

# Warracknabeal Energy Park

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## Attachment A.6: Preliminary Historic Heritage Assessment



# Warracknabeal Energy Park

## Preliminary Historical Heritage Assessment



Heritage Advisor/Author:

Wendy Dolling

April 03, 2023

Heritage  
Insight  
Pty Ltd



Heritage Insight P/L  
53 Stubbs Street Kensington VIC 3031

PHONE: +61 3 9376 6569 INQUIRIES: [archaeology@heritageinsight.com](mailto:archaeology@heritageinsight.com)  
FAX: +61 3 9376 6526 WEB: [www.heritageinsight.com](http://www.heritageinsight.com)

ABN: 73 116 621 884 ACN: 116 621 884

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## **Title of Report**

Warracknabeal Energy Park – Preliminary Historical Heritage Assessment

## **A report prepared for**

Warracknabeal Energy Park Pty Ltd

## **Acknowledgements**

Heritage Insight Pty Ltd would like to acknowledge and thank the following people for their assistance and participation in this study:

Kyle Sandona – Development Manager, WestWind Energy Development

Thomas Walker – Project Manager, WestWind Energy Development

## **Abbreviations**

DEE – Department of Environment and Energy

DEECA – Department of Energy, Environment and Climate Action

DELWP – Department of Environment Land Water and Planning

DEPI – Department of Environment and Primary Industries

DCLS – Department of Crown Lands and Survey

DJPR – Department of Jobs, Precincts and Regions

DLS – Department of Lands and Survey

DSW – Dry Stone Wall

DTP – Department of Transport and Planning

GDA94 – Geocentric Datum of Australia 1994

HHA – Historical Heritage Assessment

HO – Heritage Overlay

HV – Heritage Victoria

ICOMOS – International Council on Monuments and Sites.

LGA – Local Government Area

MGA – Map Grid of Australia

SGO – Surveyor General's Office

VHI – Victorian Heritage Inventory

VHR – Victorian Heritage Register

YS – Yarriambiack Shire

**Please note that all maps and plans in this report are prepared using Victorian Government Standard GDA94 MGA coordinates (Zone 54).**



## **Executive Summary**

### **Introduction**

On May 05, 2022, Heritage Insight was commissioned by Warracknabeal Energy Park Pty Ltd to undertake a Preliminary Historical Heritage Assessment (HHA) of the proposed Warracknabeal Energy Park. As per the project scope, the purpose of this HHA is to: identify any registered/listed historic (non-Aboriginal) sites or places located within the study area; identify the potential location of any previously unidentified historic heritage sites/places that may be located within study area; and determine the implications that the presence of any identified historic (non-Aboriginal) heritage located within the study area have for the proposed activity.

In March, 2023 Heritage Insight were commissioned to amend the final report (issued July, 2022) to include an additional area of land to the south of the original study area. All references to the 'Study Area' in this amended report refer to the amended assessment area.

### **The Study Area**

The study area encompasses ~26,325 hectares the study area is located to the west of the township of Warracknabeal and is generally bounded by: Henty Highway (northeast), Blue Ribbon Road (southeast), Rainbow Road (northwest), and by open farming land (north and south).

The location and extent of the study area is illustrated in Map 1.

### **Previously Identified Heritage Sites**

A search of historic (non-Aboriginal) site registries (as detailed in Table 1) was carried out on May 24, 2022, and revised on March 26, 2023, to identify any previously identified historic heritage sites within and/or in the vicinity of the study area. The search showed that there is one historic heritage site located within the study area, which is currently listed on the Victorian Heritage Inventory (VHI) as H7325-0010 (Cannum 1 Survey Marker). The search also showed that there are currently 24 registered/listed historic sites within 5km of the study area.

Details of the nature and significance of these sites is provided in Table 2 to Table 5; their locations are illustrated in (Map 5).

### **Previous Heritage Studies**

Only a limited number of historical heritage studies have been conducted for land encompassing or in the vicinity of the study area. A review of the results of these studies, and their relevance to the proposed Warracknabeal Energy Park is provided in Section 7.0.

### **Historic Land-use**

Background research undertaken as part of this desktop component of the project included:

- Research into the historic landforms and geomorphology of the study area in order to interpret extant landforms and understand the degree to which European occupation has altered the landscape; and
- Research into the occupation history of the study area – by accessing primary sources pertaining to land ownership, land occupation and built structures – to augment the known history of the region as detailed in previous heritage studies.

The results of this background research is provided in Section 9.0

### **Assessment Results**

With consideration given to the results of desktop research (Sections 6.0 to Section 9.0), the assessment results provided relates to: a previously identified historical site (VHI site no. H7325-0010); and the potential for currently unknown or unrecorded significant historical structures, landscape modification and/or areas of archaeological potential to be preserved within the study area.

As a result of background research, a number of historical structures, features and landscape modifications dating to the nineteenth and early-twentieth century that may be preserved within study area have been identified, including: pastoral outstations; historic tracks/roadways linking pastoral home stations and outstations to townships and other pastoral runs in the region; water supply infrastructure; and fencing – run boundaries and internal paddocks.

Additional details are provided in Section 10.0

### **Management Conditions**

Management Conditions developed as a result of this assessment, and detailed in Section 11.1, include:

- Condition 1: Statutory Protection of Victorian Heritage Inventory Site H7325-0010
- Condition 2: Statutory Protection of Previously Unidentified Historical Archaeological Sites

### **Management Recommendations**

Management Recommendations developed as a result of this assessment, and detailed in Section 11.2, include:

- Management Recommendation 1: Additional Investigations – Archaeological Field Survey
  - It is recommended that consideration be given to commissioning a targeted archaeological field survey of these identified sites to determine if historical archaeological features and/or deposits are preserved at these targeted locations that would warrant protection under the *Heritage Act 2017* (See Section 11.2 for additional details).
- Management Recommendation 2: Additional Investigations – Historic Feature Survey
  - It is recommended that consideration be given to commissioning a preliminary targeted site inspection to map the location of these identified features in order to determine their current condition. It would also potentially be beneficially to undertake additional historic research to locate and map the historic location of features (channels, dams, tanks) associated with the late nineteenth to early-twentieth century water infrastructure works (See Section 11.2 for additional details).
- Management Recommendation 3: Revised Historic Register Search & Planning Scheme Review
  - Should there be any significant delay in the commencement of on-site works, it is recommended that a revised historic register search and a review of the Yarriambiack Shire Planning Scheme is undertaken to confirm that no new site/places have been identified, and that no amendments to the planning scheme have been made that are applicable to the protection or management of historic heritage within the LGA.

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## **Part One: Introduction**

### **1.0 Project Background**

#### **1.1 Commissioning**

On May 05, 2022, Heritage Insight was commissioned by Warracknabeal Energy Park Pty Ltd to undertake a Preliminary Historical Heritage Assessment (HHA) of the proposed Warracknabeal Energy Park. As per the project scope, the purpose of this HHA is to: identify any registered/listed historic (non-Aboriginal) sites or places located within the study area; identify the potential location of any previously unidentified historic heritage site/places that may be located within study area; and determine the implications that the presence of any identified historic (non-Aboriginal) heritage located within the study area have for the proposed activity.

In March, 2023 Heritage Insight were commissioned to amend the final report (issued July, 2022) to include an additional area of land to the south of the original study area. All references to the 'Study Area' in this amended report refer to the amended assessment area.

#### **1.2 Proposed Activity**

Based on the current project design, the Warracknabeal Energy Park will include the construction of a significant number of structures. Key project activities and components (potentially to be required) that have the potential impact extant historic heritage sites/places include:

- Construction of wind turbines
- Construction of Internal substations
- Construction of weather monitoring masts
- Construction of operation and maintenance facilities
- Concrete batching plants
- Construction of overhead powerlines – 23km (33kV) and up to 34km (220kV to 500kV)
- Construction of hardstands, internal access tracks and entry points
- Establishment of temporary site compounds and management facilities (number and location to be determined at a later date)

The precise number and location of the above components will be determined at a later date.

### **2.0 Project Team – Heritage Insight Pty Ltd**

#### **Heritage Advisor/Project Manager**

The heritage advisor who conducted this assessment is Wendy Dolling (Heritage Insight P/L), who holds a BA (Hons) (Archaeology) from Monash University (2001) and a Masters of Cultural Heritage Management from Deakin University (2006).

## **Additional Team Members**

Bianca Di Fazio (Director; BA (Hons) Arch.; MA Conservation) – project commissioning and oversight.

David Crotty (Senior Archaeologist; B.Arch (Hons)) – report editing.

Tom Kimber (Senior Archaeologist/GIS analyst; MA Arch.; BA (Hons) Arch.) – GIS mapping.

Carly Skinner (Technical Archaeologist; MArtC; BA (Hons) Classics) – background research.

## **3.0 The Study area**

### **3.1 Location**

The study area encompasses ~26,325 hectares of land located within the local government area (LGA) of Yarriambiack. As illustrated in Map 1, the study area is located to the west of the township of Warracknabeal and is generally bounded by: Henty Highway (northeast), Blue Ribbon Road (southeast), Rainbow Road (northwest), and by open farming land (north and south).

The location and extent of the study area is illustrated in Map 1.

### **3.2 Current Conditions**

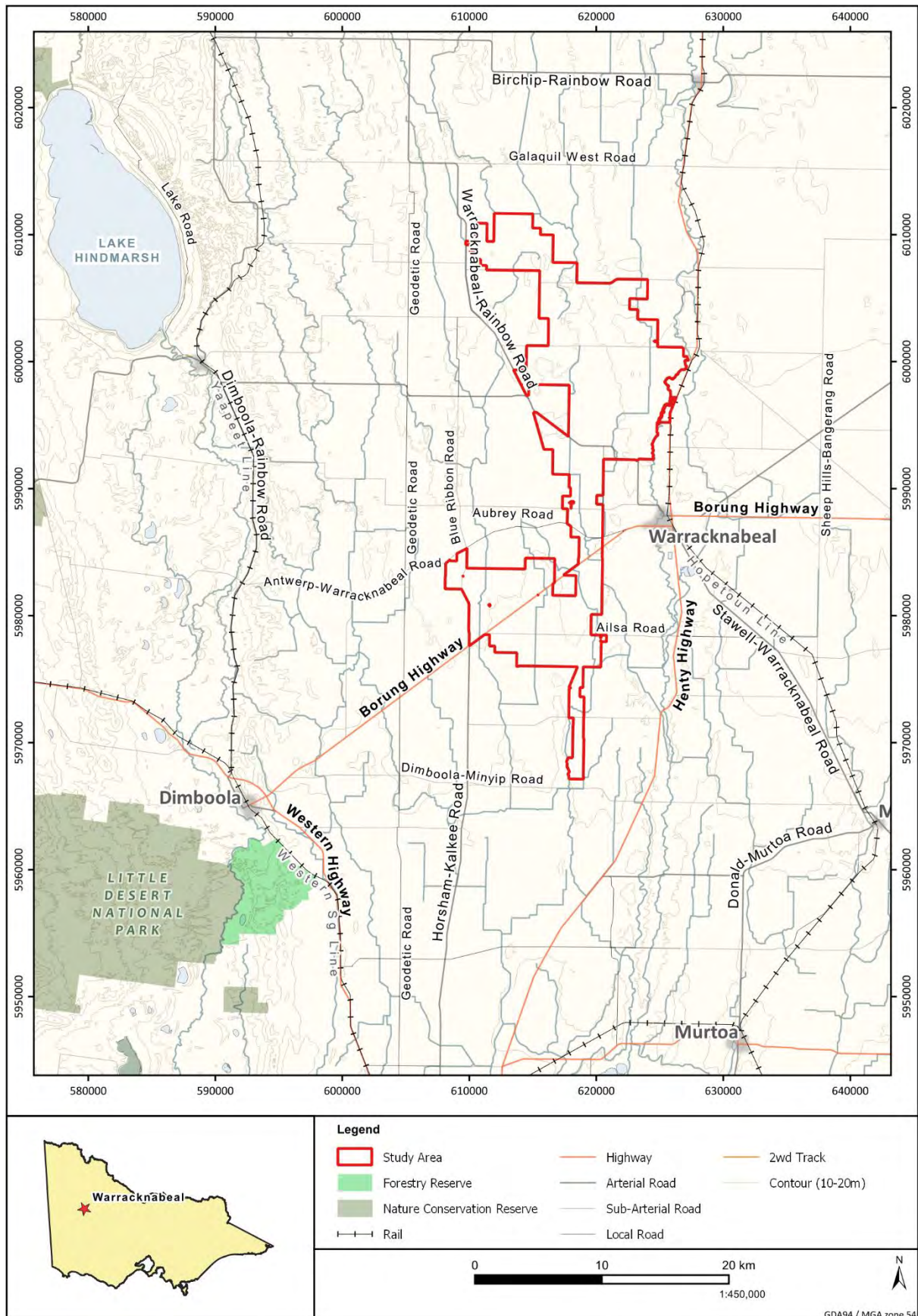
An aerial view of the study area (Map 2) indicates that much of the study area is currently cleared/open farmland. However, a number of features are evident at various points within the study area alignment, including:

- Residential structures and farm buildings;
- Linear plantings/hedgerows – along roadways and property boundaries;
- Yarriambiack Creek and other un-named creeks/waterways;
- Manmade water channels;
- Public roads;
- Internal property/farm roads and tracks; and
- Property fencing – boundary and internal.

