface artefact occurrence) is the most common Aboriginal place type in the region.
- Overall scientific significance of the place is therefore ranked at 3 and is considered to be of low scientific significance.
6 Cultural Heritage Impact Assessment

In accordance with Section 61 of the Aboriginal Heritage Act 2006, a CHMP must consider contingency plans in relation to disputes, delays and obstacles that may affect the conduct of the activity and relating to the custody and management of Aboriginal cultural heritage during the course of the activity. The contingencies are presented in full in Section 9. Custody and management of any discovered or identified Aboriginal cultural heritage during the course of the Activity is subject to contingency plans detailed in Section 9.3.

A CHMP must also consider whether the activity will be conducted in a way that avoids harm to Aboriginal cultural heritage. The following section of the CHMP includes information on impacts to the Aboriginal place.

6.1 Aboriginal cultural heritage places

6.1.1 Avoidance of Harm
The identified Aboriginal Heritage Place (Bulleen LDAD - VAHR7922-1446) is entirely within an area for which excavation to provide environmental water bodies and flood mitigation is proposed, and where land filling for construction of facilities for future residents is required. These works cannot be relocated to another part of the site, and without them the development of the remaining unencumbered land would not be viable. Therefore there are no opportunities to avoid harm to the identified Aboriginal cultural heritage.

6.1.2 Minimisation of Harm
As the identified Aboriginal Heritage Place is entirely within an area which is required for development, there are no opportunities to minimise harm to the identified Aboriginal cultural heritage

6.1.3 Specific Measures to Mitigate Harm
While the identified Aboriginal Heritage Place has been identified as a very low density stone artefact distribution, and provides limited opportunity for scientific investigation, it is considered likely that there would be a small number of additional artefacts associated with the place, and therefore a program of limited salvage excavation is proposed.

In addition, following consultation with the Wurundjeri Tribe Land and Compensation Cultural Heritage Council Inc., the Registered Aboriginal Party for the Activity Area, it was also determined that cultural interpretation and education activities provide a suitable option for mitigating harm to the cultural heritage.

6.1.4 Summary of Impact
The proposed works are likely to impact Aboriginal cultural heritage to the extent that most of the area containing aboriginal artefacts will be excavated, filled or built over as part of the proposed development.
These conditions become compliance requirements once the CHMP is approved.
8 Specific Cultural Heritage Management Requirements

This section sets out a series of management measures developed in accordance with the requirements of Section 61 of the *Aboriginal Heritage Act* 2006. (See Figure 9) The views of the Registered Aboriginal Party (Wurundjeri Tribe Land & Compensation Cultural Heritage Council Inc.) are indicated in Section 5.5.

8.1 Condition 1: Cultural heritage induction

A cross cultural induction training session must be conducted with all site workers/contractors by representatives of the RAP prior to or at the commencement of construction works. A Heritage Advisor/archaeologist may also attend this training session. The training session must include a brief history of the Aboriginal occupation of the region; a summary of the archaeological investigations conducted within the activity area; specific details of all Aboriginal places identified during the CHMP; a summary of the conditions and contingencies contained within the CHMP; and the obligations of site workers/contractors and Sponsors under the Aboriginal Heritage Act 2006.

This training session must be organised and paid for by the site contractors and/or Sponsor.

8.2 Condition 2: Archaeological salvage

Prior to the commencement of civil or construction works, archaeological salvage must be undertaken in the vicinity of the locations where Cultural Heritage was found. This must take the form of hand excavation of at least 2 square metres at each salvage excavation using standard archaeological methods. Excavations must be located in the vicinity of T7-STP1 & 2; T11-SP3; and Test Pit 2.

8.3 Condition 3: Archaeological inspections

Excavations for construction of services, building foundations and underground car parking may extend below the depth of current fill. In the very remote possibility that pockets of natural ground surface may be exposed in this process, it is recommended that an inspection be undertaken by the RAP at the point where excavations have reached these levels. The level at which inspection will occur will be determined by reference to engineering drawings for the new structures. Two areas for inspection are shown in Figure 14 and are identified as follows:

1. The floodplain in areas of less ground disturbance to a maximum depth of 1 metre. These areas must be inspected when grass and topsoil is stripped off for commencement of civil works.

2. The areas of deep fill to the north of the Sonoco factory if excavations here extend to 3 metres or more. This area must be inspected if excavations for civil works, underground services or building foundations are to be dug below the level of the current fill. This is understood to be about 3 metres.

The inspections must be undertaken by a representative of the RAP, and if any cultural heritage is identified, works must stop within 15 metres of the cultural heritage, a qualified heritage advisor must examine the material, collect and record it, and complete VAHR place inspection records. Any cultural heritage identified must be examined in accordance with proper archaeological standards, including hand excavation to determine the nature, extent and significance of the material. The cultural material must be securely stored until it can be reburied in accordance Wurundjeri standard procedures.

8.4 Condition 4: Reburial of artefacts

All cultural heritage material collected during the fieldwork conducted for the CHMP assessment or during implementation of the CHMP must be securely stored at the offices of the Heritage Advisor until it is reburied within the activity area. Following adequate scientific analysis of the cultural heritage material, and at the
completion of all ground disturbing works associated with the activity, the Aboriginal cultural heritage material must be reburied at a place that will not be disturbed in the future, as close as possible to the original Place extent boundary. The location for reburial will be chosen in consultation with the Wurundjeri Tribe Land Council and the cultural heritage material must be reburied in an unsealed ceramic container. The reburial must be conducted by representatives of the Wurundjeri Tribe Land Council. Heritage Advisors may be present at the reburial if necessary. The location for reburial of cultural heritage material must be within the activity area.

The location details of the reburied material must be recorded and supplied to the Victorian Aboriginal Heritage Registrar along with all other relevant documentation. A Place Collection Form within the site card for Aboriginal Place Bulleen LDAD (VAHR 7922-1446) must then be updated to show the reburial location.

This procedure must be organised and paid for by the site contractors and/or Sponsor.

8.5 Condition 5: Cultural heritage interpretation and strategic partnership

The Joint Venture Development Partner of the Yarra Valley Country Linked Solutions Pty Ltd, has offered and confirmed an in principle strategic partnership with the Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc. This partnership will relate to a contemporary Indigenous focus of the proposed extension of the Heide Museum of Modern Art Sculpture Park, into the YVCC land; Indigenous employment outcomes involved with the delivery of the landscaping and/or wetlands (through the proposed 'Wurundjeri Greens Corp' program associated with the Wurundjeri Tribe Land Compensation and Cultural Heritage Council Inc.) and other elements of strategic partnership for Aboriginal cultural heritage input.

An Aboriginal cultural heritage interpretation plan for the activity must be prepared and implemented by the sponsor as part of the development. The form of this interpretation must be determined following consultation with the Registered Aboriginal Party and may include, but not be limited to:

- Installation of interpretation panels in public places which identify the aboriginal cultural heritage of the locality
- Use of Aboriginal place names for roads, lanes, parks, open space and other features
- Inclusion of cultural heritage information in publications, web sites and other promotional material in relation to the development
- Revegetation, landscaping and planting employing indigenous plants with associations to Wurundjeri people for food, medicine, artefact and cultural reasons.

8.6 Condition 6: Protection of adjacent Aboriginal cultural heritage

The adjacent Aboriginal cultural heritage places including Bulleen Scarred Tree (VAHR 7922-0028) and HEIDE 1 (VAHR 7922-0826) must be protected from harm during the course of the activity by erection of secure temporary construction fencing. The fencing must be located at least 5 metres outside of the site boundaries, including 5 metres from the canopy extent or drip line of the scarred tree. Fencing must be secure chin mesh temporary construction fencing and must be identified on site and plans as" no works to be undertaken beyond fenced area"

These places must also be identified on any site plans, construction drawings and environmental management plans for the project.
9 Contingency Plans

This section contains a strategy to manage cultural heritage found during the course of the activity. It is a structured framework in which the requirements for recording and salvaging of Aboriginal places will be assessed, and action taken, within the course of ground works.

9.1 Disputes, Delays and Obstacles Resolution

Principles

- All disputes will be jointly investigated.
- Where a breach of the Management Plan conditions has been found to have occurred, the RAP and the Sponsor will agree the best method of correction or remediation.
- Any correction or remedial activities required (e.g. repairing damage to places) will be overseen by a RAP representative and will take place in accordance with their instructions.
- The sponsor and its contractors will not undertake any such operations without receiving the consent of the RAP.
- The RAP will use their best endeavours to minimise delays to work schedules while not compromising cultural places or values.
- Only issues directly related to cultural heritage management will be handled through the following dispute resolution mechanism.

Process

Project Delegates of each party (RAP and Sponsor) will attempt to negotiate a resolution to any dispute related to cultural heritage management of the Activity Area. They will attempt such resolution within 48 hours of a notice being received that a dispute between the parties is deemed to exist. If the Authorised Project Delegates cannot reach agreement, other Authorised Representatives of both parties will meet to negotiate a resolution to an agreed schedule.

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.

