

Matthew Fleischmann
Senior Development Manager - Warralily
Newland Developers Pty Ltd
501 Blackburn Road
Mount Waverley Vic 3149

14 May 2015

Our ref: 6568

Dear Matthew,

RE: Cultural Heritage Letter of Advice for proposed rezoning and subsequent subdivision at 892-990 Barwon Heads Road, Armstrong Creek, Victoria

Ecology and Heritage Partners Pty Ltd was commissioned by Newland Developers Pty Ltd to provide a cultural heritage letter of advice (LoA) for 892-990 Barwon Heads Road, Armstrong Creek (hereafter referred to as the study area).

The purpose of the LoA was to identify the known cultural heritage values that may be present within the study area including Aboriginal and historical heritage sites, and to provide advice regarding the requirement for further assessment, e.g. for an Aboriginal Cultural Heritage Management Plan (CHMP). Information gathered for the LoA was used to determine potential legislative implications (associated with cultural heritage values) for the potential future residential development of the study area as part of a rezoning application.

1 Background

The site is being considered for rezoning into the Urban Growth Zone (UGZ) for potential subdivision and residential development as an extension to the existing Warralily Estate. The study area is adjacent to, but not currently part of, the Armstrong Creek Growth Area; specifically, it lies adjacent to the south east corner of the Armstrong Creek East Precinct Structure Plan (ACEPSP). The Armstrong Creek East PSP is currently being developed as part of the Warralily Master Plan.

A preliminary development plan for the subdivision works is shown in Attachment A.

2 Methods

The following tasks were undertaken as part of this assessment:

- A brief desktop assessment, with all relevant cultural heritage databases and mapping programs examined including:
 - the Victorian Aboriginal Heritage Register (VAHR), administered by the Office of Aboriginal Affairs Victoria (OAAV);

- the Victorian Heritage Register (VHR) and Victorian Heritage Inventory (VHI), administered by Heritage Victoria (HV);
 - the Greater Geelong Heritage Overlay;
 - the Ecology and Heritage Partners library of reports and knowledge of the area;
 - relevant federal and state legislation and policies;
 - a site inspection of the landforms; and
 - aerial photography of the study area.
- Assessment of the likelihood of Aboriginal and historical cultural heritage sites being present within the study area and of the requirement for further investigation;
 - Identification of potential legislative implications (associated with cultural heritage values) for future development of the study area; and
 - Presentation of the results in this letter report.

3 Limitations

The cultural heritage information used to inform this assessment is limited to that obtained through the desktop assessment. Data and information held within the cultural heritage databases and mapping programs are likely to not wholly represent the presence or absence of cultural heritage sites.

A formal archaeological survey has not been carried out; visual assessment was limited to a brief site inspection to assess landforms and the extent of any previous disturbance. Consultation with the local Aboriginal community did not form part of the scope works.

In addition, this report is an opportunity to provide a broad understanding of the study area and to identify potential areas that may contain Aboriginal or historical sites. Therefore, the results presented are only preliminary and further detailed assessments are required to determine the presence or otherwise of any cultural heritage values and associated legislative implications.

4 Study Area

Location and Cadastre

The study area is located approximately 10 km south of Geelong and 10 km north west of Barwon Heads, on Barwon Heads Road. The study area currently comprises two parcels of land totalling an area of 52 ha. The land is located on the western side of Barwon Heads Road and comprises the title properties Lot 1\TP839787 and Lot 1\TP16739 (Figure 1), referred to in this report as Property 1 and Property 2 respectively.

Topography

The study area comprises farming/grazing land. There is little topographic relief, appearing quite flat, although the terrain does descend very gently from slightly higher ground to the south and south west towards the Armstrong Creek channel. A first-order drainage line, a tributary of Armstrong Creek, occurs in

the north western corner of the study area. Armstrong Creek itself has been shown to be culturally sensitive with numerous Aboriginal Places (see below) recorded along its length. However, the recent residential developments within the ACEPSP have resulted in large-scale modifications to the creek and its adjacent banks.

Zoning and Management

According to the Department of Environment and Primary Industry’s (DEPI) Biodiversity Interactive Map (DEPI 2014), the study area occurs within the Victorian Volcanic Plain (VVP) bioregion. The study area also falls within the jurisdiction of the Corangamite Catchment Management Authority and lies within the City of Greater Geelong Local Government Area. It is currently zoned Farming Zone (FZ). Armstrong Creek (an area of identified cultural heritage sensitivity under the *Aboriginal Heritage Regulations 2007*) is located adjacent to the north west corner of the study area.

Other overlays that affect the study area include a Floodway Overlay (FO) in the north west corner (associated with the former Armstrong Creek channel) and a Land Subject to Inundation Overlay (LSIO) in the south east corner of the study area (Figure 1). The area along Barwon Heads Road (immediately adjacent to the study area) is classified as Public Acquisition Overlay (PAO3), marked in light yellow in the figure.