## **4.0 Potential Impact of the Proposed Activity on Historic Heritage**

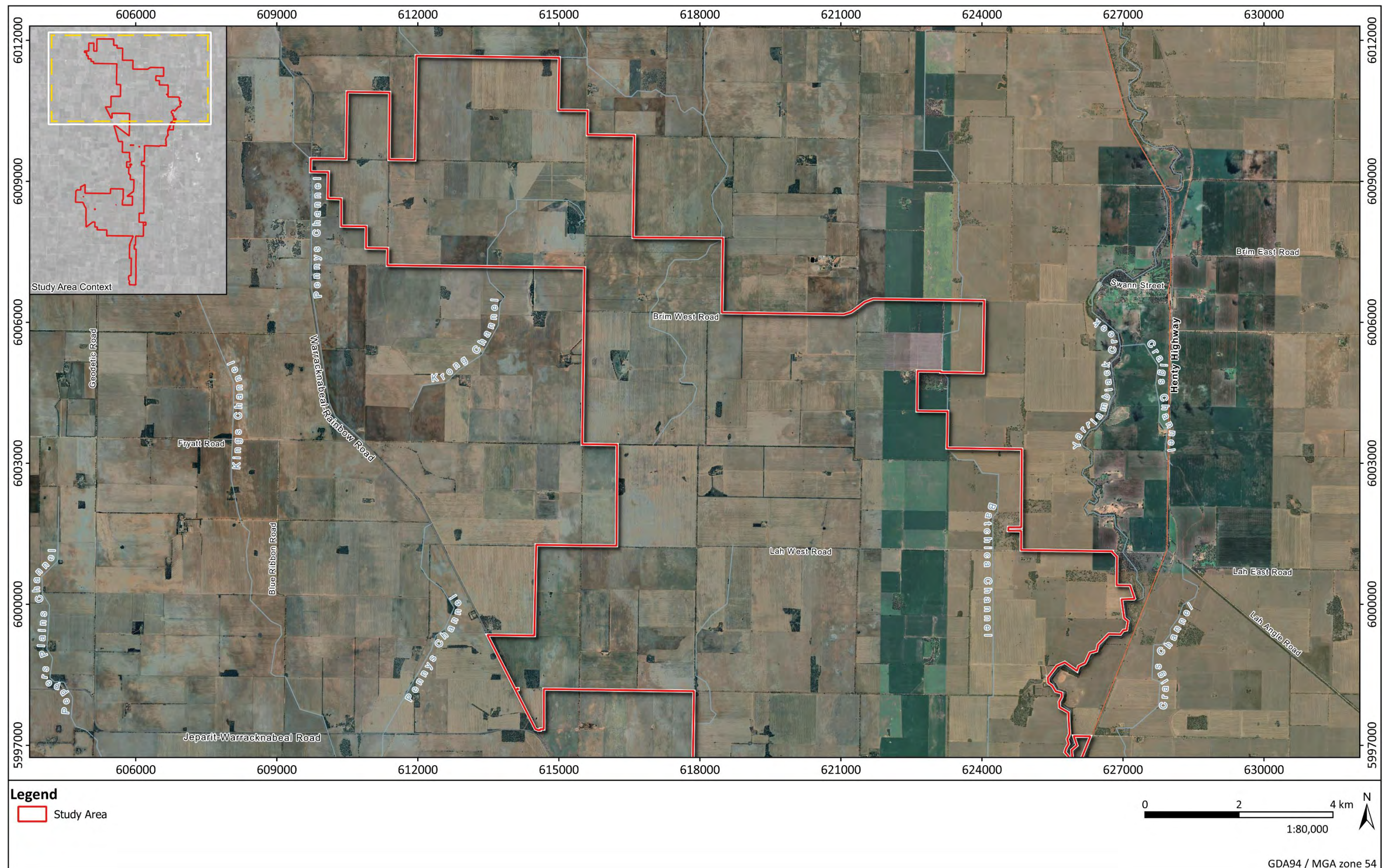
The proposed activity has the potential to impact historic heritage places/sites encompassed by the study, including extant built structures, historic plantings, landform modifications, and archaeological features and deposits. Construction/works activities associated with the construction and operation of the Warracknabeal Energy Park that are likely to impact any extant historic heritage include (but are not limited to):

- The construction of all structural operational elements;
- Additional construction/works activities including (but not limited to):
  - the construction of access roads/tracks, laydown areas, hard stands, and site facilities; and
- The operation of heavy machinery/construction vehicles within the study area.



Map 1: Location of the Study Area

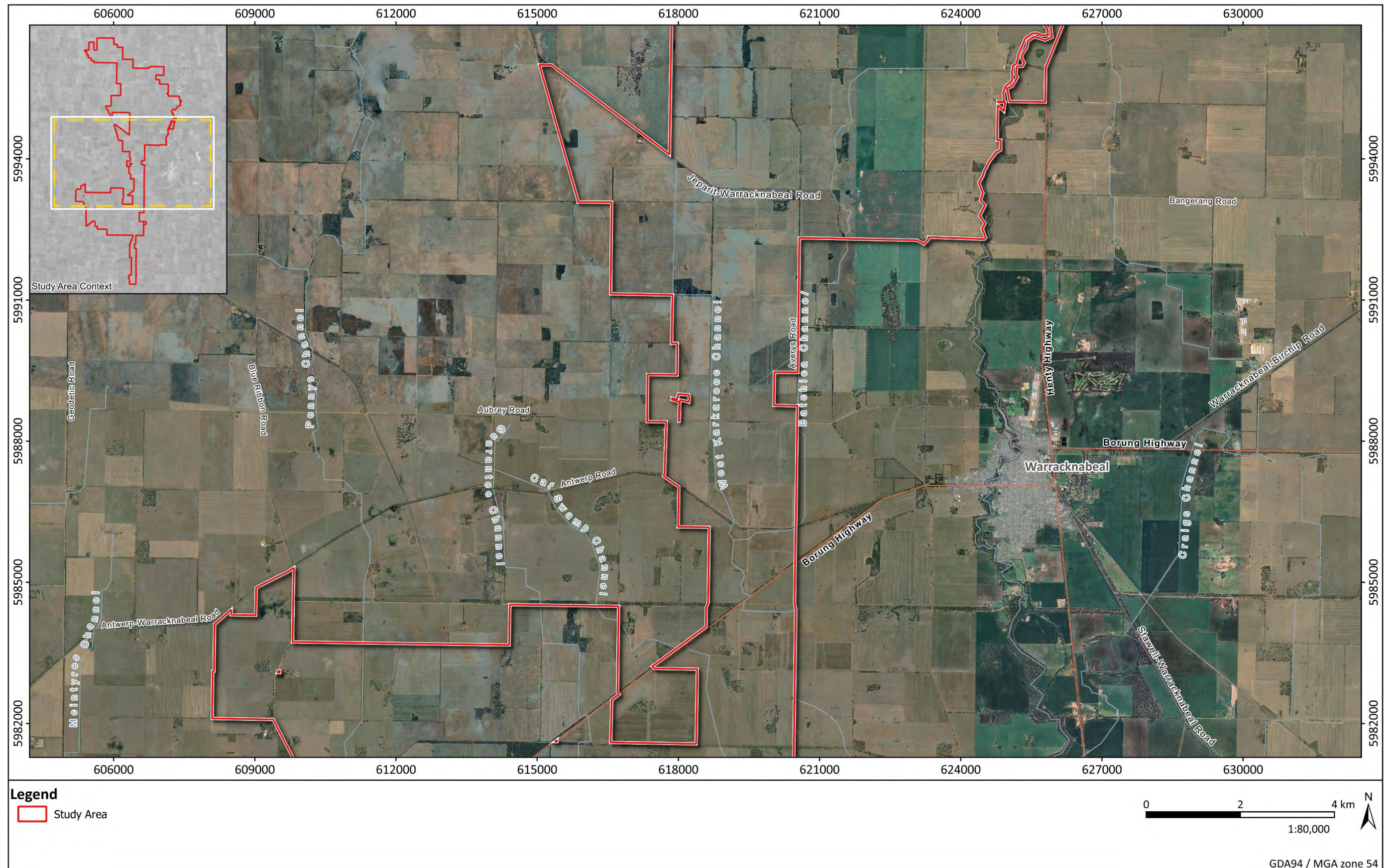




Map 2: Current Conditions within the Study Area (north) (Google Earth Pro, 2023)

Note: Aerial imagery dates to 2021 – more recent high-resolution imagery of the study area (e.g., Nearmap) is not currently available.

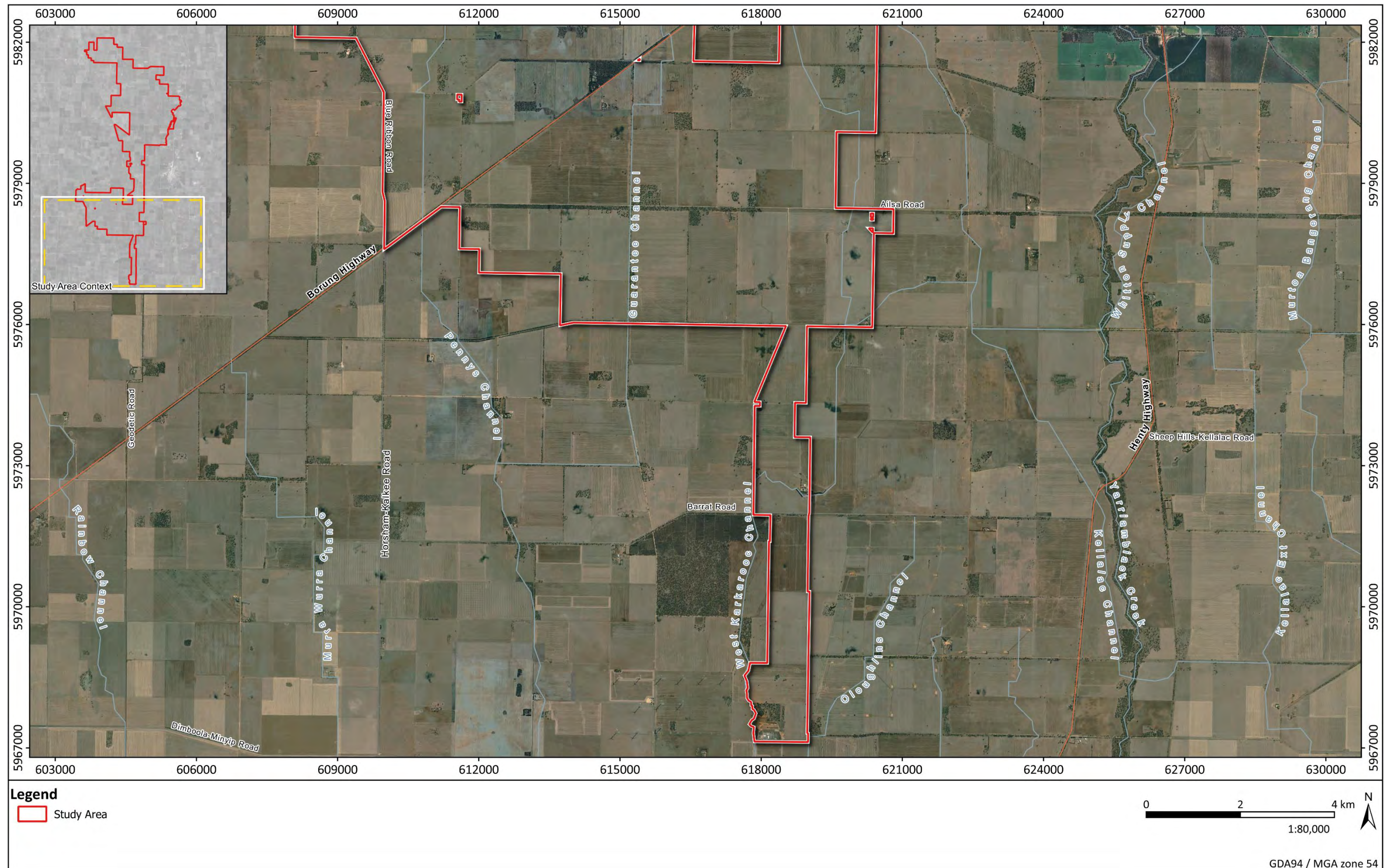




Map 3: Current Conditions within the Study Area (central) (Google Earth Pro, 2023)

Note: Aerial imagery dates to 2021 – more recent high-resolution imagery of the study area (e.g., Nearmap) is not currently available.





Map 4: Current Conditions within the Study Area (south) (Google Earth Pro, 2023)

Note: Aerial imagery dates to 2021 – more recent high-resolution imagery of the study area (e.g., Nearmap) is not currently available.