For the purpose of dispute resolution the following persons will represent the parties:

**RAP**

Authorised Project Delegate: Wurundjeri Council authorised

**Sponsor**

Authorised Project Delegate: City of Manningham authorised

Any change in personnel appointed as Authorised Project Delegate in one party will be promptly notified to all other parties.
9.2 Discovery of Aboriginal cultural heritage material during works

9.2.1 Unexpected Discovery of Human Remains

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

- **Discovery**
  - If suspected human remains are discovered, all activity within a buffer zone of 15 metres of the suspected human remains must stop to ensure minimal damage is caused to the remains; and
  - The remains must be left in place, and protected from harm or damage.

- **Notification**
  - Once suspected human skeletal remains have been found, the Coroner’s Office and the Victoria Police must be notified immediately;
  - If there is reasonable grounds to believe that the remains could be Aboriginal, the Department of Sustainability and Environment Emergency Co-ordination Centre must be immediately notified on 1300 888 544; and
  - 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 skeletal remains, the person responsible for the activity must report the existence of the human remains to the Secretary, DPCD in accordance with Section 17 of the *Aboriginal Heritage Act 2006*.

- **Impact Mitigation or Salvage**
  - The Secretary, DPCD 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 Section 18(2)(b) of the *Aboriginal Heritage Act 2006*;
  - An appropriate impact mitigation or salvage strategy as determined by the Secretary, DPCD must be implemented (This will depend on the circumstances in which the remains were found, the number of burials found and the type of burials and the outcome of consultation with any Aboriginal person or body);
  - Note: In consultation with any relevant RAP, a sponsor may consider incorporating a contingency plan to reserve an appropriate area for reburial of any recovered human remains that may be discovered during the activity. This may assist the Secretary in determining an appropriate course of action.

- **Curation and Analysis**
  - The treatment of salvaged Aboriginal human remains must be in accordance with the direction of the Secretary, DPCD.

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

If an isolated stone artefact scatter (less than five artefacts) is found then the following management process must be followed:

- Work must immediately stop in the area within a buffer zone of 15 metres from the primary grid coordinate of a new Aboriginal archaeological place;
- A HA must inspect the Aboriginal cultural heritage and record information sufficient for updating existing or completing new place records for inclusion in the VAHR;
- The Aboriginal archaeological place, objects or deposits must be recorded and documented in accordance with all relevant AV standards and guidelines;
- The HA will facilitate the involvement of the RAP in the onsite investigation and assessment of the significance of the Aboriginal cultural heritage material;
- The activity may then recommence.

9.2.3 Unexpected Discovery of Stratified Occupation Deposits

If a stratified occupation deposit is found, works must stop in the relevant area and the following process be followed:

- Work must immediately stop in the area within a buffer zone of 15 metres from the primary grid coordinate of a new Aboriginal archaeological place;
- A HA will inspect the Aboriginal cultural heritage as soon as possible and within a maximum of three days of its discovery;
- The HA will facilitate the involvement of the RAP in the onsite investigation and assessment of the significance of the Aboriginal cultural heritage;
- The Sponsor, the HA and the RAP must discuss the possibility of avoiding and minimising harm to that Aboriginal cultural heritage, and the Sponsor must avoid or minimise harm to the Aboriginal cultural heritage, where possible;
- Where harm cannot be avoided, the HA must salvage the cultural heritage with the aim of establishing the extent, nature and significance of the Aboriginal cultural heritage. Subsequent aims of the salvage excavation will be to establish:
  - The relative and absolute (if possible) age of any identified Aboriginal cultural heritage;
  - The character of the excavated artefact assemblage if extant; and
  - As far as possible, the nature of occupation of any identified Aboriginal cultural heritage.
- In cases where Aboriginal cultural heritage is considered in situ and where suitable sample material is available, appropriate age determinations (e.g. radiocarbon) are to be made to establish the age of the cultural material;
- Any artefacts recovered during excavations are to be secured by the HA until the salvage has been concluded;
- Details regarding the methodology of any collection or salvage of Aboriginal cultural heritage located during the project will be determined by the HA. Without limiting the options, a HA will:
  - Catalogue the Aboriginal cultural heritage;
  - Label and package the Aboriginal cultural heritage with reference to provenance; and
• Ensure all excavated deposits are sieved, and the presence of any additional cultural heritage material recorded in detail;

• With the appropriate Aboriginal community representative/s relating to the activity area, arrange storage of the Aboriginal cultural heritage in a secure location together with copies of the catalogue and assessment documentation.

• Any excavations will take place in accordance with Regulation 61(3-7) of the Aboriginal Heritage Regulations 2007 and be supervised by a person appropriately qualified in archaeology. This person will also facilitate the involvement of appropriate Aboriginal community representative/s in these excavations and subsequent management discussions;

• Works may recommence at completion of the salvage excavation.

• Where it is determined that any salvaged or recovered Aboriginal cultural heritage material are to be reburied, they must be placed in a durable container together with information about their provenance and placed in a secure location as close as possible to their place of origin. The reburial location is to be documented and details provided to the VAHR;

• A report detailing the findings of any collection, salvage or analysis of Aboriginal cultural heritage material recovered as a result of this activity will be completed and lodged with the VAHR as soon as possible after the completion of the activity and within a maximum of 60 days. This report will include plans and/or maps that accurately present the location and extent of any excavation, and the details of exposed sediments and stratigraphy;

• All Aboriginal cultural heritage material found during the course of works will be reported to the Secretary, DPCD and a VAHR place recording form for new places found will be completed and returned to AV. The person in charge of the works at the time that the Aboriginal cultural heritage material is found is deemed to be the person who discovered the place or object. Under the provisions Section 34(2)(a) of the Aboriginal Heritage Act 2006, it will not be necessary to obtain additional permits for Aboriginal archaeological places found, providing that the activity is undertaken within the scope of the CHMP.

9.2.4 Unexpected Discovery of other Aboriginal Cultural Heritage

If a dense artefact scatter, hearth feature or other Aboriginal cultural heritage is found, works must stop in the relevant area and the following process be followed:

• Work must immediately stop in the area within a buffer zone of 15 metres from the primary grid coordinate of a new Aboriginal archaeological place;

• A HA will inspect the Aboriginal cultural heritage as soon as possible and within a maximum of three days of its discovery;

• The HA will facilitate the involvement of the RAP in the onsite investigation and assessment of the significance of the Aboriginal cultural heritage;

• The Sponsor, the HA and the RAP must discuss the possibility of avoiding and minimising harm to that Aboriginal cultural heritage, and the Sponsor must avoid or minimise harm to the Aboriginal cultural heritage, where possible;

• Where harm cannot be avoided, the HA must salvage the cultural heritage with the aim of establishing the extent, nature and significance of the Aboriginal cultural heritage. Subsequent aims of the salvage excavation will be to establish;

• The relative and absolute (if possible) age of any identified Aboriginal cultural heritage;
• The character of the excavated artefact assemblage if extant; and
• As far as possible, the nature of occupation of any identified Aboriginal cultural heritage.
• In cases where Aboriginal cultural heritage is considered in situ and where suitable sample material is available, appropriate age determinations (e.g. radiocarbon) are to be made to establish the age of the cultural material;
• Any artefacts recovered during excavations are to be secured by the HA until the salvage has been concluded;
• Details regarding the methodology of any collection or salvage of Aboriginal cultural heritage located during the project will be determined by the HA. Without limiting the options, a HA will:
  • Catalogue the Aboriginal cultural heritage;
  • Label and package the Aboriginal cultural heritage with reference to provenance; and
  • Ensure all excavated deposits are sieved, and the presence of any additional cultural heritage material recorded in detail;
  • With the appropriate Aboriginal community representative/s relating to the activity area, arrange storage of the Aboriginal cultural heritage in a secure location together with copies of the catalogue and assessment documentation.
• Any excavations will take place in accordance with Regulation 61(3-7) of the Aboriginal Heritage Regulations 2007 and be supervised by a person appropriately qualified in archaeology. This person will also facilitate the involvement of appropriate Aboriginal community representative/s in these excavations and subsequent management discussions;
• Works may recommence at completion of the salvage excavation.
• Where it is determined that any salvaged or recovered Aboriginal cultural heritage material are to be reburied, they must be placed in a durable container together with information about their provenance and placed in a secure location as close as possible to their place of origin. The reburial location is to be documented and details provided to the VAHR;
• A report detailing the findings of any collection, salvage or analysis of Aboriginal cultural heritage material recovered as a result of this activity will be completed and lodged with the VAHR as soon as possible after the completion of the activity and within a maximum of 60 days. This report will include plans and/or maps that accurately present the location and extent of any excavation, and the details of exposed sediments and stratigraphy;
• All Aboriginal cultural heritage material found during the course of works will be reported to the Secretary, DPCD and a VAHR place recording form for new places found will be completed and returned to AV. The person in charge of the works at the time that the Aboriginal cultural heritage material is found is deemed to be the person who discovered the place or object. Under the provisions Section 34(2)(a) of the Aboriginal Heritage Act 2006, it will not be necessary to obtain additional permits for Aboriginal archaeological places found, providing that the activity is undertaken within the scope of the CHMP.