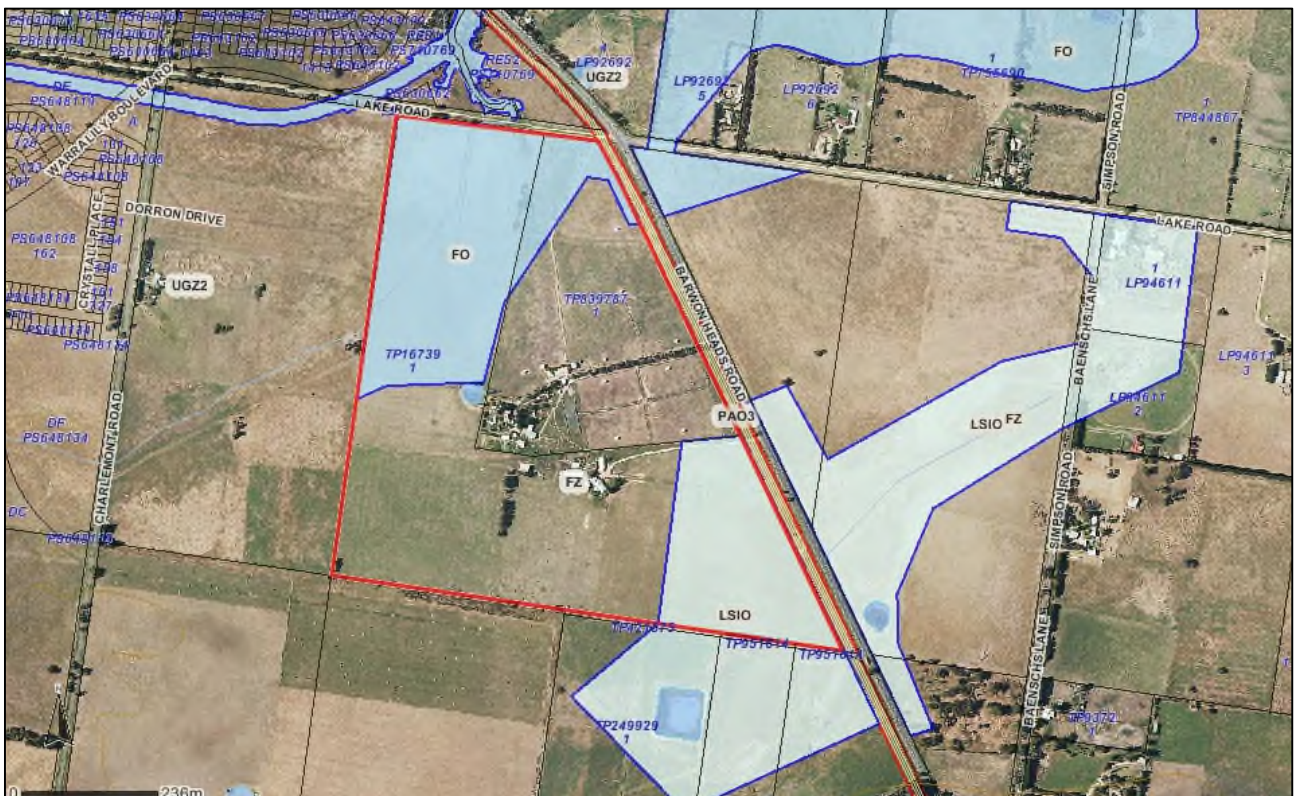


Figure 1: Location of Study Area (Source: Planning Maps Online 2014)

5 Results

5.1 Database Searches

5.1.1 Aboriginal Cultural Heritage

Victorian Aboriginal Heritage Register

A search of the Victorian Aboriginal Heritage Register (VAHR) was conducted on 7 January 2015 for sites within a 2 and 3 km radius of the study area. Searching an area with this radius ensured that a relevant and representative sample of information was obtained. The results indicate that a total of 25 Aboriginal Places have previously been recorded within 2 km of the study area. This number increases to 85 Aboriginal Places within 3 km of the study area. These sites consist of a total of 93 site components comprising four site component types (Table 1; Figure 2). The difference between the number of sites and number of site component types is because several sites contain two or more site component types. The nearest recorded Aboriginal sites are located 140-400 m immediately north of the study area along the banks of Armstrong Creek. A full list of these sites is provided in Attachment B.

One Aboriginal Historical Reference was identified within a 3 km radius of the study area. This site is Stewarts Reserve, located 2 km west from the study area.

Table 1: Summary of Previously Identified Aboriginal Place Component Types within 3 km of the Study Area.

Site/Component Type	Quantity	Percentage (%)
Artefact Scatter	85	92
Low Density Artefact Distribution	2	2
Shell Midden	1	1
Scarred Tree	4	4
Aboriginal Historical Place	1	1
Total	93	100

Local Council

The study area is located within the City of Greater Geelong and is governed by the Greater Geelong Planning Scheme. Planning schemes set out policies and provisions for the use, development and protection of land.

The Heritage Overlay of the Greater Geelong Planning Scheme was examined. No Aboriginal heritage places listed on the Heritage Overlay are present within the study area.