## **5.0 Scope of Works**

### **5.1 Purpose**

As per the project scope, the main purpose of the commissioned assessment is to identify any historic (non-Aboriginal) heritage sites, places or areas of archaeological potential within the study area, and to provide advice regarding heritage protection and/or harm mitigation options that may be appropriate.

### **5.2 Objectives**

Project objectives are:

- To undertake an assessment of historic places within the study area in order to determine:
  - The occupation history of the place, in particular as it pertains to landform modifications and built heritage;
  - The location and condition of any extant historic structures;
  - The location and nature of any areas of archaeological potential; and
  - The current heritage values and significance of identified heritage places or archaeological sites.
- To develop recommendations for future management of identified heritage sites that address:
  - Protection of the heritage values of all identified sites;
  - The need for additional research or investigations; and
  - Any statutory protections and relevant approvals that may apply to the proposed Warracknabeal Energy Park.

### **5.3 Limitations**

The following limitations to the project scope and resultant HHA should be noted:

- As per the project scope, this HHA is limited to an assessment of historical (non-Aboriginal) heritage within the study area; however, it is noted that a due diligence assessment that addresses the investigation and management of Aboriginal cultural heritage has been commissioned and is being prepared concurrently to this report. This assessment should be consulted in conjunction with this report.
- The report draws on previous reports and assessments of identified historic places. While the report aims to augment the known history of the land encompassing the study area by drawing on the most recent publications and primary sources such as historic maps and written accounts, a detailed social history of individual land occupants is beyond the scope of this desktop study.
- Given the large size of the study area and project scope, this assessment does not include research into the occupation history of individual properties located within the study area. As a result, it should be understood that detailed, property-specific research (beyond the current project scope) could result in the identification of potentially significant historical (non-Aboriginal) heritage sites or features not identified during this assessment.



## Part Two: Desktop Assessment – Background Research

### 6.0 Previously Identified Heritage Sites

#### 6.1 Methodology

Background research undertaken as part of the assessment phase of the project included:

- The identification of any previously recorded cultural heritage sites – within and in the vicinity of the study area – by accessing relevant heritage registers and databases; and
- A review of previous heritage studies within or in the immediate vicinity of the study area.

#### 6.2 Results

A search of historic (non-Aboriginal) site registries (as detailed in Table 1) carried was carried out on May 24, 2022 and on March 26, 2023, to identify any previously identified historic heritage sites within and/or in the vicinity of the study area. To assist in the development of a predictive model of the potential for historic heritage to be preserved within the study area, the search included a 5 km buffer of land surrounding the study area.

The search showed that there is one historic heritage site located within the study area, which is currently listed on the Victorian Heritage Inventory (VHI) as H7325-0010 (Cannum 1 Survey Marker). A review of registration details for this site indicates the site consists of a ‘black box wood’ tree marked with a historic survey marker (Map 5). Details of the nature and significance of the site are provided in Table 2.

The expanded search showed that there are currently 24 registered/listed historic sites within 5km of the study area. Details of all identified sites/places have been included in Table 3 to Table 5, and illustrated in Map 5. With the exception of one archaeological site discussed below, all sites/places are located  $\geq 1$ km from the study area’s boundary, including: five (5) archaeological sites; three (3) historic buildings registered on the Victorian Heritage Registers (VHR) as holding State significance; and, sixteen (16) Heritage Overlay listed places, the majority of which are historic buildings located in Warracknabeal and Brim townships. One (1) archaeological site (H7325-0007) is located approximately 600m east of the study area, and is the site of a former school established in the township of Batchica in c.1894. The history of Batchica township and its association with the study area is discussed in Section 9.6.1.

**Table 1: Historic Registries**

Register/List	Source
Victorian Heritage Register (VHR)	Victorian Heritage Database (DTP, 2023a); GeoVic3 (DEECA, 2023)
Victorian Heritage Inventory (VHI)	“
Heritage Overlay (HO)	Planning Schemes Online: Yarriambiack Shire, (DTP, 2023b)
National Trust of Australia (Victoria) (NT)	Victorian Heritage Database (DTP, 2023b)
National Heritage List (NHL)	Australian Heritage Database (DEE, 2023)
Commonwealth Heritage List (CHL)	“
Register of the National Estate (non-statutory archive) (RNE)	“
World Heritage List (WHL)	UNESCO World Heritage Centre (UNESCO, 2023)

**Table 2: Registered/Listed Historic Heritage Sites within the Study Area**

Listing	Site no.	Site Name	Heritage Attributes/Significance	Site Type	Statutory Protection
VHI	H7325-0010	Cannum 1 Survey Marker	<p><i>Description:</i> The site consists of a historic marker – ‘black box tree’ with an inscribed survey marker.</p> <p><i>Significance:</i> Site is listed on the VHI for its potential to contain archaeologically significant deposits. Limited details are provided the listing (site card) for the site.</p>	Exploration, Survey and Events	<p><b>Statutory Protection</b></p> <ul style="list-style-type: none"> <li>Protected under the <i>Heritage Act 2017</i></li> <li>A Heritage Consent (issued by Heritage Victoria) would be required to damage/disturb the site\</li> </ul> <p><b>Note:</b> Given the relative rarity of such markers it is unlikely that Heritage Victoria would issue a Consent to damage/disturb the site</p>
Source: DTP, 2023a; DTP, 2023b; Heritage Victoria (Hermes Database), 2023; Weaver 1994.					

**Table 3: Registered/Listed Historic Heritage Sites within ~1km of the Study Area**

Listing	Site no.	Location	Site Name	Site Type/Significance	Statutory Requirements
VHI	H7325-0007	Henty Highway, Warracknabeal	Batchica School	Archaeological site – Education School	<ul style="list-style-type: none"> <li>Protected under the <i>Heritage Act 2017</i></li> <li>A Heritage Consent (issued by Heritage Victoria) would be required to damage/disturb the site</li> </ul>
Source: DTP, 2023a; DTP, 2023b; Heritage Victoria (Hermes Database), 2023.					

**Table 4: Registered/Listed VHR and VHI sites within ~5km of the Study Area**

Listing	Site no.	Location	Site Name	Site Type	Statutory Protection
VHR	H1537	107 Scott Street, Warracknabeal	Warracknabeal Lock-Up	Historic building (police lock-up) – Law Enforcement	<ul style="list-style-type: none"> <li>Protected under the <i>Heritage Act 2017</i></li> <li>A Heritage Permit (issued by Heritage Victoria) would be required to impact the heritage values of the place</li> </ul>

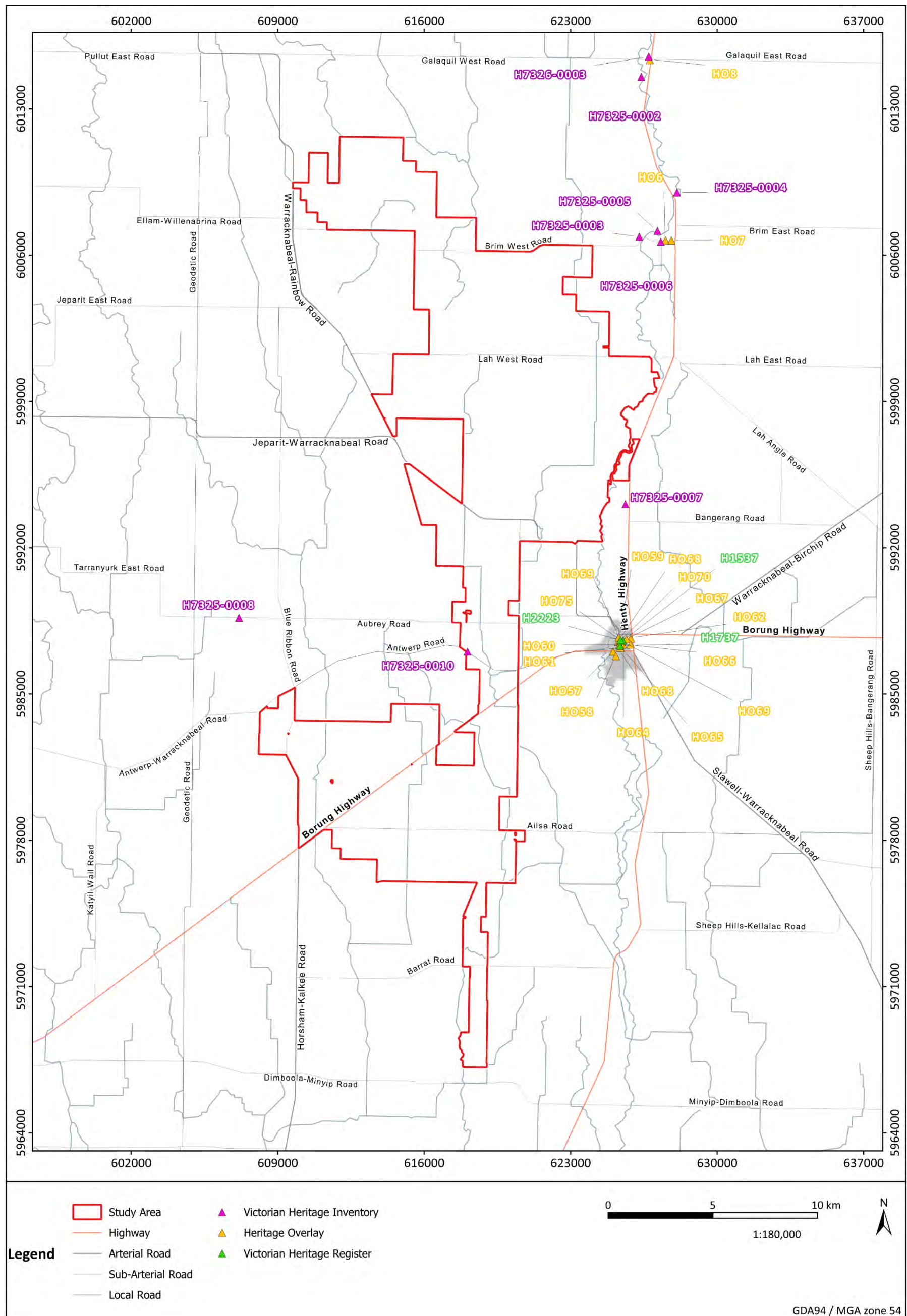
**Table 4: Registered/Listed VHR and VHI sites within ~5km of the Study Area**

Listing	Site no.	Location	Site Name	Site Type	Statutory Protection
VHR	H1737	31 Deveraux Street, Warracknabeal	Warracknabeal Post Office	Historic building (post office) - Postal and Telecommunications	<ul style="list-style-type: none"> <li>Protected under the <i>Heritage Act 2017</i></li> <li>A Heritage Permit (issued by Heritage Victoria) would be required to impact the heritage values of the place</li> </ul>
VHR	H2223	39 Scott Street Warracknabeal	Warracknabeal Town Hall	Historic building (town hall) - Recreation and Entertainment	<ul style="list-style-type: none"> <li>Protected under the <i>Heritage Act 2017</i></li> <li>A Heritage Permit (issued by Heritage Victoria) would be required to impact the heritage values of the place</li> </ul>
VHI	H7325-0003	22 Wurfel Road, Brim	Brim Brickworks	Archaeological site - Manufacturing and Processing	<ul style="list-style-type: none"> <li>Protected under the <i>Heritage Act 2017</i></li> <li>A Heritage Consent (issued by Heritage Victoria) would be required to damage/disturb the site</li> </ul>
VHI	H7325-0004	22 Wurfel Road, Brim	Yarriambiack Creek Scatter	Archaeological site - Farming and Grazing	<ul style="list-style-type: none"> <li>Protected under the <i>Heritage Act 2017</i></li> <li>A Heritage Consent (issued by Heritage Victoria) would be required to damage/disturb the site □</li> </ul>
VHI	H7325-0005	22 Wurfel Road, Brim	Brim Station	Archaeological site - Farming and Grazing	<ul style="list-style-type: none"> <li>Protected under the <i>Heritage Act 2017</i></li> <li>A Heritage Consent (issued by Heritage Victoria) would be required to damage/disturb the site</li> </ul>
VHI	H7325-0006	45-47 Swann Street Brim	Brim Cemetery	Archaeological site - Cemeteries and Burial Sites	<ul style="list-style-type: none"> <li>Protected under the <i>Heritage Act 2017</i></li> <li>A Heritage Consent (issued by Heritage Victoria) would be required to damage/disturb the site</li> </ul>
VHI	H7325-0008	Aubrey Road, Aubrey	Tarranyurk East 1 (Telephone Lines)	Archaeological site - Postal and Telecommunications	<ul style="list-style-type: none"> <li>Protected under the <i>Heritage Act 2017</i></li> <li>A Heritage Consent (issued by Heritage Victoria) would be required to damage/disturb the site</li> </ul>
Abbreviations: VHI = Victorian Heritage Inventory; VHR = Victorian Heritage Register. Source: DTP, 2023a; DTP, 2023b; Heritage Victoria (Hermes Database), 2023.					