9.3 Management of Aboriginal Cultural Heritage Discovered During Works

The custody of all cultural heritage material found during the activity must firstly be assigned to the RAP (in accordance with Section 12 of the Aboriginal Heritage Act 2006). Where there is no RAP it must be assigned to the following in order of priority: any relevant Native Title holder, any relevant person/s with traditional or
familial links, any relevant Aboriginal body with historical or contemporary interests, the land owner, the Museum of Victoria.

9.4 Reviewing Compliance with the CHMP

Compliance with the conditions and provisions of an approved CHMP is a requirement of the *Aboriginal Heritage Act* 2006. A compliance checklist is included in Appendix 9.

Any action carried out contrary to the conditions and provisions of an approved CHMP which causes harm to Aboriginal cultural heritage is an offence.

In the instance that the conditions of a CHMP or the conditions of a Cultural Heritage Permit have been contravened resulting in harm being caused to Aboriginal cultural heritage, the Minister for Aboriginal Affairs may order a Cultural Heritage Audit under Section 80 of the *Aboriginal Heritage Act* 2006. If a Cultural Heritage Audit is ordered, a Stop Order requiring the activity to cease immediately will also be issued to the Sponsor under Section 88 of the *Aboriginal Heritage Act* 2006. A Stop Order can be issued in any instance where an activity is harming, is likely to harm, or may harm Aboriginal cultural heritage, regardless of whether the Minister has ordered a Cultural Heritage Audit (under Section 87 of the *Aboriginal Heritage Act* 2006).

9.4.1 Remedying Non-Compliance with the CHMP

If any and all parties have any concerns regarding non-compliance with the CHMP they will consult with the Sponsor’s HA in the first instance. If it appears that there is a breach of the CHMP, then notification must be made to AV. Under Section 81 of the *Aboriginal Heritage Act* 2006, a Cultural Heritage Audit can be ordered by the Minister if non-compliance is suspected. If the Secretary, DPCD directs a Sponsor to engage a HA to conduct a Cultural Heritage Audit, the Sponsor must comply with the direction. The report of a Cultural Heritage Audit may:

- Identify non-compliance with an approved CHMP;
- Recommend amendments to the conditions in the approved CHMP;
- Recommend arrangements for the access of inspectors to the location at which the activity is being carried out; and
- Recommend other measures in relation to the conduct of the activity to avoid or minimise harm to Aboriginal cultural heritage.

It must be noted that under Sections 27 and 28 of the *Aboriginal Heritage Act* 2006, harming, or doing an act likely to harm Aboriginal cultural heritage is unlawful, except under the authority of a Cultural Heritage Permit or a CHMP. A range of penalties apply.

Where non-compliance with the CHMP is identified, the following actions must be taken:

- Where the non-compliance harms or is likely to harm Cultural Heritage, the Sponsor shall provide notice of the non-compliance to Aboriginal Affairs Victoria within 24 hours of identifying the non-compliance. A copy of the proposed and/or implemented actions for any non-compliance shall be provided to the relevant HA and AV within one week of identifying the non-compliance; and
- Where the non-compliance has not and will not harm Aboriginal cultural heritage, the Sponsor shall provide a copy of the proposed and/or implemented actions for the non-compliance to the relevant HA within two weeks of identifying the non-compliance.
References


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Appendix 1 – Notice of Intent to Prepare a CHMP

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 1800-726-033.

SECTION 1 - Sponsor information

<table>
<thead>
<tr>
<th>Sponsor:</th>
<th>Linked Solutions Pty Ltd</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABN/ACN:</td>
<td>88 151 879 983</td>
</tr>
<tr>
<td>Contact Name:</td>
<td>Charles Pick</td>
</tr>
<tr>
<td>Postal Address:</td>
<td>Level 1, 61 Spring Street, Melbourne 3000 Victoria</td>
</tr>
<tr>
<td>Business Number:</td>
<td>161 879 083</td>
</tr>
<tr>
<td>Mobile:</td>
<td>0450118511</td>
</tr>
<tr>
<td>Email Address:</td>
<td><a href="mailto:charles@linkedsolutions.net.au">charles@linkedsolutions.net.au</a></td>
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Sponsor’s agent (If relevant)

<table>
<thead>
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<th>Company:</th>
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<tbody>
<tr>
<td>Contact Name:</td>
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<tr>
<td>Postal Address:</td>
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<tr>
<td>Business Number:</td>
<td></td>
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<tr>
<td>Mobile:</td>
<td></td>
</tr>
<tr>
<td>Email Address:</td>
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SECTION 2 - Description of proposed activity and location

<table>
<thead>
<tr>
<th>Project Name:</th>
<th>Yarra Valley Country Club, 9 Templestowe Rd, Victoria 3105</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal district:</td>
<td>Boronundra City Council</td>
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</table>

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

Dwellings (3+)

SECTION 3 - Cultural Heritage Advisor

<table>
<thead>
<tr>
<th>Gary Yines</th>
<th>Biosis</th>
<th><a href="mailto:gyines@biosis.com.au">gyines@biosis.com.au</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Company</td>
<td>Email address</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
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<th>Start Date:</th>
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<tbody>
<tr>
<td>Finish Date:</td>
<td>01-May-2016</td>
</tr>
</tbody>
</table>

Submitted on: 14 Sep 2015
SECTION 5 - Why are you preparing this cultural heritage management plan?

- A cultural heritage management Plan is required by the Aboriginal Heritage Regulations 2007
  - What is the high impact Activity as it is listed in the regulations?
    - Dwellings (3+)
  - Is any part of the activity an area of cultural heritage sensitivity, as listed in the regulations? Yes
  - Other Reasons (Voluntary)
  - An 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.

Wurundjeri Tribe Land & Compensation Cultural Heritage Council Inc

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.
Appendix 2 – RAP response to NoI

Charles Pick
Linked Solutions Pty Ltd
Level 1, 62 Spring Street
Melbourne VIC 3000

Dear Charles,

CULTURAL HERITAGE MANAGEMENT PLAN: YARRA VALLEY COUNTRY CLUB, 9 TEMPLETOWE RD, VICTORIA 3105

I refer to your written notification to the Wurundjeri Tribe Land & Compensation Cultural Heritage Council, received 14 September 2015, of your intention to prepare a cultural heritage management plan for the above activity.

Your notification has been accepted and the Wurundjeri Council advises that it intends to evaluate this plan when complete. We also advise that during the preparation of this plan, the Wurundjeri Tribe Land & Compensation Cultural Heritage Council Inc. wishes to:

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

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

- Aerial photo of the Activity Area
- A map of the Activity Area
- Aboriginal site location data within the defined Geographic Region
- Site records of any sites already recorded within the Activity Area

If you require any additional information about this advice, please contact me by telephone on 03 9416 3005 or by email gaby@wurundjeri.com.au

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

Yours sincerely,

Alex Parmington
Project Manager, Cultural Heritage
Co. Gaby Vines, Biosis Pty Ltd
Appendix 3 – Activity Plans
Appendix 4 – Client documentation of significant ground disturbance

YARRA VALLEY COUNTRY CLUB: CONTRASTING SITE
PICTURE BEFORE AND AFTER EARTH REMOVAL

The two photos that are provided on the following pages serve as evidence contrasting the Yarra Valley Country Club (YVCC) site before the earth works (taken in 1950), and after the earth removal (taken in the present day).

Additionally, the house in the picture from 1950 remains in existence to the present. It serves as an evidentiary reference point to the location and landmass removed for use in the 1956 Melbourne Olympics.

The photo from 1950 was taken from the top of a brick works factory chimney across the road from the YVCC. The building shown in the picture is between what is now Sonoco (on the left), and the Golf Driving Range (on the right).

The photo from 1950 also clearly shows that the original level of the landscape is the mound or the small hill that is level with Sonoco building. The excavation had removed approximately 6-7 metres of earth from the site. The trail that we walked on to go into the golf course is supposed to be 6-7 metres higher than what it is presently the case. At the top of the photo is the Yarra River and the land was a farmland then.

The house in the second photo, taken from an aerial perspective, is marked with a red triangle for easy reference to the house location. Again, the top of the aerial picture marks the river.
### Appendix 5 – Subsurface Testing Results