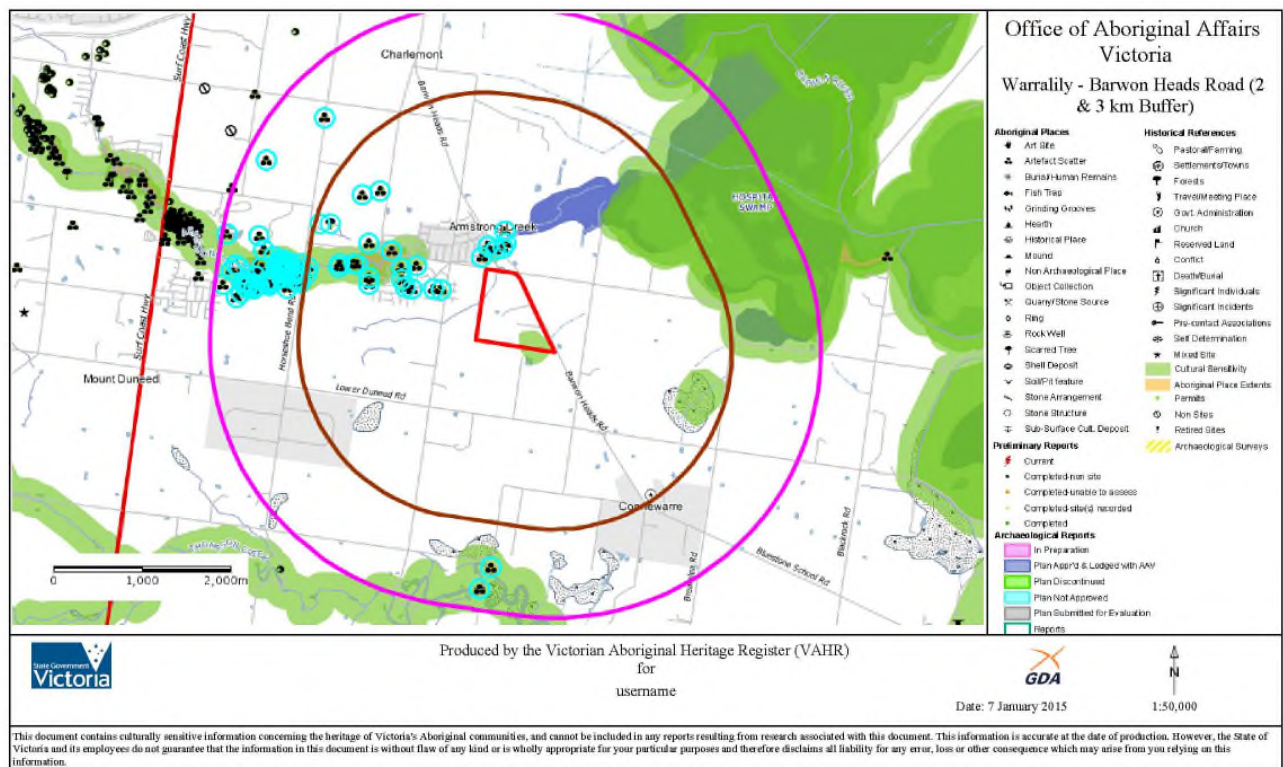


Figure 2: Location of Aboriginal Heritage Places in Relation to the Study Area (Source: OAAV 2014)

5.1.1 Previous Aboriginal Archaeological Investigations

A number of archaeological assessments have been carried out for other sections of the Warralily Estate (e.g. Collins 2012; Murphy et al. 2011; O'Reilly et al. 2010; Whincop et al. 2011). These assessments provide an adequate snapshot of the archaeological characteristics of the local region and can be used to draw inferences regarding the likelihood of Aboriginal cultural heritage occurring in the study area. O'Reilly et al.'s (2010) assessment of ACEPSP Precinct A of the Armstrong Creek development included land directly adjacent to the study area's north and north western boundaries, whilst Murphy et al.'s (2011) investigation included the whole land bordering the study area's western boundary. O'Reilly et al. identified Aboriginal cultural heritage sites between approximately 140 and 400 m north of the study area straddling the course of Armstrong Creek or within close proximity to the creek. No Aboriginal cultural heritage was found bordering the current study area or anywhere in the land adjacent to the western boundary, despite several landforms being assessed as having archaeological potential (Murphy et al. 2011).

Whincop's (2011) investigation of ACEPSP Precinct B, to the west of the study area and directly west of Murphy's (2011) activity area, identified a total of eight Aboriginal Places, one of which (VAHR 7721-0992) was originally identified in O'Reilly et al.'s (2010) assessment and found to be more extensive than originally recorded. This site was found to extend across Armstrong Creek's featureless floodplain, but at its lowest point, which Whincop et al. surmise is related to frequently recurring Aboriginal activities along the margins of the swamp system. Other, smaller and less dense artefact scatters occur along the edge of the floodplain

where it overlooks a shallow drainage line to the south (the same drainage line that passes through the current study area).

Summarising the findings of these reports, the following predictive statement regarding the location of Aboriginal archaeological sites is provided:

- Aboriginal cultural heritage may be found in lands within 500 m of Armstrong Creek. Such sites may be found in creek bank landforms, but may also be found on flat open floodplain landforms in close proximity to the creek.
- Higher density sites may be found along the margins of the floodplain, either on slightly elevated landforms or along the margins of former swamp systems.
- Lower density sites may be found almost anywhere in the region, including on the floodplain itself.

5.1.2 *Historical Cultural Heritage*

There are no historical heritage sites listed on the Victorian Heritage Register (VHR), the Victorian Heritage Inventory (VHI), National Trust Register (NTR) or the Commonwealth, National or World Heritage Lists (CHL, NHL, WHL) within 2 km of the study area.

The nearest historical heritage sites of local significance listed on the Heritage Overlay under the Greater Geelong Planning Scheme (Figure 3) are:

- HO1714 (Residence at 371-399 Lake Rd, Connewarre). This site is located approximately 1.3 km east of the study area on the northern side of Lake Road; and
- HO1716 (Residence & Underground Tank, Cottage Ruins, Tank & Horse Works, Dairy Building, Water Tank & Cemetery at 421 Lower Duneed Road, Connewarre). This site is located approximately 280 m south of the study area off Barwon Heads Road.

Neither of these places are within the study area. Consequently, there are no heritage places or dry stone walls listed on the Greater Geelong Planning Scheme within the study area (Figure 3). Therefore there are no implications for this project.



Figure 3: Location of Historical Heritage Places in Relation to the Study Area (*Source:* Planning Maps Online 2014)

5.2 Site Inspection

A site visit and field inspection was carried out on 27 January 2015 by Ecology and Heritage Partners Pty Ltd Senior Heritage Advisor/Archaeologist Rick Bullers.

5.2.1 Landforms

The site inspection confirmed the landforms expected following the desktop review. The north western and western areas of the study area comprise a lower-lying floodplain (Plate 1) associated with the creeks to the north and north west of the study area. Although the site inspection was carried out in dry conditions, evidence of frequent waterlogging was evident in the very uneven ground churned by frequent stock trampling (Plate 2). The landscape rises very gently to the east, south east and south, so that the majority of the southern section of the activity area is elevated several metres above the level of the floodplain. These areas are also very flat and continue southwards away from the study area.

5.2.2 Previous Ground Disturbance

A number of areas show evidence of significant ground disturbance (see discussion in Section 6.2). These include:

- The areas around both farm/house complexes, which include the houses (n=4), sheds and outbuildings, and driveways (Plates 1 to 3);

- Dams. There are two primary dams, one on Property 2 immediately west of the farm complex on Property 1 (Plate 6) and one in the south east corner of the property on the Barwon Heads Road easement (Plate 7), although it is actually within the fenced paddocks of Property 2;
- Artificial drainage channels. There are several located primarily in the north western section of the study area (Plates 2 and 8), on the low-lying floodplain landform; and
- Deep ripping and ploughing. This is particularly evident in the south western corner on Property 2 (Plate 9). The landowner advises that the whole property was deep-ripped and ploughed approximately 15 years ago. The deep-ripping was to facilitate drainage control across the landscape; and
- The installation of either elevated tracks (Plate 10) or spoon-drainage alongside tracks (Plate 11).