**Table 5: Heritage Overlay sites within ~5km of the Study Area**

Listing	Site no.	Township	Site Name	Site Type	
HO	HO6	Brim	Memorial Hall, Swann Street	Community Facilities	<ul style="list-style-type: none"> <li>▪ <i>Under the Planning and Environment (Planning Schemes) Act 1996</i></li> <li>▪ Local planning policy &amp; permit requirements apply</li> </ul>
HO	HO7	Brim	St. Pauls Anglican Church, Swann Street	Religion	“
HO	HO57	Warracknabeal	Anglican Church, Lyle Street	Religion	“
HO	HO58	Warracknabeal	Christ Church, Jamouneau Street	Religion	“
HO	HO59	Warracknabeal	“Commercial” Hotel, Scott Street	Finance/Commercial	“
HO	HO60	Warracknabeal	Court House, Woolcock Street	Law Enforcement	“
HO	HO61	Warracknabeal	“Dal Monte” Theatre, Scott Street	Recreation and Entertainment	“
HO	HO62	Warracknabeal	Flour Mill, Duncan Street	Manufacturing and Processing, Retail and Wholesale	“
HO	HO63	Warracknabeal	Former State Savings Bank, Scott Street	Finance/Commercial	“
HO	HO64	Warracknabeal	Lock-Up, 31 Devereux Street	Law Enforcement	“
HO	HO65	Warracknabeal	Warracknabeal Post Office, 107 Scott Street	Postal and Telecommunications	“
HO	HO67	Warracknabeal	Railway Water Tower, Molyneaux Street	Transport - Rail	“
HO	HO68	Warracknabeal	Town Centre, Scott Street	Community Facilities	“
HO	HO69	Warracknabeal	Former ANZ Bank, 47 Scott Street	Finance/Commercial	“
HO	HO70	Warracknabeal	“Warracknabeal” Hotel, Scott Street	Finance/Commercial	“
HO	HO75	Warracknabeal	Warracknabeal Town Hall, 39 Scott Street	Recreation and Entertainment	“
Abbreviations: HO = Yarriambiack Shire Planning Scheme Heritage Overlay. Source: DTP, 2023a; DTP, 2023b; Heritage Victoria (Hermes Orion Database), 2023.					





Map 5: Location of Registered/Listed historic sites within ~5km of the Study Area

Note: Due to the large size of the study area the above map necessarily shows the location rather than the precise extent of registered/listed historic sites. With the exception of H7325-0007, the mapped extents of all sites are located  $\geq 2\text{km}$  from the study area. The mapped extent of H7325-0010 includes a 50m buffer around the primary GPS coordinate illustrated in this map.

## 7.0 Previous Heritage Studies

Only a limited number of historical heritage studies have been conducted for land encompassing or in the vicinity of the study area. The Shire of Yarriambiack undertook a broad-scale heritage study of the municipality – including land encompassing the study area. This heritage study was reviewed in order to:

- Gain an understanding of the occupational history of the region and to determine if any historic (non-Aboriginal) cultural heritage sites identified by this heritage study are located within the study area; and
- Determine if the study area is associated with specific historic individuals and/or historic events that hold significance at a local level.
- Gain an understanding of the established thematic history of the region, which has been used during this assessment to provide a framework in which the history of the study area can be considered and understood.

The review showed that no previously unidentified historic sites were identified within the study area; however, it should be noted that the heritage study is broad in its scope and did not include a detailed desktop assessment or field survey of the study area. The study highlights the historic importance of the early pastoral settlement period of the 1840s-1850s, subsequent land acquisition under various Land Acts of the nineteenth century, and farming development of the twentieth century. These significant phases of historic development are evidenced within the study area (see Section 9.0 for details).

A review of the above study and other heritage studies carried out in the broader region and accessible via desktop research (see Table 6) indicates that the majority of the study area has not previously been subject to a specific heritage study or to historical archaeological investigations.

**Note:** Within the timeframes available for technical heritage reporting, it is not possible to carry out comprehensive research of all published or unpublished reports. It should also be noted that Heritage Victoria do not currently have an online database of recently completed and ongoing assessments; it is therefore possible that additional historical heritage assessments may have been carried out within or in the vicinity of the study area that were not identified/reviewed during this desktop assessment.

## 8.0 Statutory Protection of Historic Heritage Sites

The following section provides a summary of statutory protections applicable to:

- Currently registered/listed historic sites or places located within or in the vicinity of the study area;
- Any previously unidentified historic archaeological sites that may be located within the study area; and
- Any additional historic features (i.e., dry stone walls) – whether previously identified or unidentified – that may be located within the study area and are protected under the local planning scheme.

Relevant management conditions triggered by statutory protections are provided in Section 11.1.

## **8.1 Statutory Protections under the *Heritage Act 2017***

The *Heritage Act 2017* provides statutory protection for non-Aboriginal and contact archaeological sites, cultural heritage places, and heritage objects; including archaeological sites not currently listed on the Heritage Inventory or Heritage Register.

### **8.1.1 Statutory Protection of Victorian Heritage Register Places/Objects**

The Victorian Heritage Register (VHR) is a listing of historic places and objects which have been assessed as being significant to the State of Victoria's history and development. A place or object listed on the VHR is protected under the *Heritage Act 2017*; specifically:

- Under Section 89 of the *Heritage Act 2017*, a Permit is required to remove, relocate, damage, disturb or alter any place or object listed on the Victorian Heritage Register.

There are currently no VHR places located within the study area.

Should there be any significant delay in the commencement of on-site works an updated search of relevant historic site registries should be undertaken to ensure that no new VHR places have been registered; any such place would be subject to the above statutory protections.

### **8.1.2 Statutory Protection of Victorian Heritage Inventory Sites**

The Victorian Heritage Inventory (VHI) is a listing of sites that contain (or are likely to contain) archaeological remains that demonstrate an association with a significant historical event, pattern of land use, or other activity.

- Under Section 123 of the *Heritage Act 2017*, a consent is required to uncover, excavate, damage or disturb a site listed on the Victorian Heritage Inventory.

There is currently one VHI site located within the study area – H7621-0034 (Cannum 1 Survey Marker) the above statutory protections apply to this listed site.

Should there be any significant delay in the commencement of on-site works an updated search of relevant historic site registries should be undertaken to ensure that no new VHI sites have been identified and listed; any such site would be subject to the above statutory protections.

### **8.1.3 Statutory Protection of Historic Archaeological Sites**

As stated above, the *Heritage Act 2017* provides statutory protection for non-Aboriginal and contact archaeological sites, including archaeological sites not currently listed on the Heritage Inventory or Heritage Register.

The *Heritage Act 2017* defines an archaeological site as a place (other than a shipwreck) which:

- a) contains an artefact, deposit or feature which is 75 or more years old; and
- b) provides information of past activity in the State; and
- c) requires archaeological methods to reveal information about the settlement, development or use of the place; and
- d) is not associated only with Aboriginal occupation of the place.

Should a suspected historical archaeological site be encountered during the course of any works it will be protected under the *Heritage Act 2017*. Management Conditions (Section 11.1) provided with this report should be consulted if a suspected historical archaeological site is encountered during works.

## **8.2 Statutory Protections under the *Planning and Environment (Planning Schemes) Act 1996***

### **8.2.1 Statutory Protection of Heritage Overlay Sites/Places**

Under the *Planning and Environment (Planning Schemes) Act 1996*, and *Planning and Environment Regulations 2015*, provision is made for the protection of heritage places that are significant to a local area; these places are listed on a planning scheme under the local council Heritage Overlay.

A heritage place listed on the Heritage Overlay includes the listed item and its associated land. The Planning Scheme for the relevant authority (in this instance Yarriambiack Shire) established under the *Act* sets out permit application requirements for places listed on the Heritage Overlay.

There are currently no places/precincts listed on the Heritage Overlay (HO) that are located within the study area.

Should there be any significant delay in the commencement of on-site works an updated search of relevant historic site registries should be undertaken to ensure that no new HO places/precincts have been listed; any such place/precinct would be subject to the above statutory protections.

### **8.2.2 Statutory Protection of Dry Stone Walls & Historic Post Boxes – Yarriambiack Planning Scheme**

Dry stone walls and historic post boxes are in general given blanket protections under local planning schemes. Specifically, as per Clause 52.33 of the Yarriambiack Planning Scheme (established under the *Planning and Environment (Planning Schemes) Act 1996*), a permit is required to:

- Demolish or remove a post box constructed before 1930; on land specified in the schedule to this provision; or to
- Demolish, remove or alter a dry stone wall constructed before 1940; on land specified **in the schedule** to this provision.

However, as the Schedule to this provision in the Yarriambiack Planning Scheme states that ‘no land is specified’, the above permit requirement does not currently apply to land within the study area.

Should there be any significant delay in the commencement of on-site works, a review of the Yarriambiack Planning Scheme provisions should be undertaken to confirm that the Schedule to Clause 52.33 is unchanged (i.e., no areas of land have been added to this schedule).

**Note:** Based on historic research undertaken for this project, it seems unlikely that dry stone walls will be located within the study area (see Section 9.0 for details). However, it is not possible to definitively exclude the presence of dry stone walls and/or historic post boxes without undertaking a comprehensive field survey of the study area.



**Table 6: Previous Historic Heritage Studies carried out within the Study Area**

<b>Heritage Study</b>	<b>Location and Proximity to the Study Area</b>	<b>Relevant Results</b>
Telecom optical fibre cable route, Warracknabeal to Hopevale via Hopetoun: an archaeological survey (Story, 1993)	<ul style="list-style-type: none"> <li>• Land aligned with/adjacent to the Henty Highway (Warracknabeal to Hopetoun) and land east of Hopetoun</li> <li>• Intersects the northern portion of the current study area</li> </ul>	<p><i>Study type:</i> desktop research and survey</p> <p><i>Previously unidentified (significant) historic heritage sites/places:</i></p> <ul style="list-style-type: none"> <li>▪ Five (5) new sites were identified within the surveyed area, but none are located within the current study area</li> </ul> <p><i>Areas of historical archaeological/historic potential identified:</i></p> <ul style="list-style-type: none"> <li>▪ Story (1993) indicated that there was potential for other historic cultural heritage within the study area in general</li> </ul>
Telecom optical fibre cable route: Warracknabeal-Aubry-Wallup-Crymelon-Willenbrina-Tarranyurk-Glenlee-Jeparit-Ellam-Rainbow-Yapeet-Kenmare: Archaeological Study (Weaver, 1994)	<ul style="list-style-type: none"> <li>• Encompasses the entire study area</li> </ul>	<p><i>Study type:</i> desktop research and survey (targeted)</p> <p><i>Previously unidentified (significant) historic heritage sites/places:</i></p> <ul style="list-style-type: none"> <li>▪ Three (3) new sites were identified within the surveyed area, one of which is located within the current the study area (see Table 2)</li> </ul> <p><i>Areas of historical archaeological/historic potential identified:</i></p> <ul style="list-style-type: none"> <li>▪ The study indicated that there was potential for unidentified historic cultural heritage sites to be located within study area</li> </ul>
Wimmera Mallee Pipeline Project - Longerenong to Lascelles and Woomelang: Cultural heritage assessment (Landskape, 2007)	<ul style="list-style-type: none"> <li>• The eastern boundary of study area</li> </ul>	<p><i>Study type:</i> desktop research and survey</p> <p><i>Previously unidentified (significant) historic heritage sites/places:</i></p> <ul style="list-style-type: none"> <li>▪ No new historic heritage sites were identified</li> </ul> <p><i>Areas of historical archaeological/historic potential identified:</i></p> <ul style="list-style-type: none"> <li>▪ Not discussed</li> </ul>



**Table 6: Previous Historic Heritage Studies carried out within the Study Area**

Heritage Study	Location and Proximity to the Study Area	Relevant Results
Yarriambiack Shire: Heritage Study Stage 1; Volume 1 & 2 (Context, 2012a; 2012b)	<ul style="list-style-type: none"> <li>• Encompasses the entire study area</li> </ul>	<p><i>Study type:</i> Municipality Heritage Study</p> <p><i>Previously unidentified (significant) historic heritage sites/places:</i></p> <ul style="list-style-type: none"> <li>▪ None within the study area</li> </ul> <p><i>Areas of historical archaeological/historic potential identified:</i></p> <ul style="list-style-type: none"> <li>▪ None specifically identified within the study area</li> </ul>

## **9.0 Historic Background**

### **9.1 Methodology**

Background research undertaken as part of this desktop component of the project included:

- Research into the historic landforms and geomorphology of the study area in order to interpret extant landforms and understand the degree to which European occupation has altered the landscape; and
- Research into the occupation history of the study area – by accessing primary sources pertaining to land ownership, land occupation and built structures – to augment the known history of the region as detailed in previous heritage studies.

The results of the background research were used to prepare a history of the study area that is:

- Framed within the ‘Historical Themes’ identified at a State level by the Heritage Council of Victoria (Heritage Council of Victoria, 2010; Appendix 1); and
- Focused on the occupation history, landform modification and built structures specific to the study area.

