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Please Note: Information of a culturally sensitive nature has been removed from this version of the Standard Assessment

APPENDIX 1:

ABORIGINAL CULTURAL HERITAGE REPORT – STANDARD ASSESSMENT

WESTERN HIGHWAY DUPLICATION: ARARAT TO STAWELL: STANDARD ASSESSMENT REPORT

CULTURAL HERITAGE MANAGEMENT PLAN NUMBER: 11819

Activity Size:	Large
Assessment:	Desktop and Standard Assessment
Sponsor:	VicRoads ABN: 61 760 960 480
Cultural Heritage Advisor:	Dr Shaun Canning Australian Cultural Heritage Management
Author(s):	Claire St George, Fiona Schultz, Rebecca McMillan, Edward Turner and Laura Donati

Report Date: 14 September 2012

ABBREVIATIONS

Below is a list of abbreviations used throughout this report:

Term	Meaning
AAV	Aboriginal Affairs Victoria, Department of Planning and Community Development
ACHM	Australian Cultural Heritage Management (Victoria) Pty Ltd
ADR	Alternative Dispute Resolution
AHA 2006	Victorian *Aboriginal Heritage Act 2006*
AHR 2007	Victorian *Aboriginal Heritage Regulations 2007*
APD	Authorised Project Delegate
APM	Activity Project Manager
ASTT	Australian Small Tool Tradition
BGLCAC	Barengi Gadjin Land Council Aboriginal Corporation
BP	Before Present
CHA	Cultural Heritage Assessment
CHM	Cultural Heritage Management
CHMP	Cultural Heritage Management Plan
HV	Heritage Victoria
In Situ	In archaeology, in situ refers to an artefact or an item of material culture that has not been moved from its original place of use, construction or deposition
LGA	Local Government Area
Martang	Martang Pty Ltd
NOI	Notice of Intent (to prepare a Management Plan)
RAP	Registered Aboriginal Party
VAHR	Victorian Aboriginal Heritage Register
VCAT	Victorian Civil and Administrative Tribunal
VicRoads	Roads Corporation
WAC	Wathaurung Aboriginal Corporation trading as Wadawurrung / The Wathaurung

EXECUTIVE SUMMARY

This Cultural Heritage Management Plan (CHMP) has been prepared as a mandatory CHMP for VicRoads (the Sponsor ABN: 61 760 960 480).

NATURE AND EXTENT OF PROPOSED ACTIVITY

VicRoads are proposing to upgrade the Western Highway (A8), which is the principal road link between Victoria and South Australia and the key transport corridor through Victoria's west. The Western Highway is being progressively upgraded to a four-lane divided highway, and this portion of the activity area (between Ararat and Stawell) forms an integral component of this upgrade.

The highway improvement will involve the following:

- Constructing two new traffic lanes adjacent to the existing highway, separated by a central median
- Constructing the existing highway carriageway to carry two traffic lanes in the opposite direction
- Constructing sections of new four-lane divided highway on a new alignment

The total length of the activity area including off-ramps and access-roads is approximately 23 km.

CULTURAL HERITAGE MANAGEMENT PLAN

A CHMP is required under Section 47 of the Victorian *Aboriginal Heritage Act* (2006) if any high impact activity is planned in an identified area of cultural heritage sensitivity that has not been subject to significant ground disturbance, as defined in the Victorian *Aboriginal Heritage Regulations* (2007). Furthermore, under Section 49 of the Victorian *Aboriginal Heritage Act* (2006), a CHMP must be prepared for any project for which an Environment Effects Statement (EES) is required (as is the case with these proposed works).

The proposed activity is high impact as it involves the construction of a road greater than 100 m long 44(1)(e), and the activity area is located in an area of cultural heritage sensitivity as the western extent lies within 200 m of a named waterway [Regulations 23 (1)]).

RESULTS OF THE DESKTOP AND STANDARD ASSESSMENT STAGES

The desktop assessment stage of this project identified a total of 769 Aboriginal archaeological places previously recorded within the St Arnaud geographic region. St Arnaud has been chosen as the appropriate geographic region of the activity area as it reflects the geomorphology of the region within which the activity area lies, as well as the associated water sources, floors and fauna. Subsequently, the archaeology of the St Arnaud reflects Indigenous land use occupation and subsistence in the region, and will thus assist in determining a predictive model for the activity area. Of these, Scarred trees are the most common (33%) followed by artefact scatters (31%). There are also a large number of earth features (28%) followed by a much lower number of art sites (1%), historical places (1%), quarries (3%), stone features (2%) and (< 1%) burials. The large number and diverse types of sites reflects both the large area of the geographic region and the density of sites within the area.

This search was subsequently refined to sites within 5km of the activity area in order to provide a more local context for the study. A total of 60 sites have been recorded within 5 km of the activity area. They consisted of 30 scarred trees (50%), 15 earth features (25%), 13 artefact scatters (22%) and one stone feature (2%), quarry (2%) and historical place (1%). Of these sites, three scarred trees and one artefact scatter are within the activity area. One scarred trees is within 50m of the activity area and three scarred trees are between 50m and 200m of the activity area.

The desktop assessment determined that there is the potential for additional Aboriginal archaeological sites to be present in relatively undisturbed portions of the activity area. As the activity area crosses a number of creeks and small waterways there is the possibility of locating cultural material. Previous research has shown that 80% of all known Aboriginal sites occur within 200m of a source of potable water (Canning, 2003: 262).

Ten historic sites (Heritage Inventory listed sites) are located within the activity area alignment.

Based on our current knowledge of the activity area, and the known distribution of archaeological sites, both within the geographic region and within 5 km of the activity area, the following predictive statements can be made:

- Scarred trees are highly likely to occur anywhere within the activity area where remnant native trees of an appropriate age survive. There is a high possibility of these occurring on the slopes, creekline terraces and alluvial plains.
- Low density artefact scatters are highly likely to occur within the activity area, decreasing in likelihood with distance from water. Artefact scatters may be located in both disturbed and undisturbed contexts.
- Earth features are likely to occur, within 500m of water, in undisturbed parts of the activity area. There is a high possibility of locating these on the alluvial plains, creekline terraces, and slopes.
- Mortuary trees could possibly occur within the activity area. Mortuary trees are trees which contain human remains within hollows. The highest likelihood of finding these trees occurs on creekline terraces and hills where Red Gum trees are common. However, it is possible that mortuary trees could occur in other tree types. Therefore, there is a possibility of finding mortuary trees anywhere that there are trees of an appropriate age and size.
- Quarry sites may occur anywhere that there is a suitable raw material outcrop.

The activity area was inspected for the presence of archaeological sites and areas of cultural heritage sensitivity. Ground surface visibility across a majority of the activity area was extremely poor (<5 per cent) due to dense grass cover but portions of the ground surface were exposed due to stock movement, ploughing and road construction.

All hollows in the trees of suitable age were closely inspected (including those with hollows which required a climbing inspection) but no mortuary trees were recorded within the activity area.

A total of two new sites (one artefact scatter and one isolated artefact) were located as a result of the standard assessment. Low ground surface visibility hindered the ability to accurately determine the extent of these sites, and as such, it is not possible to determine with any accuracy the nature, extent and significance of this artefact scatter and other potential archaeological deposits without undertaking a stage of complex testing. Based on the very small artefact sample, very little can be said about the sites beyond the fact that Aboriginal people were clearly using the landscape. A more in depth interpretation of these sites can only be achieved with additional testing.

Of the five previously recorded Aboriginal sites within the activity area, only two were able to be relocated – Armstrong ST 2 (Scarred Tree) and Armstrong ST 3 (Scarred Tree).

Of the ten previously recorded European sites located within the activity area, only one was able to be relocated during the survey. In the event that the proposed activity will impact upon any of these ten sites, further archaeological study is recommended and a consent form from Heritage Victoria is required.

No culturally modified charcoal, caves, rock shelters or cave entrances were found within the activity area.

Based on the results of both the desktop and standard assessment stages, it was determined that **complex testing is required** for Aboriginal sites in order to determine the nature, extent and significance of cultural deposits located within the activity area.

This view is supported by the Martang and Barengi Gadjin representatives who participated in the survey.

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PART 1: ASSESSMENT

1. INTRODUCTION

1.1. REASON FOR PREPARING THE PLAN

Cultural heritage sites or places represent a tangible or intangible record of human interactions within the landscape. The daily activities of humans throughout the millennia survive as the archaeological record across the continent. In Victoria, these sites or places provide evidence of approximately 30,000 years of Aboriginal occupation prior to the arrival of Europeans, and also evidence of the more recent past since European settlement.

Throughout most jurisdictions in Australia, cultural heritage sites or places are protected by either State or Commonwealth heritage legislation, or a combination of both. The *Aboriginal Heritage Act 2006* provides legal protection for all materials, sites or places relating to the Aboriginal occupation of Victoria.

This CHMP was commissioned by the Roads Corporation (VicRoads). This is a mandatory CHMP under the *Aboriginal Heritage Regulations* 2007; part of the proposed activity area is located within an area of cultural sensitivity and the proposed Western Highway duplication is considered a high impact activity [Regulations 44(1)(e)]. Furthermore, under Section 49 of the Victorian *Aboriginal Heritage Act* (2006), a CHMP must be prepared for any project for which an Environment Effects Statement (EES) is required (as is the case with these proposed works).

1.2. NOTICES GIVEN BY VICROADS

Sections 54(1) and (2) of the AHA 2006 state that before the preparation of a CHMP commences, the Sponsor must submit a Notice of Intent to Prepare a CHMP form (NOI) to the relevant RAP, the Secretary of AAV and the owner/occupier of the land covered by the CHMP if different from the Sponsor. There is currently no RAP for the activity area, as such, a Notice of Intent to Prepare a CHMP was completed by the Sponsor and lodged with AAV on 18 July 2011. An amended NOI for amendments to the activity area was completed by the Sponsor and lodged with AAV on the 03 September 2012. AAV assigned this project with CHMP Number 11819.

The owners/occupiers of the land were also provided copies of the Notice on the 12 December 2012 and the 03 September 2012.

Copies of these notices are attached in Part 3 of this Plan.

1.3. RELEVANT PARTIES

1.3.1. Sponsor

The sponsor of this Plan is:

Roads Corporation (VicRoads)
ABN: 61 760 960 480
Contact Name: John Harper
Address: 237 Ring Road Wendouree VIC 3355

The Roads Corporation is established under s.15 of the *Transport Act 1983 (Vic)*, and trades as VicRoads. VicRoads' statutory functions and powers are listed in s.16 of that Act. One of those functions is to maintain, upgrade, vary and extend the State's declared road network.

1.3.2. Cultural Heritage Advisor

The field assessment and writing of this CHMP was undertaken by Australian Cultural Heritage Management (Victoria) Pty Ltd. The consultants undertaking the works documented in this report are qualified cultural heritage advisors in accordance with the requirements stated in Section 189(1) of the *Aboriginal Heritage Act (2006).*

Dr. Shaun Canning supervised all aspects of the project. Fiona Schultz conducted the background research. Jakub Czastka and Bradley Ward undertook the fieldwork components of the project. Laura Donati completed the land use history and Claire St George wrote the remainder of the report.

The following is a brief description of the qualifications and experience of the cultural heritage advisors as stated in Schedule 2(3) of the *Aboriginal Heritage Regulations (2007)*.

The project supervisor (CHA) of this CHMP is:

1. Dr Shaun Canning is General Manager – Victoria and the Principal Heritage Advisor of the consulting firm Australian Cultural Heritage Management (Vic) Pty Ltd. (ACHM), which specializes in cultural heritage assessment, expert advice, management of complex and large-scale cultural heritage management projects (both primarily in relation to Australian Indigenous culture and heritage), native title research, Indigenous community development issues, and geographic information systems, cartography and analysis. Shaun has been involved extensively in the completion of over 400 cultural heritage management projects.

   Shaun holds a Bachelor of Arts degree majoring in Cultural Heritage Studies and Anthropology, a Bachelor of Applied Science (Hons) degree in Parks, Recreation and Heritage, and a PhD in Australian Indigenous Archaeology (La Trobe), specialising in predictive modelling and cultural heritage management in southern Victoria. Shaun was the recipient of a 3 year Australian Postgraduate Award Scholarship to complete his PhD. He has extensive experience in Indigenous cultural heritage management in the resources, urban development, infrastructure and public land management sectors, alongside considerable experience in community consultation and Aboriginal education. Shaun has particular expertise in complex project management, and the use of GIS and predictive modelling in archaeological, cultural and natural heritage management contexts. Shaun is active in many professional associations, and is immediate past National Webmaster of the Australian Association of Consulting Archaeologists Inc. Shaun is a Fellow of the Australian Anthropological Society (F.AAS), a member of the International Council on Monuments and Sites (M.ICOMOS), a member of the Environment Institute of Australia and New Zealand, a member of the Australian Institute of Project Management (M.AIPM) and a full member of the Australian Association of Consulting Archaeologists Inc (M.AACAI).

   Shaun is a fully qualified 'heritage advisor' meeting all the requirements of the Victorian *Aboriginal Heritage Act 2006*.

The primary authors of this CHMP are:

2. Claire St George. Claire completed a Bachelor of Archaeology degree with Honours at Flinders University (2009). Since early 2010 she has worked on archaeological surveys and excavations throughout Victoria and S.A. Claire has experience in both Aboriginal and historical archaeology, specifically shell midden and stone artefact analysis and the application of geophysics to archaeology.

Claire is a fully qualified 'heritage advisor' meeting all the requirements of the Victorian *Aboriginal Heritage Act 2006*.

3. Fiona Schultz. Fiona has completed a Bachelor of Archaeology at La Trobe University (2010). Since 2005 she has worked on a number of Aboriginal archaeological surveys and excavations throughout Victoria and has also participated on academic excavations in Ghana. Fiona has specialised experience in Maritime archaeology, where she has undertaken targeted underwater surveys and excavations.

1.3.3. Registered Aboriginal Parties (RAPs)

At the time of writing this report there was no Registered Aboriginal Party (RAP) for the activity area. The Martang and BGLC have applied for RAP status in this area and were consulted throughout the project and participated in the fieldwork.

AAV will be evaluating this CHMP.

1.3.4. Owner(s) and Occupiers of Relevant Land

Portions of the activity area are currently occupied and/or owned by the following people –

Property Address	Name
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
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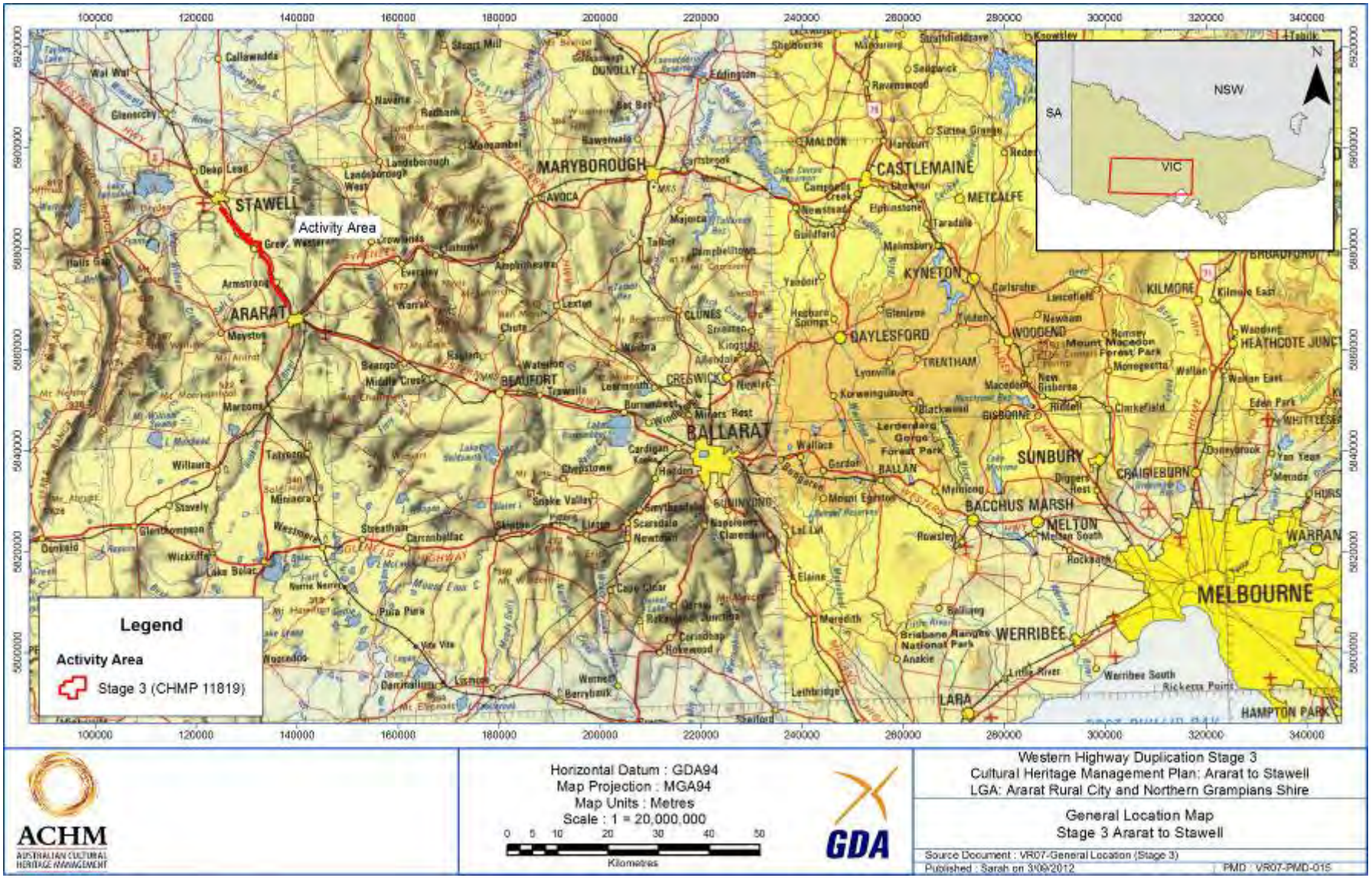
Table 1: Owners and Occupiers

1.4. LOCATION OF THE ACTIVITY AREA

The activity area is located along the existing Western Highway between Ararat and Stawell, approximately 220 km west of the Melbourne CBD (see Map 1). The activity area is located within the Ararat Rural City Council and Northern Grampians Shire Council.

The total length of the activity area including off ramps and access roads is approximately 23 km, and the extent of features are indicated in Map 2.

The cadastral properties impacted by the proposed activity are listed in Section 3.2.



Map 1: General location of the Activity Area

2. ACTIVITY DESCRIPTION

2.1. NATURE OF THE ACTIVITY AREA

The Western Highway (A8) is the principal road link between Victoria and South Australia and the key transport corridor through Victoria's west. The Western Highway is being progressively upgraded to a four-lane divided highway, and this portion of the activity area (between Ararat to Stawell) forms an integral component of this upgrade.

The highway improvement will involve the following:

- Constructing two new traffic lanes adjacent to the existing highway, separated by a central median
- Constructing the existing highway carriageway to carry two traffic lanes in the opposite direction
- Constructing sections of new four-lane divided highway on a new alignment

VicRoads proposal is to duplicate the Western Highway from Beaufort to Stawell. This section stretches from west of Mcloughlin Rd, Ararat to east of Gilchrist Rd, Stawell, a length of approximately 24.6km. The proposed alignment will be undertaken in several sections and will require construction on both the south and north of the present highway depending on the location. Of the roadworks, most will involve widening adjacent to the existing highway and a bypass of Great Western.

Each carriageway will have two 3.5m wide traffic lanes, 1m wide inner shoulder and 3m wide outer shoulder. There will be interchanges at Sandy Creek Rd and Bests Rd and Main Rd Great Western. Bridges will be constructed over the railway line at Harvey Lane, and a Rail overpass constructed at Armstrong. Bridges will also be constructed at Allenvale Creek, Concongella Creek, Donald Creek, Hyde Park Creek, Lobeys Creek and Robinsons Creek and there will be numerous culverts constructed at the smaller waterways. Service roads will be constructed to facilitate access to some properties.

2.2. IMPACTS ON THE LAND SURFACE

The proposed activity will include ground disturbance, as construction of the new carriageways will involve both 'cut' and 'fill' earthworks, to a depth in excess of 25m in some locations. These will necessitate the stripping of topsoil within the designated construction zone, thus disturbing Aboriginal cultural material that may be located on the surface and within shallow subsurface deposits to a depth of at least 300mm.

Pavements will be constructed from imported crushed rock. Equipment used in the construction includes; excavators, bulldozers, graders, rollers, compactors and other construction equipment. The works will require the importation of fill material.

The excavation of bridge piles to an approximate depth of 20-25m will disturb any cultural heritage present within these zones.

Power supply and telecommunications services will require relocation, as part of the works requiring trenching, boring and significant linear ground disturbance.

All works associated with the road duplication are summarised below:

- Road construction – highway, services roads and property access
- Site offices and stockpile sites
- Structural works (including bridgeworks, major culverts and retaining walls)
- Rest areas
- Utility/service relocation
- Stock underpasses and associated infrastructure
- Drainage works
- Landscaping
- Car Parking
- Temporary/realigned property access
- Earthworks – cut and fill and borrowpits
- Haul roads/temporary access roads
- Sedimentation ponds/new dams

The following photos give an indication of the likely impact on the surface of the land and buried former land surfaces. These photos are taken from section 1a and 1b of the Western Highway Project between Ballarat and Beaufort.

Figure 1: Image of Western Highway where duplication works are yet to commence

Figure 2: On the left side of this photo the duplication works can be seen being undertaken, on the right of the photo is the existing Western Highway (please note these works are occuring south of the current activity area under an already approved CHMP)

3. EXTENT OF ACTIVITY AREA

3.1. ACTIVITY AREA LOCATION AND DESCRIPTION

The activity area is located between Ararat and Stawell and is approximately 23 km long (512 Ha) including off ramps and access roads. The activity area is on average between 50 – 150 m wide throughout the alignment and follows (with one exception) the existing Western Highway roadway. There is one portion of the new alignment which will divert into private farmland north of the Western Highway – this is occurring midway along the alignment and is approximately 3 km long and will divert traffic around Great Western.

The topography is undulating throughout the activity area with the existing Western Highway being the only prominent feature throughout, along with portions of the side roads and privately owned properties to the north and south of the road reserves. A large number of trees were also present within the road reserves of the highway.

3.2. ACTIVITY AREA BOUNDARY AND CADASTRAL DESCRIPTION

The footprint for the proposed works does not exceed the footprint of the activity area. The total length of the activity area including off-ramps and access-roads is approximately 23 km. The activity area is located within the Ararat Rural City Council and Northern Grampians Shire Council.