#### Table 7 Test Pit results

<table>
<thead>
<tr>
<th>Test Pit No.</th>
<th>Easting</th>
<th>Northing</th>
<th>Layer (mm)</th>
<th>Description</th>
<th>Munsell</th>
<th>PH</th>
<th>Artefacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>331216.2743</td>
<td>5819491.674</td>
<td>0-35</td>
<td>Friable, humic silt with clear contact with roots and rootlets, water worn pebbles and road gravels</td>
<td>10YR 3/2 Very dark greyish brown</td>
<td>6</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>350-650+</td>
<td>Firm to hard clay with roots and rootlets, water worn pebbles at interface with unit above</td>
<td>10YR 4/4 Dark yellowish brown</td>
<td>6.5</td>
<td>N/A</td>
</tr>
<tr>
<td>2</td>
<td>331243.9539</td>
<td>5819608.594</td>
<td>0-30</td>
<td>Moist, friable humic silt, clear contact with grass roots and rootlets</td>
<td>10YR 2/1 Black</td>
<td>6</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>30-250</td>
<td>Moist in patches, firm clayey silt with merging contact with tree roots and rootlets</td>
<td>10YR 4/2 Dark greyish brown</td>
<td>5.5</td>
<td>1 silcrete 1 quartz</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>250-520</td>
<td>Mostly dry, firm increasing to cemented with depth, silty clay with orange mottling, increasing with depth</td>
<td>10YR 5/2 Greyish brown</td>
<td>6</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>520+</td>
<td>Dry cemented silty clay with frequent orange mottles</td>
<td>10YR 5/3 Brown</td>
<td>6</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>331520.309</td>
<td>5819479.39</td>
<td>0-60</td>
<td>Bare surface, friable, humic loam, roots and rootlets, gravel inclusions brick fragments</td>
<td>10YR 2/2 Very dark brown</td>
<td>6</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>60-280</td>
<td>Firm to hard pale grey silt with roots and rootlets, water worn pebbles at interface with unit above</td>
<td>10YR 4/2 Dark greyish brown</td>
<td>6.5</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>280-300+</td>
<td>Hard mottled yellow/brown clay</td>
<td>10YR 3/6 Dark yellowish brown</td>
<td>6.5</td>
<td>N/A</td>
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<tr>
<td>4 expanded from STP 7.1</td>
<td>331190.46</td>
<td>5819634.3</td>
<td>0-220</td>
<td>Humic, slightly mottled, slightly sandy silt with clear level contact Glass and stone</td>
<td>SYR 3/3</td>
<td>6</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>220-270</td>
<td>Humic, soft silty sand with clear undulating change Roots and cut by cable trench</td>
<td>SYR 3/2</td>
<td>6.5</td>
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<tr>
<td>Test Pit No.</td>
<td>Easting</td>
<td>Northing</td>
<td>Layer (mm)</td>
<td>Description</td>
<td>Munsell</td>
<td>PH</td>
<td>Artefacts</td>
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<td>------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>270-390</td>
<td>Compacted silt with merging contact Cut by cable trench</td>
<td>7.5YR 5/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>390-620</td>
<td>Slightly sandy silt with clear level change</td>
<td>7.5YR 4/3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>620-700</td>
<td>Slightly sandy silt</td>
<td>10YR 4/3</td>
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<tr>
<td>5 expanded from STP 7.2</td>
<td>331218.87</td>
<td>5819655</td>
<td>0-100</td>
<td>Moist, humic, friable silt with clear flat contact Frequent grass roots and rootlets</td>
<td>7.5YR 2.5/1</td>
<td>6</td>
<td>N/A</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>100-240</td>
<td>Moist, friable clayey silt with merging contact Occasional tree roots and rootlets</td>
<td>7.5YR 3/1</td>
<td>6</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>240-400</td>
<td>Dry, firm clayey silt with merging contact Occasional tree roots and rootlets</td>
<td>7.5YR 4/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>400-470+</td>
<td>Dry, indurated silty clay</td>
<td>7.5YR 5/1</td>
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<td>N/A</td>
</tr>
<tr>
<td>6 expanded from STP 11.3</td>
<td>331478.79</td>
<td>5819687.7</td>
<td>0-150</td>
<td>Mixed, slightly sandy clay loam with clear sharp change Roots</td>
<td>7.5YR 3/2</td>
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<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>150-250</td>
<td>Fine, slightly sandy silt with clear level change</td>
<td>7.5YR 4/4</td>
<td>6.5</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>250-400</td>
<td>Strongly mottled moist silty clay with merging contact</td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>400-600</td>
<td>Mottled slightly silty clay, firm becoming hard</td>
<td>7.5YR 4/6</td>
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<td>N/A</td>
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</table>
## Table 8  Shovel test pit results