### **9.2 Historic Themes**

The history of the study area is presented within the Victorian ‘Framework of Historical Themes’ (Heritage Council of Victoria, 2010; Appendix 1). During the preparation of this history particular focus has been given to themes that have been identified by the Yarriambiack Heritage Study (Context, 2012a) as key to the local area. A thematic approach ensures that the history focuses on key historical and cultural processes with the aim of identifying human activities that have shaped our environment, and provides a historic context for identified heritage places within the study area. A thematic history also contributes to an understanding of heritage significance (Heritage Council of Victoria, 2010, pp. 3–5).

Historic themes identified as key to the region, and of particular relevance to the study area are listed below. The themes have been used to frame the history of the study area as detailed in Section 9.3 to 9.6.

- **Shaping Victoria’s Natural Environment**
  - Impact of Colonisation on the natural environment
- **Transforming and Managing Land and Natural Resources**
  - Grazing and raising livestock
  - Cropping and mixed-use farming
  - Managing water resources
  - Land management (controlling rabbits and other ‘pests’)
- **Peopling Victoria’s places and landscapes**
  - The Pastoralists
  - Patterns of settlement
  - The establishment of towns

## **9.3 Shaping Victoria's Natural Environment**

### **9.3.1 The natural Environment and the Impact of Colonisation**

The natural environment of the Wimmera and Mallee regions had a significant impact on settlement patterns and land-use during the nineteenth century. An overview of the geology and geomorphology of the regions and of the native vegetation is provided below with a discussion of how the natural environment was impacted by nineteenth century settlement, and twentieth century farming activity.

#### **9.3.1.1 Study Area – Influence of Geology on Settlement Patterns and Land-use**

The geology of the Wimmera and Mallee regions had a significant impact on settlement patterns and land-use. Geological mapping reveals that the study area is dominated by the Loxton Sand (Nwl) geographic units, consisting of fine to medium-grained quartz sandstone, with dissected strand lines and lag horizons containing shelly fossils and heavy minerals, denoting prior coastlines. Geological units evident in smaller portions of the study area include: lake (QL2) and lunette (Q11) deposits on the eastern side of an unnamed swamp/lake – northwest; and generic alluvium (Qa1) extending along Yarriambiack Creek – east (DJPR, 2022b; Map 6).

Geomorphologically, the study area is dominated by dunes and ridges (geomorphic unit (GMU) 5.1.5). (DJPR, 2022a). Gilgais (small, seasonal lakes) are also frequent within this geomorphological unit, as they typically emerge. These shallow depressed features are known variously, depending on certain formational characteristics, as 'crabholes', 'melonholes' and 'gilgai', the latter being an Aboriginal term for small water hole (Paton, 1974, pp. 221–6). Historic maps of the nineteenth century mark the location of a number of swamps/salt lakes within the study area (e.g., Map 9; Figure 2).

Of note for nineteenth century European occupation of the region is the absence of geographic units that result in readily available sources of bluestone or other workable stone (e.g., sandstone) in surface or near surface contexts. As such, nineteenth century settlers are likely to have primarily used timber sourced from land clearance activities as a building material (including for dwellings, outbuilding and fencing). Given the cost of acquiring and transporting stone over a significant distance, stone structures were most likely limited to primary residences (homestead/home stations) of prosperous land holders (Dingle, 1984, pp. 80–81; Pickard, 2007, pp. 144-149; 2010).

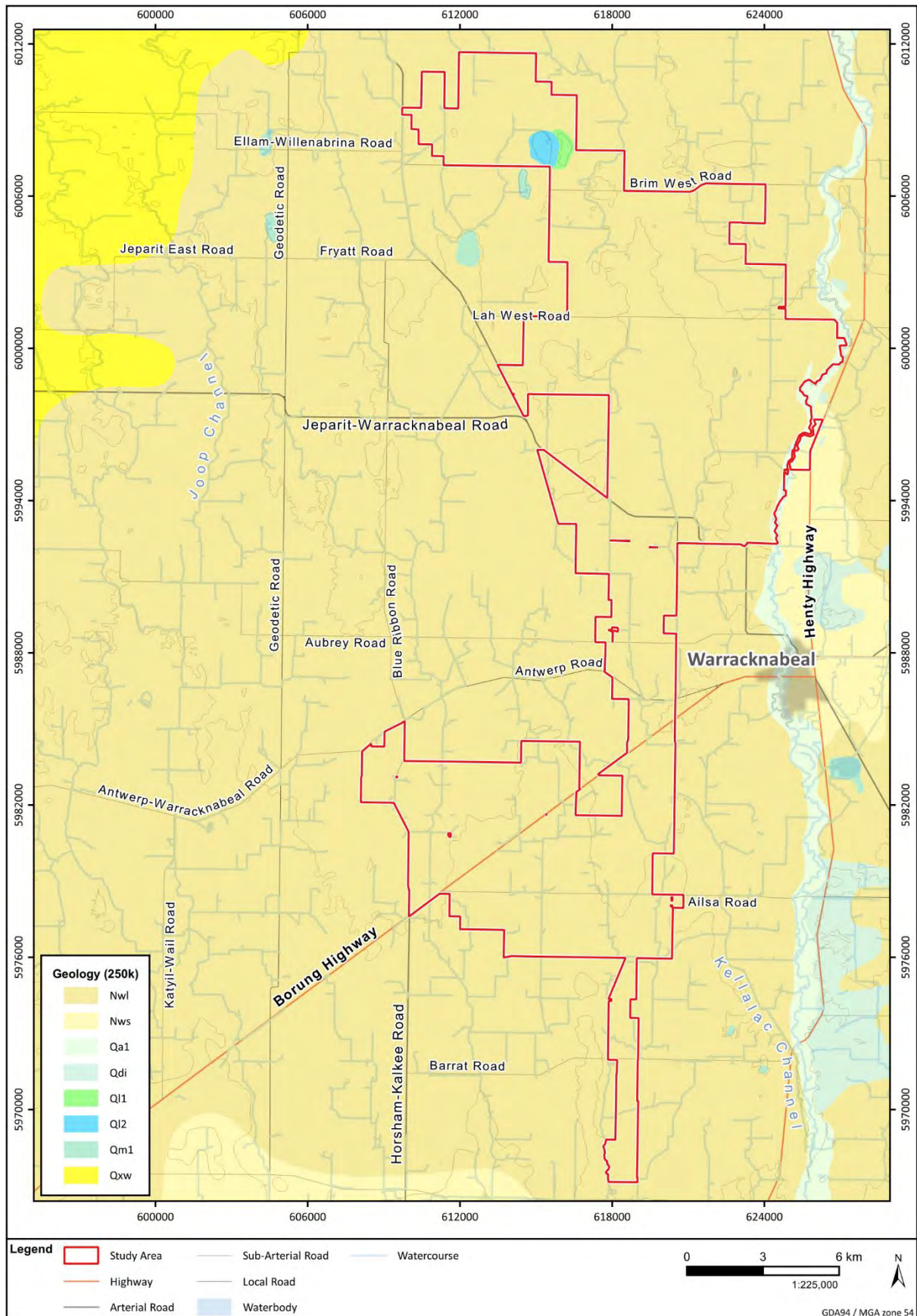
Historically, nineteenth century agricultural activity transformed and utilised geological features and landforms within the study area. The alluvial soils found within proximity of named and unnamed waterways naturally attracted the early European settlers with more productive soils and access to water; as evidenced by the presence of early pastoral home stations and outstation in close proximity to those parts of the study area that are located in the vicinity of Yarriambiack Creek its tributaries, and existing water holes (see Section 9.5). Repeated ploughing and grazing activity transformed a significant portion of the study area, with the removal of trees (see Section 9.3.1.2) and possibly levelling of fields influencing subtle landscape changes. The predominant dune based geology of the region contributed to ongoing issues with erosion and sand drifts following the clearance of native vegetation by European settlers. [N.B. The precise location and extent of such landscape modifications cannot be determined without a comprehensive field survey].

#### **9.3.1.2 Study Area – Utilisation of Native Vegetation & Land Clearance Activities**

The pre-1750 Ecological Vegetation Community (EVC) primarily present within the study area has been identified as EVC 96 (Ridged Plains Mallee) and EVC 862 (Plains Savannah), with smaller areas of EVC 66 (Low Rises Woodland), EVC 103 (Riverine Chenopod Woodland), EVC 823 (Lignum Swampy Woodland), EVC 824 (Woorinen Mallee), and EVC 981 (Parilla Mallee) also present (Map 7).

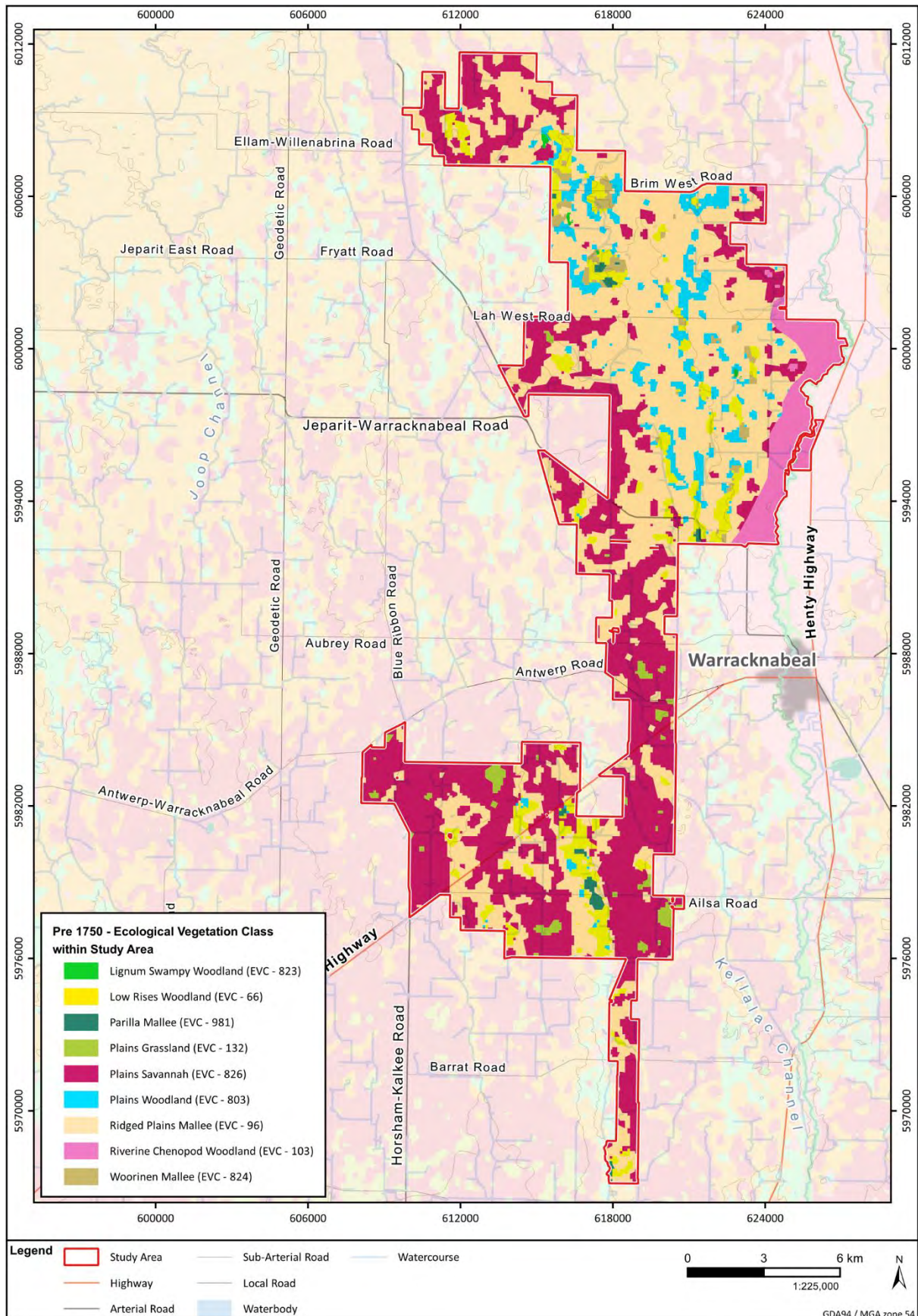
Historically, agricultural activity utilised existing native vegetation, and altered the distribution of vegetation species. Modern EVC mapping (DELWP, 2022c) and a review of historic and current aerial images indicates that the study area has been largely cleared of original native trees/scrub during modification made to the land for agricultural purposes – predominantly grazing during the nineteenth century, but more recently cultivation. By the early-twentieth much of the study area had been cleared of native scrub and trees (Context, 2012a; Section 9.5).

A large area of land (900 acres) within the southern extent of the study area was set aside as a ‘Timber and Stone’ reserve in the nineteenth century. The purpose of early reserves of this type was not to conserve native vegetation, but rather to set aside areas of land where timber could be sourced for construction and/or fuel. During the twentieth century the original timber reserve was significantly reduced in size. The study area was excluded from the reserve and opened up for settlement during the 1930s (*Horsham Times*, 19 Apr. 1935; *VGG*, 17 Apr. 1891, p. 1638; Map 14 and Map 25). An aerial image dating to 1963/1964 illustrates that the vast majority of this part of the study had been cleared of mature trees (Map 31).