A description of significant ground disturbance is provided in Attachment C. Other disturbance, which does not meet the definition significant ground disturbance under the *Aboriginal Heritage Regulations 2007*, includes:

- Fencing;
- Installation of stock water points; and
- Excavation and dumping of building rubble and farming detritus.

These disturbances may influence the presence of intact Aboriginal cultural heritage being present.

5.2.3 *Aboriginal Cultural Heritage Likelihood*

Due to the proximity to the original creeklines to the north, there are areas of Aboriginal likelihood within the study area. These occur along the elevated edges of the higher ground in the eastern, south eastern and southern sections of the study area. Aboriginal cultural heritage may also be present in the lower-lying floodplain landform, although the density of any artefacts present is likely to be low.

However, according to the current landowner of Property 2 the paddocks on that property were deep-ripped approximately 15 years ago to facilitate flood drainage and this was certainly evident in the south west corner of the study area (Plate 9). Whilst this is unlikely to have removed any Aboriginal cultural heritage that was present, it is likely to have moved them from their depositional contexts and therefore much of the archaeological integrity of the deposits will have been removed.

5.2.4 *Historical Heritage Likelihood*

No historical heritage places or areas of significant historical archaeological deposits were identified during the inspection. One dwelling on Property 1 (Plate 3) dates from the late-Victorian era, but has been extensively modified and considered to have no architectural or aesthetic significance. Likewise there are no known historical connections with important people, nor any technological value with the property. All other buildings are of mid-late twentieth century construction and have no heritage significance.



Plate 1: Low-lying flat floodplain landform, looking west from the dam next to the farm complex on Property 1



Plate 2: Floodplain landform showing uneven, trodden surface and artificial drainage line to drain flooding



Plate 3: Weatherboard Victorian-era cottage on Property 1, showing heavy modification



Plate 4: Looking north from the southern paddock towards the home complex on Property 2



Plate 5: Example of one of several hay sheds scattered across the eastern side of the study area



Plate 6: Dam on Property 2 immediately west of the Property 1 farm complex, looking south



Plate 7: Dam on the Barwon Heads Road easement (although inside the fenced paddock of Property 2)



Plate 8: Artificial drainage line to drain flooding, looking south from the northern boundary



Plate 9: Parallel green lines in south west paddock showing evidence of deep-ripping and ploughing.



Plate 10: Elevated track in the northern paddock of Property 1



Plate 11: Track east of the farm complex on Property 1, showing drainage along each side

6 Legislative and Policy Implications

6.1 *Environment Protection and Biodiversity Conservation Act 1999*

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a national framework for the protection of heritage and the environment and the conservation of biodiversity. The EPBC Act is administered by the Australian Government Department of the Environment (DoE). The EPBC Act established the National Heritage List (NHL), the Commonwealth Heritage List (CHL) and the World Heritage List (WHL) for statutory protection of heritage places of national or international significance. Where Matters of National Environmental Significance (NES), including National Heritage Places, will or may be impacted by a development, then a referral to the Minister will be required to determine whether an approval under the EPBC Act is required.

DoE also administers the Register of the National Estate (RNE). The RNE is no longer a statutory register and listed sites are no longer protected (unless registered on another statutory register).

Implications for the project

There are no known Matters of NES within the study area. It is considered unlikely that any cultural heritage sites of National Significance will be located in the study area. Therefore no referral or further works would be required under the EPBC Act 1999.

6.2 *Aboriginal Heritage Act 2006*

The *Aboriginal Heritage Act 2006* protects Aboriginal heritage in Victoria. If certain high impact activities are undertaken as stated in the *Aboriginal Heritage Regulations 2007* (revised 2009) then preparation of an Aboriginal Cultural Heritage Management Plan (CHMP) may be required to be approved by the OAAV or the Registered Aboriginal Party (RAP) prior to lodging a planning permit.

Triggers for mandatory preparation of a CHMP include whether certain criteria are met under the Regulations, required by the Minister, or if the activity requires an Environmental Effects Statement (EES) under Sections 46 to 49 of the *Environmental Effects Act 1978*.

The Regulations require a mandatory CHMP if:

- 1) All or part of the proposed activity is a high impact activity; and
- 2) All or part of the activity area (study area) is an area of cultural heritage sensitivity (subject to whether the entire area of cultural heritage sensitivity has been subject to *significant ground disturbance*).

Implications for the project

In relation to the rezoning application, land rezoning is not a high impact activity under the *Aboriginal Heritage Regulations 2007* and therefore a CHMP is not required to effect rezoning of the land.

In relation to the future development of the land, the following provisions apply (Figure 2):

- Under Regulation 31, the activity area **is** within an area of cultural heritage sensitivity as it is located within a geologically mapped section of the Koo Wee Rup Plain; and
- Under Regulation 46, the proposed activity **is** a high impact activity as it involves the subdivision of land.

Under r.31(2) an area of cultural heritage sensitivity or part thereof is nullified if that part has been subject to significant ground disturbance (SGD) defined under r.4 (Attachment C). The landowner on Property 2 claims that his paddocks were subject to deep-ripping 15 years ago. A visual inspection of the paddocks where the area of cultural heritage sensitivity occurs was conducted on 27 January 2015. Whilst the very shallow furrows in the south west section of the study area did indicate ploughing and deep-ripping, that visual evidence was not so obvious within the area of sensitivity. Therefore the area of sensitivity could not be conclusively confirmed as being deep ripped (which is within the definition of SGD) and therefore the area of cultural heritage sensitivity still applies.

Therefore a mandatory CHMP under the *Aboriginal Heritage Act 2006* will be required for the subdivision of the land. In addition, subject to the final development plan, other aspects of the development may also be considered to be high impact activities. These may include but not limited to:

- Under Regulation 43, the proposed activity may be a high impact activity if it involves the construction of a building or the construction or carrying out of works for a specified use, e.g. child care centres, education centres, an 'industry', minor sports and recreation facilities, retail premises, retirement villages, and/or utility installations (r. 43 [1][b]); and/or
- Under Regulation 44, the proposed activity may be a high impact activity if it involves the construction of specific items of infrastructure, e.g. bicycle tracks, roads with a length exceeding 100 m or underground telecommunications cables with a length exceeding 500 m (r. 44 [1]).