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<th>No.</th>
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<th>Northing</th>
<th>Size</th>
<th>Depth (mm)</th>
<th>Description</th>
<th>Inclusions</th>
<th>Munsell</th>
<th>pH</th>
<th>Artefacts</th>
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<tr>
<td>1.1</td>
<td>331340.42</td>
<td>5819637.2</td>
<td>40x40cm</td>
<td>0 - 35</td>
<td>Dry, friable humic silt with clear slightly undulating contact</td>
<td>Frequent roots and rootlets, very occasional water-worn quartz pebbles</td>
<td>10YR 3/2</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>35 - 100</td>
<td>Dry, firm silty clay with merging contact over 30mm</td>
<td>Occasional roots and rootlets, occasional water-worn pebbles and brick fragments</td>
<td>10YR 4/4</td>
<td>5.5</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100 - 140+</td>
<td>Firm to hard clay</td>
<td>Occasional water-worn quartz pebble fragments</td>
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<td>1.2</td>
<td>331346.5</td>
<td>5819637.1</td>
<td>40x40cm</td>
<td>0 - 40</td>
<td>Dry, friable humic silt, clear contact</td>
<td>Frequent grass roots and rootlets</td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40 - 200</td>
<td>Dry, firm silty clay with merging contact over 30 mm</td>
<td>Occasional roots and rootlets, and broken water-worn quartz pebbles</td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>200 - 230+</td>
<td>Dry firm clay</td>
<td>Occasional rootlets</td>
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<td>1.3</td>
<td>331351.43</td>
<td>5819636.4</td>
<td>40x40cm</td>
<td>0 - 60</td>
<td>Dry, friable humic silt, clear contact</td>
<td>Frequent grass roots and rootlets</td>
<td></td>
<td></td>
<td>-</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60 - 240</td>
<td>Dry, firm silty clay with merging contact over 30 mm</td>
<td>Occasional roots and rootlets, and broken water-worn quartz pebbles</td>
<td></td>
<td></td>
<td>-</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>240 - 270+</td>
<td>Dry firm clay</td>
<td>-</td>
<td></td>
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<tr>
<td>1.4</td>
<td>331357.24</td>
<td>5819636</td>
<td>40x40cm</td>
<td>0 - 70</td>
<td>Dry, friable humic silt, clear contact</td>
<td>Frequent grass roots and rootlets</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>70 - 180</td>
<td>Dry, firm silty clay with undulating, merging contact over 30 mm</td>
<td>Occasional roots and rootlets</td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>180 - 270+</td>
<td>Dry firm clay</td>
<td>Occasional rootlets</td>
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<td>1.5</td>
<td>331362.12</td>
<td>5819635.4</td>
<td>40x40cm</td>
<td>0 - 70</td>
<td>Dry, friable humic silt, clear contact</td>
<td>Frequent grass roots and rootlets</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>70 - 200</td>
<td>Dry, firm silty clay with merging contact</td>
<td>Occasional tree roots and rootlets, and very occasional ceramic fragments</td>
<td></td>
<td></td>
<td>-</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>240 - 270+</td>
<td>Dry firm to hard clay</td>
<td>Occasional rootlets</td>
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<tr>
<td>1.6</td>
<td>331367.75</td>
<td>5819635.4</td>
<td>40x40cm</td>
<td>0 - 80</td>
<td>Dry, friable humic silt, clear contact</td>
<td>Frequent grass roots and rootlets</td>
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<td></td>
<td></td>
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<td></td>
<td>80 - 690</td>
<td>Dry, firm claye silty to silty clay with depth clear contact</td>
<td>Very occasional rootlets in uppermost 200mm</td>
<td></td>
<td></td>
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<td>690 - 750+</td>
<td>Dry firm clay</td>
<td>Mottling</td>
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<td>No.</td>
<td>Easting</td>
<td>Northing</td>
<td>Size</td>
<td>Depth (mm)</td>
<td>Description</td>
<td>Inclusions</td>
<td>Munsell</td>
<td>pH</td>
<td>Artefacts</td>
</tr>
<tr>
<td>-----</td>
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<td>-------------------------------------------------</td>
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<td>Frequent grass roots and rootlets</td>
<td>-</td>
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<td></td>
<td></td>
<td></td>
<td>60 - 240</td>
<td>Dry, firm silty clay with clear contact</td>
<td>Occasional roots and rootlets</td>
<td>-</td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>240 - 270+</td>
<td>Dry firm clay</td>
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<td>Dry, friable humic silt, clear contact</td>
<td>Frequent grass roots and rootlets</td>
<td>-</td>
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<tr>
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<td>80 - 190</td>
<td>Dry firm silty clay with clear contact. Likely fill</td>
<td>Gravel lens at base</td>
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<td>190 - 350</td>
<td>Dry, firm silty clay with clear contact</td>
<td>Occasional rootlets</td>
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<td>Rootlets</td>
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<td>40 - 250</td>
<td>Dry firm clayey silt</td>
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<td>Dry, firm silty clay</td>
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<td>480 - 580+</td>
<td>Dry concreted clay</td>
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<td>10YR 5/4</td>
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<td>Dry, friable humic silt</td>
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<td>10YR 5/2</td>
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<td>460 - 560+</td>
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<td>10YR 5/4</td>
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<td>40x40cm</td>
<td>0 - 90</td>
<td>Moist, friable silty clay with merging contact</td>
<td>Road base</td>
<td>7.5YR 3/2</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>90 - 230</td>
<td>Dry firm silty clay</td>
<td></td>
<td>7.5 YR 4/2</td>
<td>5.5</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>230+</td>
<td>Dry concreted clay</td>
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<td>7.5 YR 4/2</td>
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<td>Road base</td>
<td>7.5YR 3/2</td>
<td>8</td>
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<td></td>
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<td>80 - 220</td>
<td>Dry firm silty clay</td>
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<td>7.5 YR 4/2</td>
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<td></td>
<td>220+</td>
<td>Dry concreted clay</td>
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<td>7.5 YR 4/2</td>
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<td>4.1</td>
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<td>Slightly moist humic silt</td>
<td>Rootlets</td>
<td>10YR 3/2</td>
<td>6.5</td>
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<td>No.</td>
<td>Easting</td>
<td>Northing</td>
<td>Size</td>
<td>Depth (mm)</td>
<td>Description</td>
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<td>Munsell</td>
<td>pH</td>
<td>Artefacts</td>
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<td>Slightly moist firm silty clay-likely fill</td>
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<td>Frequent clay and shale nodules, rootlets</td>
<td>10YR 4/3</td>
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<td>350</td>
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<td>Slightly moist silty clay</td>
<td>Rootlets</td>
<td>10YR 4/2</td>
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<td>460+</td>
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<td>Slightly moist clay</td>
<td>Small amounts of silt</td>
<td>10YR 3/1</td>
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<td>331218.5</td>
<td>5819493.5</td>
<td>40x40cm</td>
<td>0 - 400+</td>
<td>Firm, dry silty clay-likely fill</td>
<td>Frequent rootlets, lens of clay and shale at 150mm, shale fragments, occasional tree roots</td>
<td>10YR 4/2</td>
<td>7.5</td>
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<td>5.1</td>
<td>331319.19</td>
<td>5819707.7</td>
<td>40x40cm</td>
<td>0 - 80</td>
<td>Dry, friable humic silt</td>
<td>Frequent rootlets</td>
<td>10YR 3/2</td>
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<td>80 - 230</td>
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<td>Occasional rootlets</td>
<td>10YR 4/2</td>
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<td>230 - 390</td>
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<td>390 - 420</td>
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<td>5.2</td>
<td>331328.99</td>
<td>5819705.6</td>
<td>40x40cm</td>
<td>0 - 80</td>
<td>Dry, friable humic silt, clear contact</td>
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<tr>
<td></td>
<td>80 - 300</td>
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<td>Occasional tree roots and rootlets, road base and quartz fragments at depths of 80-150mm</td>
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<td>5819613.9</td>
<td>40x40cm</td>
<td>0 - 40</td>
<td>Dry, friable humic silt, clear contact</td>
<td>Frequent grass roots and rootlets, leaf litter</td>
<td>10YR 2/2</td>
<td>5</td>
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<td></td>
<td>40 - 220</td>
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<td>Moderate roots and rootlets from adjacent trees-plough zone</td>
<td>10YR 4/2</td>
<td>5</td>
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<td>220 - 420</td>
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<td>420 - 422</td>
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<td>Frequent grass roots and rootlets, leaf litter</td>
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<td>5.5</td>
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<td>200 - 380</td>
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<td>No.</td>
<td>Easting</td>
<td>Northing</td>
<td>Size</td>
<td>Depth (mm)</td>
<td>Description</td>
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<td>Munsell</td>
<td>pH</td>
<td>Artefacts</td>
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<td>331237.12</td>
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<td>Frequent grass roots and rootlets, leaf litter</td>
<td>10YR 3/2</td>
<td>6.5</td>
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<td>40 - 230</td>
<td>Firm, dry clayey silt with merging contact</td>
<td>Tree roots and rootlets</td>
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<td>230 - 280</td>
<td>Dry, firm silty clay with merging contact</td>
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<td>280 - 320</td>
<td>Hard, dry silty clay</td>
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<td>6.4</td>
<td>331233.05</td>
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<td>Dry, friable humic silt with clear contact</td>
<td>Frequent grass roots and rootlets</td>
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<td>5819598</td>
<td>40x40cm</td>
<td>50 - 160</td>
<td>Dry, firm clayey silt with merging contact</td>
<td>Frequent grass roots and occasional large tree roots</td>
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<td>160 - 260</td>
<td>Dry, firm silty clay</td>
<td>Large tree roots</td>
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<td>Abandoned due to tree roots</td>
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<td>Moist, weak humic silt with clear contact</td>
<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
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<td>5819634.3</td>
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<td>60 - 280</td>
<td>Dry, firm clayey silt with clear contact-likely fill</td>
<td>Occasional tree roots and rootlets, occasional road gravel, plastic</td>
<td>Yes</td>
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<td>280 - 370</td>
<td>Dry, friable silty sand with clear contact</td>
<td>Occasional rootlets</td>
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<td>370 - 580</td>
<td>Dry, firm silt -</td>
<td>Occasional rootlets and broken rocks</td>
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<td>Cable reached at 580mm,</td>
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<td>7.2</td>
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<td>5819641</td>
<td>40x40cm</td>
<td>0 - 70</td>
<td>Moist, loose friable silt</td>
<td>Rootlets, occasional quartz pebbles</td>
<td>7.5YR 3/1</td>
<td>6.5</td>
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<td></td>
<td>331204.77</td>
<td>5819641</td>
<td>40x40cm</td>
<td>70 - 160</td>
<td>Compact, loose dry silt</td>
<td>Occasional rootlets, occasional quartz pebbles</td>
<td>7.5YR 4/3</td>
<td>6.5</td>
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<td></td>
<td>331204.77</td>
<td>5819641</td>
<td>40x40cm</td>
<td>160 - 380</td>
<td>Compact clayey silt</td>
<td>Occasional rootlets, occasional quartz pebbles, clay nodules</td>
<td>10YR 5/4</td>
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<td>Yes</td>
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<td></td>
<td>331204.77</td>
<td>5819641</td>
<td>40x40cm</td>
<td>380 - 500</td>
<td>Very compact silty clay</td>
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<td>5819655</td>
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<td>Moist, weak humic silt, clear contact</td>
<td>Rootlets, occasional quartz pebbles</td>
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<td>No.</td>
<td>Westing</td>
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<td>Description</td>
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<td>Munsell</td>
<td>pH</td>
<td>Artefacts</td>
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<td>60 – 210 Dry clayey silt merging contact</td>
<td>Occasional rootlets, occasional quartz pebbles</td>
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<tr>
<td>210</td>
<td>470</td>
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<td>Very weak dry silt in west corner, compact silty clay-likely fill</td>