A total of 180 properties (excluding road reserves) will be impacted by the proposed activity. The cadastral details of these properties are as follows:

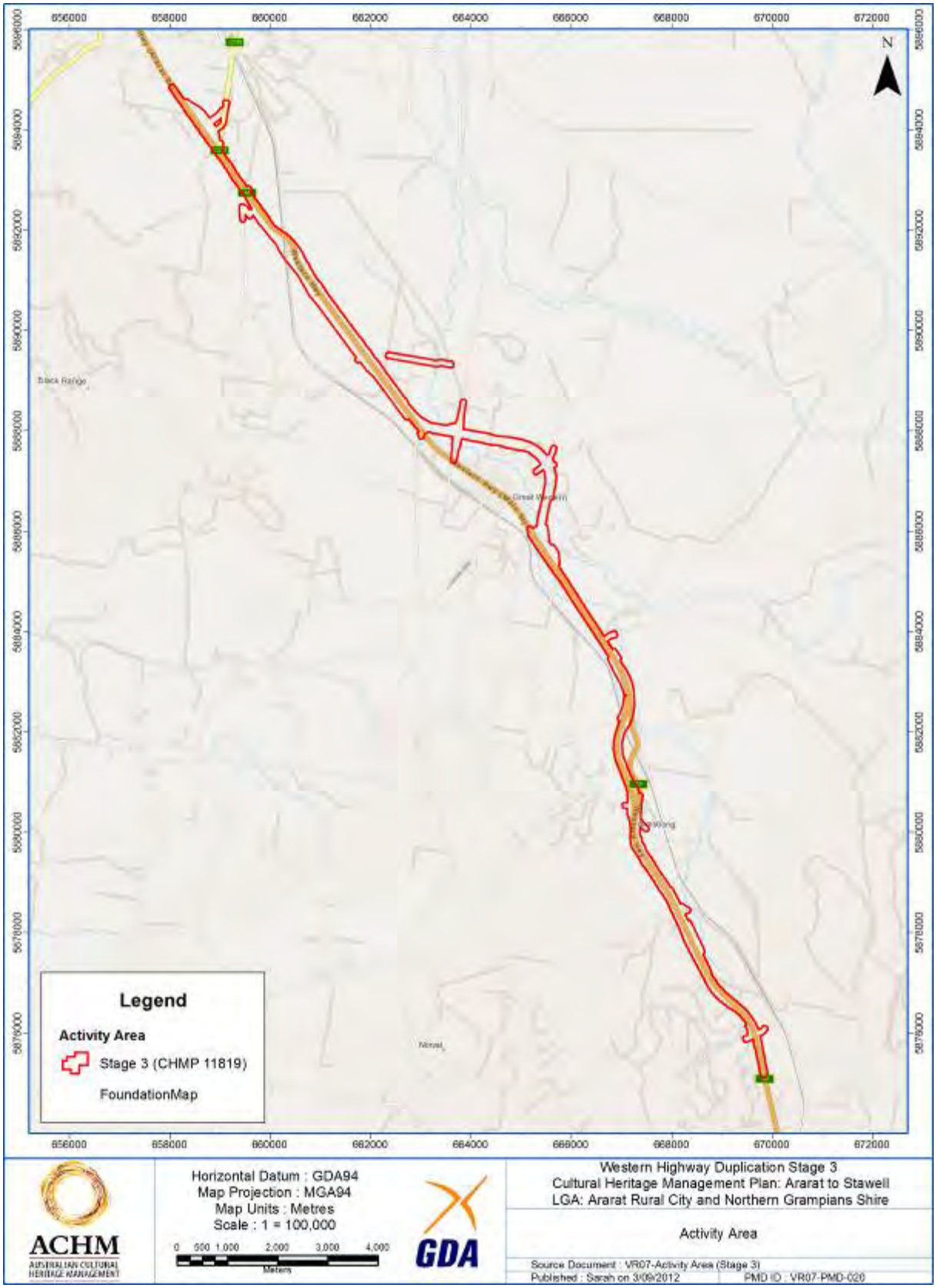
Lot / Allotment Number	Plan / SPI Number	Parcel Number
17B	17~B\PP3499	TP690478
20B	20~B\PP3499	TP565459
16B	16~B\PP3499	TP708738
9A	9A~G\PP3499	P023654
3	PS544745	
19 B	19~B\PP3499	NUA
1	TP446376	
2G	2~G\PP3499	TP556003
4G	4~G\PP3499	TP279891
3G	3~G\PP3499	TP776532
1	LP129758	
2	LP129758	
53 B5	53B~5\PP2418	P106270
65A Y	65A~Y\PP3140	TP362559
65D Y	65D~Y\PP3140	TP356996
65E Y	65E~Y\PP3140	TP9420
1	TP113378	
2	PS619655	
74A Y	74A~Y\PP3140	P023164
80B Y	80B~Y\PP3140	TP524112
6	PS305497	
80C Y	80C~Y\PP3140	P023163
5	PS305497	
4	PS305497	
Lot / Allotment Number	**Plan / SPI Number**	**Parcel Number**
3	PS305497	
80D Y	80D~Y\993140	P023165
2	PS305497	
1	PS305497	
1	TP9420	
2007	2007\PP5351	P386724
53B 5	53B~5\PP2418	P106270
66A Y	66A~Y\PP3140	TP289797
66A	66~Y\PP3140	TP292669
58 Y	58~Y\PP3140	TP357315
58A Y	58A~Y\PP3140	P023147
6A 3	6A~3\PP2419	TP283536
1	TP318987	
54 5	54~5\PP2418	TP276477
55 5	55~5\PP2418	TP259683
1	LP98739	
2	LP98739	
3 3	3~3\PP2419	TP283029
6 3	6~3\PP2419	TP296247
5 3	5~3\PP2419	TP293813
2A 5	2A~5\PP2418	TP613998
1	LP88561	
1	TP212481	
51C 5	51C~5\PP2418	TP485945

51B 5	51B~5\PP2418	TP892178
48 5	48~5\PP2418	TP413942
47 5	47~5\PP2418	TP413942
46 5	46~5\PP2418	TP605596
45 5	45~5\PP2418	TP605596
47D 6	47D~6\PP2418	TP564878
6	TP932909	
11C 6	11C~6\PP2418	TP781744
14C	14C\PP5351	P102463
188E	188E\PP5351	P372367
188C	188C\PP5351	P102462
188D	188D\PP5351	P102461
52A 5	52A~5\PP2418	P110287
52B 5	52B~5\PP2418	P106264
1	TP132548	
7	TP932909	
8	TP932909	
11 6	11~6\PP2418	TP592923
11B 6	11B~6\PP2418	TP266568
1	LP134298	
2	PS646479	
1	TP180181	
41D 6	41D~6\PP2418	TP270793
1	TP97952	
30S Y	30S~Y\PP2418	P110286
Lot / Allotment Number	**Plan / SPI Number**	**Parcel Number**
30H Y	30H~Y\PP2418	P106289
2003Y	2003\PP2418	P375014
30G Y	30G~Y\PP2418	P106300
30M Y	30M~Y\PP2418	P106299
30F Y	30F~Y\PP2418	P106298
22B Y	22B~Y\PP2418	TP773440
22D Y	22D~Y\PP2418	TP618165
22 Y	22~Y\PP2418	TP625439
22A Y	22A~Y\PP2418	TP554700
22Q Y	22Q~Y\PP2418	P106274
30B Y	30B~Y\PP2418	TP614276
30A Y	30A~Y\PP2418	TP748899
1	PS504516	
23A 1	23A~1\PP2419	P106945
23 1	23~1\PP2419	TP300266
22 1	22A~1\PP2419	TP530702
21 1	21A~1\PP2419	TP300264
21A 1	21A~1\PP2419	TP777759
12A 6	12A~6\PP2419	TP300272
12B 6	12B~6\PP2419	P103807
1 6	1~6\PP2419	TP300271
12 6	12~6\PP2419	TP356712
11 6	11~6\PP2419	TP450414
10 6	10~6\PP2419	TP276437

35 6	35~6\PP2419	TP904609
8 6	8~6\PP2419	TP367791
75 6	75~6\PP2419	TP867968
11 2	11~2\PP2419	TP783549
96	9~6\PP2419	TP552393
3	PS434830	
2001	2001\PP2418	P372372
5C 3	5C~3\PP2418	TP522949
5A 3	5A~3\PP2418	TP1859
6A 3	6A~3\PP2418	TP1859
7A 3	7A~3\PP2418	TP1859
8A 3	8A~3\PP2418	TP1859
A Y	A~Y\PP2418	NUA
3A 4	3A~4\PP2419	TP74410
1	TP100716	
9	TP100716	
3	PS434830	
8D 6	8D~6\PP2419	P103806
6	PS434830	
1	PS434826	
1	PS434829	
3	PS434829	
5	PS434829	
1	PS434828	
18 15 A	18~15A\PP2020	NUA
Lot / Allotment Number	**Plan / SPI Number**	**Parcel Number**
2	PS434828	
1	TP823145	
4	PS434828	
6E 6	6\PS434830	NUA
7	PS434830	
9	TP100716	
1	TP100716	
1	TP823145	
2	TP823145	
4	PS434827	
1	TP812978	
5	PS434827	
1	PS523696	
2	PS523696	
2	TP841544	
1	TP841544	
59A 15B	59A~15B\PP2020	TP279940
63A 15B	63A~15B\PP2020	TP280097
A	LP206787	
64 15B	64A~15B\PP2020	TP289235
1	LP206787	
42 9	42A~9\PP2020	TP281906
38 9	38~9\PP2020	TP607677
37 9	37~9\PP2020	TP260967

1 9	1~9\PP2020	NUA
PC365070		
16 9	16~9\PP2020	NUA
17 9	17~9\PP2020	
18 9	18~9\PP2020	
19 9	19~9\PP2020	
33 9	33~9\PP2020	TP857362
32 9	32~9\PP2020	NUA
31 9	31~9\PP2020	TP304558
30 9	30~9\PP2020	TP304558
29 9	29~9\PP2020	TP304558
28 9	28~9\PP2020	NUA
26C 9	26C~9\PP2020	TP561066
27A 9	27A~9\PP2020	P103446
1	TP423967	
3	PS434827	
64 15B	64~15B\PP2020	TP289235
1	LP206787	
31B 3A	31B~3A\PP2020	P103458
31A 3A	31A~3A\PP2020	TP358339
32 3A	32~3A\PP2020	TP363708
30B 3A	30B~3A\PP2020	TP63880
30A 3A	30A~3A\PP2020	TP356637
29A 3A	29A~3A\PP2020	TP350985
28A 3A	28A~3A\PP2020	NUA
Lot / Allotment Number	**Plan / SPI Number**	**Parcel Number**
12P 14	12P~14\PP2020	P374216
13A 9	13A~9\PP2020	P103406
43 9	43~9\PP2020	TP292401
5 9	5~9\PP2020	NUA
3A 9	3A~9\PP2020	TP592946
3 9	3~9\PP2020	NUA
42 9	42~9\PP2020	TP281906
38 9	38~9\PP2020	TP607677
37 9	37~9\PP2020	TP260967

Table 2: Cadastral Property Details



Map 2: Extent of Activity Area

4. DOCUMENTATION OF CONSULTATION

4.1. CONSULTATION IN RELATION TO THE ASSESSMENT

As there is no appointed RAP for the activity area, both the Martang and Barengi Gadjin (as RAP applicants) were invited to participate in the preparation of this CHMP, including participation in the fieldwork and consultation in the assessment, initiatives and processes of the CHMP.

4.2. PARTICIPATION IN THE CONDUCT OF THE ASSESSMENT

Fieldwork for the standard component of this CHMP was undertaken between the 20 and the 24th February 2012 and was completed by Edward Turner and Graham Houghton (ACHM Archaeologists) along with Phillip Chatfield, Tyla Merriman, Lionel Chatfield and Ronald Chatfield (Martang representatives) and Brian Delaney and Kerry Hunt (Barengi Gadjin).
Fieldwork for the additional activity areas was undertaken on the 11th September 2012 and was completed by Rebecca McMillan (ACHM Archaeologist) and Phillip Chatfield and Lionel Chatfield (Martang representatives) and Frank Dounglas (Barengi Gadgin representative).

4.3. CONSULTATION IN RELATION TO THE CULTURAL HERITAGE MANAGEMENT INITIATIVES AND PROCESSES

From Name and/or Organisation	To: Name and/or Organisation	Date	Type of Correspondence	Discussion
Michael McCarthy, VicRoads	Secretary, AAV	18.07.2011	Letter	Submission of Notice of Intent to Prepare a CHMP
Shaun Canning and Claire St George (ACHM)	John Harper, Grant Deeble, VicRoads	22.12.2012	Meeting	Initial project meeting
Shaun Canning (ACHM)	Tim Chatfield (Martang)	13.01.2012	Meeting	Inception meeting
Shaun Canning (ACHM)	Kerry Hunt (Barendgi Gadjin)	07.02.2012	Meeting	Inception meeting
Edward Turner and Graham Houghton (ACHM)	Phillip Chatfield, Tyla Merriman, Lionel Chatfield and Ronald Chatfield (Martang) and Brian Delaney (Barengi Gadjin)	20.02.2012 – 24.02.2012	In person	Standard Assessment
Claire St George and Shaun Canning (ACHM)	Kerry Hunt (Barengi Gadjin) and Lionel Chatfield (Martang)	21.03.2012	In person	Climbing Hollow Tree Inspection
Claire St George	John Harper (VicRoads)	30.03.2012	Email	Submission of Draft Standard CHMP
Grant Deeble (VicRoads) Shaun Canning (ACHM)	Kerry Hunt	06.06.2012	Meeting	Presentation of final results of standard assessment and initial discussions about complex assessment methodology
Rebecca McMillan (ACHM)	(Barengi Gadjin) and (Martang)	11.09.2012	In person	Standard Assessment of additional areas
Claire St George (ACHM)	Michael Wickerson (VicRaods)	14.09.2012	Email	Submission of Draft Standard CHMP

Table 3: Documentation of Consultation

4.4. CONSULTATION IN RELATION TO THE CULTURAL HERITAGE MANAGEMENT INITIATIVES AND PROCESSES

The consultation process comprised of ongoing interaction between the project archaeologists and the Martang and Barengi Gadjin, whose recommendations and assessments have been incorporated into this management plan through all its phases. This consultation is documented in detail in Section 4.1 above, and described below.

Following the completion of the desktop assessment, Martang and Barengi Gadjin representatives participated in the pedestrian survey of the activity area and held discussions with the cultural heritage advisor on site, making recommendations on the likelihood of Aboriginal archaeological sites being present within the activity area.

As a result of the survey it was determined, in conjunction with the Martang and Barengi Gadjin, that a program of sub-surface testing would be required (a complex CHMP) in order to understand the nature, extent and significance of Aboriginal cultural heritage sites located within the activity area.

4.5. SUMMARY OF OUTCOMES OF CONSULTATION

The consultation process comprised ongoing interaction with the Martang and Barengi Gadjin, whose recommendations and assessments have been incorporated into this management plan though all its phases.

Both groups were briefed on the nature and extent of the proposed activity prior to the commencement of the desktop assessment. Following the desktop assessment, representatives from both groups participated in the pedestrian survey and held discussions with the cultural heritage advisor on site, making recommendations on the likelihood of Aboriginal archaeological sites being present within the activity area.

As a result of the survey it was determined, in conjunction with the Martang and Barengi Gadjin, that a program of sub-surface testing would be required (a complex CHMP) in order to understand the nature, extent and significance of Aboriginal cultural heritage sites located within the activity area.

5. ABORIGINAL CULTURAL HERITAGE ASSESSMENT

5.1. Desktop Assessment

5.1.1. Search of the Victorian Aboriginal Heritage Register

This investigation involved a search of the Victorian Aboriginal Heritage Register administered by Aboriginal Affairs Victoria for information relating to the activity area. This search included the Victorian Aboriginal Heritage Register Supplementary Lists – Aboriginal Historic Places and Action File.

The search of the VAHR was completed on the 23 January 2012 and again on the 11 September 2012.

Other Registers

In addition, the following Commonwealth and local registers were also searched for any known heritage sites or places in the activity area. These included:

- The National Heritage List and Commonwealth Heritage List (Australian Government Department of Sustainability, Environment, Water, Population and Communities); and
- Local Council Heritage Overlays and/or Planning Schemes (Local Government).

Background research was also undertaken into the cultural heritage context and environmental history of the activity area. This involved reviewing existing information on the activity area including:

- Any reports from previous heritage surveys undertaken in or within the vicinity of the activity area or on any relevant cultural heritage matters;
- Any published works about cultural heritage in the relevant geographic region;
- Any historical and ethno-historical accounts of Aboriginal occupation of the relevant geographic region;
- Any oral history relating to the activity area; and
- Any relevant community submissions received by VicRoads.

Limitations or Obstacles

There were no limitations or obstacles encountered during the completion of the Desktop Assessment.

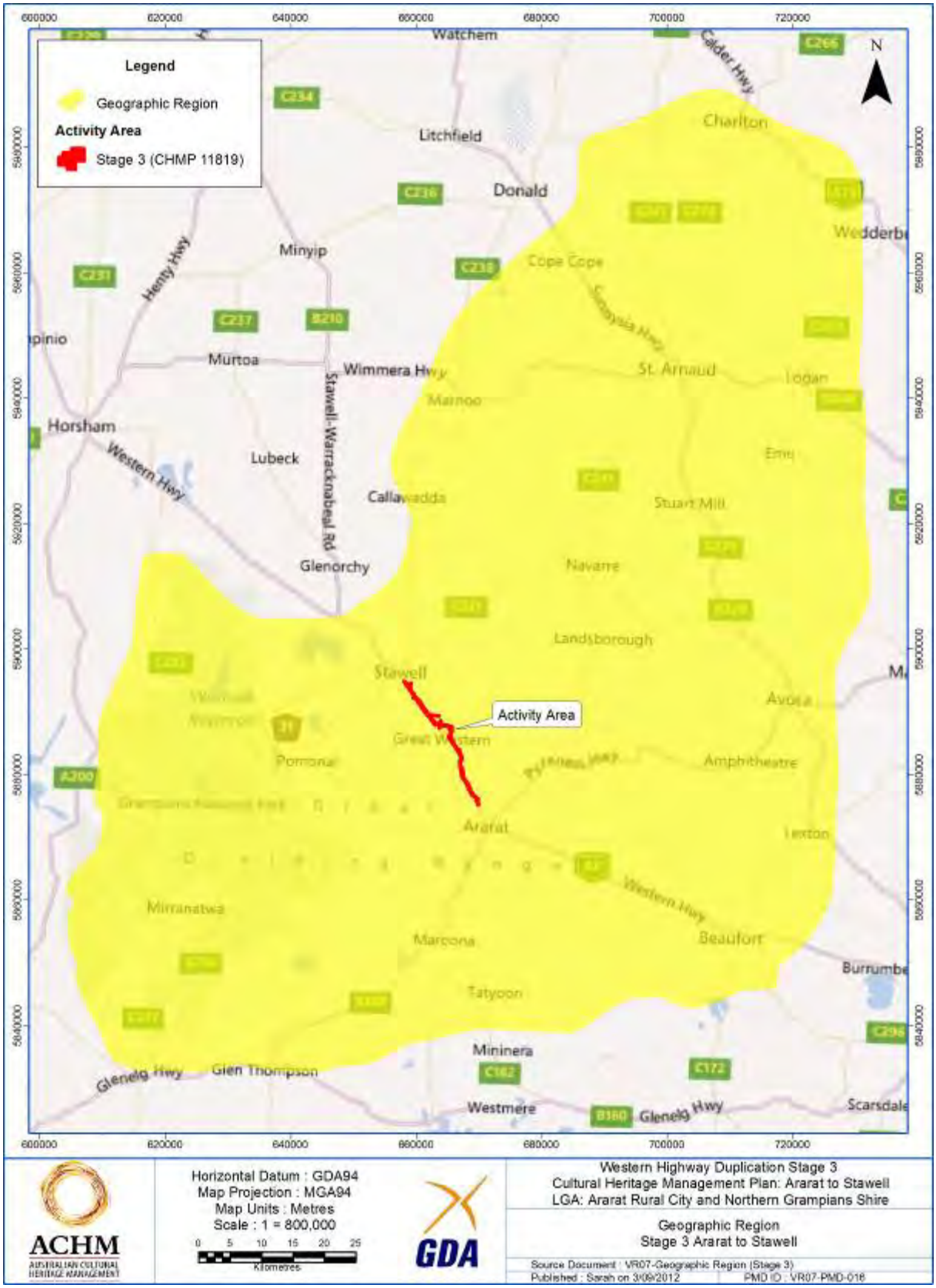
5.1.2. The Geographic Region

Geology and Geomorphology

The geographic region falls within the Western Uplands geomorphological region, and borders the Western Plains region to the south. The Western Uplands is characterised by residual Paleozoic bedrock formations that have been largely eroded. It is generally of low relief (average elevation of 300 m) with east-west drainage. However, there are a number of elevated summits and plateaus within this region where remnants of a broad Mesozoic palaesurface has been retained (DPI 2012).

Within the Western Uplands, the geographic region is defined by the St Arnaud Range. This range forms the bedrock for the geographic region and consists of marine sandstone, siltstone and biotite schist (2003).The bounding landforms to the east of the geographic region consist of ridges, escarpments and mountains on granitic Paleozoic rocks that have been resistant to weathering. Mt Cole, Mt Buangor and Mt Langi Ghiran form prominent plateaus that rise above the adjacent alluvial drainage systems (DPI, 2012).

The Great Dividing Range runs through the geographic region but is ill-defined due to the extensive weathering of landscapes (DPI, 2012). In the northern part of the geographic region the Wimmera River and the Avon River flow northwards to the Murray Darling basin. The southern rivers and creeks flow southwards to the ocean. These include Fiery Creek and others.



Map 3: Geographic Region

5.1.3. Aboriginal Places in the Geographic Region

A total of 769 Aboriginal archaeological places have been recorded within the geographic region. Of these, Scarred trees are the most common (33%) followed by artefact scatters (31%). There are also a large number of earth features (28%). Also present are art sites (1%), historical places (1%), Quarries (3%), stone features (2%) and there are two burials also located within the geographic region. The large number and diverse types of these sites reflects both the large area of the geographic region and the density of sites within the area.

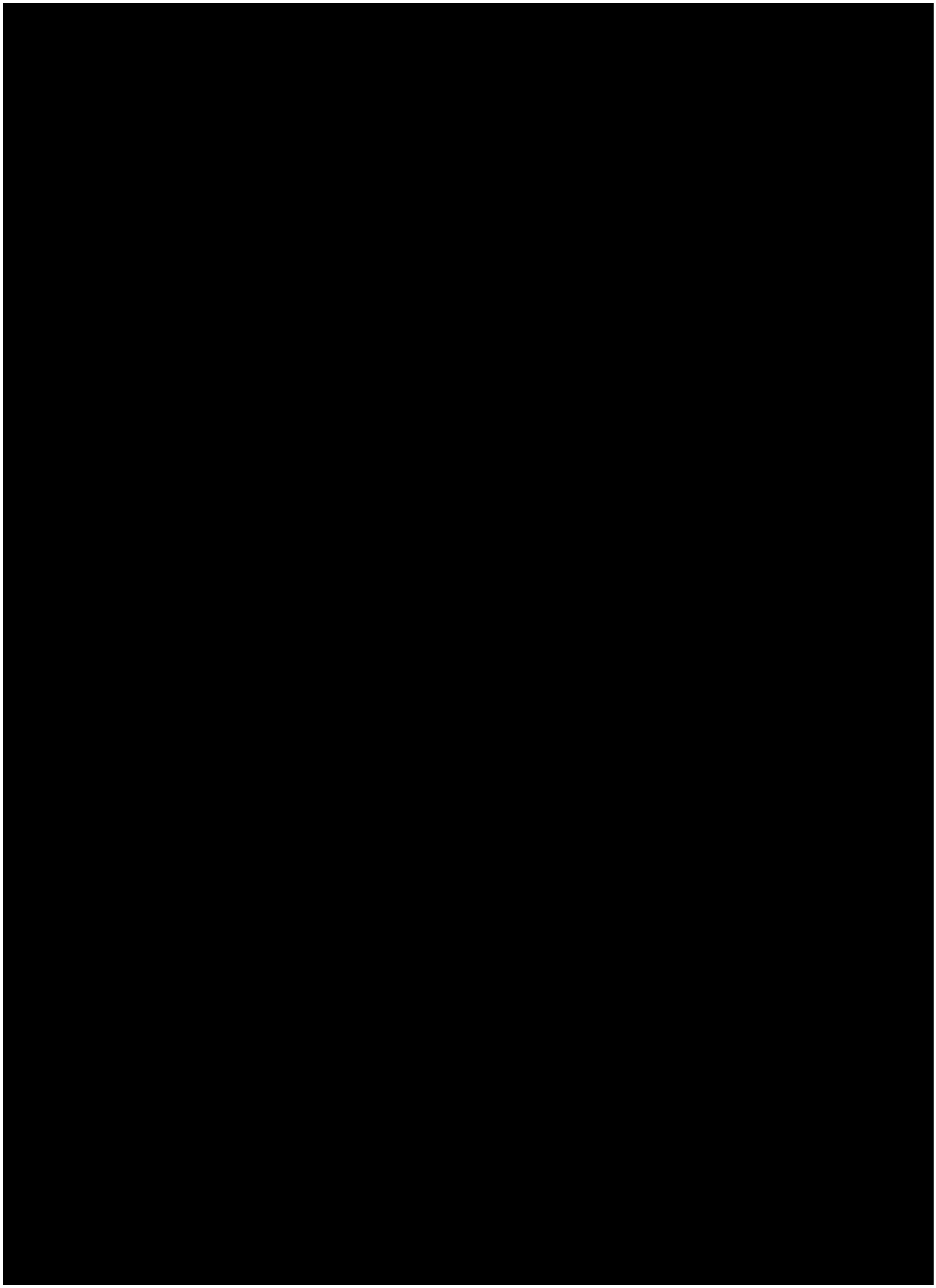
Due to the extensive number of sites, and in order to provide a more local context for the study, this search was subsequently refined to include only sites within 5km of the activity area. The following table summarises the number and type of previously recorded Aboriginal places within a 5 km radius of the activity area (see Table 4 below).

VAHR No.	Site Name	Site Type	Location And Proximity To Activity Area
7423-0057	Basin Creek 1	Artefact Scatter	More than 200m from the activity area
7423-0058	Basin Creek 2	Artefact Scatter	More than 200m from the activity area
7423-0059	Basin Creek 3	Artefact Scatter	More than 200m from the activity area
7423-0060	Salt Creek Grinding Grooves	Stone Feature	More than 200m from the activity area
7423-0122	Salt Creek 3	Scarred Tree	More than 200m from the activity area
7423-0172	Salt Creek 1	Scarred Tree	More than 200m from the activity area
7423-0174	Allanvale 1	Scarred Tree	More than 200m from the activity area
7423-0175	Allanvale 2	Scarred Tree	More than 200m from the activity area
7423-0176	Allanvale 3	Scarred Tree	More than 200m from the activity area
7423-0177	Allanvale 4	Scarred Tree	More than 200m from the activity area
7423-0178	Allanvale 5	Scarred Tree	More than 200m from the activity area
7423-0179	Allanvale 6	Scarred Tree	Between 50m and 200m of the activity area
7423-0180	Allanvale 7	Scarred Tree	More than 200m from the activity area
7423-0181	Allanvale 8	Scarred Tree	More than 200m from the activity area
7423-0182	Allanvale 9	Scarred Tree	More than 200m from the activity area
7423-0183	Allanvale 10	Scarred Tree	More than 200m from the activity area
7423-0184	Allanvale 11	Scarred Tree	More than 200m from the activity area
7423-0185	Allanvale 12	Scarred Tree	More than 200m from the activity area
7423-0186	Allanvale 13	Scarred Tree	Between 50m and 200m of the activity area
7423-0187	Allanvale 14	Scarred Tree	More than 200m from the activity area
7423-0188	Allanvale 15	Scarred Tree	More than 200m from the activity area
7423-0189	Allanvale 16	Scarred Tree	More than 200m from the activity area
7423-0190	Allanvale 17	Scarred Tree	More than 200m from the activity area
7423-0344	Concongella 1	Earth Feature	More than 200m from the activity area
7423-0345	Fox Cave	Artefact Scatter	More than 200m from the activity area
7423-0349	Blackburn Park	Artefact Scatter	More than 200m from the activity area
7423-0366	Salt Creek 11	Earth Feature	More than 200m from the activity area
7423-0367	Salt Creek 12	Earth Feature	More than 200m from the activity area
7423-0368	Salt Creek 13	Earth Feature	More than 200m from the activity area
7423-0378	Rhymney Reef 1	Artefact Scatter	More than 200m from the activity area
7423-0395	Salt Creek 1	Earth Feature	More than 200m from the activity area
7423-0402	Salt Creek 14	Scarred Tree	More than 200m from the activity area
7423-0403	Salt Creek 3	Earth Feature	More than 200m from the activity area

VAHR No.	Site Name	Site Type	Location And Proximity To Activity Area
7423-0404	Salt Creek 4	Earth Feature	More than 200m from the activity area
7423-0405	Salt Creek 5	Earth Feature	More than 200m from the activity area
7423-0406	Salt Creek 6	Earth Feature	More than 200m from the activity area
7423-0407	Salt Creek 7	Earth Feature	More than 200m from the activity area
7423-0408	Salt Creek 8	Earth Feature	More than 200m from the activity area
7423-0409	Salt Creek 9	Earth Feature	More than 200m from the activity area
7423-0410	Salt Creek 10	Earth Feature	More than 200m from the activity area
7423-0433	Salt Creek 2	Scarred Tree	More than 200m from the activity area
7423-0440	Humphries Scar Tree 2	Scarred Tree	More than 200m from the activity area
7423-0441	Humphries Scar Tree 1	Scarred Tree	More than 200m from the activity area
7423-0454	Horwood Site 1	Artefact Scatter	More than 200m from the activity area
7423-0529	Concongella 2	Earth Feature	More than 200m from the activity area
7423-0712	Junction Bridge_1	Scarred Tree	Within the activity area
7423-0713	Junction Bridge 2	Scarred Tree	Within the activity area
7423-0715	Great Western Racecourse 1	Artefact Scatter	More than 200m from the activity area
7423-0721	Marriot 1	Artefact Scatter	More than 200m from the activity area
7423-0724	Rhymney Hill 1	Scarred Tree	More than 200m from the activity area
7423-0725	Rhymney Hill 2	Artefact Scatter	More than 200m from the activity area
7423-0726	Rhymney Hill 3	Quarry	More than 200m from the activity area
7423-0734	Armstrong SS I	Artefact Scatter	Within the activity area
7423-0735	Armstrong SS II	Artefact Scatter	More than 200m from the activity area
7423-0736	Armstrong ST 1	Scarred Tree	Within the activity area
7423-0737	Armstrong ST 2	Scarred Tree	Between 50m and 200m of the activity area
7423-0738	Armstrong ST 3	Scarred Tree	Within 50m of the activity area
7423-0739	Killough Road Mound	Earth Feature	More than 200m from the activity area
7423-0740	Killough Road Scarred Tree	Scarred Tree	More than 200m from the activity area
7423-0762	Allanvale Station	Historical Place	More than 200m from the activity area

Table 4: Known Aboriginal Heritage Places within 5 km of the activity area

A total of 60 sites have been recorded within 5 km of the activity area. They consisted of 30 scarred trees (50%), 15 earth features (25%), 13 artefact scatters (22%) and one stone feature (2%), quarry (2%) and historical place (1%). Of these sites, three scarred trees and one artefact scatter are within the activity area. One scarred tree is within 50m of the activity area (and as such is considered to be located within the 50 m of the buffered activity area) and three scarred trees are between 50m and 200m of the activity area. A total of ten sites are within 200 m of the boundary of the activity area (see Map 4 below).