The CHMP for development will need to assess the development plan and include any of these aspects within the assessment.

In addition to the legislative requirement, it is considered likely that Aboriginal heritage will be found in the study area. This conclusion is derived from a review of the VAHR which indicates that a large number of Aboriginal places have previously been found in close proximity to the study area and within similar landforms (Figure 2).

6.3 Planning and Environment Act 1987

All municipalities in Victoria are covered by land use planning controls which are prepared and administered by State and local government authorities. The legislation governing such controls is the *Planning and Environment Act 1987*. Places of significance to a locality can be listed on a local planning scheme and protected by a Heritage Overlay (or other overlay where appropriate). Places of Aboriginal cultural heritage significance are not often included on local government planning schemes. The study area is governed by the Greater Geelong Planning Scheme. In addition to the Heritage Overlay, Clause 52.37 of the Particular Provisions provides protection to post boxes constructed before 1930 and dry stone walls constructed prior

to 1940 (if listed in the Schedule). Under the Schedule, only walls on land in Lara, Lara Lake, Point Wilson and Sutherlands Creek trigger the requirement for a permit.

Implications for the project

The nearest historical heritage sites of local significance listed on the Heritage Overlay under the Greater Geelong Planning Scheme (Figure 4) are:

- HO1714 (Residence at 371-399 Lake Rd, Connewarre). This site is located approximately 1.3 km east of the study area on the northern side of Lake Road; and
- HO1716 (Residence & Underground Tank, Cottage Ruins, Tank & Horse Works, Dairy Building, Water Tank & Cemetery at 421 Lower Duneed Road, Connewarre). This site is located approximately 280 m south of the study area off Barwon Heads Road.

Neither of these places are within the study area. Consequently, there are no heritage places or dry stone walls listed on the Greater Geelong Planning Scheme within the study area (Figure 4). Therefore there are no implications for this project.



Figure 4: Location of Historical Heritage Places in Relation to the Study Area (Source: Planning Maps Online 2014)

6.4 Heritage Act 1995

This Act protects all heritage places deemed to be of State significance by registration on the VHR. Proposed impacts to any site registered on the VHR will require Permit from Heritage Victoria. This Act also protects all non-Aboriginal archaeological sites older than 50 years. If an archaeological site is of State Significance it is listed on the VHR and a Permit from HV is required to damage it. If an archaeological site is not of State significance and has archaeological value it is usually listed on the VHI and a Consent from HV would be required to damage it.

Implications for the project

There are no historical sites listed on the VHR or VHI within the study area (Figure 4).

Under Heritage Victoria policy a historical heritage report must be submitted when *any* archaeological survey is carried out. If a CHMP is required under the *Aboriginal Heritage Act 2006* (Section 6.2), then a separate Historical Heritage Assessment (HHA) would also need to be prepared. A survey would confirm whether any historical sites are located within the activity area.

7 Conclusion

In relation to the rezoning application, rezoning is not a high impact activity and an Aboriginal CHMP is not required.

In relation to the future residential development, previous archaeological investigations in the vicinity of the study area have shown that Aboriginal cultural heritage occurs in both floodplain and elevated landforms in close proximity to creeks or former creeklines. With those landforms present, it is likely that Aboriginal cultural heritage will occur in the study area. The subdivision of land is a high impact activity and there is an area of cultural heritage sensitivity present. There is evidence of SGD within the study area, and the majority of this disturbance (e.g. around the home complexes, along tracks and along artificial drainage lines and dams) is likely to have removed intact deposits of Aboriginal cultural heritage from those locations. In addition, some of the paddocks on Property 2 have been deep-ripped, which means that those areas have been subject to SGD within the meaning of the Regulations. However, the area of cultural heritage sensitivity in the south east corner of the study area did not show conclusive signs of SGD. Therefore, a mandatory CHMP will be required for the subdivision prior to a planning permit being issued.

No historical heritage or areas of historical archaeological likelihood were identified. However, as a CHMP will be required for the activity, a separate Historical Heritage Assessment (HHA) will also need to be conducted under s.132 of the *Heritage Act 1995*.

Please do not hesitate to call either myself on 0400 990 887 or Oona Nicolson, Director/Principal Heritage Advisor on (03) 9377 0100 if you have any questions or require further information.

Yours sincerely,



Rick Bullers
Senior Heritage Advisor
Ecology and Heritage Partners Pty Ltd

References

- Collins, S., 2012. Warralily Estate, Armstrong Creek Section D, Connewarre Residential Development: Cultural Heritage Management Plan #10607. Unpublished report to Armstrong Creek Development Corporation.
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- DoE, 2015. *Protected Matters Search Tool: Interactive Map*. <http://www.environment.gov.au/webgis-framework/apps/pmst/pmst.jsf>. Accessed 5 January 2014.
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- OAAV, 2015. *Aboriginal Cultural Heritage Register and Information Services (ACHRIS)*. Office of Aboriginal Affairs Victoria online Aboriginal Heritage Register. Accessed 7 January 2014.
- O'Reilly, S., Albrecht, M. and Whincop, M., 2010. Armstrong Creek, East Precinct North Urban Subdivision, City of Greater Geelong: Cultural Heritage Management Plan #10608. Unpublished report to Armstrong Creek Development Corporation.
- Whincop, M., Feldman, R. and Albrecht, M., 2011. Armstrong Creek, East Precinct Section B, City of Greater Geelong: Cultural Heritage Management Plan #10603. Unpublished report to Armstrong Creek Development Corporation.