<td>Occasional rootlets, occasional quartz pebbles, plastic, paper, PVC pipe in west corner</td>
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<td>470</td>
<td>510</td>
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<td>7.4</td>
<td>5819623.9994</td>
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<td>0-270</td>
<td>Soft mixed fine silty sand with sharp change</td>
<td>None</td>
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<td>270+</td>
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<td>0 – 70</td>
<td>Dry, loose humic silt with slightly undulating contact</td>
<td>Frequent grass roots and rootlets</td>
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<td>10YR 4/2</td>
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<td>5819553.5</td>
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<td>70 - 140</td>
<td>Dry, friable clayey silt with clear contact</td>
<td>Occasional grass roots and quartz fragments</td>
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<td>140 - 270</td>
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<td>270 - 390</td>
<td>Dry, firm clayey silt with clear contact- possible fill</td>
<td>Occasional rock from context above</td>
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<td>10YR 5/3</td>
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<td>390+</td>
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<td>390+</td>
<td>Dry, firm to hard clay- possible fill</td>
<td>Frequent rocks and burnt clay</td>
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<td>10YR 4/4</td>
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<td>8.2</td>
<td>331116.76</td>
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<td>40x40cm</td>
<td>0 – 40</td>
<td>Very dry, loose silt with clear contact</td>
<td>Frequent grass roots and rootlets</td>
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<td>40 - 170</td>
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<td>Very dry, friable to firm clayey silt with merging contact</td>
<td>Frequent grass roots and frequent quartz pebbles</td>
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<td>170 - 400</td>
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<td>Very dry, firm to compact clayey silt-likely fill</td>
<td>Occasional rootlets, terracotta pipe, plastic, glass, brick, frequent clay nodules</td>
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<td>400 - 520</td>
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<td>Compact silty clay</td>
<td>Frequent clay nodules, terracotta pipe, plastic</td>
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<td>9.1</td>
<td>331230.74</td>
<td>5819595.6</td>
<td>40x40cm</td>
<td>0 – 50</td>
<td>Moist, weak humic silt with clear contact</td>
<td>Frequent grass roots and rootlets, occasional quartz pebbles, golf ball</td>
<td>7.5YR 3/1</td>
<td>6.5 -</td>
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<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
<td>7.5YR 3/3</td>
<td>6.5 -</td>
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<td>Dry, friable compact clayey silt</td>
<td>Clay nodules, occasional quartz pebbles</td>
<td>7.5YR 4/4</td>
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<td>390 – 520</td>
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<td>Cemented, dry silty clay</td>
<td>Mottled with yellowy clay</td>
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<td>5819590.6</td>
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<td>Moist, weak humic silt with clear contact</td>
<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
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<td>Dry, friable clayey silt with clear contact</td>
<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
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<tr>
<td>No.</td>
<td>Easting</td>
<td>Northing</td>
<td>Size</td>
<td>Depth (mm)</td>
<td>Description</td>
<td>Inclusions</td>
<td>Munsell</td>
<td>pH</td>
<td>Artefacts</td>
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<td>120 - 350</td>
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<td>Clay nodules, occasional quartz pebbles</td>
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<td>350 – 500</td>
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<td>Mottled with yellowy clay</td>
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<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
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<td>Dry, friable clayey silt with clear contact</td>
<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
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<td>Clay nodules, occasional quartz pebbles</td>
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<td>410 - 530</td>
<td>Cemented, dry silty clay</td>
<td>Mottled with yellowy clay</td>
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<tr>
<td>9.4</td>
<td>331206.43</td>
<td>5819574</td>
<td>40x40cm</td>
<td>0 - 70</td>
<td>Moist, weak humic silt with clear contact</td>
<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70 - 180</td>
<td>Dry, friable clayey silt with clear contact</td>
<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>170 - 400</td>
<td>Dry, friable compact clayey silt</td>
<td>Clay nodules, occasional quartz pebbles</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>400 - 520</td>
<td>Cemented, dry silty clay</td>
<td>Mottled with yellowy clay</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>9.5</td>
<td>331199.18</td>
<td>5819565.2</td>
<td>40x40cm</td>
<td>0 - 40</td>
<td>Moist, weak humic silt with clear contact</td>
<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 - 130</td>
<td>Dry, friable clayey silt with clear contact</td>
<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>130 - 240</td>
<td>Dry, friable compact clayey silt</td>
<td>Clay nodules, occasional quartz pebbles</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>240 – 300</td>
<td>Cemented, dry silty clay</td>
<td>Mottled with yellowy clay</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10.1</td>
<td>331618.56</td>
<td>5819659.2</td>
<td>40x40cm</td>
<td>0 - 120</td>
<td>Moist, weak humic silt</td>
<td>Frequent grass roots and rootlets, golf ball</td>
<td>7.5YR2.5/2</td>
<td>6.5</td>
<td>-</td>
</tr>
<tr>
<td>120 - 330</td>
<td>Gravelly, dry friable silt</td>
<td>Frequent grass roots and rootlets, occasional brick and bluestone fragments, metal, glass</td>
<td>7.5YR 3/3</td>
<td>8</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>330 - 390</td>
<td>Dry, friable compact clayey silt</td>
<td>Clay nodules, occasional quartz pebbles, metal</td>
<td>7.5YR 4/2</td>
<td>6</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>390 – 500</td>
<td>Cemented, dry silty clay</td>
<td>Mottled with yellowy clay, clay nodules, occasional quartz pebbles</td>
<td>7.5YR 4/4</td>
<td>6</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.2</td>
<td>331609.36</td>
<td>5819660.3</td>
<td>40x40cm</td>
<td>0 - 60</td>
<td>Moist, humic, weak humic silt</td>
<td>Frequent grass roots and rootlets</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Easting</td>
<td>Northing</td>
<td>Size</td>
<td>Depth (mm)</td>
<td>Description</td>
<td>Inclusions</td>
<td>Munsell</td>
<td>pH</td>
<td>Artefacts</td>
</tr>
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<td></td>
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<tr>
<td>11.1</td>
<td>331497.19</td>
<td>5819682</td>
<td>40x40cm</td>
<td>0 – 70</td>
<td>Dry, weak humic silt</td>
<td>Frequent grass roots and rootlets</td>
<td>7.5YR2.5/1</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>70 – 240</td>
<td></td>
<td></td>
<td></td>
<td>Dry, friable to firm clayey silt with clear contact</td>
<td>Frequent grass roots and rootlets</td>
<td>7.5YR 3/1</td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>240 – 470</td>
<td></td>
<td></td>
<td></td>
<td>Dry compact clayey silt</td>
<td>Occasional grass roots and rootlets</td>
<td>7.5YR 3/3</td>
<td>6.5</td>
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</tr>
<tr>
<td></td>
<td>470 – 520</td>
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<td></td>
<td></td>
<td>Cemented, dry silty clay</td>
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<td>7.5YR 4/4</td>
<td>6.5</td>
<td></td>
</tr>
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<td>11.2</td>
<td>331489.79</td>
<td>5819683.4</td>
<td>40x40cm</td>
<td>0 – 80</td>
<td>Dry, weak humic silt</td>
<td>Frequent grass roots and rootlets</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>80 – 270</td>
<td></td>
<td></td>
<td></td>
<td>Dry, firm clayey silt with merging contact</td>
<td>Frequent grass roots and rootlets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>270 – 460</td>
<td></td>
<td></td>
<td></td>
<td>Dry, firm to compact clayey silt with merging contact</td>
<td>Occasional grass roots and rootlets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>460+</td>
<td></td>
<td></td>
<td></td>
<td>Dry, indurated silty clay- too compact to excavate further</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.3</td>
<td>331478.79</td>
<td>5819687.7</td>
<td>40x40cm</td>
<td>0 – 70</td>
<td>Dry, weak humic silt</td>
<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NB, Expanded to TP6</td>
<td></td>
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<tr>
<td></td>
<td>70 – 240</td>
<td></td>
<td></td>
<td></td>
<td>Dry, friable to firm clayey silt with clear contact</td>
<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>240 – 440</td>
<td></td>
<td></td>
<td></td>
<td>Dry compact clayey silt</td>
<td>Clay nodules, occasional quartz pebbles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>400+</td>
<td></td>
<td></td>
<td></td>
<td>Cemented, dry silty clay</td>
<td>Mottled with yellowy clay</td>
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</tr>
<tr>
<td>11.4</td>
<td>331468.6</td>
<td>5819687.7</td>
<td>40x40cm</td>
<td>0 – 70</td>
<td>Dry, humic friable silt with clear contact</td>
<td>Frequent grass roots and rootlets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>70 – 230</td>
<td></td>
<td></td>
<td></td>
<td>Dry, friable firm clayey silt with clear contact</td>
<td>Frequent grass roots, occasional tree root</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>230 – 420</td>
<td></td>
<td></td>
<td></td>
<td>Dry, compact clayey silt with merging compact</td>
<td>Large tree root</td>
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<td>420 – 500</td>
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<td>Cemented, dry silty clay</td>
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<td>11.5</td>
<td>331457.01</td>
<td>5819689.9</td>
<td>40x40cm</td>
<td>0 – 60</td>
<td>Dry, humic friable silt with clear contact</td>
<td>Frequent grass roots and rootlets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Easting</td>
<td>Northing</td>
<td>Size</td>
<td>Depth (mm)</td>
<td>Description</td>
<td>Inclusions</td>
<td>Munsell</td>
<td>pH</td>
<td>Artefacts</td>
</tr>
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</tr>
<tr>
<td>60</td>
<td>220</td>
<td>5819688.1</td>
<td>40x40cm</td>
<td>0 - 50</td>
<td>Dry, friable firm clayey silt with clear contact</td>
<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
<td>-</td>
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<td></td>
</tr>
<tr>
<td>11.6</td>
<td>331440.53</td>
<td>5819688.1</td>
<td>40x40cm</td>
<td>0 - 50</td>
<td>Dry, humic friable silt with clear contact</td>
<td>Frequent grass roots and rootlets</td>
<td>-</td>
<td></td>
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</tr>
<tr>
<td>50</td>
<td>240</td>
<td>5819688.1</td>
<td>40x40cm</td>
<td>0 - 50</td>
<td>Dry, friable firm clayey silt with clear contact</td>
<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.7</td>
<td>331440.53</td>
<td>5819694.1</td>
<td>40x40cm</td>
<td>0 - 90</td>
<td>Dry, humic friable silt with clear contact</td>
<td>Frequent grass roots and rootlets</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>260</td>
<td>5819694.1</td>
<td>40x40cm</td>
<td>0 - 90</td>
<td>Dry, friable firm clayey silt with clear contact</td>
<td>Frequent grass roots, occasional tree root</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>260</td>
<td>430</td>
<td>5819694.1</td>
<td>40x40cm</td>
<td>0 - 90</td>
<td>Dry, friable firm clayey silt with clear contact</td>
<td>Frequent grass roots and rootlets, occasional quartz pebbles</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>430</td>
<td>510</td>
<td>5819468.484</td>
<td>40x40cm</td>
<td>0 - 50</td>
<td>Thin humic grass, leaf litter, gravel and brick fragments</td>
<td>Grass, leaf litter, gravel and brick fragments</td>
<td>10YR 3/2</td>
<td>6.5</td>
<td>-</td>
</tr>
<tr>
<td>No.</td>
<td>Easting</td>
<td>Northing</td>
<td>Size</td>
<td>Depth (mm)</td>
<td>Description</td>
<td>Inclusions</td>
<td>Munsell</td>
<td>pH</td>
<td>Artefacts</td>
</tr>
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</tr>
<tr>
<td>13.2</td>
<td>331520.2838</td>
<td>5819458.682</td>
<td>40x40cm</td>
<td>0 – 20</td>
<td>Dry, weak humic silt</td>
<td>Machine made red bricks and brick fragments</td>
<td>10YR 4/2</td>
<td>5.5</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>13.3</td>
<td>331519.5226</td>
<td>5819448.805</td>
<td>40x40cm</td>
<td>Dry, weak humic silt</td>
<td>Frequent grass roots and rootlets, leaf litter</td>
<td>10YR 3/2</td>
<td>6.5</td>
<td>-</td>
</tr>
<tr>
<td>13.4</td>
<td>331518.8697</td>
<td>5819438.055</td>
<td>40x40cm</td>
<td>0 – 20</td>
<td>Dry, weak humic silt</td>
<td>Grass &amp; leaf litter</td>
<td>10YR 3/2</td>
<td>6.5</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>13.5</td>
<td>331522.3367</td>
<td>5819488.838</td>
<td>40x40cm</td>
<td>Dry, weak humic silt</td>
<td>Grass &amp; leaf litter</td>
<td>10YR 3/2</td>
<td>6.5</td>
<td>-</td>
</tr>
<tr>
<td>13.6</td>
<td>331527.1905</td>
<td>5819520.625</td>
<td>40x40cm</td>
<td>0 – 20</td>
<td>Dry, weak humic silt</td>
<td>Grass</td>
<td>10YR 3/2</td>
<td>6.5</td>
<td>-</td>
</tr>
</tbody>
</table>
Appendix 6 – Significance Assessment