**Map 6: Geology (250K) within and in the vicinity of the Study Area**





**Map 7: Pre-1750 EVCs within the Study Area**

## **9.4 Peopling Victoria's Places and Landscapes – Exploration and Mapping**

### **9.4.1 Port Phillip – Exploration (1802-1824)**

In 1802 Matthew Flinders undertook the first detailed survey of Port Phillip Bay. During his survey, Flinders created a detailed map of the Victorian coastline; however, regions beyond the immediate shoreline remained essentially unexplored until the 1830s (Flinders, 1814; Harcourt, 2001, pp. 11–15).

### **The Study Area - Exploration and Survey (1836-1840)**

The first official exploration journey of land in the vicinity of the study area occurred in 1836 when Government Surveyor Major Thomas Mitchell, tasked with exploring the Murray River region, extended his exploration into western Victoria. Mitchell travelled through present-day Yarriambiack Shire in the vicinity of Horsham – southeast of the study area – and described the open lands of the Wimmera region. Mitchell's account of the grazing potential of the district, which was published in 1838, encouraged Overlanders from Sydney and Tasmanian pastoralists to consider settling in the region. Mitchell's route became the main overland track for pastoralists journeying from New South Wales to Victoria in the 1840s (Dingle, 1984, p. 22).

### **9.4.2 Promoting Settlement – The Port Phillip Association and The Overlanders (1835-1840)**

In 1835, John Batman travelled to Victoria from Tasmania on behalf of the 'Port Phillip Association' – a group of Tasmanian pastoralists who were in search of good grazing land. Batman signed two so-called 'treaties' with Aboriginal leaders to acquire 'ownership' of vast quantities of land, including: 500,000 acres covering much of Victoria, and 100,000 acres in the vicinity of present-day Geelong. Batman and John Helder Wedge – surveyor and member of the association – went on to create a map of the district dividing the 600,000 acres into individual Sections allocated to members of the association (Harcourt, 2001, pp. 73–75; Wedge 1835). The Port Phillip Association's 'ownership' was considered illegal by the British Government and was quickly declared void by Governor Bourke. Despite Government opposition, members of the association established pastoral properties within their allocated sections, grazing sheep and/or cattle during the 1830s and early 1840s (Kenyon, 1937, p. 108; Harcourt, 2001, pp. 102–113).

The study area is located outside the boundary of the Port Phillip Association's lands, as mapped by John Helder Wedge in 1835 (Wedge, 1835; Harcourt, 2001, pp. 208-209; Kenyon, 1937). However, although the Port Phillip Association's lands were located a significant distance southeast of the study area, the Association's activities – along with Mitchell's exploration journals – promoted interest in western Victoria as potential grazing lands suitable for establishment of pastoral runs, both from New South Wales overlanders and Tasmanian pastoralists.

The first pastoralist 'overlanders' arrived in the Port Phillip district in 1835, having travelled south from New South Wales in search of good grazing lands with a permanent water supply (Priestley 1984, p. 349; Broome 1984, pp. 21-22). Early overlanders of the 1830s established runs along exploration routes or in the vicinity of developing townships of Melbourne and Geelong. By the 1840s, 'Overlanders' had established runs in a diversity of locations but generally located in the vicinity of major waterways (Dingle, 1984, pp. 24-25).

## **9.5 Peopling Victoria's Places and Landscapes & Transforming and Managing Land and Natural Resources**

### **9.5.1 Pastoral Occupation**

In order to regulate the rapidly expanding squatting occupation, in 1836 the Crown passed the *Crown Lands Unauthorised Occupation Act*. This act allowed squatters to legally occupy un-surveyed land as pastoral runs for which they paid an annual occupation licence (Spreadborough and Anderson, 1983, pp. xii). During the 1830s and early 1840s, pastoralists established runs on the best available arable lands in the vicinity of water sources and overland stock routes. In general terms, pastoral settlement gradually spread outwards from the main occupation centres at Melbourne and Geelong. The more arid regions of Victoria, such as the Wimmera and Mallee region – including the study area – were not settled until the mid-1840s when more fertile lands to the south, and north along the Murray River, were already occupied under pastoral leases (Dingle, 1984, pp. 24-28).

Prior to 1847, a lack of secure land tenure meant that early European settlers were reluctant to expend significant capital on land improvements, and as a result many early dwellings were relatively simple structures (Dingle, 1984, pp. 24-28). The *Land Act 1847* provided pastoral run holders with the opportunity to take out a long term lease for their holding which served to encourage the investment of capital and resources into improvement on the run. Pastoral run holders of the nineteenth century modified the landscape in a variety of ways, including: clearing vegetation to create open pastures; construction of 'home stations' occupied by the run holder or by an appointed manager; construction of pastoral outstations – dwellings remote from the 'home station' that were occupied to allow the management of stock; and enclosure of areas of land by fencing (Dingle, 1984, pp. 80–81; Pickard, 2007, pp. 144-149). During the 1840s, fencing was generally limited to paddocks in the immediate vicinity of home stations and/or outstations for the purposes of temporarily holding stock or as horse paddocks; and on some occasions to mark run boundaries. Once run holders were assured of the long term viability of the run they were more likely to investment in boundary and internal paddock fencing (Dingle, 1984, pp. 28-29; Pickard, 2007, p. 145).

#### **9.5.1.1 The Study Area – Pastoral Occupation (1840s to 1880s)**

The study area is encompassed by five pastoral stations established between 1845 to 1846, including:

- Davis Plains (northwest);
- Brim (northeast);
- Warracknabeal (southeast), subdivided into Warracknabeal East and Warracknabeal West in 1870;
- Antwerp (southwest), subdivided into Antwerp and Cannum (encompassing the study area) in 1857; and
- Kewell (also known as Muckbilly) (south).

All five runs operated for an extended period of time, with the vast majority of the study area continuously occupied under pastoral lease conditions until the late 1870s/early 1880s. Sheep were the predominate stock grazed on all five runs. A chronological history of each run's occupation is provided in Table 7 to Table 9.

Historic records indicate that during the pastoral run era the landscape within the study area consisted of large areas of 'Mallee Scrub' interspersed with open plains. There were also some areas of open 'She Oak' and 'Boxwood' forest, predominantly in the southern portion of the study area (see Map 8 to Map 12; and Table 7 to Table 9 for details). It is likely that pastoral lease holders of all five runs undertook some land



clearance activities within the boundaries of the study area – particular in close proximity to homesteads and pastoral outstations – both to create open pastures and to source timber for fuel and building purposes (Dingle, 1984, pp. 80–81). However, given the significant size of all five runs and the relatively small number of sheep being grazed on each run's acreage it is unlikely that any large scale land clearance activity or pasture improvement took place during this period. For example, on Davis Plains/Brim run in 1879 only 5,200 sheep were being grazed on 300,000 acres of land (*The Age*, 03 Jun. 1879, p. 3).

During the 1870s and early 1880s pastoral run holders within the study area faced major issues with stock losses due to a combination of periods of drought, predation from dingoes, and pasture loss from rabbit infestations (e.g., *The Age*, 03 Jun. 1879, p. 3; *Bendigo Advertiser*, 05 Feb. 1879, p. 3; Dingle 1984, p. 72-74).

Building materials used by pastoral run holders were primarily sourced from locally available natural resources, so that in areas where stone could be sourced with minimal quarrying it was commonly used for the construction of dwellings and fencing. However, in areas such as the study area where suitable timber rather than stone was readily available it was more likely to be used for construction and fuel (Connah, 1993, p. 66; Pickard 2005, 2007 & 2010). As such, the local geology (absence of readily available stone) and native vegetation had a significant influence on the nature of early-nineteenth century structures within the study area. Of particular note is the use of brush fences and Mallee root fences (fences made of stacked Mallee tree roots, colloquially known as a 'Mallee fence' or 'Mallee root fence'), which are recorded as having formed boundary and internal fences on the Cannum run and a number of other pastoral runs in the region (Pickard, 2010; see Figure 2). Given the prevalence of 'Mallee Scrub' as a building material it is likely that many of the run boundary and internal paddock fences within the study area were constructed using this resource and construction techniques. A significant number of pastoral outstations have been identified within the study area (see Figure 2, Map 8 to Map 12). While no records providing details of the building material/s used to construct these outstations have been identified, considering the scarcity of local stone sources it is reasonable to assume that outstations huts of this period were primarily constructed of timber.

A review of historic maps and additional source material has been undertaken to identify the location of historic structures and landscape features within and in the immediate vicinity of the study area during the pastoral occupation period (1845 to c.1880). The identification of these structures and features, as detailed below, is of particular relevance for the purpose of developing a predicative model of the likelihood/potential for previously unidentified historic cultural heritage sites/places to be preserved within the study area. Details of identified features/structures on each individual run are provided below.

#### **Davis Plains (1846-1857) / Davis Plains & Brim (1857-1881) – Study Area (northwest)**

In c.1846, Henry Davis established the Davis Plains pastoral run including ~60,000 acres of land with a gazetted carrying capacity of 4000 sheep. Davis Plains run encompassed the northwest portion of the study area. Henry Davis held the pastoral lease for the Davis Plains run until 1857, and primarily used the land for grazing sheep. In 1857, Robert Simpson acquired the pastoral lease for Davis Plains as well as the adjacent run known as 'Brim'. A series of pastoralists held the lease for Davis Plains between 1861 and 1879 as detailed in Table 7. Primary source material indicates that Davis Plains continued to operate as a sheep grazing property throughout the period 1857 to 1877 (for references, see Table 6). An 1877 advertisement for the sale of the pastoral lease and adjacent runs – Brim (encompassing the study area, northeast) and Nallan (north of the study area) – provides a description of the existing landscape and 'improvements' made within the run boundaries by Henry Davis and later lease holders.

BRIM, NALLAN, and DAVIS PLAINS.  
WIMMERA DISTRICT, FOR SALE.

R. GOLDSBROUGH and CO. have a been favoured with instructions to Sell by Auction ---  
--- the BRIM, NALLAN, and DAVIS PLAINS Stations, In the Wimmera district, Together with  
about 26,000 Sheep, more or less, of good ages and sexes, AND 320 acres freehold.

--- The runs adjoin each other, and containing area of nearly 300,000 acres of sound healthy grazing country, **consisting principally of open plains, intersected by belts of mallee**; thoroughly good for stock, and safe from selection, being quite unsuitable for cultivation. **The runs are fenced in, and sub divided into fifteen paddocks, besides smaller paddocks at the home stations.**

There are **three splendid wells**, in working order, and **several large dams and tanks**, judiciously placed for the economical working of the property. The late rains have left an abundant supply of water. There is a new and substantial Family Residence on the Brim station [note: outside the study area]

--- There is also a Homestead at Davis Plains with drafting yards and horse paddock attached [note: location of homestead unknown – possibly within the study area].

*Geelong Advertiser*; 08 Mar. 1877, p. 3

Desktop research undertaken to date indicates that the following structures and features associated with the occupation of Davis Plains pastoral run (1845 to 1879) were located within or in the vicinity of the study area. Additional details are included in Table 7.

- The main home station for Davis Plains pastoral run is not marked on maps of this period and, as such, the precise location of the homestead is currently unknown. It is possible that the home station for Brim – the adjacent pastoral run, also leased by Henry Davis – may have functioned as the home station for both runs during the 1840s and 1850s. However, as indicated by the advertisement provided above (*Geelong Advertiser*; 08 Mar. 1877, p. 3) there was a homestead with associated yards and horse paddock within the boundaries of Davis Plains run by at least 1877.
- An approximately east - west aligned track crossing though the study area (north) linking 'Brim' homestead with an outstation hut located to the west of the study area.
- Several tracks leading from the above east - west aligned track, and linking to what are presumably outstations marked as Korong (north) and Crymillan (south).
- A site marked as 'Korong' – likely an outstation – located in the northwest portion of the study area.
- A site marked as 'Brikke' – likely an outstation – located at the northern border of the study area.
- An outstation hut – in the immediate vicinity of the study area (east).
- The southern and eastern boundary fencing of Davis Plains run (fence type unknown, likely mallee scrub, brush or possible timber).
- Lagoon (northwest).
- Landscape elements described as 'Kangaroo Plain', 'Emu Plain', and 'Grabowick Plain' – likely naturally occurring landscape features.
- Historic maps (Figure 1 and Map 9) indicate that Davis Plains comprised large areas of mallee scrub interspersed with small to moderate sized areas of open plains during the 1850s. It is likely that the



pastoral lease holders undertook some land clearance activities within the boundaries of the run during the subsequent occupation period of the 1870s and early 1880s.