Map 4: Previously recorded Aboriginal sites within a 200 m buffer of the Activity Area

5.1.4. Previous Archaeological Work in the Geographic Region

In 1993, an archaeological survey was conducted for the Optus OFC route from Geelong to the South Australian border. This study was commissioned by Optus and undertaken by Sinclair Knight (Du Cros, 1993). This study consisted of a desktop assessment and a survey. The desktop assessment identified 213 previously recorded sites within the study area. The majority of these were artefact scatters followed by scarred trees. Mounds, rock shelters, art sites, quarries, hearths, burials and grinding grooves were also found to be present. Areas of high archaeological potential were identified largely relating to proximity to water and uncleared woodland. The survey involved sampling areas of identified high sensitivity that were to be impacted by the proposed development. As a result of the survey, three new archaeological sites were located (VAHR 7721-129, 7721-185, 7721H/002). These sites were avoided and it was recommended that two areas of high sensitivity be monitored during the works. No further archaeological sites were located during the monitoring.

In 1991, an archaeological survey was undertaken in the Langi Ghiran State Park (Gunn, 1991a). This report was commissioned by the Victorian Archaeological Survey to assess the significance of the Aboriginal archaeology within the park for a proposed management plan. The study area was sampled based on different landform elements and vegetation types. A total of 64 archaeological sites were located. Of these, scarred trees were the most common (n=24) followed by isolated artefacts (n=18), artefact scatters (n=12) and rock shelters (n=10). These sites were located on all landform types aside from crests and within all vegetation communities. Within these results, artefact scatters and scarred trees were more likely to occur on gentle slopes and within open woodland. Rock shelters were restricted to areas of sloping terrain, in suitable rock outcrops.

In 1991, an archaeological survey was conducted on the western highway at Dobie. The report was commissioned by VicRoads and undertaken by R.G. Gunn (1991b). The survey encountered poor visibility throughout the survey except for on the road verges. The effective survey coverage was estimated to be approximately 10%. No Aboriginal archaeological sites were located as a result of the survey. One historical site was identified consisting of a tree that had once been used as a surveyors marker (HV D7423-0069). This site does not have legal protection as it is less than 50 years old.

In 1999, an archaeological study was undertaken at the former Buangor station complex and surrounding paddocks. The report was undertaken by Andrew Long & Associates and Heritage Matters Pty Ltd and commissioned by Aboriginal Affairs Victoria (Long and Clark, 1999). A scarred tree, a surface stone artefact scatter and a flaked bottle base were originally recorded in the activity area but only the artefact scatter could be relocated. Two earth mounds were identified during the survey (VAHR 7523-162, 7523-163). It was concluded that the evidence showed Aboriginal association with the station.

In 2003, an archaeological investigation of a mound (VAHR, 7722-0009) was undertaken as part of the Aboriginal Community Heritage Investigations Program (Pavlides, 2003). This mound was located on a floodplain near Tea Tree Creek and ethnographic evidence suggests that it was formed through both natural and cultural processes. Four 1m x 1m test pits were excavated both on and adjacent to the mound. Through the use of radiocarbon dating it was found that the site was formed 230 years ago. The artefacts recovered during the excavation (n=915) were of a variety of raw materials including quartz, chert, silcrete, quartzite, crystal quartz, and basalt, all of which are locally available materials. The artefact analysis indicates that the raw materials were being partially processed prior to being brought on to the site by having the cortex removed, and the mound was a site used for middle and late stage reduction.

In 2001, Aboriginal remains were discovered inside a fallen Red Gum tree at Moyston. This find led to a study of other mortuary trees within the region (Richards, Webber and Bennett, 2004). The tree contained the incomplete skeletons of two adults and one child and a single bone implement as a grave good. and was interpreted as a secondary burial. The dental analysis of the adults indicated that they had been smoking tobacco pipes proving that the burial occurred after contact with Europeans.

A desktop study uncovered ethnographic details of an additional eight mortuary trees within the region. These trees are in Djab Wurrung, Jardwadjali and Dja Dja Wurrung territory. The following are examples of the recorded instances of tree burial. One of these was at Mokepilly Station on the north eastern boundary of Gariwerd and consisted of a single adult. A ritual disarticulation was witnessed after burial in the tree between 1843 and 1853. Outside of Stawell, two bundles containing human remains were discovered in a hollow tree in 1858. In 1864 two bodies were found within a tree near Moyston. These two bodies were at different stages of decay, one was estimated to have been within the tree for only seven years. This shows that trees were used repeatedly over time and that these burials were occurring in the region as late as 1855. At Charlton a young child was found wrapped in a possum skin blanket within a tree. The tree also contained a number of European grave goods. There is ethnographic evidence of a body being looted from a hollow Red Gum tree in 1879 at 'Gorrinn' property, 4 km south of Mt Langhi Ghiran. In both of the certain occurrences of mortuary trees, the tree used was a Red Gum.

While all of these burials occurred during the post-contact period, the authors thought it likely that the practice continued from pre-contact times. The authors also reasoned that trees with hollows large enough to place skeletons in were likely sick and would only survive 100–200 years after the placement. It is possible that any large trees of this age could contain skeletons.

In 2008, a Due Diligence study was undertaken for the duplication of the Western Hwy between Stawell and Burrumbeet. The activity area extended for 500 m on either side of the highway. The report was commissioned by VicRoads and undertaken by Dr Vincent Clark and Associates (Noble, Kiddell and Clark, 2008). This study consisted of a desktop assessment and a site inspection. During the desktop assessment 24 previously recorded Aboriginal sites were identified within the activity area as well as 34 historic sites. Most of the Aboriginal sites were not relocated due to inaccurate initial recording and poor visibility. It was recommended that a CHMP be undertaken to locate these and any unrecorded sites.

In 2009, a Cultural Heritage Management Plan (10485) was undertaken for a parcel of land located on the Western Highway, Ararat, covering an area of 32 hectares. The report was commissioned by Ararat Rural City and undertaken by Heritage Insight (Gilchrist, Barker and Rhodes, 2009). The report consisted of a desktop and standard assessment. The desktop assessment ascertained that no previously recorded Aboriginal archaeological sites had been previously recorded within the activity area, despite a previous survey having been undertaken. It was also reported that the area had been previously disturbed through agricultural use. The standard assessment consisted of a pedestrian transect survey. No archaeological sites were discovered during the survey and it was considered unlikely that any would be found due to the high level of disturbance.

In 2011, a specialist report was undertaken by Andrew Long to investigate the potential impact of the Western Highway duplication project on burnt earth mounds between Beaufort and Ararat (Long, 2011). Long (2011) defines burnt earth mounds as artificial mounds that have been constructed through intense repeated use. In this they contrast to naturally elevated mounds that are used occasionally. The mounds within the study area were smaller than those recorded in other areas of Victoria (7-22m diameter) and contained burnt stones and artefacts. Within the geographic region mounds have been found to usually occur within 500 m of water sources and located on elevated areas such as terraces, sloping shelves and other landforms overlooking waterways. While the

mounds were recorded within 500 m of waterways it is important to note that there were very few areas within Long's study area that were further than 500m from waterways. In his predictive model Long comparatively suggests that landscapes that are largely flat but with subtle rises and intersected by creeks are the most likely areas to contain burnt mounds. Burnt mounds are far less likely to be found on steep hills remote from waterways, however, the possibility cannot be ruled out.

5.1.5. Historical and Ethno-Historical Accounts in the Geographic Region

This report explores the Djabwurrung and Wathaurung people of the western highlands of Victoria, in particular the region around Stawell, Ararat, Geriwerd (Grampians National Park), Fiery Creek and Beaufort. Indigenous people were grouped according to language and although different clans spoke different languages, they were still linguistically connected (Presland, 1994). Similar words were shared by neighbouring clans, thus the languages of the Djabwurrung and Wathaurung were different but they shared some commonalities and one could communicate with the other. Language was so significant that it was expressed in the clan's very name as 'wurrung' meant 'mouth' or 'lip', a synonym for 'language' (Presland, 1994).

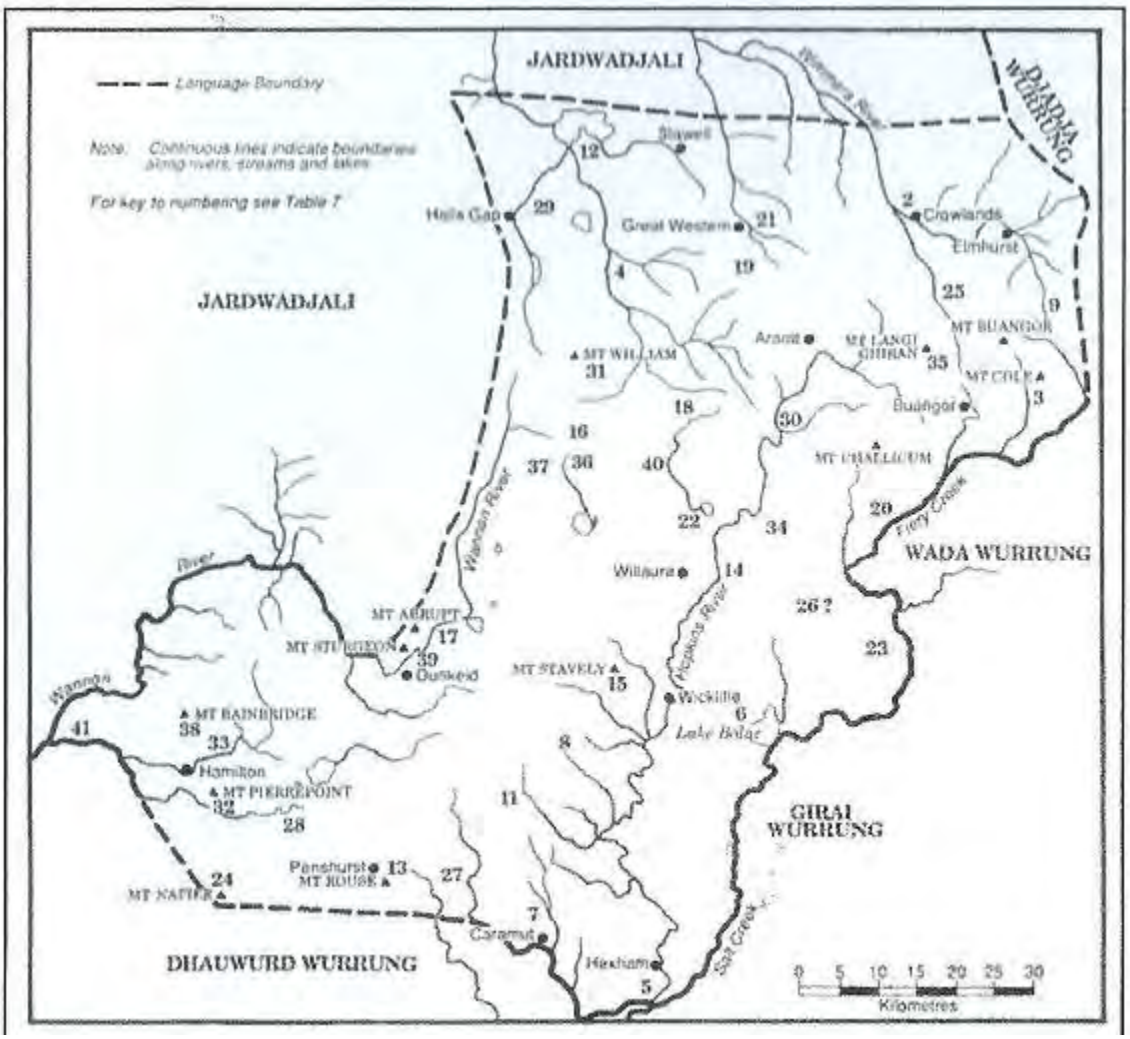


Figure 3: Boundaries of the Djabwurrung country (Kostanski and Clarke 2011)

The Djabwurrung country stretched from Mt Napier to west of Stawell, from Mt Cole to the Wannon River. It comprised some forty one different clans, each with indistinct boundaries that sometimes overlapped. The land surrounding Mt Langi Ghiran was occupied by the Utoul balug people and the

country just north of the town of Great Western belonged to the Poit balug. The language group that inhabited the land immediately south of Great Western was the Parn balug (Kostanski and Clark, 2011).

The land of the Wathaurung was extensive and it stretched from the Bellarine Peninsula to Ballarat, from Colac to Werribee. The Wathaurung was not a homogenous group but was made up of approximately twenty six different clans (Presland, 1994). The Moner balug people occupied the land between Beaufort and Mt Misery while Beerekwart balug's country was Mt Emu and its surrounds (Kostanski and Clark, 2011).

For the Djabwurrung and Wathaurung people, occupation of land was fundamentally integrated with their spirituality. Spirituality was such an integral component of their lives that it *was* their lives. It governed their thought, activities and sense of self. It provided them with explanations for the landscape's formation and perpetual change, of creation and death, of relationships and practices, of laws and customs. Indigenous lives were strongly influenced by a plethora of different laws that, in most cases, had been passed down through the ages (Prentis, 2008). Marriage, relationships, ceremonies, totems, food cultivation and hunting were all dictated by a complex series of traditions and rules (Koori Heritage Trust, 2004). The Dreamtime was the core of Indigenous spirituality. It consisted of stories of when gods and spirits inhabited the world and created the landscape and all living things within it (Prentis, 2008). Consequently, stories were handed down from generation to generation and formed the basis of their lives, often expressed in art, song or spoken word.

> *Our stories and histories tell of how the land was formed; how animals and people were created; how to care for the land and all living creatures through respect and by living in harmony with our environment. These traditions have been passed down through the generations for thousands upon thousands of years. This is the basis of our spirituality* (Koori Heritage Trust, 2004).

Strongly linked with spirituality, the land was the very essence of the Djabwurrung and Wathaurung people. They were one and the same. For the Djabwurrung, this relationship extended for more than 22,500 years (Brambuk Aboriginal Cultural Centre).Living within a landscape was much more than responsibly and respectfully inhabiting its space, "caring for Country is the fabric of Indigenous social, spiritual, economic and physical wellbeing and is the basis of their cultural lore" (Parks Victoria, 2010). The landscape not only provided people with tangible provisions, like food, resources and shelter, but also intangible and ethereal things, such as spiritual beliefs, stories and a history that spanned the time before people inhabited the landscape. Country was not only regarded as a place or space but also a living, perpetually evolving entity that they were acutely intimate with:

> *People talk about country in the same way that they would talk about a person: they speak to country, sing to country, visit country, worry about country, feel sorry for country, and long for country. People say that country knows, hears, smells, takes notice, takes care, is sorry or happy* .(Critchett, 1998:13).

As a place of spirituality, there were numerous sites within the landscape created for a multitude of reasons, from initiation and birthing ceremonies to honouring the spirits. Some of these places were accessible to all clan members, others exclusive to men or women. Lar-ne-jeering, now known as the Langi Ghiran State Park (between Beaufort and Stawell) contained many Aboriginal places for the Djabwurrung. Lar-ne-jeering, which translates to 'home of the black cockatoo', was the location of rock art that was created below a granite shelf. Some 276 Aboriginal places have also been located at Geriwerd (The Grampians), a number of which contain rock paintings that are five thousand to 22,500 years old (Brambuk Aboriginal Cultural Centre).

Indigenous people lived a hunter gather existence, an existence that is as old as humans (Presland, 2010). Labour was largely divided along gender lines with men hunting larger game while women forested for plant food and smaller animals. While it is now difficult to ascertain just how much time was spent sourcing food by both men and women, it has been suggested by some scholars that four or five hours was enough time to collect food each day, faster when food was plentiful as it was in this report's project area (Presland, 1994). This then left them time to create utensils, foster relations with others, relocate and practice their spirituality.

The diet of the Indigenous people was diverse and rich. Plants provided them with both sweet and savoury tastes, many of which were seasonal. Sweetness was derived from a number of different sources, including the gum and flower nectar of the Black Wattle (*Acacia mearnsii*) and the water dissolved gum of the Silver Wattle (*Acacia dealbata*). Tubers and roots were food staples and were sometimes ground and made into dough. The roots of the Australian Bindweed (*Convolvulus erubescens*) was formed into dough and cooked as was Austral Crane's Bill (*Geranium solanderi*). Some plant foods were eaten raw while others were cooked (DeAngelis, 2005).

While plant food formed the basis of Indigenous diets, meat was an important component of it. Fish were caught by either throwing wide nets over shallow water or by the use of fishing rods. String derived from bark was attached to long rods and was cast, with worms tied to string acting as bait (Brambuk Aboriginal Cultural Centre). Eastern kangaroos, wallabies, echidnas and a great assortment of birds were just some animals that supplemented their diets.

The Indigenous people shaped the landscape to suit their needs. They undertook controlled grassland burn offs in the cooler winter months to encourage good plant growth and to attract wild animals (Pascoe, n.d.) In the area of the Grampians, eels were 'farmed' by creating an intricate series of channels with digging sticks that stretched for kilometres. Eels would travel down the waterways and swim into waiting nets after which time they were cooked and shared amongst different family groups (Brambuk Aboriginal Cultural Centre). Thus, the catching of the eels became an important ritual and custom amongst the men who created the channels and the women who prepared and cooked the meals.

Prior to the arrival of Europeans, plants not only sustained the Indigenous population but also healed them. The bark of the Blackwood tree (*Acacia melanoxylon)* was used for rheumatism-like complaints after it was infused in water. Headaches were treated with Small-leaved Clematis (*Clematis microphylla)* by crushing the leaves and inhaling the scent while smoke from burning the larger outer leaves of the Manna Gum (*Eucalyptus viminalis*) reduced fevers. Sap of the River Red Gum (*Eucalyptus camaldulensis*) was proscribed for burns while its leaves were used in therapeutic baths to remedy a number of complaints. The oil from Yellow Gum (*Eualyptus leucoxylon* ssp. *commata*) was the cure for cold and chest complaints or an alternative remedy was the inhalation of the crushed River Mint (*Mentha australis*) plant (DeAngelis, 2005).

Figure 4: Two Wathaurung Shields c.1836 (National Museum Australia)

The land provided the Djabwurrung and Wathaurung with the materials to successfully carry out their activities in a climate that was, at times, volatile and harsh. Possum skin rugs were fashioned into cloaks that men, women and children of all ages wore. In the cooler months, the rugs were worn with the fur inside to provide warmth while the hide repelled the rain. In warmer times, the rug was reversed so that the fur was on the outside and the wind blowing through the fur helped to cool the wearer (Koorie Heritage Trust, n.d.).

Many items required for carrying out daily activities were created from a variety of plants. The Djabwurrung used the wood from Silver Wattle trees (*Acacia dealbata*) to make axe handles while the gum, when mixed with ash, created a resin. The Austral Grass-tree (*Xanthorrhoea australis*) provided the clans with a waterproof resin that was especially useful for fastening axe heads and stone flakes. Messmate (*Eualyptus oblique*) was not only used as tinder for starting fires but the inner, supple bark produced a course string that was used for making bags and fishing nets. Kangaroo Grass (*Themeda triandra*) was also used in the creation of bags and nets. Nose pieces, jewellery, rope and spear shafts were obtained from the versatile Common Reed (*Phragmites australis*) (DeAngelis, 2005).

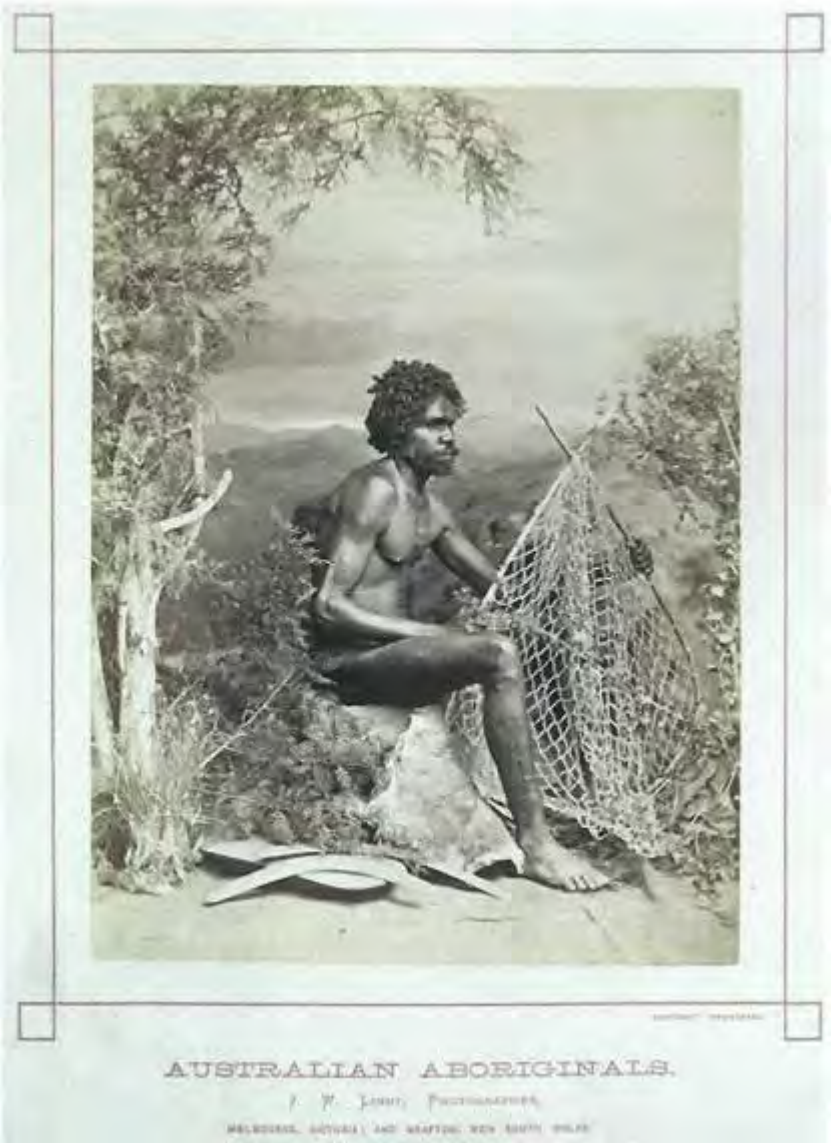


Figure 5: Stylised portrait of an Aboriginal man, complete with handmade fishing net, boomerangs and shields c.1870s (Lindt 1870s)

Maintaining a nomadic existence, Kooris lived in a number of different abodes, from huts and mia-mias to simple wind breaks, depending on the season, availability of resources and what the landscape offered in the way of natural protection. The amount of time spent in each location was contingent on such things as ability to source food, customs, rituals and weather, and could range from a few days to a week or so. In the warmer months, huts were usually located in more open areas since there was little need for protection from harsh winds or the cold. In the cooler seasons, dwellings were more protected as people sought greater shelter (Presland, 2010).

5.1.6. Aboriginal Post-Contact History

For many Indigenous people, the arrival of Europeans from the 1820s was a thing of wonder and uncertainty and they attempted to explain it according to their spirituality, beliefs and experiences. As one Koori explained, "the old people first thought the white men were relatives returned from the spirit world. The fact that they had forgotten their language and customs was explained by their long journey from death back to life" (Koorie Heritage Trust n.d.).

According to custom, Aborigines were permitted to enter the country of other clans but the acquisition of valuable resources, especially land, was forbidden. Yet Europeans paid no heed to this and took what land they wanted, used whatever resources they required and adapted the landscape to suit their own needs, from clearing vegetation for pasture to disrupting or destroying Aboriginal places (Koorie Heritage Trust, n.d.). Initially this bewildered Indigenous people, yet as they began to realise that the new visitors were not going to leave, puzzlement turned to anger and indignation and sometimes spilled over into violence.

During this tumultuous period of European first contact that occurred from approximately 1836 to 1853, there was much conflict, often perpetuated by Europeans against the Indigenous people, including the Djabwurrung and Wathaurung. European settlers claimed tracts of land and sought to establish new lives for themselves largely based on European principles and customs, while Indigenous people attempted to continue their traditional lifestyle in a climate that was increasingly impossible. The two polarised ways of life clashed and blood was shed, more often than not, the Indigenous people were the victims. Many of the clashes were concentrated in the Western District and in south-west Victoria with many of the victims shot or poisoned by government troopers, private citizens or the Aboriginal police. The infamous 'Massacre Map' that details such conflict in Victoria during this period explains that the map depicts "the deaths of several thousand people ... [but] many thousands more died beyond the prying eyes (Koorie Heritage Trust, 1991).