Assessing the heritage significance of a historic building, cultural heritage place or archaeological place is undertaken to make decisions about the best way to protect and manage the particular heritage place. The nature and level of cultural significance would also determine if statutory protection is appropriate under State or Commonwealth heritage legislation.

Assessment of the significance can be complex and include a range of heritage values. The cultural heritage values are broadly defined in the Burra Charter, the set of guidelines on cultural heritage management and practice prepared by the Australia International Council on Monuments and Places, as the ‘aesthetic, historic, scientific or social values for past, present or future generations’ (Marquis-Kyle & Walker, 1992, p. 21). Various government agencies, including the Australian Heritage Commission and Heritage Victoria, have developed formal criteria for assessing heritage significance. Many Aboriginal places also have significance to a specific Aboriginal community.

Although there are no formal guidelines for the assessment of significance of Aboriginal archaeological places in Victoria, the definition of ‘cultural heritage significance’ under Section 4 of the Aboriginal Heritage Act 2006 includes:

- Archaeological, anthropological, contemporary, historical, scientific, social or spiritual significance; and
- Significance in accordance with Aboriginal tradition.

The primary criterion used to assess Aboriginal places is scientific significance. This is based on the capacity of Aboriginal places to provide us with historical, cultural or social information. The following evaluation will assess the scientific significance of the Aboriginal places recorded during this CHMP. The scientific significance assessment methodology outlined below is based on scores for research potential (divided into place contents and place condition) and for representativeness. This system is derived from Bowdler (1981).

Place contents refer to all cultural materials and organic remains associated with human activity at a place. Place condition refers to the degree of disturbance to the contents of a place at the time it was recorded. The representativeness of an Aboriginal place is assessed by whether the place is common, occasional, or rare in a given region. Assessments of representativeness are subjectively biased by current knowledge of the distribution and number of Aboriginal places and varies from place to place depending on the extent of archaeological research.

The determination of cultural significance for a heritage place is expressed as a statement of significance. Nomination of the level of value—high, moderate, low or not applicable—for each relevant category is presented in Table 9.
Table 9  Scientific Significance Assessment Criteria.

<table>
<thead>
<tr>
<th>Place Contents</th>
<th>Place Condition</th>
<th>Representativeness</th>
<th>Overall Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - No cultural material remaining.</td>
<td>0 - Place destroyed.</td>
<td></td>
<td>1 - 3 - Low scientific significance</td>
</tr>
<tr>
<td>1 - Place contains a small number (e.g. 0–10 artefacts) or limited range of</td>
<td>1 - Place in a deteriorated condition with a high degree of disturbance; some</td>
<td>1 - common occurrence</td>
<td></td>
</tr>
<tr>
<td>cultural materials with no evident stratification.</td>
<td>cultural materials remaining.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 - Place contains a larger number, but limited range of cultural materials;</td>
<td>2 - Place in a fair to good condition, but with some disturbance.</td>
<td>2 - occasional occurrence</td>
<td>4 - 6 - Moderate scientific significance</td>
</tr>
<tr>
<td>and/or some intact stratified deposit remains; and/or rare or unusual example(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of a particular artefact type.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 - Place contains a large number and diverse range of cultural materials; and/or</td>
<td>3 - Place in an excellent condition with little or no disturbance. For surface artefact</td>
<td>3 - rare occurrence</td>
<td>7 - 9 - High scientific significance</td>
</tr>
<tr>
<td>largely intact stratified deposit; and/or surface spatial patterning of cultural</td>
<td>artefact scatters this may mean that the spatial patterning of cultural materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>materials that still reflect the way in which the cultural materials were</td>
<td>still reflects the way in which the cultural materials were deposited.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>deposited.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The scientific significance assessment for scarred trees varies from the significance assessment outlined above because a scarred tree has no place contents rating (a tree either is, or is not, a scarred tree). Although scarred trees are a place type usually associated with traditional Aboriginal cultural activity, there are examples of scarred trees associated with non-Aboriginal activity.

The place condition and representativeness ratings used for scarred trees are indicated in Table 10 and overall scientific significance ratings for scarred tree places are based on a cumulative score for place condition and representativeness.

Representativeness refers to the regional distribution of scarred trees and is assessed on whether the place is common, occasional or rare in a given region. Representativeness takes into account the type and condition of the scar(s)/tree and the tree species involved.

**Table 10 Scarred tree scientific significance assessment criteria**

<table>
<thead>
<tr>
<th>Place Condition</th>
<th>Representativeness</th>
<th>Overall Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Poorly preserved tree scar</td>
<td>1 - Common occurrence</td>
<td>1 – 2 - Low scientific significance</td>
</tr>
<tr>
<td>2 - Partly preserved tree scar</td>
<td>2 - Occasional occurrence</td>
<td>3 – 4 - Moderate scientific significance</td>
</tr>
<tr>
<td>3 - Well preserved example of a scarred tree</td>
<td>3 - Rare occurrence</td>
<td>5 - 6 - High scientific significance</td>
</tr>
</tbody>
</table>

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### Appendix 7 – VAHR Gazetteer

#### Table 11 VAHR Aboriginal Places Gazetteer

<table>
<thead>
<tr>
<th>VAHR No.</th>
<th>Place Name</th>
<th>Location</th>
<th>Place Type</th>
<th>Landform Unit</th>
<th>Scientific Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>7922-1446</td>
<td>Bulleen LDAD</td>
<td>Templestowe Road Bulleen</td>
<td>LDAD</td>
<td>Floodplain</td>
<td>1 low</td>
</tr>
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</table>
## Appendix 8 – Artefact catalogue

### Table 12 Complex Assessment Table

<table>
<thead>
<tr>
<th>Easting</th>
<th>Northing</th>
<th>Zone</th>
<th>Depth (m)</th>
<th>Raw Material</th>
<th>Primary Form</th>
<th>Cortex %</th>
<th>% of edge with retouch/usewear</th>
<th>Flake Platform</th>
<th>Flake Termination</th>
<th>Number of complete scars (cores only)</th>
<th>Longest scar (axial mm)</th>
<th>Formal Tool/Core Type (if any)</th>
<th>Secondary Modification (if any)</th>
<th>Length - axial for flakes and blades (mm)</th>
<th>Width - axial for flakes and blades (mm)</th>
<th>Thickness (mm)</th>
<th>Maximum Dimension (mm)</th>
<th>WP</th>
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<tr>
<td>331243</td>
<td>5819608</td>
<td>55</td>
<td>0.1</td>
<td>Silcrete</td>
<td>Core - Multidirectional</td>
<td>None</td>
<td>None</td>
<td>Core</td>
<td>Blade</td>
<td>5</td>
<td>28</td>
<td>Core - Blade</td>
<td></td>
<td>28</td>
<td>25</td>
<td>17</td>
<td>30</td>
<td>T7SP2</td>
</tr>
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<td>331243</td>
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<td>Quartz</td>
<td>Angular Fragment</td>
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<td>None</td>
<td>Core</td>
<td>Blade</td>
<td>1</td>
<td>12.5</td>
<td>9</td>
<td>6</td>
<td>13</td>
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<td></td>
<td></td>
</tr>
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<td>55</td>
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<td>1-32%</td>
<td>None</td>
<td>Concave and Nosed</td>
<td>33</td>
<td>38</td>
<td>7</td>
<td>42</td>
<td>T1SP3</td>
<td>T7SP1</td>
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<td>Concave and Nosed</td>
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<td>8.5</td>
<td>2.5</td>
<td>11</td>
<td>T7SP1</td>
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<tr>
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<td>None</td>
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Appendix 9 - Glossary

The glossary provides definitions of various terms used in this CHMP. There is often a degree of confusion about the use of terms such as heritage place, historical place or archaeological place. The term used most consistently is heritage place. For the purpose of discussion in this plan ‘heritage place’ can be subdivided into Aboriginal place and Historic place.

Heritage place: A place that has aesthetic, historic, scientific or social values for past, present or future generations – ‘... this definition encompasses all cultural places with any potential present or future value as defined above’ (Pearson and Sullivan 1995:7).