Attachment A

Preliminary Development Plan



Development Plan
 892-990 Barwon Heads
 Road, Armstrong Creek

Legend

-  Study Area
-  Development Plan
-  Barwon Heads Road
Intersection


ecology & heritage
 partners



 Metres

VicMap Data: The State of Victoria does not warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that the State of Victoria shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

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Attachment B

Aboriginal Places within 3 km of the Study Area

VAHR Site No	VAHR Site Component No	Site Name	Site Type	Within Activity Area?
7721-0097	7721-0097-1	Charlemont 1 BP 85/17	Shell Midden	No
	7721-0097-2		Artefact Scatter	No
7721-0572	7721-0572-1	AC 1	Artefact Scatter	No
7721-0573	7721-0573-1	AC 2	Artefact Scatter	No
7721-0574	7721-0574-1	AC 3	Scarred Tree	No
7721-0627	7721-0627-1	Dan's Reserve	Artefact Scatter	No
7721-0782	7721-0782-1	Armstrong Creek 1	Artefact Scatter	No
7721-0783	7721-0783-1	Armstrong Creek 2	Scarred Tree	No
7721-0784	7721-0784-1	Armstrong Creek 3	Artefact Scatter	No
7721-0787	7721-0787-1	Stewarts Reserve	Aboriginal Historical Place	No
	7721-0787-2		Scarred Tree	No
7721-0985	7721-0985-1	Armstrong Creek EP 2	Artefact Scatter	No
7721-0986	7721-0986-1	Armstrong Creek EP 3	Artefact Scatter	No
7721-0987	7721-0987-1	Armstrong Creek EP 4	Artefact Scatter	No
7721-0988	7721-0988-1	Armstrong Creek EP 5	Artefact Scatter	No
7721-0989	7721-0989-1	Armstrong Creek EP 6	Artefact Scatter	No
7721-0990	7721-0990-1	Armstrong Creek EP 7	Artefact Scatter	No
7721-0991	7721-0991-1	Armstrong Creek EP 8	Artefact Scatter	No
7721-0992	7721-0992-1	Armstrong Creek EP 1	Artefact Scatter	No
7721-0993	7721-0993-1	Armstrong Creek EP 9	Artefact Scatter	No
7721-0994	7721-0994-1	Armstrong Creek EP 10	Artefact Scatter	No
7721-1020	7721-1020-1	Armstrong Creek EP 15	Artefact Scatter	No
7721-1019	7721-1019-1	Armstrong Creek EP 14	Artefact Scatter	No
7721-1024	7721-1024-1	Armstrong Creek EP 16	Artefact Scatter	No
7721-1023	7721-1023-1	Armstrong Creek EP 13	Artefact Scatter	No
7721-1022	7721-1022-1	Armstrong Creek EP 12	Artefact Scatter	No
7721-1021	7721-1021-1	Armstrong Creek EP 11	Artefact Scatter	No
7721-1035	7721-1035-1	Armstrong Creek EP 17	Artefact Scatter	No
7721-1037	7721-1037-1	Armstrong Creek EP 19	Artefact Scatter	No
7721-1036	7721-1036-1	Armstrong Creek EP 18	Artefact Scatter	No
7721-1038	7721-1038-1	Armstrong Creek EP 21	Artefact Scatter	No
7721-1039	7721-1039-1	Armstrong Creek EP 22	Artefact Scatter	No
7721-1040	7721-1040-1	Armstrong Creek EP 23	Artefact Scatter	No

VAHR Site No	VAHR Site Component No	Site Name	Site Type	Within Activity Area?
7721-1041	7721-1041-1	Armstrong Creek EP 24	Artefact Scatter	No
7721-1042	7721-1042-1	Armstrong Creek EP 25	Artefact Scatter	No
7721-1050	7721-1050-1	Armstrong Creek EP 29	Artefact Scatter	No
7721-1051	7721-1051-1	Armstrong Creek EP 30	Artefact Scatter	No
7721-1052	7721-1052-1	Armstrong Creek EP 31	Artefact Scatter	No
7721-1053	7721-1053-1	Armstrong Creek EP 32	Artefact Scatter	No
7721-1055	7721-1055-1	Armstrong Creek EP 34	Artefact Scatter	No
7721-1059	7721-1059-1	Armstrong Creek EP 20	Artefact Scatter	No
7721-1061	7721-1061-1	Armstrong Creek EP 35	Artefact Scatter	No
7721-1062	7721-1062-1	Armstrong Creek EP 36	Artefact Scatter	No
7721-1063	7721-1063-1	Armstrong Creek EP 37	Artefact Scatter	No
7721-1064	7721-1064-1	Armstrong Creek EP 38	Artefact Scatter	No
7721-1066	7721-1066-1	Armstrong Creek EP 40	Artefact Scatter	No
7721-1067	7721-1067-1	Armstrong Creek EP 43	Artefact Scatter	No
7721-1162	7721-1162-1	Armstrong Creek EP Scarred Tree 1	Scarred Tree	No
7721-1068	7721-1068-1	Armstrong Creek EP 46	Artefact Scatter	No
7721-1141	7721-1141-1	Armstrong Creek EP 122	Artefact Scatter	No
7721-1142	7721-1142-1	Armstrong Creek EP 123	Artefact Scatter	No
7721-1123	7721-1123-2	Armstrong Creek East Precinct 68	Artefact Scatter	No
7721-1095	7721-1095-2	Armstrong Creek EP 79	Artefact Scatter	No
7721-1088	7721-1088-2	Armstrong Creek East Precinct 47	Artefact Scatter	No
7721-1086	7721-1086-2	Armstrong Creek East Precinct 42	Artefact Scatter	No
7721-1090	7721-1090-2	Armstrong Creek EP 73	Artefact Scatter	No
7721-1091	7721-1091-2	Armstrong Creek EP 74	Artefact Scatter	No
7721-1087	7721-1087-2	Armstrong Creek East Precinct 44	Artefact Scatter	No
7721-1099	7721-1099-2	Armstrong Creek EP 124	Artefact Scatter	No
7721-1100	7721-1100-2	Armstrong Creek EP 125	Artefact Scatter	No
7721-1101	7721-1101-2	Armstrong Creek EP 126	Artefact Scatter	No
7721-1158	7721-1158-2	Armstrong Creek EP 127	Artefact Scatter	No
7721-1102	7721-1102-2	Armstrong Creek EP 128	Artefact Scatter	No
7721-1103	7721-1103-2	Armstrong Creek EP 129	Artefact Scatter	No
7721-1084	7721-1084-2	Armstrong Creek East Precinct 41	Artefact Scatter	No
7721-1089	7721-1089-2	Armstrong Creek East Precinct 67	Artefact Scatter	No