Dispossession was widespread as new arrivals sought to shape the land and its inhabitants to best suit their purposes. Thus, tracks of land were cleared, which disrupted the habitats of many animals and traditional rituals and activities. Fences were erected which not only stopped the migration of some animals but introduced others (such as sheep and cows) that destroyed delicate vegetation and associated sources of food and medicinal remedies. The European concept of land ownership, and the ensuing punishment and retribution for trespass, not only challenged notions of exclusive land possession but also how it was to be used and who was responsible for it. In this regard, European concepts clashed greatly with that of Indigenous people who fundamentally perceived themselves not as owners of their country but rather custodians. As one historian noted, "dispossession effectively made Aboriginals intruders on their own land" (Critchett, 1998).

Together with violent conflict and dispossession of land, sickness decimated Aborigines. With no resistance to many introduced European diseases, illnesses like Small Pox, tuberculosis and pneumonia were often fatal. Consequently, the Indigenous population of the colony fell from some 15,000 before settlement to 1907 in 1863 and 1067 in 1877 (Presland, 2004). Sadly, the last member

of the Wathaurrung from the Ballarat region, William (sometimes known as Frank) 'King Billy' Wilson, died in 1896 (Morris, n.d.).

Recognising that their traditional way of life was now impossible, some Djabwurrung and Wathaurung people became fringe dwellers, living on the outskirts of towns and trying to eke out a living selling wares to Europeans. Others worked on sheep stations or begged. Some moved to Aboriginal Protectorate Stations, such as that near Daylesford, or later to the government run Framlingham Reserve or Corandarrk near Healesville (Morris, n.d.).

5.1.7. Historical Places within the Activity Area

Following a search of Heritage Inventory and National Trust registers, a total of 52 historical places were found to have been recorded within 1 km of the activity area (see Table 5 below). Of these 52, ten were found to be located within the proposed activity area (see Table 6). Should these sites be impacted upon by the proposed development, management recommendations have been formulated and are stipulated in Table 6 alongside a description of each site.

Site Number	Site Listing	Site Name	Site Within Activity Area
H7423-0061	Heritage Inventory	Armstrong No 2 1301 Western Highway Great Western, Northern Grampians Shire	Yes
B2142	National Trust	Former Great Western Mechanics Institute, Western Highway, Great Western, Northern Grampians Shire	No
B2251	National Trust	Toll Gate Western Highway Great Western, Northern Grampians Shire	No
H7423-0014	Heritage Inventory	Hard Hill Workings Garden Gully Road Armstrong, Ararat Rural City	No
H7423-0015	Heritage Inventory	Hard Hill 2 Hard Hill Road Armstrong, Ararat Rural City	No
H7423-0017	Heritage Inventory	Hard Hill 4 Garden Gully Road Armstrong, Ararat Rural City	No
H7423-0019	Heritage Inventory	Hard Hill 6 Garden Gully Road Armstrong, Ararat Rural City	No
H7423-0027	Heritage Inventory	Great Western Lead Wattle Gully Road Great Western, Northern Grampians Shire	No
H7423-0060	Heritage Inventory	Armstrong No.1 941 Western Highway Armstrong, Ararat Rural City	Yes
H7423-0062	Heritage Inventory	Garden Gully Road Ruin 50 Garden Gully Road Armstrong, Ararat Rural City	No
H7423-0063	Heritage Inventory	Garden Gully Road House Site No.1 Garden Gully Road Armstrong, Ararat Rural City	Yes
H7423-0064	Heritage Inventory	Garden Gully Road House Site No. 2 50 Garden Gully Road Armstrong, Ararat Rural City	Yes

H7423-0065	Heritage Inventory	Armstrong Alluvial Gold Mining Area No. 1 Western Hwy Armstrong, Northern Grampians Shire	Yes
H7423-0066	Heritage Inventory	Armstrong Alluvial Gold Mining Area No. 2 Western Hwy Armstrong, Northern Grampians Shire	Yes
H7423-0071	Heritage Inventory	Armstrong Brick Structure Ruins 12 Military Bypass Road And Western Highway Armstrong, Ararat Rural City	Yes
H7423-0072	Heritage Inventory	Armstrong Hotel Ruins Armstrong And Western Highway And Military Bypass Road Armstrong, Ararat Rural City	Yes
H7423-0073	Heritage Inventory	Armstrong Graves Western Highway And Military Bypass Road Armstrong, Ararat Rural City	Yes
H7423-0075	Heritage Inventory	St Peter's Vineyard Western View Road Great Western, Northern Grampians Shire	No
H0338 **HO1** **4128**	Victorian Heritage Register Heritage Overlay Register Of The National Estate	Seppelts Winery, Shaft House & Champagne Cellars, Great Western - Moyston Road, Great Western, 36 Cemetery Road Great Western, Northern Grampians Shire	No
B1251 **4127**	National Trust Register Of The National Estate	Seppelt's Champagne Cellars Moyston Road, Great Western, Northern Grampians Shire	No
N/A	Recommended For VHR	Best's Cellars (Bests Concongella Vineyard), Red Bend Road, Great Western	No
H1044 **HO114** **H7423-0016**	Victorian Heritage Register Heritage Overlay Heritage Inventory	Hard Hill 3	No
B2139	National Trust	Fountain Head Brewery Residence Armstrong, Ararat Rural City.	No
B4475	National Trust	Westgate Residence Armstrong, Ararat Rural City	No
N/A	N/A	Western Highway Great Western, Northern Grampians Shire, American Ash Trees Planted In Remembrance Of War Veterans	No
N/A	Recommended For Heritage Overlay	30 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	31-33 Western Highway Great Western, Northern Grampians Shire	No

N/A	Recommended For Heritage Overlay	58 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay Area Contributory	65 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	69 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	66-76 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay Area Contributory	78 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	79 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	83 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay Area Contributory	82-84 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	93-95 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	96 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	97-101 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	97-99 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	98 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	100 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	102 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	104 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay Area Contributory	106 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	103 Western Highway Great Western, Northern Grampians Shire	No

N/A	Recommended For Heritage Overlay	115 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay Area Contributory	123 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	125 Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	Western Highway Great Western, Northern Grampians Shire	No
N/A	Recommended For VHR	Red Bend Road Great Western, Northern Grampians Shire	No
N/A	Recommended For Heritage Overlay	Allanvale Homestead Allanvale Road Great Western, Northern Grampians Shire	No

Table 5: Historical Sites within 1 km of the activity area

5.1.8. Management Recommendations for the Historic Sites

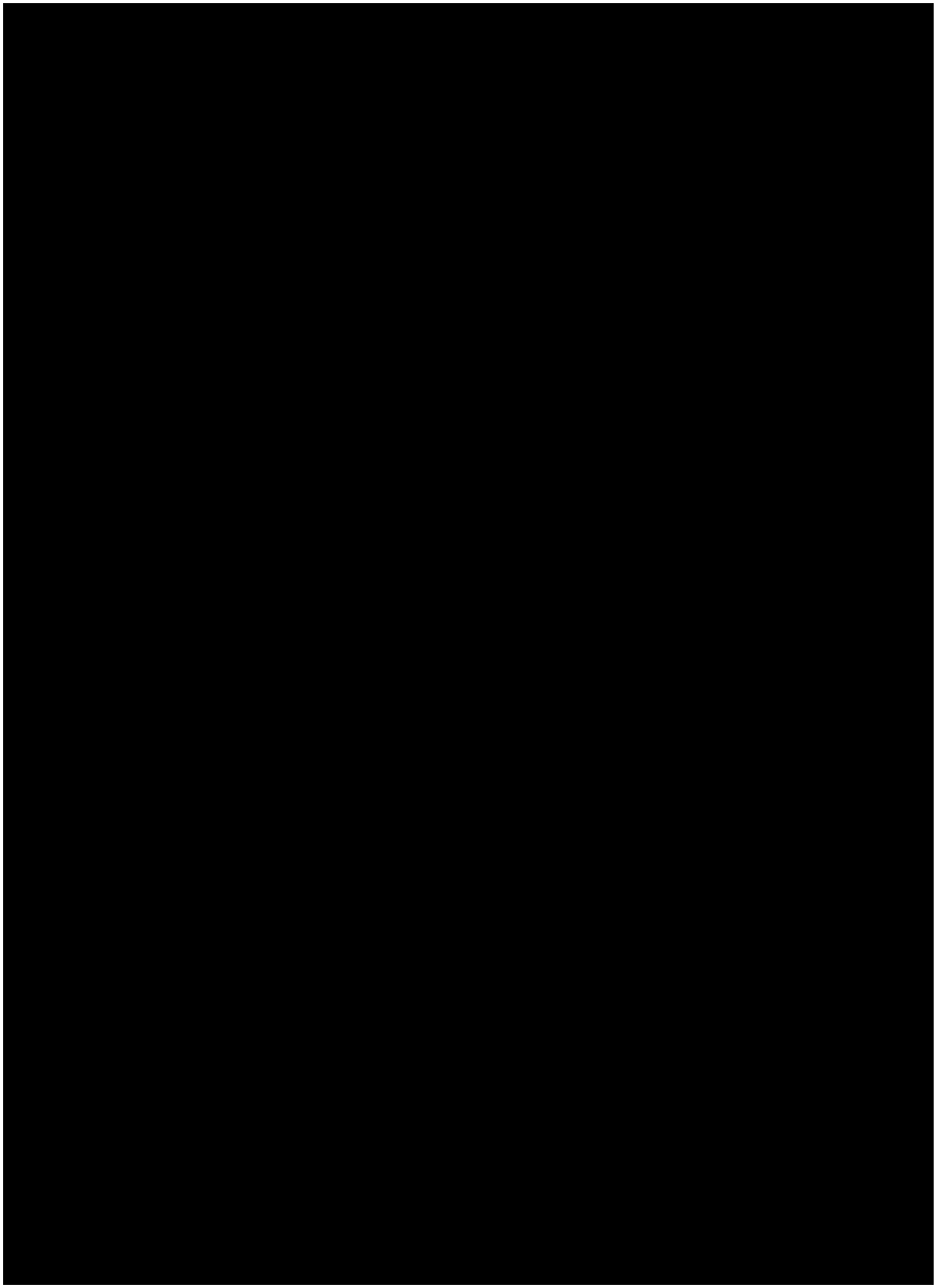
The following table provides management recommendations for sites which will be impacted by the proposed development

Listing	Name	Description	Recommendations
Heritage Inventory H7423-0060	Armstrong No.1 [redacted] Western Highway Armstrong, Ararat Rural City	The site consists of a ruined structure, marked by stone wall foundations and a possible stone hearth. There is also a possible outbuilding and a raised circular structure with a central depression.	Further archaeological study is required if the site cannot be avoided. Consent from Heritage Victoria is required if the site is to be destroyed.
Heritage Inventory H7423-0061	Armstrong No 2 [redacted] Western Highway Great Western, Northern Grampians Shire	The site consists of a ruined house. The wall foundations are of double handmade brick and the walls were constructed of mud brick. There is a concrete slab to the rear and low mounds of debris. To the west of the house there is a circular brick cistern and a square brick lined pit. There is a remnant garden with mature pines and peppercorn trees.	Further archaeological study is required if the site cannot be avoided. Consent from Heritage Victoria is required if the site is to be destroyed.

Heritage Inventory H7423-0062	Garden Gully Road Ruin	The site consists of a ruinous structure, marked by the remains of a stone fireplace with stones set in mud mortar. There are a few scattered handmade bricks.	Further archaeological study is required if the site cannot be avoided. Consent from Heritage Victoria is required if the site is to be destroyed.
Heritage Inventory H7423-0063	Garden Gully Road House Site No. 1 Garden Gully Road Armstrong, Ararat Rural City	A ruinous, four roomed timber house, with a lean-to kitchen at the rear and a verandah at the front and side. A cellar has been excavated under the east side. There is a shearing shed to the west and brick shed foundations nearby, a small dam and a brick cistern. Artefacts and equipment are scattered over the site and there is a remnant orchard, mature pines and other exotic trees.	Further archaeological study is required if the site cannot be avoided. Consent from Heritage Victoria is required if the site is to be destroyed.
Heritage Inventory H7423-0064	Garden Gully Road House Site No. 2 [redacted] Garden Gully Road Armstrong, Ararat Rural City	The house site is marked by stone and brick foundations, low mounds and scattered historical artefacts. There is also a brick cistern and a remnant garden.	Further archaeological study is required if the site cannot be avoided. Consent from Heritage Victoria is required if the site is to be destroyed.
Heritage Inventory H7423-0065	Armstrong Alluvial Gold Mining Area No. 1 Western Hwy Armstrong, Northern Grampians Shire	An extensive area of shallow alluvial gold workings along a tributary of Concongella Creek. The area is marked by shallow pits, low mounds of spoil and scattered historical artefacts. Further workings are found in the road reserve of the Western highway and are a part of the same site.	Further archaeological study is required if the site cannot be avoided. Consent from Heritage Victoria is required if the site is to be destroyed.
Heritage Inventory H7423-0066	Armstrong Alluvial Gold Mining Area No. 2 Western Hwy Armstrong, Northern Grampians Shire	Shallow alluvial gold workings along the banks of Concongella Creek, for approximately 250 metres. The site is marked by shallow pits, low mounds, one partially filled tunnel and scattered historical artefacts.	Further archaeological study is required if the site cannot be avoided. Consent from Heritage Victoria is required if the site is to be destroyed.

Heritage Inventory H7423-0071	Armstrong Brick Structure Ruins [redacted] Military Bypass Road And Western Highway Armstrong, Ararat Rural City	Brick and stone footings covered by long grass. Handmade bricks, granite and lime mortar. Some wall lines are apparent in an area about 10x10 m. Low mounds 50-60 cm above ground level may mark further ruins.	Further archaeological study is required if the site cannot be avoided. Consent from Heritage Victoria is required if the site is to be destroyed.
Heritage Inventory H7423-0072	Armstrong Hotel Ruins Armstrong And Western Highway And Military Bypass Road Armstrong, Ararat Rural City	Ruined stone structure, with some well-preserved sections of wall (up to 1.5m high). Walls are of mudstone and mud mortar. Appears to be large and multi-roomed but difficult to assess as it is covered by dense scrub, may be garden remains on south side of structure.	Further archaeological study is required if the site cannot be avoided. Consent from Heritage Victoria is required if the site is to be destroyed.
Heritage Inventory H7423-0073	Armstrong Graves Western Highway And Military Bypass Road Armstrong, Ararat Rural City	A group of 8-9 low oval mounds edged by field stones. Appear to be graves. One is shaped like a cross. There are a number of larger, rectangular areas that are also raised and edged by stones.	The site requires further study with ground penetrating radar if it is to be disturbed.

Table 6: Historic Sites located within the Activity Area, and their Management Recommendations



Map 5: Previously Recorded Historic Sites within the Activity Area

5.1.9. Review of Reports and Published Work about Historical Cultural Heritage in the Region

In 2008, a Cultural Heritage Due Diligence was undertaken that overlaps with the current activity area (Noble, Kiddell and Clark, 2008). During the course of the desktop study it was identified that there were four Aboriginal historic places, two Victorian Heritage Register sites, six Victorian Heritage Inventory sites and 26 sites on the local government Heritage Overlay. These sites were considered significant due to early transport within the region and sites relating to the gold rush. During the field inspection a number of unrecorded historic sites were identified within the study area. It was recommended that a survey be undertaken to identify unrecorded sites prior to development.

In 1998, Nathan Wolski (1998) undertook an excavation at the Mt Cole outstation for his PhD research. The study area was defined by the Campbell Brothers' Mt Cole Run which extended from Fiery Creek to Middle Creek and Charleycombe Creek. The Campbell Brothers actively supported Aboriginal groups on the run by assisting in the provision of food and clothing and in 1851, 100 Aboriginal people were staying on the property. The excavation occurred at an outstation on the junction of Darirymaid and Middle Creeks and Wolski was attempting to learn more about Aboriginal-European interaction during the contact period. During the course of the excavation the fireplace and two possible post holes were discovered, providing tentative information about the size and orientation of the outstation. Two occupation phases were identified at the site. The lower of these contained exclusively stone artefacts and was interpreted as a pre-contact layer. The upper phase contained a mixture of both stone artefacts and artefacts with a European origin. The most common European materials included bottle glass and metal building materials. Ceramics and slate pencils were also present although in smaller numbers. The stone artefacts consisted mostly of quartz and flaked glass artefacts were also found. At the time the report was written the author was uncertain how the stone and European artefacts had occurred in the same stratigraphic layer. The options being studied were that the site was disturbed, that the site was a contact site or that the Aborigines moved in to the outstation once the Europeans moved out. Historical evidence supported the second option.

In 1999, an archaeological study was undertaken at the former Buangor station complex and surrounding paddocks. The report was undertaken by Andrew Long & Associates and Heritage Matters Pty Ltd and commissioned by Aboriginal Affairs Victoria (Long and Clark, 1999). This study involved the investigation of six depots associated with the Victorian Honorary Correspondent Supply Scheme which was established in 1860 to supply provisions to Victorian Aborigines. The study included both a desktop assessment and a field inspection. One of the depots examined is located on the former Buangor station. In 1840 there were 300 Aboriginal people associated with Buangor depot and in 1852, Campbell, the owner of the Buangor Run, employed the local Aboriginal community as pastoralists on his property. While the focus of the study was on European cultural heritage, two previously unrecorded burnt earth mounds were identified during the place inspection (VAHR 7523-162 and 7523-163). No Aboriginal sites or artefacts were identified in association with European materials. During the historical study, 17 historical sites, places or components were identified. The old Buangor homestead was rectangular with rooms adjoining the veranda. Varying masonry construction indicates that the homestead was added to over several periods. The remaining standing structures included parts of the homestead, an adjacent mud brick building, a landscaped garden, and a former building site. Also still identifiable are the remains of a possible shed, sheepyards and sheep dip, four small huts and a cemetery. The study predicts that post-contact sites are likely to occur on the margins of pastoral stations and incorporate introduced materials and food types. Alternatively, the destruction of plant and animal foods due to the introduction of livestock was likely to have also caused the more intense use of peripheral areas.

5.1.10. Landforms and/or Geomorphology of the Activity Area

The activity area falls within the Western Uplands geomorphological region. The Western Uplands is characterised by residual Paleozoic bedrock formations that have been largely eroded. It is generally of low relief (average elevation of 300 m) with east-west drainage. However, there are a number of elevated summits and plateaus within this region where remnants of a broad Mesozoic palaeosurface has been retained (DPI, 2011).

Within the Western Uplands, the activity area is within the St Arnaud Range. This range forms the bedrock for the geographic region and consists of marine sandstone, siltstone and biotite schist (Birch, 2003).

The activity area extends from northwest of Ararat to south of Stawell. Two notable topographic features within this area are the Ararat Hills northwest of Ararat and the Black Ranges southwest of Stawell. The activity area intersects the lower slopes of these. Between these features, the activity area is comprised of plains and gentle slopes intersected by creeks.

Ararat Hills

The Ararat Hills extend from northwest of Ararat to Armstrong. The geography of these landforms consists of granitic paleozoic hills and ridges that are dissected by creeks. A number of hills are to the north and south of the activity area and their lower slopes are intersected by the activity area. The slopes leading down from these mountains are generally steep to very steep and the soil profiles are shallow on these slopes. The soils are generally sandy with quartz and buckshot inclusions extending down to heavy clays (DPI). The main vegetation types are Heathy Dry Forest and Grassy Woodland EVC (EVC 20 and175).

The Heathy Dry Forest EVC (20) consists of an open eucalypt forest with trees reaching up to 20 m tall. The understorey is generally sparse and consists of a dense layer of shrubs such as heaths and peas. . Common tree varieties within this EVC are: Red Stringybark (*Eucalyptus macrorhyncha*), Broad-leaved Peppermint (*Eucalyptus dives*), Red Box (*Eucalyptus polyanthemos*), Long-leaf Box (*Eucalyptus goniocalyx s.l.*) and Brittle Gum (*Eucalyptus mannifera ssp. Mannifera*).

The Grassy Woodland EVC (175) consists of an open eucalypt woodland with large trees (15m tall). The understorey is generally sparse but consists of a diverse variety grasses, herbs and shrubs. Common tree varieties within this EVC are: Red Box (*Eucalyptus polyanthemos*), Manna Gum (*Eucalyptus viminalis*), Yarra Gum (*Eucalyptus yarraensis*), Snow Gum (*Eucalyptus pauciflora*) and Swamp Gum (*Eucalyptus ovata*).

Undulating slopes

The area between Armstrong and Stawell is largely composed of ranges of hills with more gentle slopes than those granitic hills to the southeast. These consist of non-granitic Paleozoic rocks. The soil profile on these landforms is thin on the crests and upper slopes and thicker at the base. The profile consists of texture contrast soils with medium to heavy clay subsoils. Weathered bedrock and quartz inclusions are present throughout the profile. The main vegetation types are Plains Grassy Woodland and Heathy Woodland (EVC 55 and 48).

The Plains Grassy Woodland EVC (55) consists of an open, eucalypt woodland with large trees (15m tall). It usually occurs on poorly drained, fertile soils on flat or gently undulating plains at low elevations. The understorey is generally sparse but consists of a diverse variety grasses, herbs and shrubs. Common tree varieties within this EVC are: Gippsland Red-gum (*Eucalyptus tereticornis ssp. Mediana*).

The Heathy Woodland EVC (48) consists of a Eucalypt-dominated low woodland (10m). A diverse collection of shrubs are usually present but the ground cover is usually sparse. The dominate tree variety within this EVC is the Broad-leaved Peppermint (*Eucalyptus dives*).

Alluvial Plains and Creekline terraces

A number of creeks dissect the activity area including Allenvale Creek, Concongella Creek, Donald Creek, Hyde Park Creek, Lobeys Creek and Robinsons Creek, along with their associated tributaries. Alluvial plain or creek terraces are associated with these creeks. Soils can be either generally poorly drained duplex soils with sandy loam overlying a heavier clay subsoil or alluvial deposits of seasonally wet sands and silts. The main vegetation types are Alluvial Terraces Herb Rich Woodland and Creekline Herb Rich Woodland (EVC 67 and 164)

Alluvial Terraces Herb Rich Woodland (EVC 67) consists of open woodland on alluvial plains and along drainage lines. The large trees in these areas are up to 15m tall and the understory consists of very few shrubs. Common tree varieties within this EVC are Grey Box (Eucalyptus macrocarpa), Yellow Box (Eucalyptus melliodora), Yellow Gum (Eucalyptus leucoxylon), and Buloke (Allocasuarina luehmannii).

Creekline Herb Rich Woodland (EVC 164) consists of open woodland on creek terraces and along drainage lines. The large trees in these areas are up to 15m tall and the understory consists of very few shrubs. Common tree varieties within this EVC are Swamp Gum (*Eucalyptus ovata*), River Red Gum (*Eucalyptus camaldulensis*) and Scentbark (*Eucalyptus aromaphloia*).

5.1.11. Land Use History of the Activity Area

The Western Highway, or National Highway A8 as it is alternatively known, is one of Victoria's principal highways and runs from just north of Ballarat (near Burrumbeet) to the South Australian-Victorian border town, Serviceton. At its eastern end, the highway continues on as the Western Freeway. In 1997, the highway covered some 315 kilometres of road (Main Roads Victoria, 2009). It is the main thoroughfare that joins South Australia and western-central Victoria and it supports "farming, grain production, regional tourism and a range of manufacturing and service activities" (VicRoads, 2011). Today, approximately 4000 cars and 1500 trucks travel on the highway each day and these figures are expected to double within twenty five years (Vic Roads, 2011). This report concerns the section of highway that runs from Beaufort to Stawell and it is divided into three distinct areas as conceived by the Victorian government's peak planning and road bodies. These stages are:

Stage (1) Beaufort to Fiery Creek

Stage (2) Fiery Creek to Ararat

Stage (3) Ararat to Stawell

Prior to the arrival of Europeans from the 1830s, nomadic indigenous communities had traversed the landscape using intricate systems of paths and tracks. Frequently, paths were designed to make the sojourn as easy as possible, thus, they often skirted around steep ascents or descents and crossed waterways at sites that were as easy as possible. Many early Europeans utilised these routes for their own activities as they understood they were often the best way to travel through the countryside. It is interesting to note that many of these paths were later developed into roads and sometimes even highways (Anderson, 1994). While it is impossible today to ascertain if the Western Highway was once one of these indigenous tracks, it is important to keep in mind that possibly sections of it were.
The discovery of gold in Ballarat and other rural areas in Victoria in the early to late 1850s resulted in a mass movement of people as diggers, families, traders and others flocked to the gold fields in search of fortune or, in the case of traders and business entrepreneurs, commercial success. For the first time, tracks and crudely constructed roads (if made at all) were travelled in large numbers. In many instances, gold rushes opened up areas of the colony that had previously been home to only a small number of people. Yet with gold, transient communities were quickly established, sometimes in their tens of thousands. In 1861, it was estimated that forty two per cent of Victorians resided in gold towns or diggings (Serle, 1963).

A road that would later become the Western Highway was one such thoroughfare that took many people to the gold fields that dotted the area in question, such as Fiery Creek (Beaufort) and Pleasant Creek (Stawell). Those miners lucky enough to have a horse, or funds for transport, rode across the rough roads which were often very dusty in summer and bogs of mud in winter. A few travelled using bullocks. For those less fortunate, which was the vast majority of people, it was often a long passage on foot, some pushing their belongings in carts.

In 1853, there was no major thoroughfare from Beaufort to Stawell, via Ararat. Most significant roads tended to run on a north-south axis, as opposed to the highway's east-west course (Anderson, 1994). By 1873, though, the passage of the Western Highway was well established, as shown by a Department of Crown Lands and Survey map of the Ararat region (Department of Crown Lands and Survey, 1873).

In 1853, the colonial government sought to improve Victoria's poor road conditions. District road boards were established (an embryonic form of municipal councils), a central road authority was formed and payment schemes for road development, such as tolls and government grants, were devised (Serle, 1963). From c.1854, the construction of a number of main roads, like that between Melbourne and Bendigo, offered some improvement (Serle, 1963).

Before the 1983 formation of the Road Construction Authority (and later VicRoads), many of Victoria's road networks were overseen by the Country Roads Board (CRB). In c.1913, the State government passed the Country Roads Act. The legislation was passed in the face of growing resentment and agitation over Victoria's appalling roads, with much of the resentment coming from rural communities who believed they were disadvantaged by the poor conditions. The Act established the CRB and provided it with a mandate to construct and maintain the state's main (and, in 1918, developmental and tourist) roads, including the Western Highway. It also established that both State and local governments were to contribute to such works (Anderson, 1994) One of the CRB's first activities was the creation of a map depicting all Victoria's main roads, of which the Western Highway was one. Towards the end of its existence, the CRB was responsible for 983 kilometres of roads within Melbourne and fifty five kilometres of freeways, 280 kilometres of State highways and twenty three kilometres of tourist roads in country Victoria (Carroll, 2010). To facilitate the CRB's work, Victoria's road networks were divided into ten regions. The stretch of Western Highway that pertains to this report was located in the Ballarat district which stretched from Stawell to Ballan (Anderson, 1994).