**Brim (1848-1857) / Davis Plains & Brim (1857-1881) – Study Area (northeast)**

By 1848, Henry Davis had established the Brim pastoral run, located to the immediate west of his Davis Plains run and encompassing the northwest portion of the study area. Brim included 134,000 acres of land and was primarily used for grazing sheep during the pastoral run period. It is worth noting that the carrying capacity of the run in 1847 was estimated as only 4000 sheep, which is indicative of the lack of good quality grazing pastures within the run boundaries. Brim's pastoral lease passed to Jackson Rae Co. for a brief period in the early 1850s before being required by Henry Davis in c.1854 (*Geelong Advertiser*, 02 Aug. 1851, p. 2 & 25 Jan. 1859, p. 3; for references, see Table 6). Details of subsequent run holders are provided in Table 6.

Desktop research undertaken to date indicates that the following structures and features associated with the occupation of Brim pastoral run (1848 to 1877) were located within or in the vicinity of the study area. Additional details, and references, are included in Table 7.

- The main homestead for the Brim pastoral run is located outside of the study area, in the immediate vicinity of the present-day township of Brim.
- An approximately east - west aligned track crossing through the study area (north) linking the main homestead with an outstation hut located to the west of the study area.
- Two (2) approximately north - south aligned tracks within the study area, linking the above track to pastoral outstations, labelled as Warrunchip (north), and Merramum and Bunyip (south).
- A crossing point on Yarriambiack Creek, in proximity to the present-day township of 'Lah' (immediately adjacent to the study area – east).
- The southern and eastern boundary fencing of Brim run (fence type unknown, likely mallee scrub, brush or possible timber).
- Landscape elements described as '[Wopia] swamp' (south) – likely naturally occurring landscape features.
- Historic maps and additional primary source material indicates that Brim pastoral run comprised large areas of Mallee Scrub interspersed with small to moderate sized open plains during the 1850s and 1860s. It is likely that the pastoral lease holders undertook some land clearance activities within the boundaries of the run during the subsequent occupation period of the 1870s.

**Antwerp (1846-1857) / Cannum (1857-1880) – Study Area (southwest)**

Antwerp pastoral run was established by John Shaw and Horatio Cockburn Ellerman in 1846. The home station for this run was located on the Wimmera River to the west of the study area. The run included 128,000 acres of land and was bordered to the east by Scott's Warracknabeal run. Members of the Ellerman family held the lease for this run between 1850 to 1857. The run was then divided into two separate lease holdings, with the eastern portion of the former Antwerp run – encompassing the study area – named Cannum. In 1859 the Scott brothers (lease holders of the adjacent Warracknabeal run) took over the Cannum lease, which they held until the lease lapsed in 1880. Additional details, and references, are included in Table 8.

Desktop research undertaken to date indicates that the following structures and features associated with the occupation of Antwerp/Cannum pastoral run (1846 to 1880) were located within or in the vicinity of the study area. Additional details, and references, are included in Table 8.

- The main homestead for the Antwerp pastoral run was located outside the study area on the Wimmera River. Historic maps do not mark the location of a home station on Cannum run; considering that the Scott Brothers already had an established homestead on the Warracknabeal run, it seems likely that a Cannum run home station was never built.
- An approximately north - south aligned track crossing through the study area (north) linking the Antwerp main homestead on the Wimmera River with Warracknabeal homestead.
- An outstation hut, fenced paddock and dam – located at the boundary of Cannum and Warracknabeal runs.
- The southern and eastern boundary fencing of Antwerp/Cannum runs (fence type unknown, but likely mallee scrub, brush or possible timber).
- Historic maps dating to the 1850s and 1860s indicate that the landscape comprises areas of dense mallee scrub, plains and open and box forest. It is likely that the pastoral lease holders undertook some land clearance activities within the boundaries of the run during the subsequent occupation period of the 1870s.

**Warracknabeal (1845-1870) / Warracknabeal East & West (1870- 1883) – Study Area (southeast)**

Andrew Scott established the Warracknabeal pastoral run – encompassing the south-eastern portion of the study area – in 1845. The run included 124,000 acres of land, with a gazetted grazing capacity of 10,000 sheep. During its pastoral occupation period (1845 to 1883) the run was primarily used for grazing. In 1870 the run was subdivided into two pastoral runs, Warracknabeal East and Warracknabeal West, which were taken up by two of Andrew Scott (snr)'s sons – Robert and Andrew (jnr). The brothers retained the runs until 1883 when both runs' leases were cancelled (for details and references, see Table 9).

Desktop research undertaken to date indicates that the following structures and features associated with the occupation of Warracknabeal pastoral run (1845 to 1883) were located within or in the vicinity of the study area. Additional details, and references, are included in Table 9.

- The main homestead for the pastoral run was located outside the study area in the immediate vicinity of the present-day township of Warracknabeal.
- An approximately north - south aligned track crossing through the study area linking the homestead with Antwerp on the Wimmera River.
- The southern and western boundary fencing of the Warracknabeal run/s (fence type unknown, but likely mallee scrub, brush or possible timber).
- A number of outstation huts, three (3) of which appear to be located within or in the immediate vicinity of the study area, including 'Batchica'.
- Batchica – likely a pastoral outstation.
- Dams and swamps.

- Historic maps variously depict land encompassing the study area as including areas of Dense Mallee Scrub (north), She Oak, Box and open Mallee Scrub (south and west). It is likely that the pastoral lease holders undertook some land clearance activities within the boundaries of the run during the subsequent occupation period of the 1870s and early 1880s.

**Kewell / Muckbilly (1845-c.1879) – Study Area (south)**

Brothers, John and Andrew Wilson established the Kewell pastoral run – encompassing the southern portion of the study area – in 1845. The Kewell run covered ~117,760 acres of land, and in 1848 had a gazetted grazing capacity of 12,000 sheep. The pastoral lease for the run was held by members of the Wilson family for over thirty years: John and Andrew Wilson (1845 to 1872); and Hector and Norman Wilson (1872 to 1876). Lease holders after this date included: Kate McMillan (1872 to 1879); and James and John Powell (1879) (see Table 9; Billis and Kenyon, 1932, p. 202; *Geelong Advertiser*, 27. Jul. 1848, p. 4; Spreadborough and Anderson, 1983, p. 222).

Desktop research undertaken to date indicates that the following structures and features associated with the occupation of Kewell pastoral run (1845 to c/1879) were located in the vicinity of the study area. Additional details, and references, are included in Table 9.

- The main homestead for the pastoral run was located outside the study area; to the southeast on the banks of Yarriambiack Creek.
- A number of outstation huts were located within the run boundaries during its occupation period. A map dating to the Wilson families' occupation period (1845 to 1872; Figure 3) shows the location of a number of out station huts all of which are located outside the study area.
- The boundary between Kewell and Warracknabeal runs transects the study area, it is possible that run boundary fencing was located along this boundary (Map 11).

**Table 7: Pastoral runs encompassing the northern portion of the study area**

Davis Plains (60,000 acres) – Northwest Study Area			Brim (134,000 acres) – Northeast Study Area		
Date/s	Lessee	Land Use & Identified Features/Structures	Date/s	Lessee	Land Use & Identified Features/Structures
Oct. 1846	Henry Davis	<i>Land-use within the study area:</i> <ul style="list-style-type: none"><li>- grazing (primarily sheep)</li></ul> <i>Structures and man-made features identified within the study area:</i> <ul style="list-style-type: none"><li>- outstation hut (x1)</li><li>- tracks linking pastoral out stations to the homestead at present-day Brim</li><li>- run boundary fencing</li></ul>	1848  c.1851 Oct. 1854	Henry Davis  Jackson, Rae & Co. Henry Davis	<i>Land-use within the study area:</i> <ul style="list-style-type: none"><li>- grazing (primarily sheep)</li></ul> <i>Structures and man-made features identified within the study area:</i> <ul style="list-style-type: none"><li>- outstation hut (x1)</li><li>- tracks linking pastoral out stations to the homestead at present-day Brim</li><li>- crossing point on Yarriambiack Creek – near present-day town of Lah</li><li>- run boundary fencing</li></ul>
Brim & Davis Plains Run – amalgamated pastoral lease					
Date/s	Lessee/s	Land Use & Identified Features/Structures			
c.1857	Robert Simpson	<i>Land-use within the study area:</i> <ul style="list-style-type: none"><li>- grazing (primarily sheep)</li></ul> <i>Structures and man-made features identified within the study area:</i> <ul style="list-style-type: none"><li>- outstation hut (x2)</li><li>- tracks linking pastoral out stations to the homestead at present-day Brim</li><li>- crossing point on Yarriambiack Creek – near present-day town of Lah</li><li>- run boundary fencing</li></ul>			
Feb. 1864	James Gill & Henry Miller				
Mar. 1865	James Gill & Henry Creswick				
Jun. 1869	Charles Croaker & Henry Scott				
Apr. 1870	Thomas McKellar				
Feb. 1873	Charles Croaker and Henry Scott				
Jan. 1877-c.1879	Oriental Bank				
1879-1881	<i>Run lease cancelled Oct. 1879, revoked Dec. 1879 &amp; cancelled again Mar. 1881.</i>				
Maps/Figures: Map 8 (SGO, 1854a), Map 9, (- c.1850s), Figure 1 (Bags, 1864). Sources: Billis and Kenyon, 1932, p. 176; <i>Geelong Advertiser</i> , 02 Aug. 1851, p. 2 & 25 Jan. 1859, p. 3; Spreadborough and Anderson, 1983, p. 216.					

**Table 8: Pastoral runs encompassing the southwest portion of the study area**

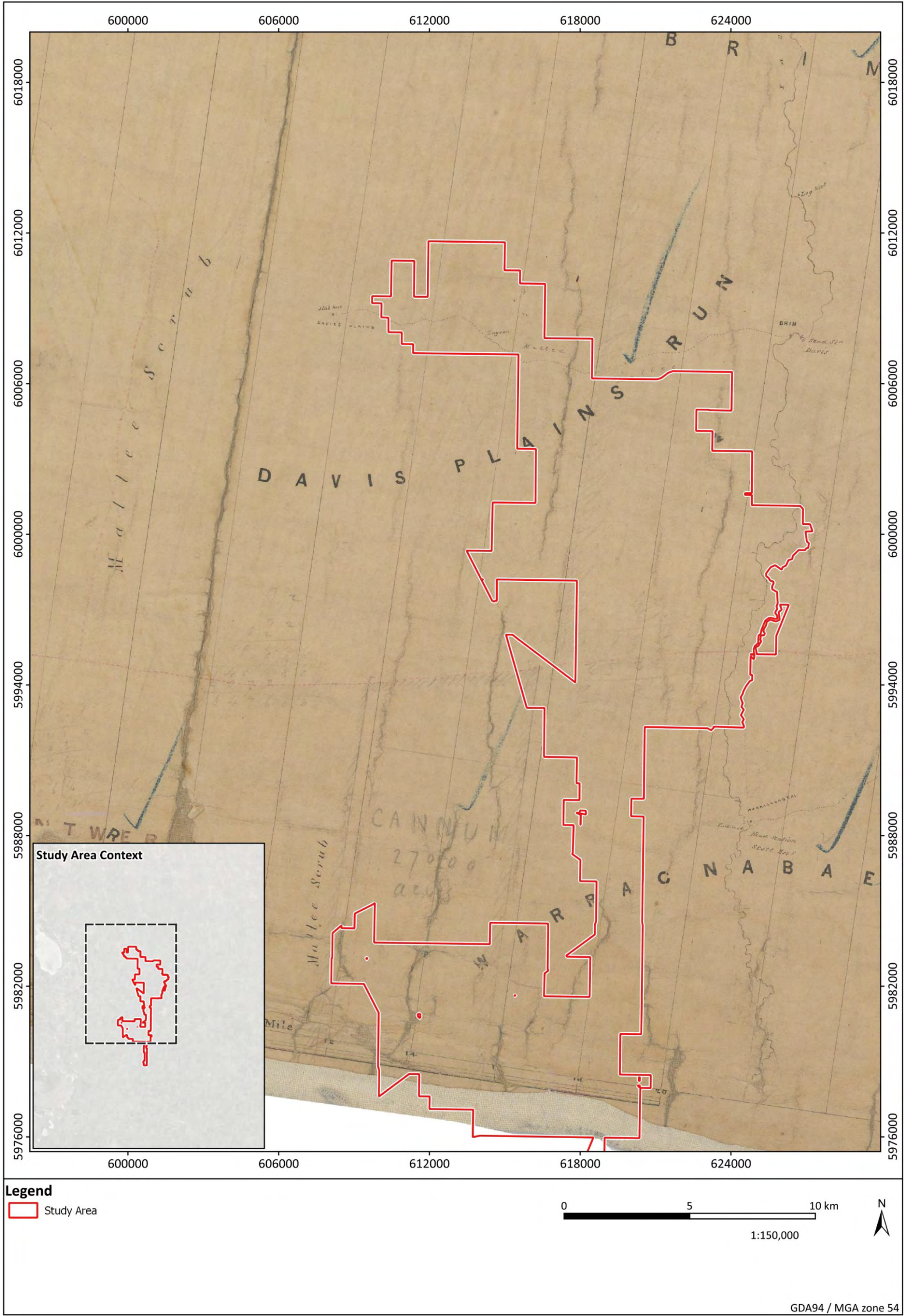
<b>Antwerp (128,000 acres)</b>		
<b>Date/s</b>	<b>Lessee/s</b>	<b>Land Use &amp; Identified Features/Structures</b>
1846	John Shaw & Horatio Cockburn Ellerman (on behalf of McLachlan and Darlot)	<i>Land-use within the study area:</i> - grazing (primarily sheep)
Apr. 1847	John Shaw & Horatio Cockburn Ellerman	<i>Structures and man-made features identified within the study area:</i>
May 1850	Horatio Cockburn Ellerman	- outstation hut (x1)
May 1852	Horatio Cockburn Ellerman & Henry Clarence Ellerman	- run boundary fencing
Apr. 1857	<i>Subdivided into two individual runs Antwerp and Cannum</i>	- tracks outstations to Antwerp homestead located on the Wimmera River
<b>Cannum (27,000 acres)</b>		
1857	Horatio Cockburn Ellerman & Henry Clarence Ellerman	<i>Land-use within the study area:</i> - grazing (primarily sheep)
Aug. 1859	Robert Scott and brothers	<i>Structures and man-made features identified within the study area:</i>
Apr. 1870	Andrew Scott	- outstation hut (x1), with fenced paddock and dam
Jun. 1880	<i>run lease lapsed</i>	- run boundary fencing
		- track linking outstation hut to Antwerp homestead and Warracknabeal homesteads
<b>Maps/Figures:</b> Map 8 (SGO, 1854a), Map 10 (Russel, 1852), Map 11 (SGO, 1854b), Map 12 (- c.1857), Figure 2 (Shaw, 1865), Figure 3 (- c.1870). <b>Sources:</b> Billis and Kenyon, 1932, p. 146; Spreadborough and Anderson, 1983, pp. 202 & 210.		