VAHR Site No	VAHR Site Component No	Site Name	Site Type	Within Activity Area?
7721-1093	7721-1093-1	Armstrong Creek EP 77	Artefact Scatter	No
7721-1094	7721-1094-1	Armstrong Creek EP 78	Artefact Scatter	No
7721-1098	7721-1098-1	Armstrong Creek EP 121	Artefact Scatter	No
7721-1152	7721-1152-1	Armstrong Creek Eastern Precinct 66	Artefact Scatter	No
7721-1096	7721-1096-1	Armstrong Creek EP 119	Artefact Scatter	No
7721-1092	7721-1092-1	Armstrong Creek EP 76	Artefact Scatter	No
7721-1097	7721-1097-1	Armstrong Creek EP 120	Artefact Scatter	No
7721-1153	7721-1153-1	Armstrong Creek Eastern Precinct 45	Artefact Scatter	No
7721-1085	7721-1085-1	Armstrong Creek EP 75	Artefact Scatter	No
7721-1169	7721-1169-1	Hoopers Paddock Isolated Artefact	Artefact Scatter	No
7721-1185	7721-1185-1	Warralily Estate 1	Artefact Scatter	No
7721-1181	7721-1181-1	Warralily Estate 2 IA	Artefact Scatter	No
7721-1182	7721-1182-1	Warralily Estate 3 IA	Artefact Scatter	No
7721-1183	7721-1183-1	Warralily Estate 4 IA	Artefact Scatter	No
7721-1184	7721-1184-1	Warralily Estate 5	Artefact Scatter	No
7721-1188	7721-1188-1	Warralily Estate 6	Artefact Scatter	No
7721-1195	7721-1195-2	Warralily Estate 7	Artefact Scatter	No
	7721-1195-3			No
7721-1219	7721-1219-1	Burvilles Road 1 IA	Artefact Scatter	No
7721-1220	7721-1220-1	Burvilles Road 2 IA	Artefact Scatter	No
7721-1282	7721-1282-1	Burvilles Road LDAD	Low Density Artefact Distribution	No
	7721-1282-2			No
7721-1283	7721-1283-1	Burvilles Road 4	Artefact Scatter	No

Attachment C

Significant Ground Disturbance (OAAV Practice Note)



Aboriginal Heritage Act 2006 Practice Note: Significant Ground Disturbance

This Practice Note provides guidance about the meaning of **significant ground disturbance** as it relates to requirements to prepare Cultural Heritage Management Plans under the *Aboriginal Heritage Act 2006**.

The Practice Note covers:

- when a Cultural Heritage Management Plan is required
- why significant ground disturbance should be assessed
- what significant ground disturbance means
- who needs to provide proof
- how to determine significant ground disturbance
- who can determine this
- what is the role of the responsible authority
- how Aboriginal cultural heritage is protected in areas of significant ground disturbance.

Background

The *Aboriginal Heritage Act 2006* (Act) and *Aboriginal Heritage Regulations 2007* (Regulations) provide protection in Victoria for all Aboriginal places, objects and human remains regardless of their inclusion on the Victorian Aboriginal Heritage Register or whether they are located on public or private land.

When is a Cultural Heritage Management Plan required?

A Cultural Heritage Management Plan is required for an activity (i.e. the use or development of land) if the activity:

- is a high impact activity
- falls in whole or in part within an area of cultural heritage sensitivity.

The terms 'high impact activity' and 'cultural heritage sensitivity' are defined in the Regulations.

A Plan must also be prepared when an activity requires an Environmental Effects Statement, or when the Minister for Aboriginal Affairs requires.

High impact activities are categories of activity that are generally regarded as more likely to harm Aboriginal cultural heritage. Most high impact activities provided for in the Regulations are subject to a requirement that the activity results in significant ground disturbance. The term 'significant ground disturbance' is defined in the Regulations.

Areas of cultural heritage sensitivity are landforms and land categories that are generally regarded as more likely to contain Aboriginal cultural heritage. A registered Aboriginal cultural heritage place is also an area of cultural heritage sensitivity.

If part of an area of cultural heritage sensitivity (other than a cave) has been subject to significant ground disturbance that part is not an area of cultural heritage sensitivity.

If a Cultural Heritage Management Plan is required for an activity it must be approved before the sponsor can obtain any necessary statutory authorisation for the activity and/or before the activity can start. For more information about Cultural Heritage Management Plans see Aboriginal Affairs Victoria's (AAV) website (www.aboriginalaffairs.vic.gov.au).

Why should significant ground disturbance be assessed?

It is important to assess significant ground disturbance when considering whether a cultural heritage management plan is required because:

- A Cultural Heritage Management Plan does not need to be prepared for a high impact activity if all the area of cultural heritage sensitivity within the activity area has been subject to significant ground disturbance.
- Some types of activity will not be a high impact activity, meaning a Cultural Heritage Management Plan would not need to be prepared, if the activity does not cause significant ground disturbance.

The Regulations specify the landforms and land categories that are areas of cultural heritage sensitivity. Areas of cultural heritage sensitivity are displayed in a series of maps available on AAV's website. The areas delineated on these maps however do not take account of the past history of land use and development that may have caused significant ground disturbance in localised areas.

How is significant ground disturbance defined?

'Significant ground disturbance' is defined in r.4 of the Regulations as meaning disturbance of –

- (a) the topsoil or surface rock layer of the ground; or
- (b) a waterway –
by machinery in the course of grading, excavating, digging, dredging or deep ripping, but does not include ploughing other than deep ripping.

The words 'disturbance', 'topsoil', 'surface rock layer', 'machinery', 'grading', 'excavating', 'digging', 'dredging', 'ploughing' (other than deep ripping) are not defined in the regulations and therefore have their ordinary meanings.

The Victorian Civil and Administrative Tribunal (VCAT) has determined that the words "topsoil or surface rock layer" include the former topsoil or former surface rock layer if that topsoil or surface rock layer is a naturally occurring surface level that is readily ascertainable and does not include the current topsoil or current surface rock layer if established by the mere filling of the land.