In 1924, the Country Roads Act was superseded by the State Highways and Vehicles Act. One of its most significant changes was that the creation and maintenance of highways would no longer be a joint venture but the complete responsibility of the CRB (Anderson, 1994).

During the depression of 1929-39, road work was included in a number of State run unemployment relief schemes. By the end of June, 1929, such a scheme was employed on a section of the 'developmental' Western Highway at a cost of over £2,211. This work was important for a number of reasons, as described in the CRB's Annual Report of that year:

> *Besides providing employment for a large number of men, those works of a developmental character when carried through to completion have a most important effect on the districts in which they are situated. As the roads are located in areas from which very little in the way of revenue from rates is derived by the municipal councils concerned, it would be quite impossible for the municipalities to carry out the works for many years to come.*
> (Anderson, 1994:90)

In 1945, the road in question was officially named the Western Highway. Prior to that, it was sometimes referred to as 'Main Road' in government created maps or as a 'developmental' road. In 1918, the CRB established the concept of developmental roads which were not usually major arterials but rather smaller but, nevertheless, important roads, especially in rural farming communities. Roads were deemed developmental at the discretion of the CRB, a decision largely based on whether the road would facilitate transport (often to a railway station or to a road leading to one) or open up rural areas (Anderson, 1994). In the case of the Western Highway, the latter motivation was most apt.

Figure 6: A house along the Western Highway c.1930-1960 (SLV)

The advent of the car in the twentieth century changed both travel and road requirements. In doing so, it transformed the commercial, economic and social structure of Victoria and beyond (Lay, 2010). The mass movement of cars in Victoria began in the 1920s when car numbers rose from 70,000 in 1924 to 154,000 just five years later. The size, speed, noise and fuel necessities of automobiles not only altered road structures (such as road widths since cars were wider than previous transport modes, the need for emergency lanes, road shoulders, warning signs, traffic signals and the like) but also road amenities (service stations and associated service lanes) and safety initiatives. The weight of cars and trucks, compared to the more traditional horse, cart and bicycle, was too heavy for many road surfaces which resulted in their accelerated deterioration (Lay, 2010).

By 1960, two thirds of Melbourne's households owned a car and no doubt, such figures were higher in rural areas where remoteness and practices, like farming and the movement of goods to markets, were important issues (Davison and McConville, 1991). Freight was now easier and faster (and therefore cheaper) to transport and perishable goods were more likely to reach new markets before spoilage. Tourism and day trips flourished as families spent a day or more seeing some of Victoria's

tourist attractions and towns. The Western Highway was central to all of this as it conveniently linked towns and markets whilst also enabling people to visit some of the State's tourist areas, from the Grampians to 'gold rush country'.

In 1965, the Roads (Special Projects) Act was passed which was particularly significant to the Western Highway and its upkeep. The Act enabled the funding of fourteen road projects in Victoria which included major works, not only to the Western Highway, but also to the Hume, Princes, Maroondah and Nepean highways (Anderson, 1994). Such works coincided with the ever increasing use of cars and trucks on the state's roads. At the end of the 1966-67 financial year, vehicle registrations numbered 1,221,352, an increase of 344,719 within five years. This amounted to about 70,000 additional cars and trucks on the road each year (Anderson, 1994).

Sometime between 1955 and 1974, the highway was officially referred to as 'National Route 8' and was three hundred kilometres in length. It ran from the Ballarat-Burrumbeet Road, Burrumbeet, to the South Australian border at Victoria's Serviceton. In 1974, under the newly created National Highway System, State highways came under the jurisdiction of the federal government and the Western Highway was renamed 'National Highway 8'. It was soon extended at its eastern end by fifteen kilometres and now started at Sunraysia Highway, Miners Rest, just northwest of Ballarat. In 1997 the Western Highway was once again renamed, this time 'National Highway A8' which is what it is officially known as today (Main Roads Victoria, 2009).

Since the opening years of the twenty first century, Vic Roads has commenced a $505 million project to upgrade and improve the Western Highway, with money coming from both Victorian and federal governments. Such improvements include altering sections of the road's alignment, sealing road shoulders and improving other safety measures, including intersections and service lanes. Perhaps the most significant change, though, is transforming the two lane road into a four lane thoroughfare with a central divide. Motivation for completing such works range from improving the movement of freight and road safety to better access to local amenities and services and reducing the time and cost of travel (Vic Roads, 2011).

Stage (3) Ararat to Stawell

Stawell was not immune to the gold fever that had gripped areas of the young colony. In 1853 gold was unearthed at Pleasant Creek, which was considered remote at that time. Four years later, the discovery of gold at Deep Lead (just north west of Stawell) resulted in approximately 30,000 people rushing to the site (Stawell Historical Society, n.d.). Such movement meant that roads were much travelled.

In 1919 and 1929 two government gravel reserves were established just south of the highway, between the townships of Ararat and Stawell. Considering the time and location of the Western Highway construction it is likely that this gravel was used (Land Victoria, 1952).

In 1937, the Victoria Government Gazette announced that the CRB had agreed to "lift the prohibition, on the section of the Western Highway between the southern boundary of Stawell Shire and the township of Stawell, of motor cars the weight of which exceeds six ton (including loads if any)." It continued to explain that a similar prohibition remained on the section of highway that extended from Stawell to Dimboola Shire (Victoria Government Gazette, December 30, 1937).

In 1939 a quarry was established between Western Highway and Pleasant Creek, just east of Stawell (Land Victoria, 1957).

A map of 1957 declared that all 'unappropriated land within two chains' of either side of the Western Highway will be proclaimed government land immediately west of the town of Great Western (Land Victoria,1957).

Figure 7: Sign along the Western Highway, heading west from Stawell 2005 (National Highway A8)

In 2001-03, a 4.2 kilometre new stretch of highway was created near the town of Armstrong to improve safety and remove the need for high vehicles to detour around the Melbourne to Adelaide railway bridge via the Military bypass. A two lane bridge was built over the railway tracks. Another bridge spanning the Concongella Creek was erected and a stock underpass was created, together with improvements to drainage. The works were "part of a long term strategy to develop the Western Highway between Ballarat and Stawell to freeway conditions" (Stawell Times, 2/11/2001). The improvements cost $6.1 million.

5.1.12. Conclusions from the Desktop Assessment

Aboriginal Land Use Model

The geographic region in which the activity area is located contains several landforms which would have been utilised by Aboriginal people. The utilisation of these landforms is discussed below.

River and Creek Valleys

River and creek valleys, which are relatively common in the region, have been the focus of previous archaeological investigations (Bowler, 1969, 1970; Bowler *et al.*, 1967; Burke, 1989, 1990; Casey and Darragh, 1970; Coutts and Cochrane, 1977; du Cros, 1989; Duncan, 1998; Ellender, 1988; Gallus, 1983; Gill, 1953, 1954, 1955, 1966; Mulvaney, 1964, 1970a, 1970b; Munro, 1997; Rhodes, 1990; Tunn, 1997, 1998, 2006). These valleys would have provided the most advantageous settlement localities for Aboriginal people throughout the history of human settlement in the region.

The river valley environments provided Aboriginal people with a range of necessary resources, as well as providing shelter from the elements, timber for fires, tools, and housing; all manner of food sources, and stone for tool manufacture. The importance of the availability of perennial fresh water to the resident Aboriginal populations also cannot be overlooked. The valley landscapes may also have served as travel routes throughout much of the region (du Cros, 1987; Flood, 1976).

Intensive use of these environments has resulted in the formation of a substantial archaeological record within a corridor on either side of the waterways forming the valleys. The evidence for

Aboriginal occupation of these areas is manifested in a relatively high number of artefact scatters, scarred trees, stone quarries, and earth mounds in those limited number of locations previously surveyed. The nature of the alluvial sediments in certain areas has revealed that this spatially continuous pattern is not of recent origin, but has a demonstrable Pleistocene antiquity (Flood, 1974; Ossa, Marshall and Webb, 1995).

Hills

Apart from Flood's early work in the Australian Alps (Flood 1976), and a small number of subsequent surveys (McNiven, 1996), there is limited archaeological or ethnographic evidence to assist in the construction of land use models for the hill environments. Where there are archaeological sites, they have been interpreted as evidence for ephemeral procurement activities during times seasonally suited for utilising the higher areas of the region. Pleistocene utilisation of higher altitudes would have been limited, given the extreme climatic conditions and restricted growth patterns of many vegetation communities, and the subsequent restrictions on the distribution of fauna. Without abundant archaeological or ethnographic evidence however, it can only be assumed that Aboriginal people did utilise the higher zones of the region, particularly during the Holocene. To what degree the hill zone in the activity area was utilised is not known. The deeply stratified alluvial sequences found in the valley landscapes has the potential to reveal the archaeological signature of spatially varied but continuous activities over a period of perhaps the last 30,000 years.

Archaeological Predictive Model

This section provides a concluding statement on the desktop assessment which has informed the development of a predictive model of the site types that possibly exist within the activity area and a predictive statement on the likelihood of finding such sites.

Several archaeological investigations have been conducted within the geographic region.

A total of 769 Aboriginal archaeological places have been recorded within the geographic region. Of these, Scarred trees are the most common (33%) followed by artefact scatters (31%). There are also a large number of earth features (28%). Also present are art sites (1%), historical places (1%), Quarries (3%), stone features (2%) and there are two burials also located within the geographic region. The large number and diverse types of these sites reflects both the large area of the geographic region and the density of sites within the area. An additional search of all of the sites within 5km of the activity area was undertaken to provide a more local context for the study.

Of the 60 sites recorded within 5km of the activity area, 30 consist of scarred trees, 15 are earth features, 13 are artefact scatters and there is one stone feature, one quarry and one historical place. Of these sites, three scarred trees and one artefact scatter are within the activity area. One scarred tree is within 50m of the activity area and two scarred trees are between 50m and 200m of the activity area.

Scarred trees are the most common site type both within the geographic region and within 5km of the activity area. Scarred trees are trees that have been culturally modified in some way, usually by having bark cut from the trunk for use as canoes, shields, shelter, containers, or foot holds that have been cut in to the trunk to allow access to the upper branches for hunting purposes. Culturally modified trees are most often eucalypt trees that pre-date European settlement (i.e. over 174 years old in the Melbourne region). Scarred trees usually occur close to rivers or creeks or in areas where riparian forests have survived. Due to the high incidence of these sites within or near the activity area there is a very high possibility of locating these sites on the hills, slopes, alluvial plains and terraced creeklines, where mature native trees occur, with that possibility decreasing with distance from water.

The second most common site type that occurs within 5km of the activity area are earth features. Earth features can be rings of burnt clay which indicate that camp fires have burnt in that location, or

they can be areas of raised ground, where successive camping and occupation episodes have produced a mound. Within the geographic region these site types have usually been found to occur on gently sloping to flat ground within 500 m of waterways. These sites are likely to occur in all undisturbed parts of the activity area as it consists largely of flat to gently sloped ground and there are numerous waterways within the activity area.

Artefact scatters are common both within the geographic region and within 5 km of the activity area. One artefact scatter has previously been located within the activity area. Artefact scatters are concentrations of stone tools made by Aboriginal people in the past, or the debris from making stone tools. These usually occur where people were camping or were preparing their tools or weapons, and can be found on or below the ground surface. As there is an artefact scatter within the activity area, there is a very high possibility of finding more of these sites within undisturbed portions of the activity area. This possibility will increase within 200 m of a water source.

Quarries are sites where Aboriginal people collected and worked stone from rocky outcrops. These are generally found on slopes where erosion has exposed the stone beneath. This often occurs on slopes above creeks and rivers, on the sides of old volcanoes and on ridges. Considering that there is an Aboriginal quarry and a historic quarry within five kilometres of the activity area there is a moderate to high likelihood of finding this site type within the proposed activity area anywhere that suitable outcrops of stone occur.

Stone features are places where Aboriginal people have positioned stones in a deliberate shape or pattern. Very little is known about the original use of these sites as they generally stopped being used after European contact. The majority of these sites occur in western Victoria, particularly on the volcanic plains where basalt boulders are abundant. There is a low chance of these sites occurring within the activity area depending on the availability of suitable resources. Another type of stone feature is grinding grooves. These grooves are the result of creating ground-stone implements or processing subsistence resources. There is one of these within 5 km of the activity area. The possibility of finding further grinding sites within the activity area is moderate in those areas adjacent to water with suitable stone resources.

Other sites that occur within the geographic region but not within 5 km of the activity area are stone features, art sites and burials.
Art sites are places where people have created rock art including stencils, prints and drawings within rock shelters and engravings within limestone caves. It is unlikely that suitable caves and rockshelters will occur on any of the landforms within the activity area.

While mortuary customs were varied across Victoria, burial was a common practice. These usually consist of the remains of one or two people but large cemeteries have also been located. Burials are usually found during the course of ground disturbance or through erosion. They can be located within nearly every kind of landscape but are usually found in association with water sources and other site types.

Another form of burial that occurs within the geographic region are mortuary burial trees. These trees contain hollows into which disarticulated human remains and grave goods are placed. Both recorded instances of this type of burial in the region occurred in Red Gum trees. Red Gum trees are not common within the activity area (EVC20 and 175), however there is still a possibility of finding this site type within the activity area within other species of mature tree.
There is the potential for Aboriginal archaeological sites to be present in relatively undisturbed portions of the activity area. As the activity area crosses a number of creeks and small waterways there is the possibility of locating cultural material. Previous research has shown that 80% of all known Aboriginal sites occur within 200m of a source of potable water (Canning, 2003: 262). There is therefore a high chance of locating Aboriginal archaeological sites within undisturbed parts of the activity area.

Ten historic sites are located within the activity area alignment. In the event that the proposed activity will impact upon any of these ten sites, further archaeological study is recommended and a consent form from Heritage Victoria is required.

Based on our current knowledge of the activity area, and the known distribution of archaeological sites, both within the geographic region and within 5 km of the activity area, the following predictive statements can be made:

- Scarred trees are highly likely to occur anywhere within the activity area where remnant native trees of an appropriate age survive. There is a high possibility of these occurring on the slopes, creekline terraces and alluvial plains.
- Low density artefact scatters are highly likely to occur within the activity area, decreasing in likelihood with distance from water. Artefact scatters may be located in both disturbed and undisturbed contexts.
- Earth features are likely to occur, within 500m of water, in undisturbed parts of the activity area. There is a high possibility of locating these on the alluvial plains, creekline terraces, and slopes.
- Mortuary trees could possibly occur within the activity area. The highest likelihood of finding these trees occurs on creekline terraces and hills where Red Gum trees are common. However, it is possible that mortuary trees could occur in other tree types. Therefore, there is a possibility of finding mortuary trees anywhere that there are trees of an appropriate age and size.
- Quarry sites may occur anywhere that there is a suitable raw material outcrop.

5.2. Standard Assessment

5.2.1. Standard Assessment Methodology

A standard assessment was conducted for this CHMP involving a surface archaeological survey. A survey may be able to locate Aboriginal archaeological sites on the surface; however it is generally unlikely that it will locate sub-surface archaeological deposits unless a suitable cutting and/or exposures are available.

The specific aims of the Aboriginal archaeological survey were as follows:

- To determine if any Aboriginal archaeological sites are located within the activity area;
- To identify areas of Aboriginal archaeological sensitivity (potential archaeological deposits or PADs); and
- To determine whether a program of sub-surface testing would be required, and hence whether a complex CHMP would be needed for the activity area.

The methodology for the survey was informed by the results of the desktop assessment (Section 5), as well as the archaeological predictive model (Section 5.2.3).

A systematic surface survey was employed across the activity area. The activity area was surveyed using a pedestrian transect methodology. A fieldworker can effectively scan 1 metre to either side of them whilst walking transects (Burke and Smith, 2004: 65). Therefore, if 7 field workers were to walk transects of the activity area at 2 metre spacing, an approximate width of 14 metres would be covered per transect (as represented in Map 12 – Map 22).

The field survey was carried out by a team of seven people over five days between the 20th and 24th February 2012. The field survey of the additional areas was completed by a team of four people over one day on the 11th September 2012. The percentage of ground surface visibility was recorded

throughout the survey. Evidence of prior ground disturbance as well as any areas of potential archaeological sensitivity were closely inspected and recorded during the survey. A photo log was kept in order to record the conditions encountered within the activity area (i.e. areas of prior disturbance and/or areas of potential archaeological sensitivity). GPS points were taken to mark areas of potential archaeological sensitivity (see Section 5.2.3).

There were four previously recorded Aboriginal sites located within the activity area (VAHR7423-0712, 7423-0713, 7423-0734 and 7423-0736) as well as one site within a 50 m buffer of the activity area (VAHR 7423-0738). Four of these sites were scarred trees, and one was an artefact scatter. Therefore the survey would attempt to relocate these sites as well as any previously unrecorded Aboriginal archaeological sites and identify areas of potential archaeological sensitivity.

An attempt was also made to re-relocate any of the ten historical sites which are known to intersect the current activity area.

As the desktop assessment determined there was a probability for mortuary trees to be present within the activity area, **all** hollow-bearing trees of an appropriate age within the activity were recorded. Three categories were used in the field in order to classify the likelihood of each hollow tree containing burial remains:

Category 1: Requires further examination. Hollow openings are suitably large to put human remains through; the tree is obviously mature and large in girth (excess of 4 m).

Category 2: Requires further examination, the hollow is large enough to pass bone/human remains through and the tree is considered to be > 150 years, but the age of the tree needs to be confirmed by an arborist, as the age is unclear.

Category 3: Does not require further examination. Hollows are either extremely small (<10cm diameter), contain fresh looking breaks on branches, or the tree is far too small in girth to be mature (i.e. less than approximately 2m in girth). Landscape position was also taken into consideration (for example trees on a creekline will grow faster than those away from a creekline).

Other factors taken into consideration include whether or not the breaks on the branches (all hollows are where branches have broken off) are fresh and have sap/discolouration around them (relatively fresh) or whether they are bleached (relatively old). Also considered was whether the broken branch was sitting beside the tree and its condition; furthermore, hollows around tree bases are not suitable for burials (although all were checked for human remains).

For those trees which require additional examination (specifically Category 1 and Category 2 trees), an arborist was employed to assist in eliminating trees from the inspection program which are introduced and not endemic to the activity area. This was undertaken by Tim Cameron on the 06 and 07 March 2012. Non-endemic species (even if native Australian trees) would usually post-date European contact, and would (on the balance of probabilities) not have been old enough to have been used as mortuary trees in the period in which this practice was happening and/or when the practice ceased to be undertaken (circa 1850-1870). All non-endemic species would be considered to not contain human remains.

For those hollow trees which are considered endemic by the arborist and dated to an appropriately mature age (>150 years old), and where the hollow was located high on the tree's trunk (i.e. unable to be inspected from the ground), the proposed method to inspect the hollow in the trees is to use a flexible camera on a long 'cable' (such as those used to inspect pipes or drains, also known as an

endoscope camera) to look down inside the relevant hollow to confirm whether or not it contains human remains or grave goods. This final stage was undertaken on the 21 March 2012, and included Claire St George (ACHM), Phillip Chatfield (Martang) and Kerry Hunt (Barengi Gadjin).

5.2.2. Results of the Ground Survey

5.2.2.1. General Observations

A standard assessment involving a survey of the activity area was undertaken by Edward Turner and Graham Houghton (Archaeologists, ACHM) along with Phillip Chatfield, Tylag Merriman, Lionel Chatfield and Ronald Chatfield (Martang) and Brian Delaney (Barengi Gadjin) between the 20th – 24th February 2012. The survey of the additional areas was completed by Rebecca McMillan (Archaeologist, ACHM) and Phillip Chatfield and Lionel Chatfield (Martang representatives) and Frank Dounglas (Barengi Gadgin representative) on the 11th September 2012.

The ground surface of the activity area was inspected by the field team walking in regularly spaced transects. Notes and photographs were taken throughout the survey. Artefact locations were to be recorded using a Trimble Juno differential GPS. In order to divide the survey area between Ararat and Stawell into manageable units, the activity area was divided up into 'stages' (see Map 6 through to Map 10). Stages were divisions of the survey area into land units based on easily recognisable features such as creek lines, bridges or roads. This was undertaken in order to facilitate logistics (for example, a meeting place to begin survey on the following day) and to ensure both sides of the existing Highway were completed in an orderly and logical fashion. Detailed descriptions of survey transects are provided in
Table 7 below. The table also provides geological, soil, geomorphic and archaeological descriptions for each survey unit.

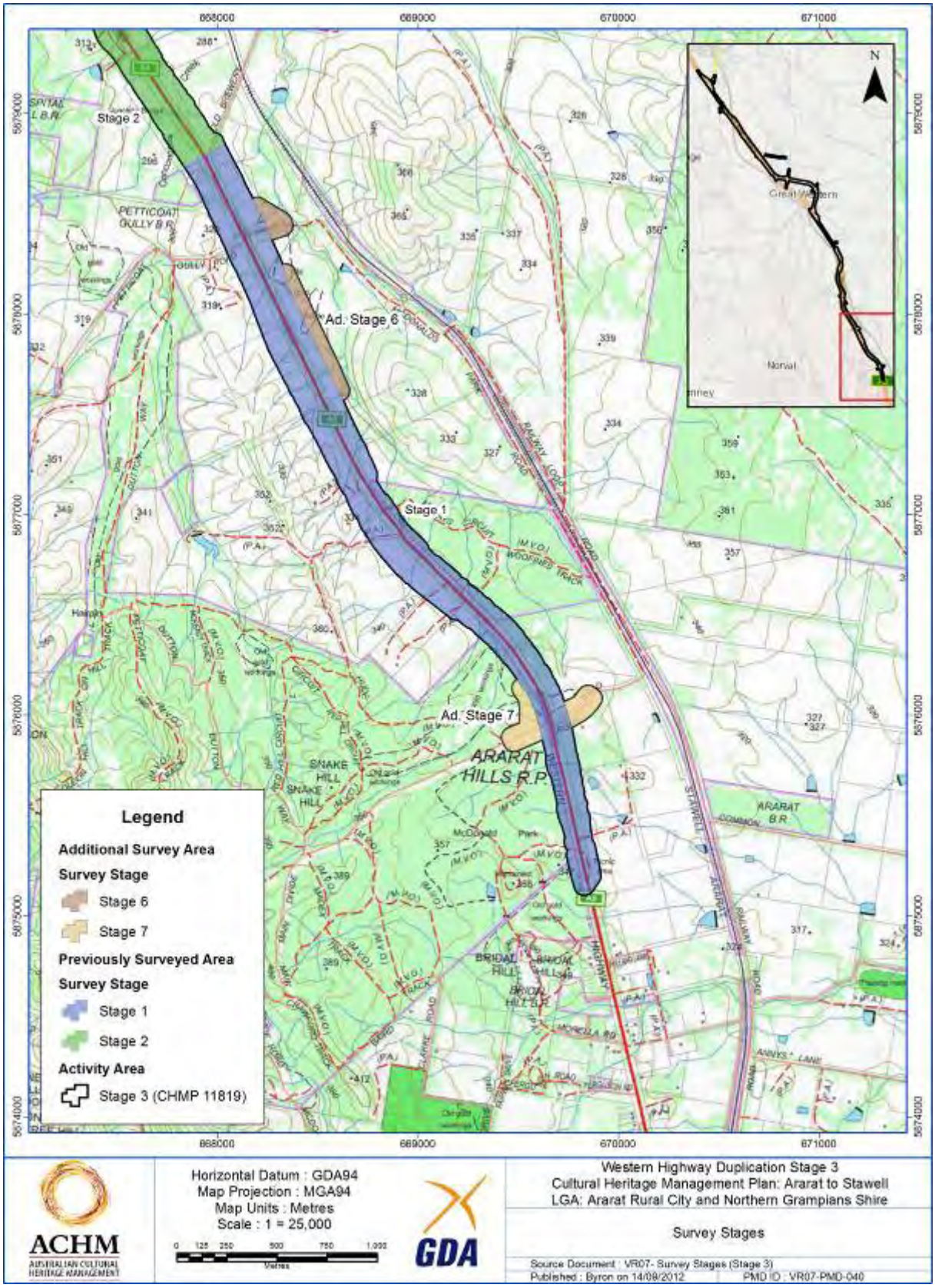
A similar approach was undertaken for the survey of the amended activity area, with new areas for survey broken up into Stages 1 – 7 (see Maps 6 - 10 and Table 8 below).