Aboriginal place: Aboriginal place is defined under Section 5 of the Aboriginal Heritage Act 2006 as follows:

5 What is an Aboriginal place?

(1) For the purposes of this Act, an Aboriginal place is an area in Victoria or the coastal waters of Victoria that is of cultural heritage significance to the Aboriginal people of Victoria.

(2) For the purposes of subsection (1), area includes any one or more of the following—

(a) an area of land;

(b) an expanse of water;

(c) a natural feature, formation or landscape;

(d) an archaeological place, feature or deposit;

(e) the area immediately surrounding any thing referred to in paragraphs (c) and (d), to the extent that it cannot be separated from the thing without diminishing or destroying the cultural heritage significance attached to the thing by Aboriginal people;

(f) land set aside for the purpose of enabling Aboriginal human remains to be re-interred or otherwise deposited on a permanent basis;

(g) a building or structure.

Alluvial terrace: a platform created from deposits of alluvial material along river banks.

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

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

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 100 square metres. Artefact scatters are often the only physical remains of places where people have lived, camped, prepared and eaten meals and worked.

Backed piece: a flake or blade that has been abruptly retouched along one or more margins opposite an acute (sharp) edge. Backed pieces include backed blades and geometric microliths. They are thought to have been hafted onto wooden handles to produce composite cutting tools. Backed pieces are a feature of the ‘Australian small tool tradition’, dating from between 5,000 and 1,000 BP in southern Australia (Holdaway & Stern, 2004).

Blade: a flake at least twice as long as it is wide.
**Burial place**: usually a sub-surface pit containing human remains and sometimes associated artefacts.

**Contact place**: see ‘Aboriginal historical archaeological place’.

**Core**: an artefact from which flakes have been detached using a hammerstone. Core types include single platform, multi-platform and bipolar forms.

**Cortex**: original or natural (unflaked) surface of a stone.

**Cortical**: refers to the cortex.

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

**Flaked piece**: a piece of stone with definite flake surfaces, which cannot be classified as a flake or core.

**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.

**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.

**Geometric microlith**: a small tool that has been fashioned from breaking apart a microblade. The piece is then retouched or backed and a small tool formed.

**Grindstones**: upper (handstone) and lower (basal) stones used to grind plants for food and medicine and/or ochre for painting. A handstone sometimes doubles as a hammerstone and/or anvil.

**Ground Surface Visibility**: the degree to which the surface of the ground can be seen. 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. Visibility is generally expressed in terms of the percentage of the ground surface visible for an observer on foot.

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

**Isolated artefact**: the occurrence of less than five items of cultural material within an area of about 100 square metres. It they can be evidence of a short-lived (or one-off) activity location, the result of an artefact being lost or discarded during travel, or evidence of an artefact scatter that is otherwise obscured by poor ground visibility.

**Manuport**: foreign fragment, chunk or lump of stone that shows no clear signs of flaking but is out of geological context and must have been transported to the place by people.

**Map Grid of Australia (MGA)**: The official coordinate projection for use with the Geocentric Datum of Australia 1994 (GDA94).

**Mound**: these places, often appearing as raised areas of darker soil, are found most commonly in the volcanic plains of western Victoria or on higher ground near bodies of water. The majority were probably formed by a slow build-up of debris resulting from earth-oven cooking; although some may have been formed by the collapse of sod or turf structures.
**Percussion:** the act of hitting a core with a hammerstone to strike off flakes.

**Platform preparation:** removal of small flake scars on the dorsal edge of a flake, opposite the bulb of percussion. These overhang removal scars are produced to prevent a platform from shattering.

**Pre-contact:** before contact with non-Aboriginal people.

**Post-contact:** after contact with non-Aboriginal people.

**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.

**Rejuvenation flake:** a flake that has been knapped from a core solely for the purpose of preparing a new platform and making it easier to get flakes off a core, as it reduces the angle between platform and core surface.

**Retouch:** a flake, flaked piece or core with intentional secondary flaking along one or more edges.

**Rock art:** ‘paintings, engravings and shallow relief work on natural rock surfaces’ (Rosenfeld 1988: 1). Paintings were often produced by mineral pigments, such as ochre, combined with clay and usually mixed with water to form a paste or liquid that was applied to an unprepared rock surface. Rock engravings were made by incising, pounding, pecking or chiselling a design into a rock surface. Rare examples of carved trees occasionally survive.

**Rock shelter:** may contain the physical remains of camping places where people prepared meals, flaked stone, etc. They are often classed as a different type of place due to their fixed boundaries and greater likelihood of containing sub-surface deposits. Rockshelters may also contain rock art.

**Scarred tree:** scars on trees may be the result of removal of strips of bark by Aborigines e.g. for the manufacture of utensils, canoes or for shelter; or resulting from small notches chopped into the bark to provide hand and toe holds for hunting possums and koalas. Some scars may be the result of non-Aboriginal activity, such as surveyors’ marks.

**Scraper:** a flake, flaked piece or core with systematic retouch on one or more margins.

**Shell midden:** a surface scatter and/or deposit comprised mainly of shell, sometimes containing stone artefacts, charcoal, bone and manuports. These place types are normally found in association with coastlines, rivers, creeks and swamps – wherever coastal, riverine or estuarine shellfish resources were accessed and exploited.

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

**Striking platform:** the surface of a core, which is struck by a hammerstone to remove flakes.

**Structures (Aboriginal):** can refer to a number of different place types, grouped here only because of their relative rarity and their status as built structures. Most structures tend to be made of locally available rock, such as rock arrangements (ceremonial and domestic), fishtraps, dams and cairns, or of earth, such as mounds or some fishtraps.

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

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

**Utilised artefact:** a flake, flaked piece or core that has irregular small flake scarring along one or more margins that does not represent platform preparation.
Appendix 10 – Compliance Checklist

The checklist allows the Sponsor to ensure full compliance with the conditions and provisions of the approved CHMP. If, at any point prior to or during the activity, any of the questions below cannot be answered positively, it is possible that the Sponsor may be contravening the Aboriginal Heritage Act 2006. If this occurs, the Sponsor is advised to seek the advice of a HA.

Table 13 Compliance Checklist

<table>
<thead>
<tr>
<th>Compliance Review Checklist</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prior to the commencement of the activity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has the CHMP been approved?</td>
<td></td>
<td></td>
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<tr>
<td>Have all personnel been inducted or trained with regard to the conditions contained within the CHMP, particularly the contingency plans contained within the CHMP?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Changes to the activity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If any changes have been made to the proposed activity?</td>
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<td></td>
</tr>
<tr>
<td>If yes, has the Sponsor obtained statutory authorisation?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If required, has the Sponsor submitted a new CHMP for approval?</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Discovery of Aboriginal cultural heritage during the activity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has any actual or suspected Aboriginal cultural heritage (e.g. isolated artefact, artefact scatter, earth feature, midden) been discovered during the activity? If yes, have the following been undertaken:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have all works ceased within 15 metres of the discovery location(s)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If required, has the exposed Aboriginal cultural heritage been protected by a suitable barrier (e.g. fencing)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has a HA been engaged to evaluate the Aboriginal cultural heritage?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has the HA involved a representative(s) of the RAP in the assessment of the discovered Aboriginal cultural heritage?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has the HA completed new or updated site record(s) for the VAHR?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If harm to the discovered Aboriginal cultural heritage could not be avoided, have the HA and representative(s) of the RAP undertaken a salvage excavation?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance Review Checklist</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>----------------------------</td>
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</tr>
<tr>
<td><strong>Have salvage excavations occurred? If yes have the following been undertaken:</strong></td>
<td></td>
<td></td>
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<tr>
<td>Has the HA involved representative(s) of the RAP(s) in the fieldwork and management discussions?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Has the salvage excavation taken place in accordance with Regulation 61 of the <em>Aboriginal Heritage Regulations 2007</em>?</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Following the salvage excavation, has the HA completed new or updated site record(s) for the VAHR?</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Following the salvage excavation, has the HA catalogued and analysed the Aboriginal cultural heritage?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Following the salvage excavation, has the HA labelled and packaged the Aboriginal cultural heritage with reference to provenance?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Following the salvage excavation, has the HA arranged for the custody of the Aboriginal cultural heritage to be passed to the RAP?</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Has a report detailing the results of the salvage excavation and subsequent analysis of Aboriginal cultural material been lodged with AV and the RAP?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Discovery of human remains during the activity</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>Have any actual or suspected human remains been discovered during the activity? If yes, have the following been taken:</strong></td>
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<td></td>
</tr>
<tr>
<td>Has all activity within 15 metres of the discovery ceased immediately?</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Have the human remains been left in place and protected from harm (e.g. fencing)?</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Have Victoria Police and the Coroner’s Office been notified?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>If there are reasonable grounds to believe that the remains may be Aboriginal, has the Department of Sustainability and Environment Emergency Co-ordination Centre been notified?</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>If it is confirmed by these authorities that the remains are Aboriginal skeletal remains, has the Secretary, DPCD been notified?</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Has the appropriate impact mitigation or salvage strategy (as determined by the Secretary, DPCD) been implemented?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Have the salvaged Aboriginal human remains been treated in accordance with the direction of the Secretary, DPCD?</td>
<td>Yes</td>
<td>No</td>
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