Ploughing (other than deep ripping) to any depth is not significant ground disturbance. Deep ripping is defined in the regulations to mean 'ploughing of soil using a ripper or subsoil cultivation tool to a depth of 60 centimetres or more'. None of the words used in this definition are defined, and therefore have their ordinary meanings. VCAT has determined that a ripper or subsoil cultivation tool must be distinguished from conventional ploughs or topsoil cultivation tools such as disc ploughs or rotary hoes which are not sufficient to show significant ground disturbance.

Deep ripping will result in significant ground disturbance regardless of the degree of disturbance caused to the topsoil or surface rock layer of the ground.

Who needs to provide proof that land has been subject to significant ground disturbance?

The burden of proving that an area has been subject to significant ground disturbance rests with the applicant for a statutory authorisation for the activity (or the sponsor of the activity). The responsible authority may assist by providing the applicant access to any relevant records it has about past land use and development.

How can a sponsor determine whether significant ground disturbance has occurred?

The responsible authority should require evidence of support for claims that there has been significant ground disturbance of an area. The levels of inquiry outlined below provide some guidance about what information should be required to satisfy a responsible authority (depending on the circumstances of each case) that significant ground disturbance has occurred. The levels of inquiry are listed in order of the level of detail that may be required. An assessment of whether significant ground disturbance has occurred should be dealt with at the lowest possible level in order to avoid unnecessary delay or cost to applicants.

Little weight should be given to mere assertions by applicants or land owners that an activity area has been subject to significant ground disturbance.

Level 1 – Common knowledge

The fact that land has been subject to significant ground disturbance may be common knowledge. Very little or no additional information should be required from the responsible authority.

For example, common knowledge about the redevelopment of a petrol station with extensive underground storage tanks.

Level 2 – Publicly available records

If the existence of significant ground disturbance is not common knowledge, a responsible authority may be able to provide assistance from its own records about prior development and use of land, or advise the applicant about other publicly available records, including aerial photographs.

These documents may allow a reasonable inference to be made that the land has been subject to significant ground disturbance. In such event, no further inquiries or information would be needed by the responsible authority. The particular records and facts relied upon should be noted by the responsible authority as a matter of record.

For example, a former quarry site subsequently filled, but where the public records show the area of past excavation.

Level 3 – Further information

If 'common knowledge' or 'publicly available records' do not provide sufficient information about the occurrence of significant ground disturbance, the applicant may need to present further evidence either voluntarily or following a formal request from the responsible authority. Further evidence could consist of land use history documents, old maps or photographs of the land or statements by former landowners or occupiers. Statements should be provided by statutory declaration or similar means.

For example, the construction of a former dam on a farm.

Level 4 – Expert advice or opinion

If these levels of inquiry do not provide sufficient evidence of significant ground disturbance (or as an alternative to level 3), the applicant may submit or be asked to submit a professional report with expert advice or opinion from a person with appropriate skills and experience. Depending on the circumstances, this may involve a site inspection and/or a review of primary documents. If there is sufficient uncertainty some preliminary sub-surface excavation or geotechnical investigation may be warranted.

An expert report should comply with VCAT's practice note on expert evidence.

The responsible authority must be reasonably satisfied that the standard of proof presented by the applicant shows that all of the land in question has been subject to significant ground disturbance.

A level 1 or 2 inquiry will commonly provide sufficient information as to whether or not the activity area has been subject to significant ground disturbance, and a level 3 or 4 inquiry should not be required as a matter of course.

There will be cases when the responsible authority is simply not persuaded or where there remains genuine doubt about significance ground disturbance regardless of the level of inquiry. In these circumstances the default position is that a Cultural Heritage Management Plan is required. This is in line with the purpose of the Act and Regulations to provide for the protection of Aboriginal cultural heritage in Victoria.

Who can provide expert advice about significant ground disturbance?

A person needs to have expertise to decide, based upon an inspection of the land or interpreting primary documents, whether the land has been subject to significant ground disturbance.

A cultural heritage advisor may not necessarily have this expertise. Under section 189 of the Act, an advisor must have a qualification directly relevant to the management of Aboriginal cultural heritage such as 'anthropology, archaeology or history' or have extensive experience or knowledge in relation to the management of heritage. An advisor appropriately qualified in archaeology may be able to assist where excavation is required to determine significant ground disturbance.

Other experts such as a land surveyor, geomorphologist or civil engineer could also have the necessary expertise (depending on the circumstances). For example, a civil engineer should have the qualifications and experience to determine the extent of previous engineering works along a watercourse or road, and therefore the extent of significant ground disturbance.

What is the role of the responsible authority?

The responsible authority determines whether a Cultural Heritage Management Plan is required for an activity. It may require the applicant to provide information to satisfy it that an area has been subject to significant ground disturbance.

Evaluating information relating to the occurrence of significant ground disturbance may be critical in deciding whether a Cultural Heritage Management Plan is required and therefore whether a statutory authorisation can be granted. This question should be resolved at an early stage in planning a proposed development. Applicants for statutory authorisations and the responsible authority should therefore seek to agree at an early stage about whether a Cultural Heritage Management Plan is required. In the event of a dispute this can be brought without delay to VCAT for resolution. The responsible authority should take care to document the steps taken in each case.

What if Aboriginal cultural heritage is discovered in an area determined to have been subject to significant ground disturbance?

It is possible that there are Aboriginal cultural heritage places, objects or human remains within areas determined to no longer be areas of cultural heritage sensitivity due to significant ground disturbance. It is also possible that Aboriginal cultural heritage could be harmed by activities which do not amount to high impact activities.

These Aboriginal places are still protected under the Act. In particular, it is an offence under sections 27 and 28 of the Act to harm Aboriginal cultural heritage unless acting in accordance with a Cultural Heritage Permit or approved Cultural Heritage Management Plan (regardless of whether a Plan was required).

** This Practice Note is based on VCAT's determination about significant ground disturbance. For further details see VCAT, Reference No. P1020/2008 – Mainstay Australia vs Mornington Peninsula SC and Reference No. P1204/2010 – Colquhouns & Ors vs Yarra SC.*

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Practice note – significant ground disturbance

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