Survey Unit	Location	Modal Slope*	Landform Elements*	Disturbance	Geology	Soils	Ground Visibility	Effective Coverage	Aboriginal Archaeological Sites
Stage 1	Start of Transect to Old Brewery Road.	Level to gently inclined	Stream channels, banks and beds; alluvial flats; residual rises	Road construction; forestry plantation Pastoral activities an back burning	Not Observed	Light Red Brown silty clay loams over yellowish brown/olive yellow clay sand	~1% generally 90% in ploughed field	1% generally 90% in ploughed field	No Aboriginal Sites
Stage 2	Brewery Road to Kimburra Road	Level to gently inclined	Stream channels, banks and beds; residual rises	Road construction; Pastoral activities	Not Observed	Light Red Brown silty clay loams over yellowish brown/olive yellow clay sand	~1%	1%	Five surface scatters and two Aboriginal scarred tree
Stage 3	Kimburra Road to Dalys Bridge (Great Western)	Gently inclined	Stream channels, banks and beds; residual rises	Road construction; Pastoral activities	Not Observed	Light Red Brown silty clay loams over yellowish brown/olive yellow clay sand	~1%	1%	No Aboriginal Sites
Stage 4	Dalys Bridge (Great Western) to Bests Road	Gently inclined	Stream channels, banks and beds; young bushland; residual rises	Road construction; Pastoral activities and sand quarry	Not Observed	Light Red Brown silty clay loams over yellowish brown/olive yellow clay sand	~1%	1%	One isolated artefact
Stage 5	Bests Road to end of transect	Gently inclined	Stream channels, banks and beds; young bushland; simple slopes	Road construction; Pastoral activities	Basalt bedrock, basalt corestones occasional etch surface Coarse sandstone with iron bands bedrock	Light grey to yellow silty sand to sandy loam (A horizon) Yellow brown coarse sandy clay (B subsoil horizon)	~1%	1%	No Aboriginal Sites

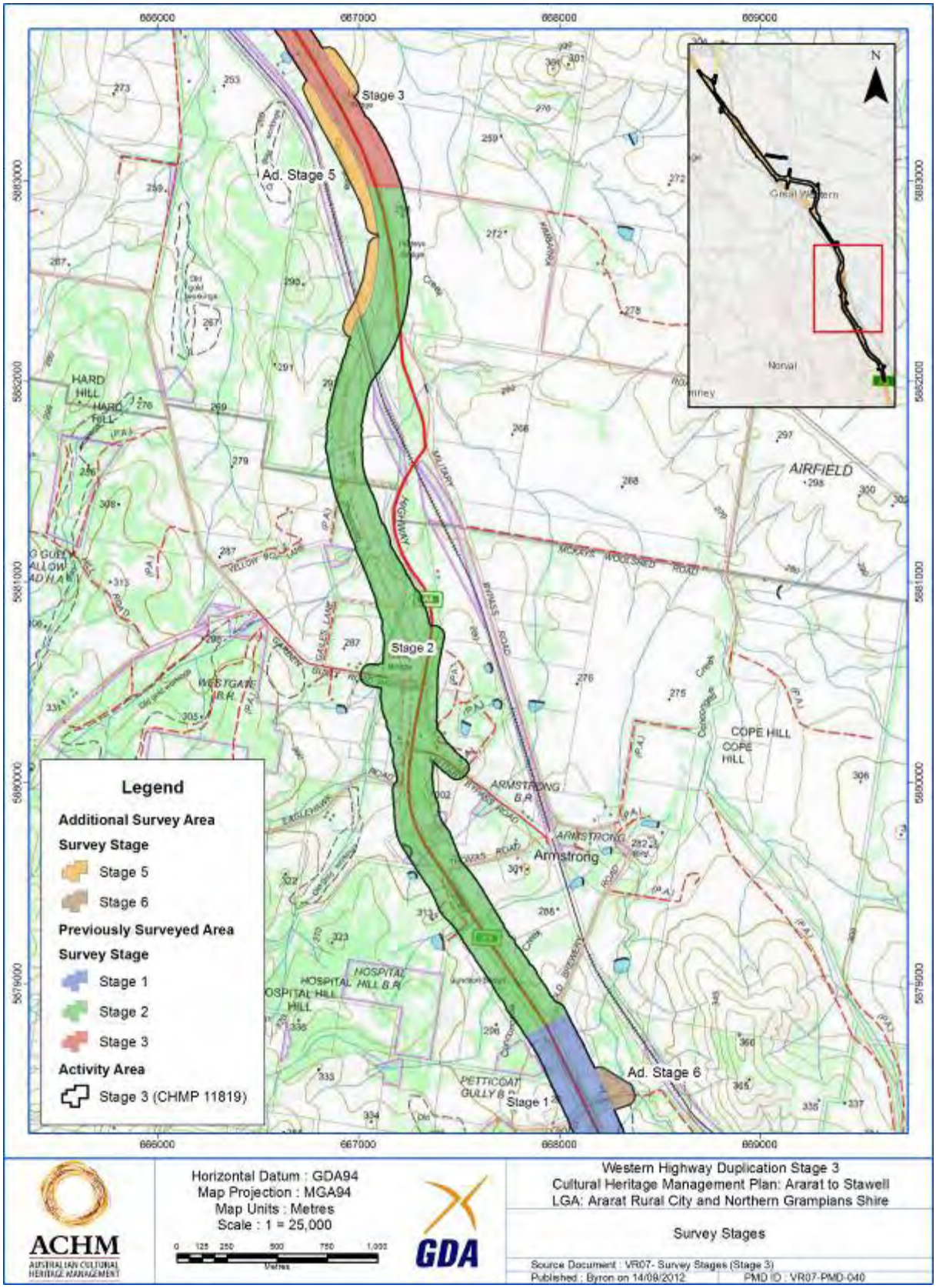
Table 7: Survey Stages (original alignment)

Survey Unit	Location	Modal Slope*	Landform Elements*	Disturbance	Geology	Soils	Ground Visibility	Effective Coverage	Aboriginal Archaeological Sites
Stage 1	Refer Maps 6 - 10	Rolling hill with prevailing slope NE	Ephemeral drainage lines; soaks; dams	Machining (tilling or ripping) and rabbit warrens	Not observed	Granitic clayey silty sand matrix but unlikely to be topsoil matrix observed.	<5% Generally 40% in ploughed fields	1% Generally 40% in ploughed fields	No new Aboriginal sites recorded
Stage 2	Refer Maps 6 – 10	Low-lying ridge to the south-west of boundary and spurs orientated south-west to north-east creating an undulating ground surface	Waterways; small to medium dams; stony rise with granite outcrops	Land clearance, ploughing, excavation of dams and vehicular movement	Not observed	Not observed	<5% Generally 40% in ploughed fields	1% Generally 40% in ploughed fields	No new Aboriginal sites recorded
Stage 3	Refer Maps 6 – 10	Flat to slightly undulating plains	Waterways; dams	Stock trampling, land clearance, excavation of dam, vehicular movement	Not observed	Terrace of waterway revealed a top unit of poorly sorted silty sand	<10%	1%	No new Aboriginal sites recorded
Stage 4	Refer Maps 6 – 10	Flat to slightly undulating plains	Waterways; dams	Stock trampling, road construction, building construction	Not observed	Not observed	<5%	1%	No new Aboriginal sites recorded
Stage 5	Refer Maps 6 – 10	Flat to undulating plain	Waterways; medium sized dam	Stock trampling, dam construction, railway construction, gully erosion and land clearance	Not observed	Not observed	<10%	1%	No new Aboriginal sites recorded
Stage 6	Refer Maps 6 – 10	Low-lying ridge to the south-west and north-east with spurs meeting waterway in south-east. To the north the area is flat with a slight slope north-east	None observed	Stock grazing, land clearance, orchading	Not observed	Not observed	<5%	1%	No new Aboriginal sites recorded
Stage 7	Refer Maps 6 - 10	South-west to north-east oriented ridge or spur top	None observed	Road/track construction, land clearance, tree fall, housing construction	Not observed	Not observed	<5%	1%	No new Aboriginal sites recorded

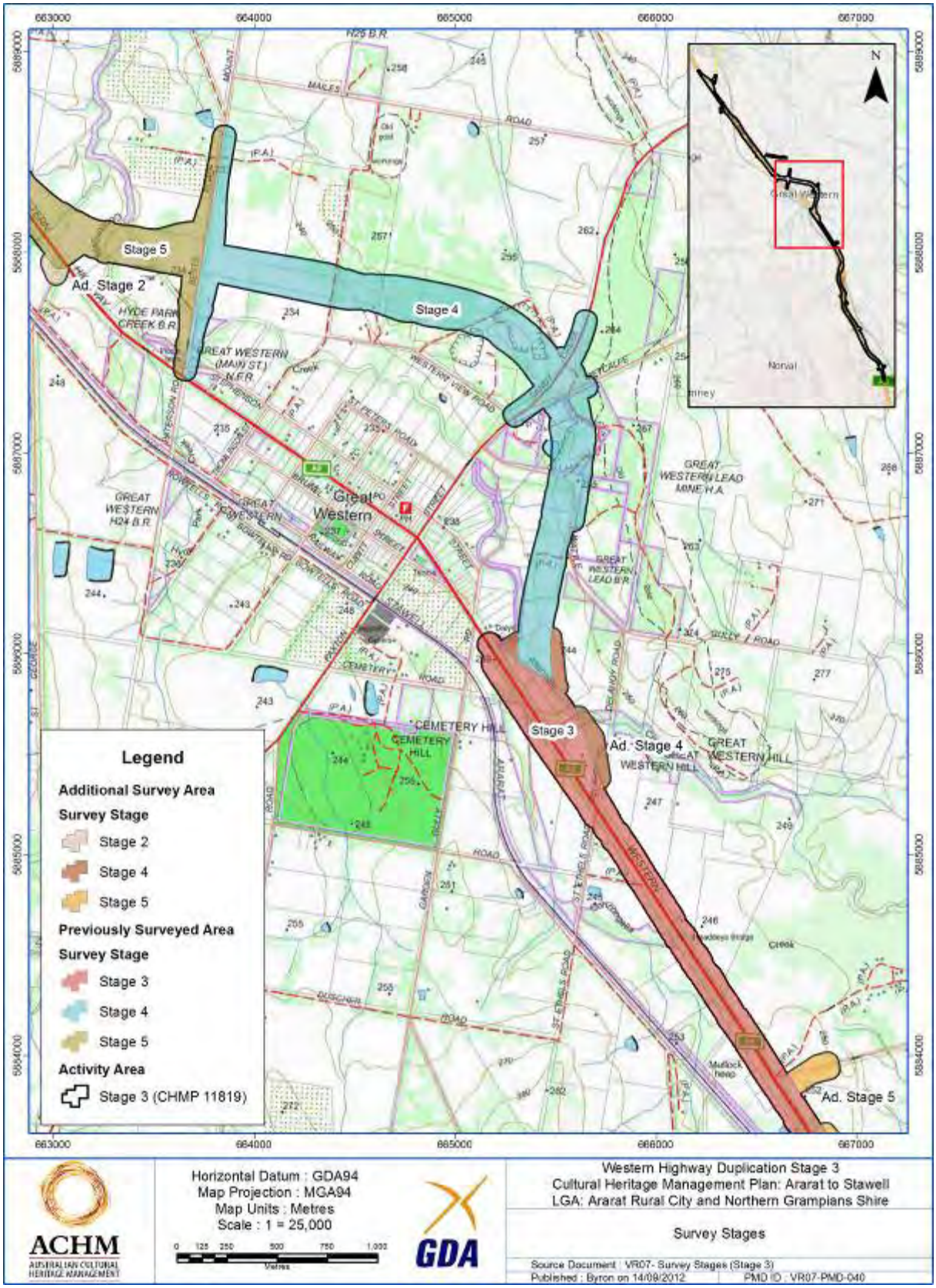
Table 8: Survey Stages (additional alignment)



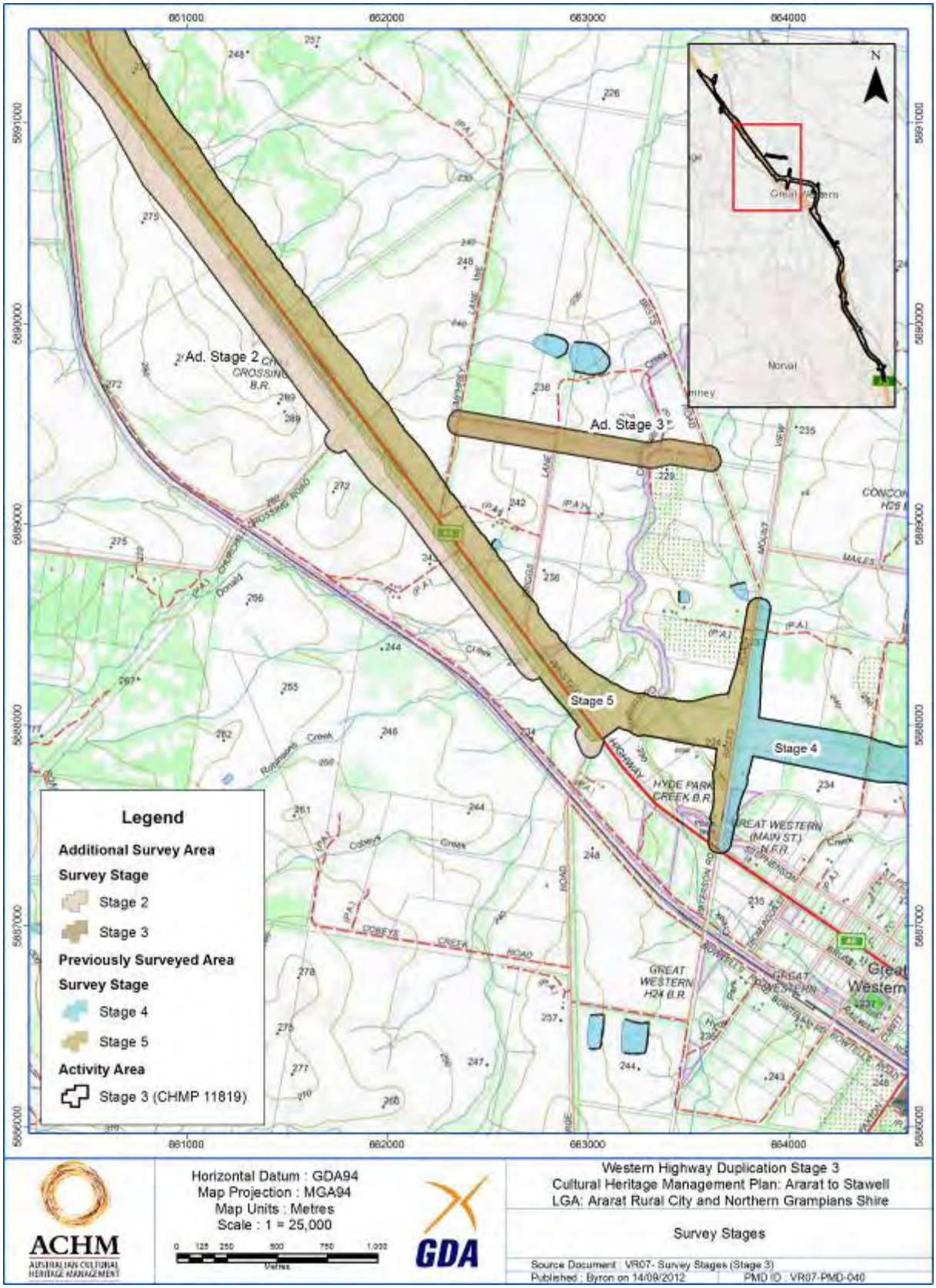
Map 6: Survey Stages Map 1



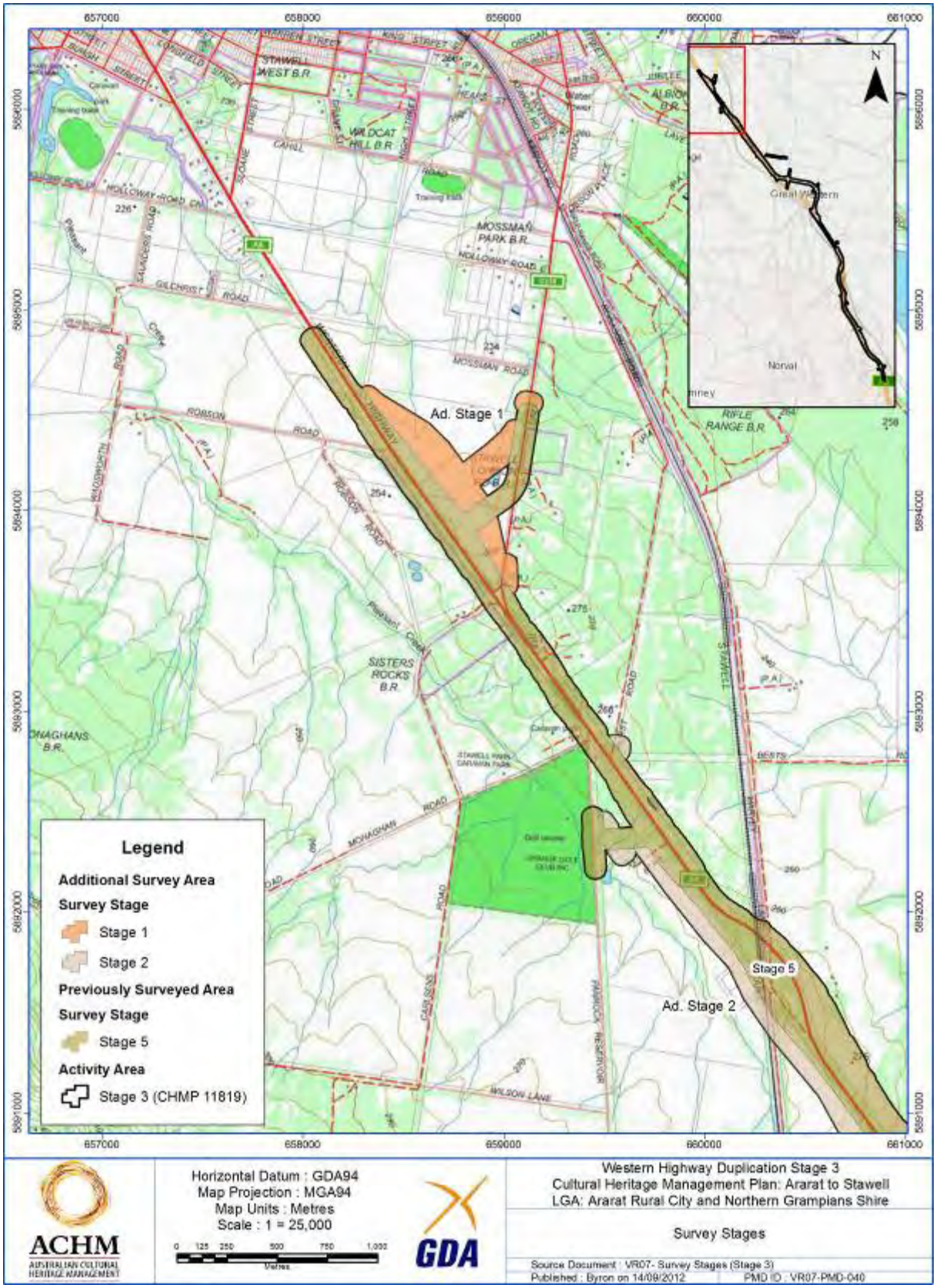
Map 7: Survey Stages Map 2



Map 8: Survey Stages Map 3



Map 9: Survey Stages Map 4



Map 10: Survey Stages Map 5

Weather conditions during the survey ranged from cool and sunny to cool and cloudy with a temperature range over the five days from 24° to 32° Celsius. Ground surface visibility across a majority of the activity area was extremely poor (<5%) due to dense grass and leaf litter cover. However, some ground surface exposures were noted, and these were primarily due to stock movement, ploughing and road construction. In these areas ground surface visibility increased to approximately 40%. The activity area incorporates the existing road reserve of the Western Highway, as well as portions of side roads and privately owned properties either side of the road reserves. A large number of trees were present within the road reserves of the Western Highway. However, a majority of these trees were either introduced species or immature native trees. Only a small number of mature native trees of an appropriate age to be Pre-European were identified during the survey.

Figure 8: Example of ground surface visibility within a road reserve to the north of the Western Highway.

Figure 9: Example of ground surface exposure within the paddocks throughout the activity area.

A total of approximately 5% of the activity area was effectively surveyed due to limitations imposed by ground surface visibility. The physical environment of the activity area was dominated by a flat to slightly undulating plain in the south from Ararat up to Stawell. The plain in the south near Ararat is dissected by a number of unnamed waterways and Concongella Creek. Concongella Creek was found to cut through the transect on a number of occasions. These waterways typically followed a north-east to south-west course originating from Concongella Creek to the north east of Stawell.

Figure 10: View of the paddock within the activity area to the east of the Western Highway facing north.

Opportunistic observations of the sediment profile of Concongella Creek revealed medium brown sandy silt overlaying a light brown sandy sediment overlaying a light brown and yellow sandy sediment with loose irregular rocky inclusions.

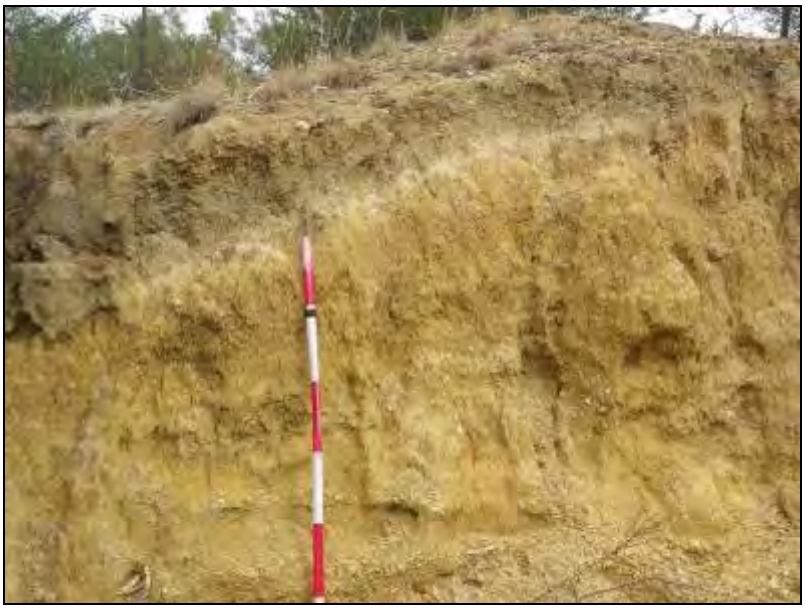


Figure 11: View of the sediment profile exposure on the western wall of Concongella Creek (exact location not recorded). Photo taken facing south.

Figure 12: View of the sediment profile exposure on the western wall of Concongella Creek located within the original activity area. Located 10 m south of Kimburra Road 1. Photo taken facing south.

A number of other waterways, including soaks, were recorded throughout much of the activity area (see Figure 13).

Figure 13: Two small soaks located to the north-west of Loddon Road in additional survey area stage 1. Photo taken facing east.

A large stony rise with granite outcrops (see Figure 14) was recorded between St George Road and the rail line and within 500 m north-east of a waterway. No artefacts were observed on the surface of the area, but it is considered to be moderately to highly sensitive.

Figure 14: Large stony rise with granite outcrops was observed between St George Road and the rail line in Stage 2 of the additional survey area. Photo taken facing north-east.

A number of dams were also prevalent throughout many of the properties surveyed (see Figure 15 and 16).

Figure 15: An example of the many dams throughout the activity area. Photo taken facing south-east.

Figure 16: Example of large dam within the activity area alignment. Photo taken facing north-west.

5.2.2.2. Survey Results

Of the five previously recorded Aboriginal sites within the activity area, only two were able to be relocated – Armstrong ST 2 (Scarred Tree) and Armstrong ST 3 (Scarred Tree). Two new Aboriginal sites were recorded during the survey - Kimburra Road 1 (surface scatter) and Wattle Gully Road 1 (isolated artefact; see Table 9 below).

AHR No. and Name	PRS or New Site	Coordinates (MGA Zone 55)	Cultural Material & Context
Junction Bridge 1 VAHR 7423-0712	Previously Recorded Site; unable to be relocated	[redacted]	A Scar Tree Located 10 m west of the existing Western Highway alignment
Junction Bridge 2 VAHR 7423-0713	Previously Recorded Site; unable to be relocated	[redacted]	A Scar Tree Located 150 m north of Old Brewery Road
Armstrong ST 2 VAHR 7423-0736	Previously Recorded Site; able to be relocated	[redacted]	A Scar Tree Located 100m east of the Western Highway and 500m north of Garden Gully road
Armstrong ST 3 VAHR 7523-0738	Previously Recorded Site; able to be relocated	[redacted]	A Scar Tree Located 600m south of Kimburra road, 20m east of the Western Highway and has Concongella Creek running 200m to the east
Armstrong SS 1 VAHR 7423-0734	Previously Recorded Site; unable to be relocated	[redacted]	An artefact Scatter Located 600m south of Kimburra road, 50m west of the Western Highway and has Concongella Creek running 230m to the east

Kimburra Road 1 VAHR 7423-0772	New Site	[redacted]	A surface scatter, consisting of two ceramic and four glass flaked pieces Located 10m north of Concongella Creek and 50m south of Kimburra Road
Wattle Gully Road 1 VAHR 7423-0771	New Site	[redacted]	An isolated artefact consisting of flaked glass Located at the base of the banks of an unnamed artificial waterway used to supply water to the private property's dam. The property was located east of Great Western heading north from the Western Highway.

Table 9: Aboriginal Sites within the Activity Area

Aboriginal Sites within the Activity Area

Site Names: Junction Bridge 1 and Junction Bridge 2.
VAHR 7423-0712 and 7423-0713

[redacted]

Junction Bridge 1 and 2 are scar trees located 50m apart, 10m west of the Western Highway and 150m north of Old Brewery Road. Neither tree could be identified in the nearby landscape, which is most likely due their recent removal.

Figure 17: Location of Junction Bridge 1. Photo taken from the Western Highway facing west.

Figure 18: Location of Junction Bridge 2. Photo taken from the Western Highway facing west

Armstrong ST 2
VAHR: 7423-0736
[redacted]

Armstrong ST 2 is a scar tree site and considered an ethnographic site as identified by Frank Douglas (Barengi Gadjin representative). The site is located 100m east of the Western Highway and 500m north of Garden Gully road. The site is surrounded by a fence that sits approximately 10m from the tree's base. The scared tree seems to be in good health.

Figure 19: Photo of Armstrong ST 2. Photo was taken facing north-east and shows the tree's scar.

Figure 20: Photo of Armstrong ST 2. Photo taken facing north-east and shows the full extent of the tree.

Armstrong ST 3
VAHR: 7423-0738
[redacted]

Armstrong ST 3 is a scar tree site and is located 600m south of Kimburra road, 20m east of the Western Highway and has Concongella Creek running 200m to the east. The tree seems to be in good health and seems undisturbed.

Figure 21: Photo of ST 3. Photo taken facing north-east.

Armstrong SS 1
VAHR: 7423-0734
[redacted]

Armstrong SS 1 is a surface scatter site located 600m south of Kimburra road, 50m west of the Western Highway and has Concongella Creek running 230m to the east. The surface scatter could not be identified due to poor ground visibility. This site may have undergone disturbance due to the close proximity to the highway.

Figure 22: Location of Armstrong SS 1. Photo taken facing east.

Figure 23: Location of Armstrong SS 1. Photo taken facing west.

Newly Identified Aboriginal Sites within the Activity Area

Two unrecorded sites, comprising an artefact scatter and an isolated artefact, were identified during the survey. These two finds were situated in ground surface exposures, which as a whole were uncommon across the activity area due to dense vegetation cover. The locations and content of each of these sites, are discussed in greater detail below.

Kimburra Road 1

VAHR: 7423-0772

[redacted]

Kimburra Road 1 is a surface scatter comprising two ceramic and four glass flaked pieces. The site was located 10m north of Concongella Creek and 50m south of Kimburra Road. The scatter was located on flat terrain with a relatively higher ground visibility of 20%. The surface scatter continued for 20m north of Concongella Creek. The site is likely to extend westward outside the survey corridor. The site was situated on private property which has been previously impacted by land clearance and animal trampling.

Figure 24: Location of Kimburra Road 1. Photo was taken from Concongella Creek looking north across the site.

Figure 25: Example of one of the flaked ceramic pieces located at Kimburra Road 1.

Wattle Gully Road 1
VAHR: 7423-0771
[redacted]

Wattle Gully Road 1 is an isolated artefact composed of one glass flake found on the surface. The site was located at the base of the banks of an unnamed artificial waterway used to supply water to the private property's dam. The property was located east of Great Western heading north from the Western Highway.

Figure 26: Location of Wattle Gully Road 1. Photo taken facing south.

Figure 27: Close up image of flaked glass which composes Wattle Gully Road 1.

A total of eight hollow bearing trees were identified during the survey which required a climbing inspection. These trees were unable to be inspected from ground level due to the height of the hollows. These hollows were located within trees that were initially judged to be of an appropriate age to pre-date European arrival in Australia or to have been mature shortly after this time. Of these eight trees, only one was defined by the arborist as of an adequate size and age to be used as a mortuary trees.

Photographs of all hollow bearing trees are in provided in the Arborist's Report (Appendix 3).

Hollow Bearing Tree No	Description of Tree	Description of Hollow
Hollow Tree 126	*Eucalyptus camaldulensis* River Red Gum Mature tree, fair health and poor structure	Tree 126 contained two hollows – one which travelled all the way to the base of the tree (the base was simply dirt and leaf litter, visible from the ground level, and another hollow which which was less than 0.5 m deep and contained a wooden base.

Table 10: Hollow bearing trees which required climbing inspections

There was no evidence of human burials or mortuary goods within any of the hollow trees inspected within the activity area.

Figure 28: Endoscope equipment used for climbing hollow tree inspections

Figure 29: An example of the type of image produced using the endoscope at the base of the hollows. Note the clarity of the image - wood grain and leaves are clearly visible

Historical Sites within the Activity Area

Of the ten previously recorded Historical sites within the activity area, only one was relocated during the survey –Armstrong No. 2 (H7423-0061; see Table 11).

Heritage Inventory No. and Name	PRS or New Site	Coordinates (MGA Zone 55)	Cultural Material & Context
Armstrong No. 1 H7423-0060	Previously Recorded Site	[redacted]	The site consists of a ruined structure, marked by stone wall foundations and a possible stone hearth. There is also a possible outbuilding and a raised circular structure with a central depression.
Armstrong No. 2 H7423-0061	Previously Recorded Site; relocated during survey	[redacted]	The site consists of a ruined house. The wall foundations are of double handmade brick and the walls were constructed of mud brick. There is a concrete slab to the rear and low mounds of debris. To the west of the house there is a circular brick cistern and a square brick lined pit. There is a remnant garden with mature pines and peppercorn trees.
Garden Gully Road Ruin H7423-0062	Previously Recorded Site; unable to be relocated	[redacted]	The site consists of a ruinous structure, marked by the remains of a stone fireplace with stones set in mud mortar. There are a few scattered handmade bricks.
Garden Gully Road House Site No. 1 H7423-0063	Previously Recorded Site; unable to be relocated	[redacted]	A ruinous, four roomed timber house, with a lean-to kitchen at the rear and a verandah at the front and side. A cellar has been excavated under the east side. There is a shearing shed to the west and brick shed foundations nearby, a small dam and a brick cistern. Artefacts and equipment are scattered over the site and there is a remnant orchard, mature pines and other exotic trees.
Garden Gully Road House Site No. 2 H7423-0064	Previously Recorded Site; unable to be relocated	[redacted]	The house site is marked by stone and brick foundations, low mounds and scattered historical artefacts. There is also a brick cistern and a remnant garden.
Armstrong Alluvial Gold Mining Area No. 1 H7423-0065	Previously Recorded Site; unable to be relocated	[redacted]	An extensive area of shallow alluvial gold workings along a tributary of Concongella Creek. The area is marked by shallow pits, low mounds of spoil and scattered historical artefacts. Further workings are found in the road reserve of the Western highway and are a part of the same site.
Armstrong Alluvial Gold Mining Area No. 2 H7423-0066	Previously Recorded Site; unable to be relocated	[redacted]	Shallow alluvial gold workings along the banks of Concongella Creek, for approximately 250 metres. The site is marked by shallow pits, low mounds, one partially filled tunnel and scattered historical artefacts.
Armstrong Brick Structure Ruins H7423-0071	Previously Recorded Site; unable to be relocated	[redacted]	Brick and stone footings covered by long grass. Handmade bricks, granite and lime mortar. Some wall lines are apparent in an area about 10x10 m. Low mounds 50-60 cm above ground level may mark further ruins.
Armstrong Hotel Ruins H7423-0072	Previously Recorded Site; unable to be relocated	[redacted]	Ruined stone structure, with some well-preserved sections of wall (up to 1.5m high). Walls are of mudstone and mud mortar. Appears to be large and multi-roomed but difficult to assess as it is covered by dense scrub, may be garden remains on south side of structure.
Armstrong Graves H7423-0073	Previously Recorded Site; unable to be relocated	[redacted]	A group of 8-9 low oval mounds edged by field stones. Appear to be graves. One is shaped like a cross. There are a number of larger, rectangular areas that are also raised and edged by stones.

Table 11: European Sites located within the Activity Area

Historical Sites Relocated within the Activity Area

Site Name: Armstrong No. 2
Heritage Inventory Site Number: 7423-0061
[redacted]

The foundations and well associated with a historic homestead (H7423-0061 Armstrong No. 2; see Figure 31) were recorded. The historical well was quite small (see Figure 32) and had a diameter of approximately 2 m; the well was capped and located directly north in a paddock neighbouring the homestead. Markers mark was recorded on one of the bricks (see Figure 33).

Figure 30: Historic Homestead H7423-0061 Armstrong No. 2. Photo taken facing north-east.

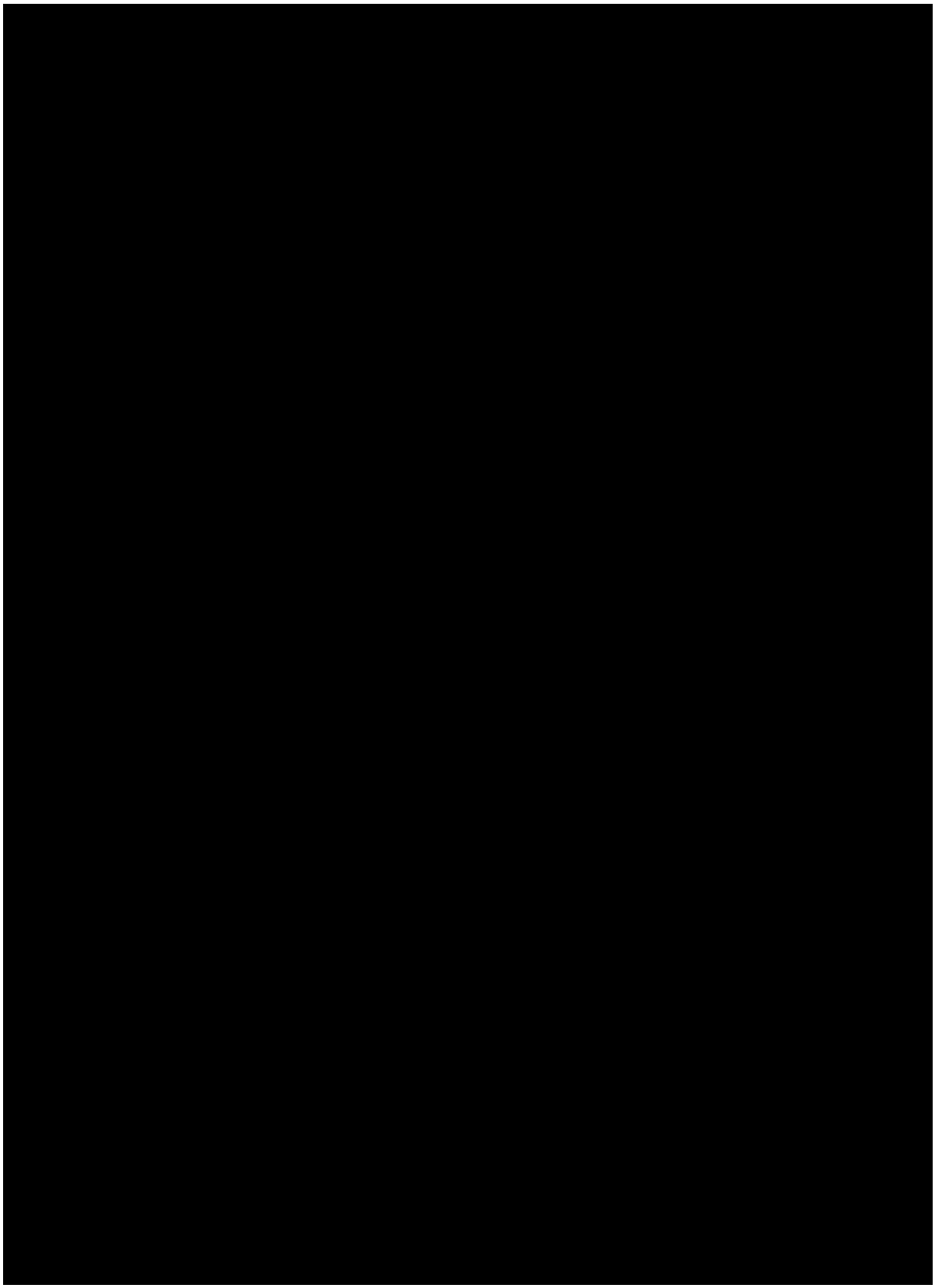
Figure 31: Ruins of a brick-lined well associated with H7423-0061 Armstrong No. 2. Photo taken facing north-east.

Figure 32: Makers mark on one of the bricks associated with the well (H7423-0061 Armstrong No. 2).

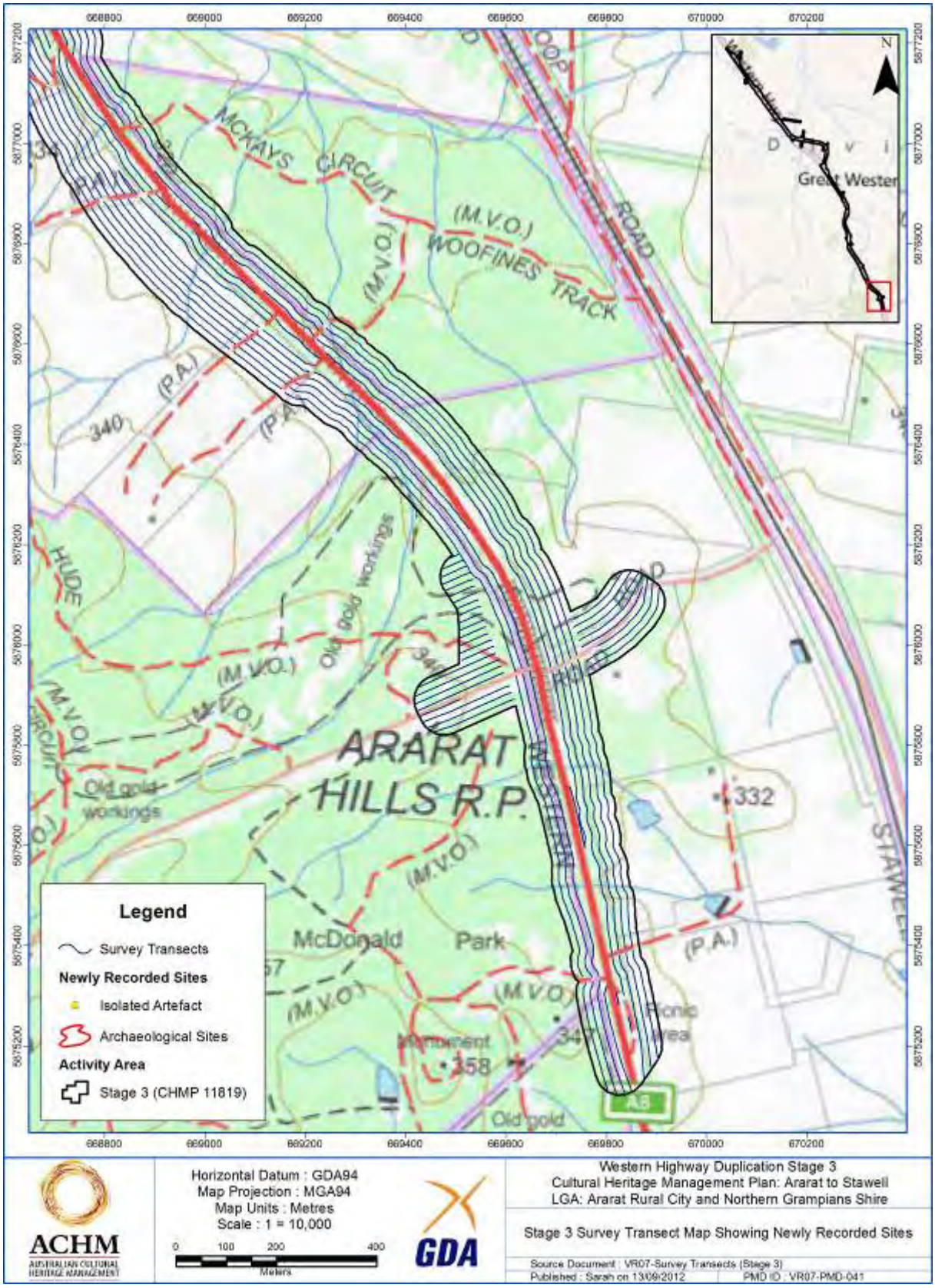
An historic shearing shed and squatters hut was observed near Panrock-Reservoir Road (see Figures 34 and 35), but is located just outside of the current activity area boundary. The shearing shed had an equipment shed and shearers quarters / lunchroom attached, while the squatters hut appears to have had modern additions which may be associated with kids setting up a place to spend time.

Figure 33: Historic shearing shed near Panrock-Reservoir Road. Photo taken facing south-west.

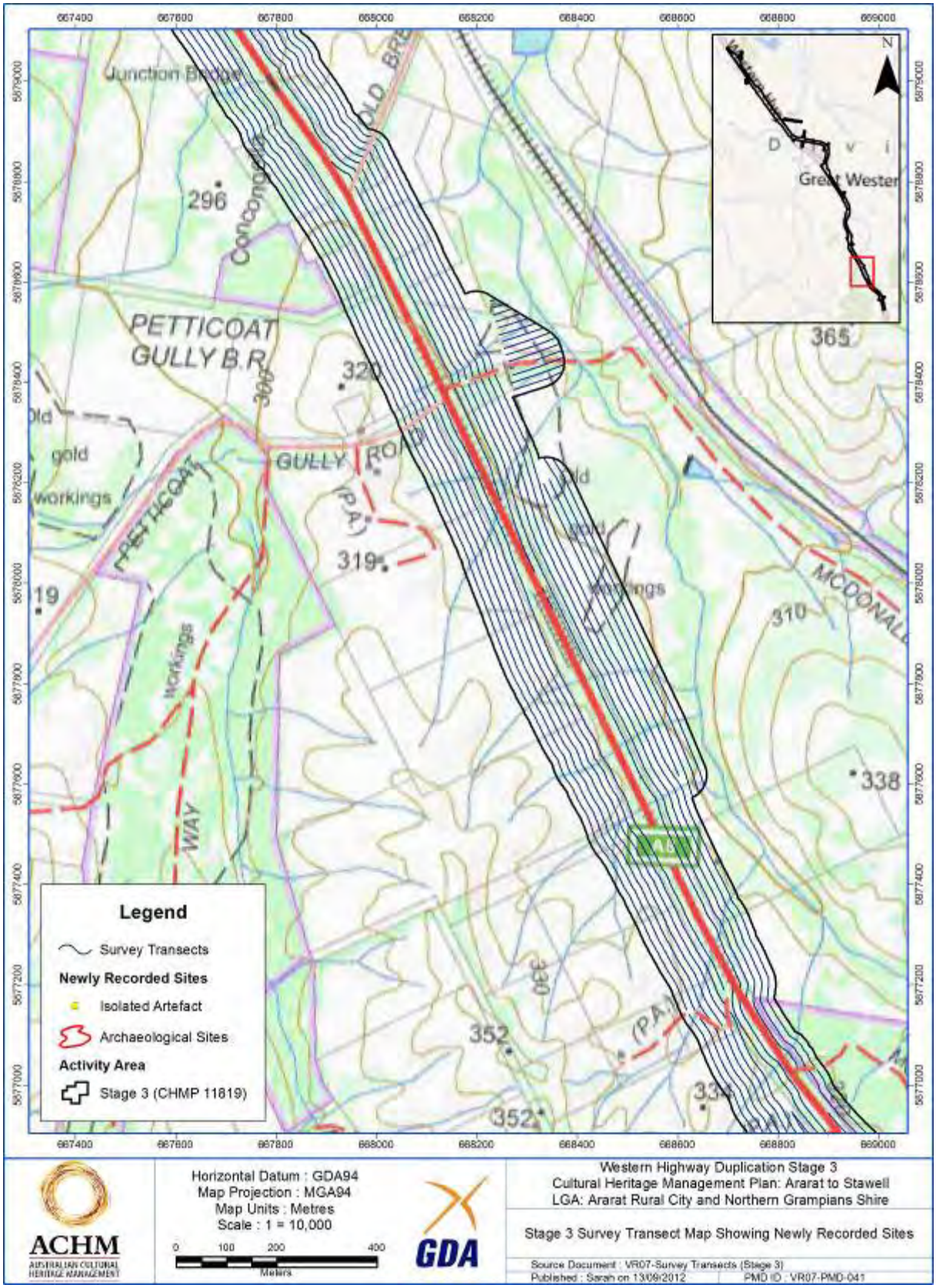
Figure 34: Squatters Hut located near Panrock-Reservoir Road. Photo taken facing east.



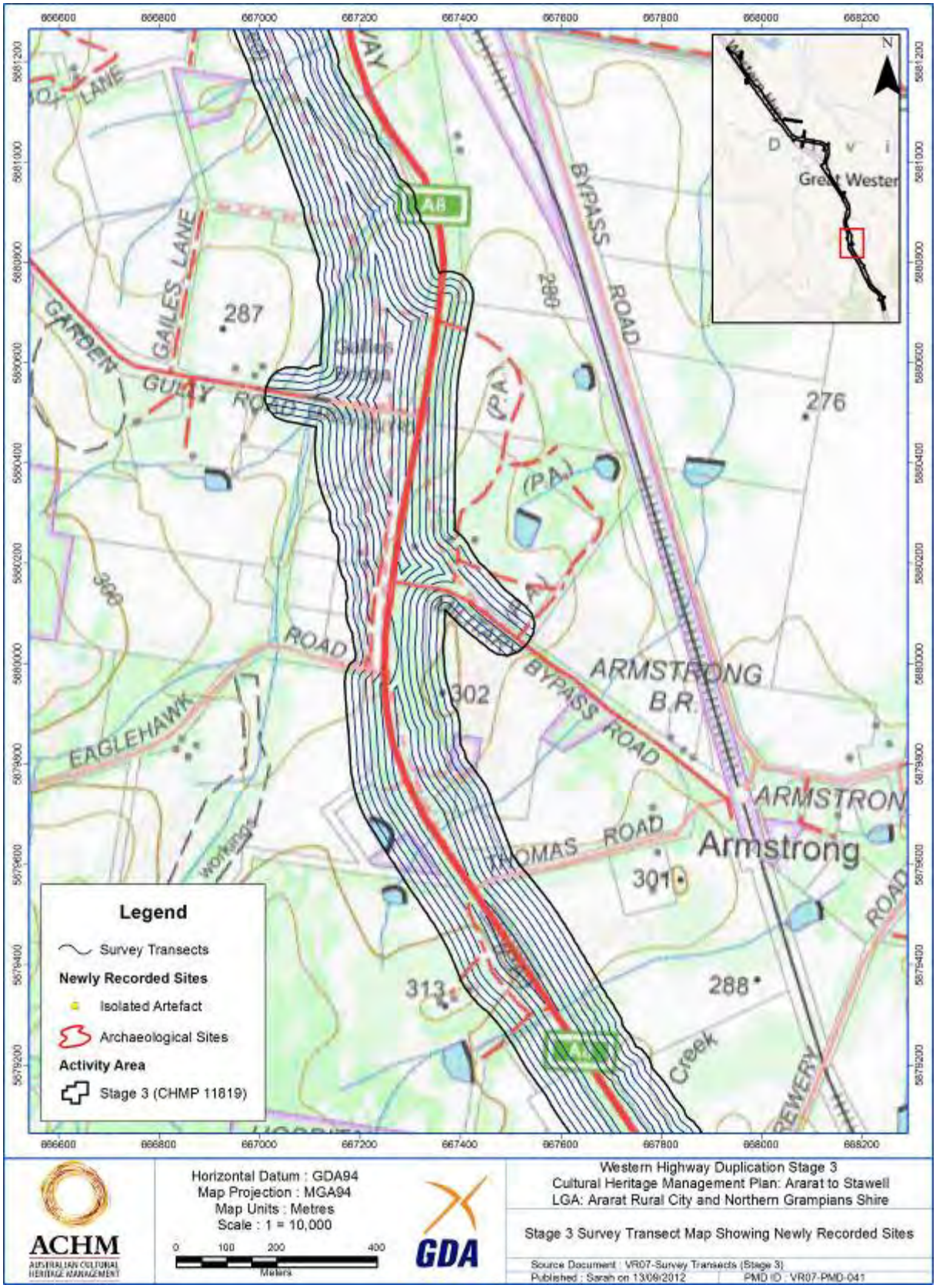
Map 11: Survey Coverage and newly recorded sites



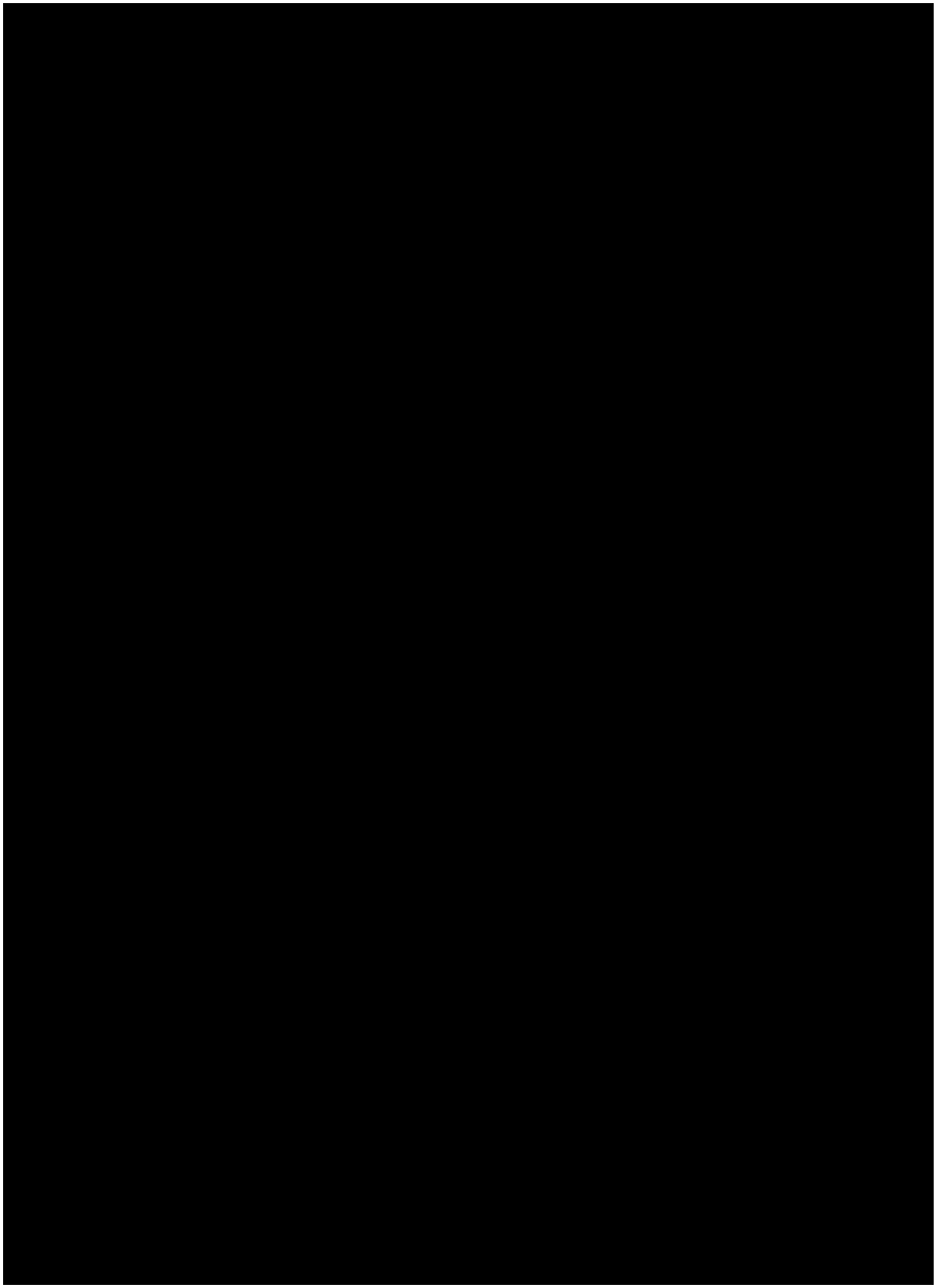
Map 12: Survey Transects Map 1



Map 13: Survey Transects Map 2

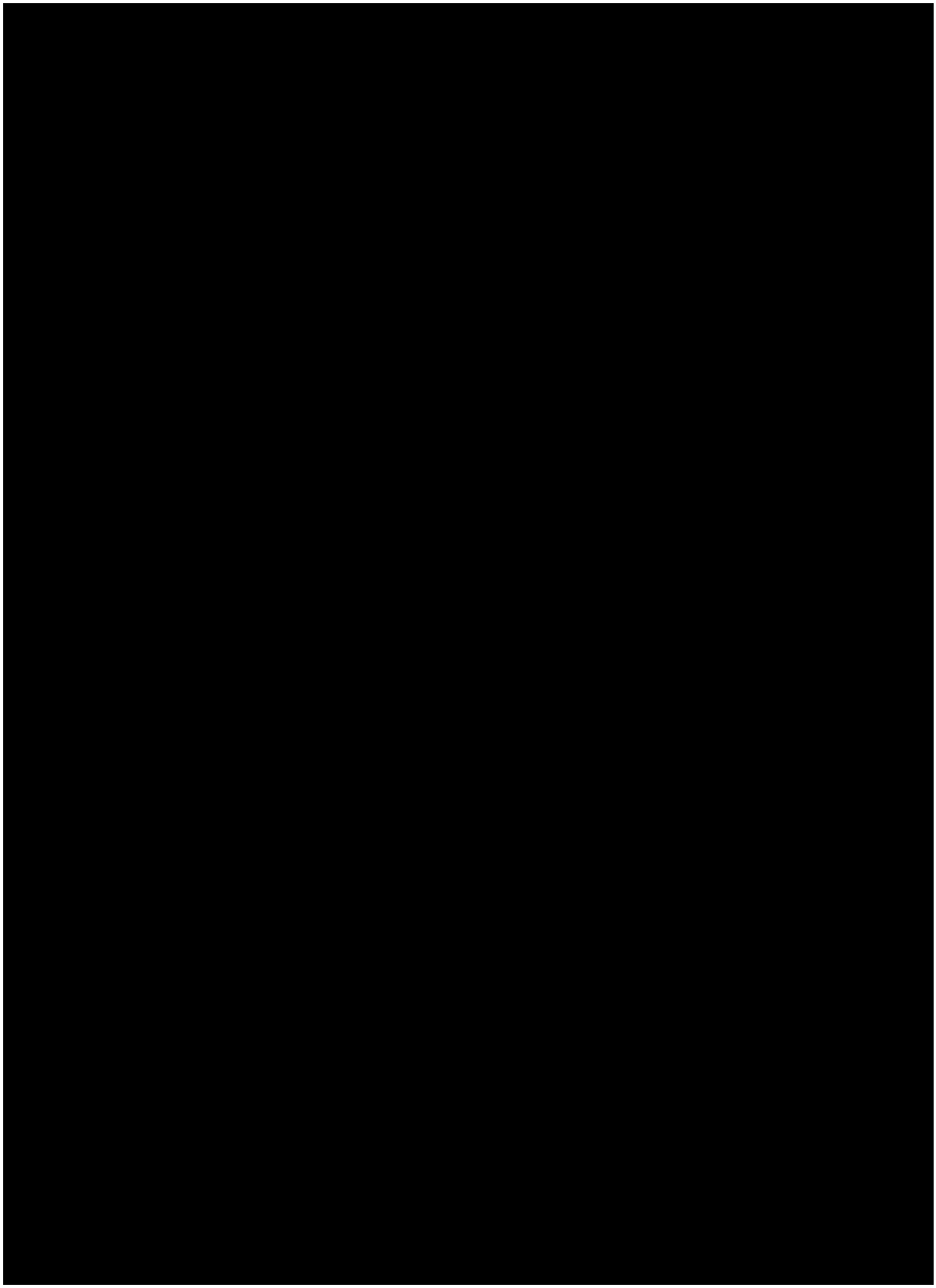


Map 14: Survey Transects Map 3



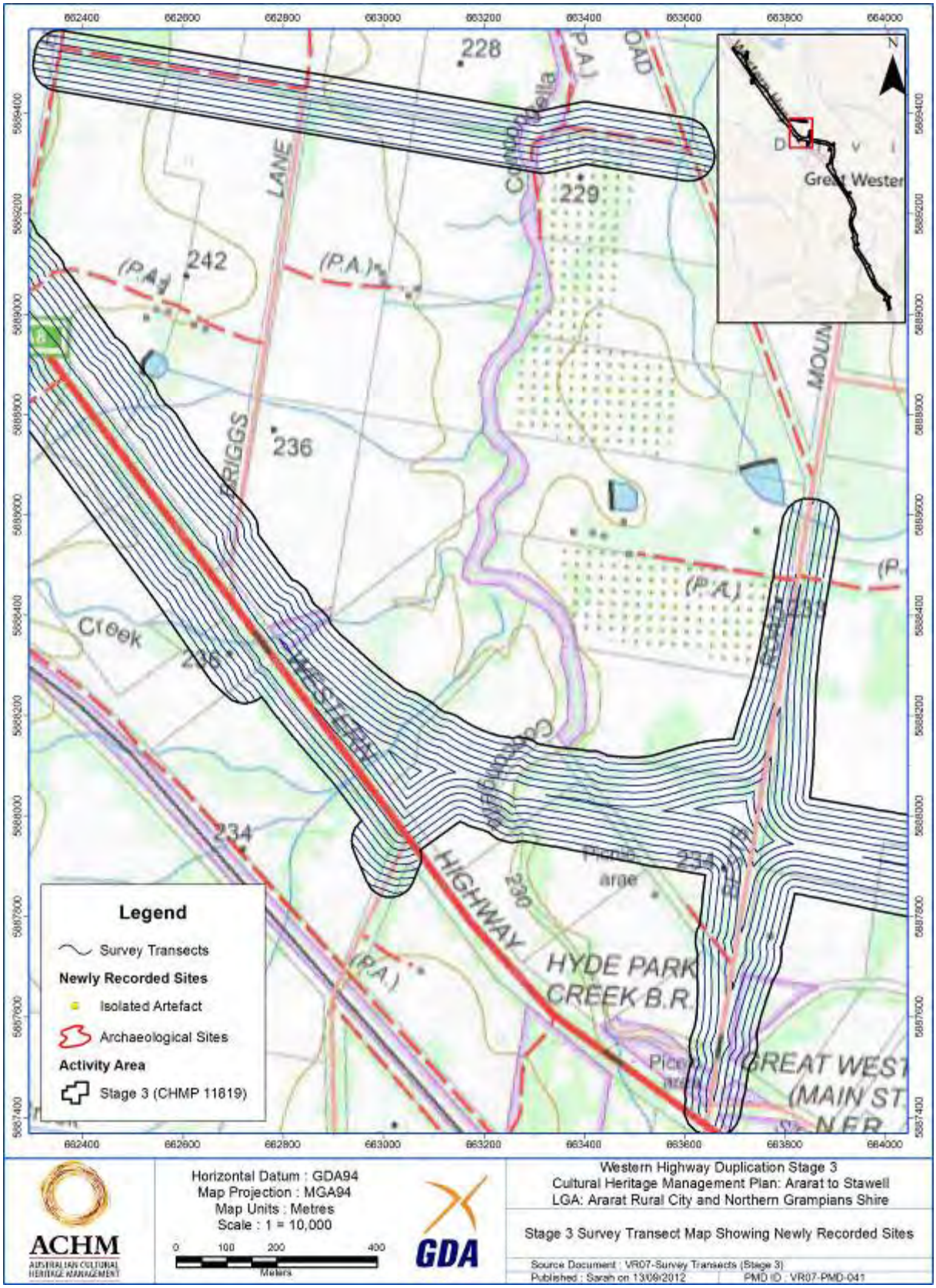
Map 15: Survey Transects Map 4

Map 16: Survey Transects Map 5

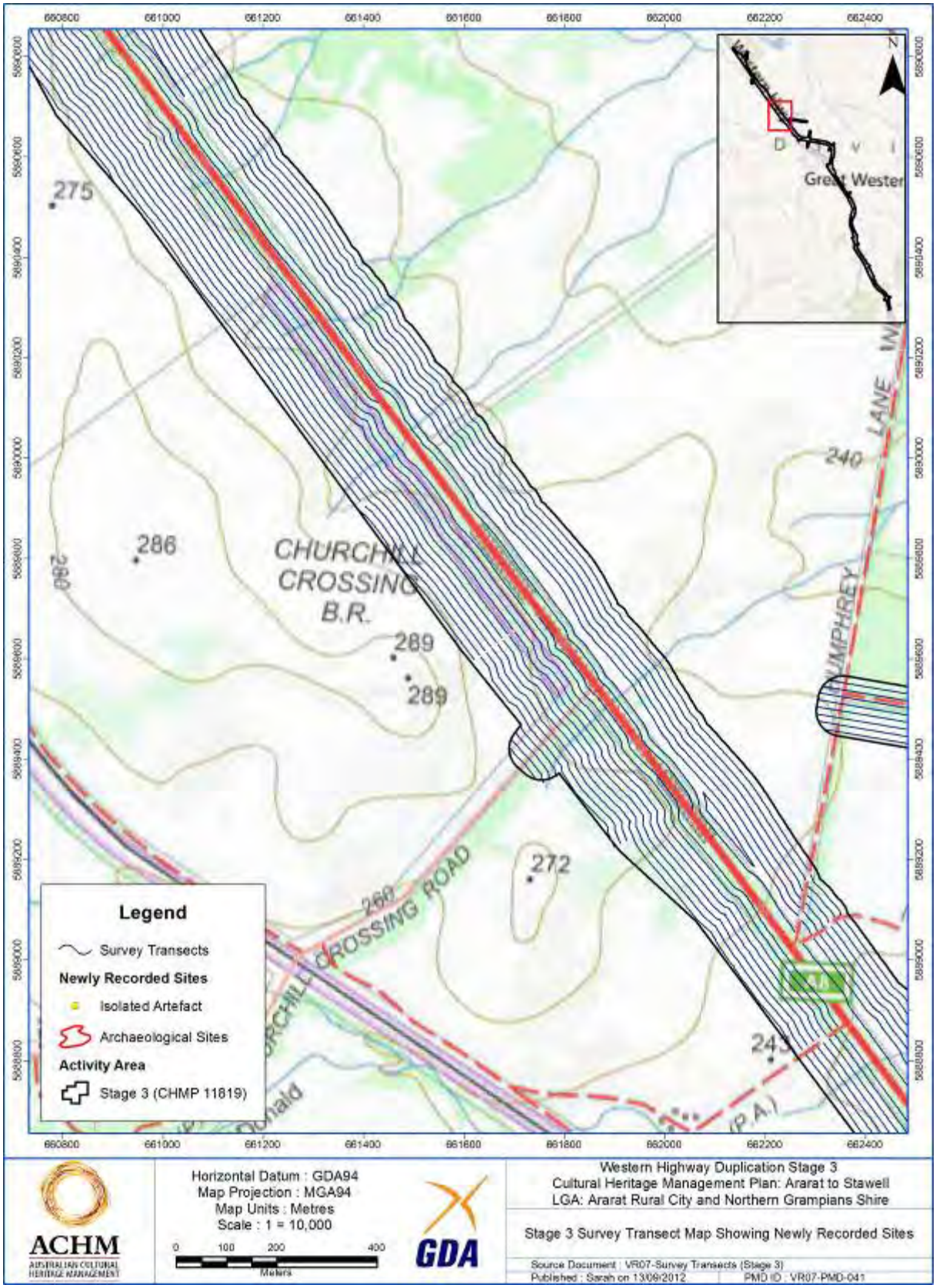


Map 17: Survey Transects Map 6

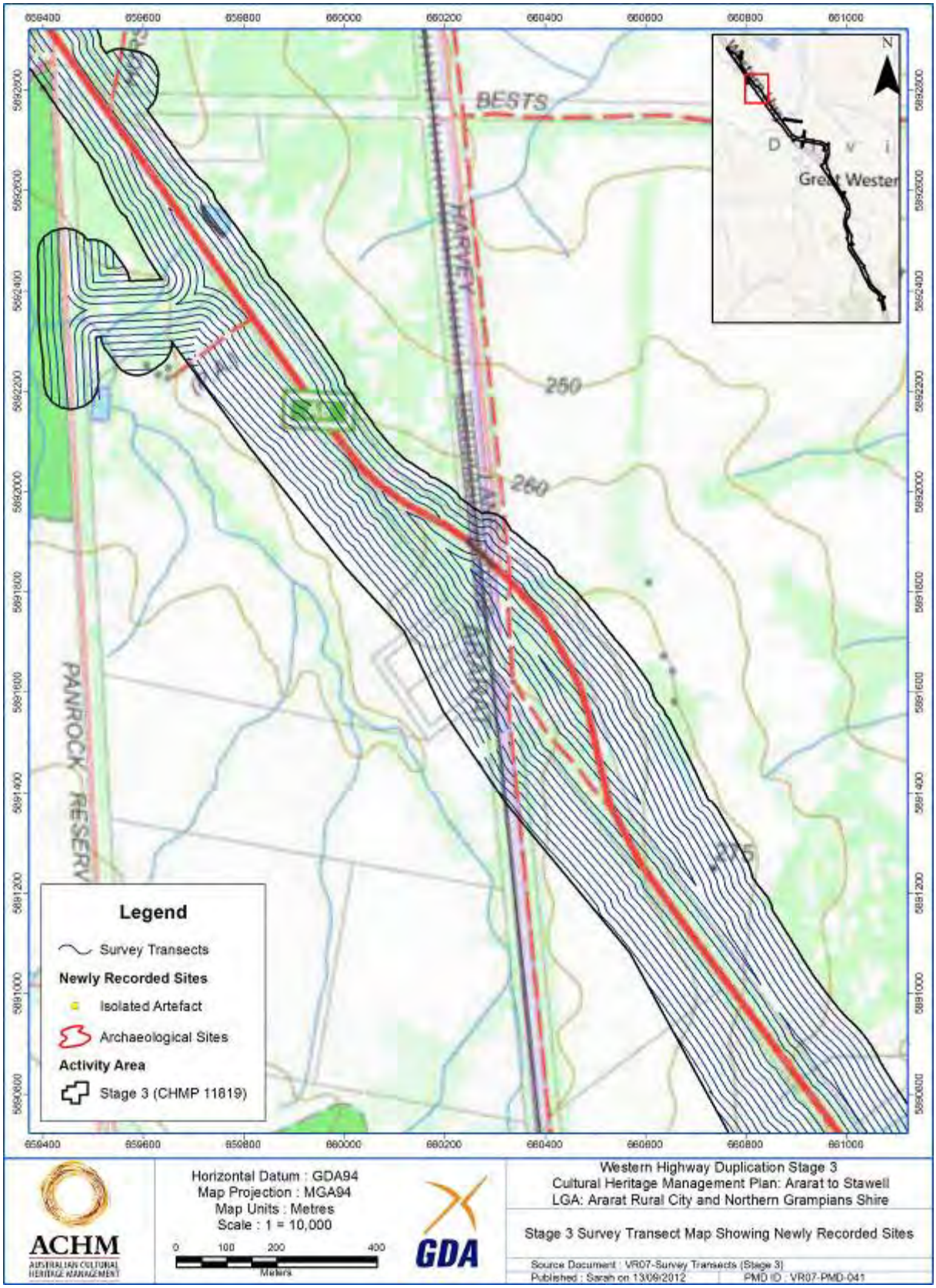
Map 18: Survey Transects Map 7



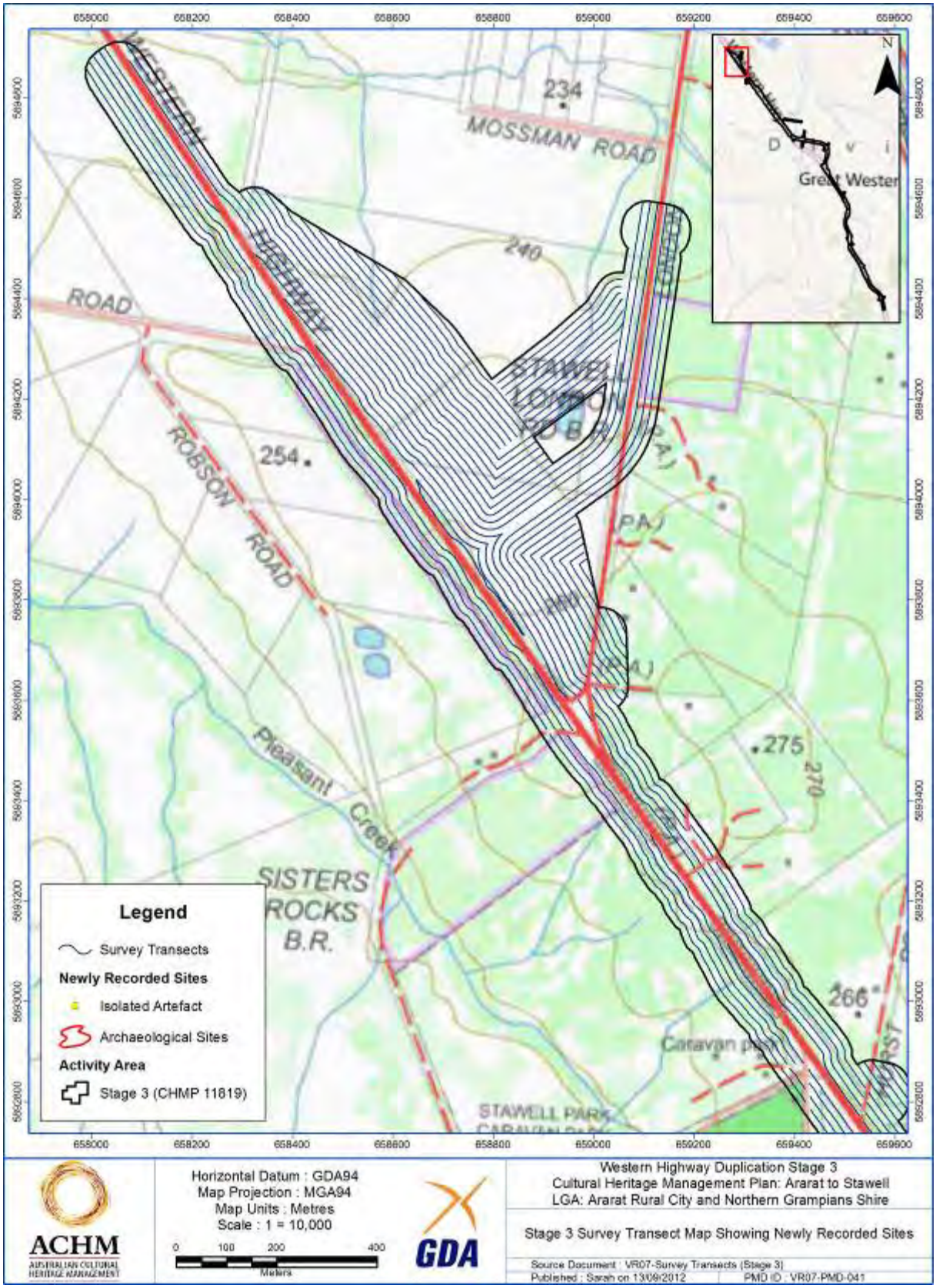
Map 19: Survey Transects Map 8



Map 20: Survey Transects Map 9



Map 21: Survey Transects Map 10



Map 22: Survey Transects Map 11

5.2.3. Conclusions from the Standard Assessment

The activity area was inspected for the presence of archaeological sites and areas of cultural heritage sensitivity.

Ground surface visibility across a majority of the activity area was extremely poor (<5%) due to dense grass and leaf litter cover. However, some ground surface exposures were noted, and these were primarily due to stock movement, ploughing and road construction. The activity area incorporates the existing road reserve of the Western Highway, as well as portions of side roads and privately owned properties either side of the road reserves. A large number of trees were present within the road reserves of the Western Highway. However, a majority of these trees were either introduced species or immature native trees. Only a small number of mature native trees of an appropriate age to be Pre-European settlement were identified during the survey.

Two new sites (one artefact scatter and one isolated artefact) were located as a result of the standard assessment. Low ground surface visibility hindered the ability to accurately determine the extent of these sites, as such, it is not possible to determine with any accuracy the nature, extent and significance of the artefact scatter and other potential archaeological deposits without undertaking a stage of complex testing. Based on the very small artefact sample, very little can be said about the sites beyond the fact that Aboriginal people were clearly using the landscape.

Of the five previously recorded Aboriginal sites within the activity area only two were able to be relocated – Armstrong ST 2 (Scarred Tree) and Armstrong ST 3 (Scarred Tree).

Of the ten historic sites (Heritage Inventory listed sites) located within the activity area, only one (Armstrong No 2 H7423-0061) was re-located during the survey. In the event that the proposed activity will impact upon any of these sites, further archaeological study is recommended and a consent form from Heritage Victoria is required.

One climbing hollow bearing tree was also assessed during the survey in order to determine whether or not a potential mortuary tree was within the activity area. Following a thorough inspection of the hollow, no human burials or mortuary goods were located within these trees.

There was no culturally modified charcoal, caves, rock shelters or cave entrances within the activity area.

5.2.4. Discussion / Summary

The activity area was inspected for the presence of archaeological sites and areas of cultural heritage sensitivity.

A total of two new sites (one artefact scatter and one isolated artefact) were located as a result of the standard assessment.

Of the ten historic sites (Heritage Inventory listed sites) located within the activity area, only one (Armstrong No 2 H7423-0061) was re-located during the survey. In the event that the proposed activity will impact upon any of these sites, further archaeological study is recommended and a consent form from Heritage Victoria is required.

The results of the survey, including the assessment of disturbance and archaeological potential, were reached in consultation with the Martang and Barengi Gadjin representatives who participated in the survey.

Based on the lack of ground surface visibility and the existence of newly recorded sites within the activity area, **a complex CHMP is required** for the Aboriginal sites in order to accurately determine the nature, significance and extent of cultural heritage material within the activity area

A proposed sub-surface testing methodology has been formulated as follows:

1. A targeted approach focussing on areas of cultural sensitivity, specifically within a 200 m buffer of waterways to the width of the activity area alignment and;
2. Around previously recorded surface scatters and isolated artefacts within the activity area in order to determine the nature, significance and extent of their cultural content.

The testing approach will include a series of Shovel Test Probes (STPs) and 1 m x 1 m test pit excavations as required.

PART 3: OTHER INFORMATION

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APPENDICES

APPENDIX 1 – NOTICE OF INTENTION TO PREPARE A CULTURAL HERITAGE MANAGEMENT PLAN

Notice of Intent to prepare a Cultural Heritage Management Plan for the purposes of the *Aboriginal Heritage Act* 2006

This form can be used by the Sponsor of a Cultural Heritage Management Plan to complete the notification provisions pursuant to s.54 of the *Aboriginal Heritage Act* 2006 (the "Act").

SECTION 1 – Sponsor Information

Name of Sponsor: VicRoads Western Highway Project

Business Name: Roads Corporation (VicRoads)

Postal Address: PO Box 148 Wendouree, VIC, 3355

Telephone Number: (03) 5309 1071 (Grant Deeble) Fax number: (03) 5309 1099

Mobile: 0408 142 535

Email Address: grant.deeble@roads.vic.gov.au

SECTION 2 – Description of proposed activity and location

- Provide a project name: Western Highway Project (Ararat to Stawell)
- List the relevant municipal district/s (ie. Local Council or Shire): Rural City of Ararat Council & Northern Grampians Shire Council
- Clearly identify the proposed activity for which the cultural heritage management plan is to be prepared (ie. mining, road construction, housing subdivision):

  This project involves the construction of a dual carriageway highway between the townships of Ararat and Stawell
- Clearly identify the area (such as listing cadastral information, attaching a copy of a title search, or indicating the street address):

  Refer to attached map
- **Attach a map** (to scale, with a north arrow and indicating the municipal district - if any) that clearly identifies the area and boundaries in respect of which the cultural heritage management plan is to be prepared.
  - Please ensure the map refers to existing roads and features, rather than proposed roads and features.
  - Please ensure the map has the activity area outlined on it.
  - The map should have a legend, north arrow, scale, at least 3 readily identifiable geographical locations (such as road intersections, parcel boundaries, or road/river crossings), and should state the map's projection.

SECTION 3 – Cultural Heritage Advisor

If you would like a Cultural Heritage Advisor (a person who has the qualifications or experience [or both] required under section 189 of the Act) notified of the status of this Cultural Heritage Management Plan, please provide the following details for that person:

Ricky Feldman	Andrew Long & Associates Pty Ltd	ricky@alassoc.com.au
Name	*Company (if any)*	*Email address*

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

Start date: 25 / 7 / 2011 Finish date: 30 / 9 / 2012

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 listed in the regulations? Constructing specified items of infrastructure (*S44(1)(e)* a road with a length exceeding 100 metres)

Is any part of the activity in an area of cultural heritage sensitivity, as listed in the regulations? **YES** / ~~NO~~
Please Circle

☐ 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 should only be completed where there is a registered Aboriginal party in relation to the Plan

SECTION 7 – Signature of Sponsor

I certify that to the best of my knowledge and belief that the information supplied is correct and complete.

Signed: _____ Date: / /

[Sponsor]

SECTION 8 – Notification Checklist

☑ Ensure appropriate attachment/s are completed and attached to this notification (see section 2 of this form).

Please ensure this notice and all attached items are sent to the:

Deputy Director
Aboriginal Affairs Victoria
Department of Planning and Community Development
GPO Box 2392
MELBOURNE VIC 3001

Email: vahr@dpcd.vic.gov.au

Notes:

- **Ensure that any relevant registered Aboriginal party/s is also notified. A copy of this notice 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/s, 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 may be used for this purpose.**

APPENDIX 2 – GLOSSARY

Aboriginal Cultural Heritage means Aboriginal Places, Aboriginal Objects and Aboriginal Human Remains that are connected with the cultural life of the Aboriginal people of the activity area and that are of particular significance to those Aboriginal people in accordance with their traditions and customs.

Aboriginal Human Remains means the whole or part of the bodily remains of an Aboriginal person but does not include a body, or the remains of a body, buried in a public cemetery (within the meaning of the *Cemeteries and Crematoria Act 2003 (Vic)*) that is still used for the interment of human remains.

Aboriginal Place means a site, place or area of land or of water that is of Cultural Heritage Significance to the Aboriginal people of Victoria.

Cultural Heritage means Aboriginal Cultural Heritage.

VicRoads means the Roads Corporation and its agents (including contractors).

NB. All terms which have a defined meaning under the *Aboriginal Heritage Act 2006 (Vic* or *Aboriginal Heritage Regulations 2007 (Vic)* have that same meaning when used in this Plan. Nothing in this Plan is intended to replace or modify any of the obligations or procedures required to be followed under the provisions of the *Aboriginal Heritage Act 2006 (Vic)* or *Aboriginal Heritage Regulations 2007 (Vic)*.