**Table 9: Pastoral run encompassing the southeast portion of the study area**

Warracknabeal (124,000 acres)					
Date/s	Lessee	Land Use & Identified Features/Structures			
Nov. 1845	Andrew Scott	<i>Land-use within the study area:</i> <ul style="list-style-type: none"><li>- grazing (primarily sheep)</li></ul> <i>Structures and man-made features identified within the study area:</i> <ul style="list-style-type: none"><li>- outstation hut (x3), including one likely outstation at ‘Batchica’</li><li>- run boundary fencing</li><li>- tracks linking Warracknabeal homestead to outstations</li><li>- multiple dams</li></ul>			
Warracknabeal East			Warracknabeal West		
Date/s	Lessee	Land Use & Identified Features/Structures	Dates/s	Lessee	Land Use & Identified Features/Structures
1870	Robert Scott	<i>Land-use within the study area:</i> <ul style="list-style-type: none"><li>- grazing (primarily sheep)</li></ul> <i>Structures and man-made features identified within the study area:</i> <ul style="list-style-type: none"><li>- likely outstation at ‘Batchica’</li><li>- run boundary fencing</li><li>- tracks linking Warracknabeal homestead to ‘Batchica’</li></ul>	1870	Andrew Scott	<i>Land-use within the study area:</i> <ul style="list-style-type: none"><li>- grazing (primarily sheep)</li></ul> <i>Structures and man-made features identified within the study area:</i> <ul style="list-style-type: none"><li>- outstation hut (x2?)</li><li>- run boundary fencing</li><li>- tracks linking Warracknabeal homestead to outstations</li><li>- multiple dams</li></ul>
1883	<i>Run lease cancelled</i>		1883	<i>Run lease cancelled</i>	
Kewell / Muckbilly (117,760 acres)					
Apr. 1845	John & Andrew Wilson	<i>Land-use within the study area:</i> <ul style="list-style-type: none"><li>- grazing (primarily sheep)</li></ul> <i>Structures and man-made features identified within the study area:</i> <ul style="list-style-type: none"><li>- run boundary fencing (north)</li></ul>			
Apr. 1872	Hector Wilson & Norman Wilson				
Jul. 1876	Kate McMillan				
Apr. 1879	James Powell & John Powell				
<b>Maps/Figures:</b> Map 8 (SGO, 1854a), Map 10 (Russel, 1852), Map 11 (SGO, 1854b), Map 12 (- c.1857), Figure 2 (Shaw, 1865), Figure 3 (- c.1870). <b>Sources:</b> Billis and Kenyon 1932, pp. 202 & 268; Spreadborough and Anderson, 1983, pp. 202, 222 & 251.					





Map 8: 'Run Plan no. 344' – detail view (SGO, 1854a)

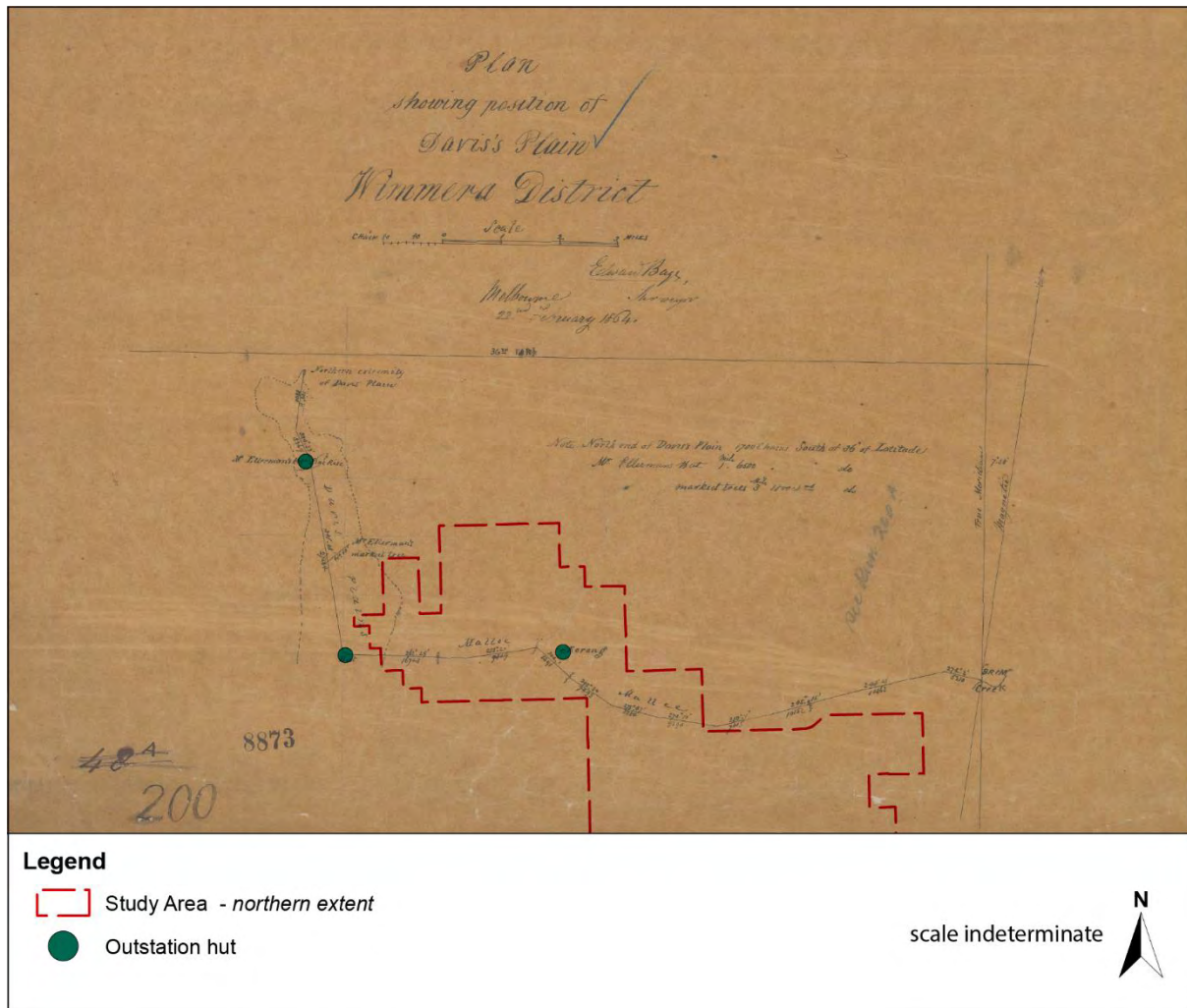
Map depicts pastoral stations encompassing the study area. Within the study area: track east – west aligned (north), and lagoon (north). In the vicinity of/associated with the study area: pastoral homesteads – Brim (northeast), Warracknabeal (southeast), Antwerp (west); Davis Plains outstation (northwest).

*Note: Location of study area (as depicted) should be considered indicative – alignment/ location of waterways, roads and features as depicted on historic maps of this period varies from present-day precisely mapped georeferenced makers.*



*Note: Location of study area (as depicted) and scale should be considered indicative – the alignment/ location of waterways, roads and features as depicted on historic maps of this period varies from present-day precisely mapped georeferenced makers.*



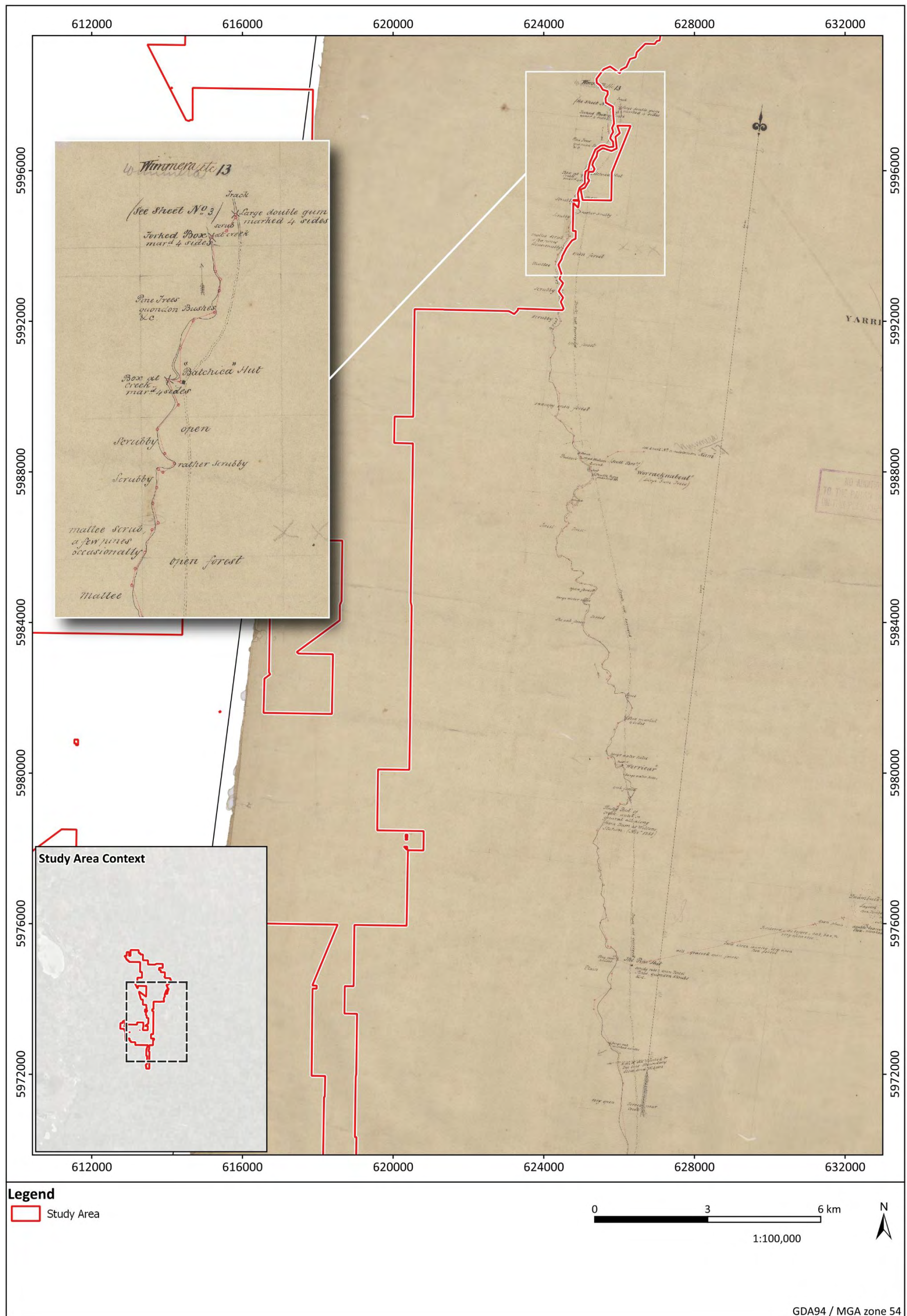


**Figure 1: 'Plan Showing Portion of Davis Plains – Wimmera District' (Bags, 1864)**

Figure depicts part of Davis Plains run in relation to the northern study area. Within the study area: Davis Plains outstation – 'Korong'. In the vicinity of the study area outstations (x2, west and northwest) and marked tree (x1, northwest).

*Note: Location of study area (as depicted) should be considered indicative*





Map 10: Yarriambiack Creek – Wimmera District Sheet) no.2 – detail view (Russell, 1852)

Map depicts the location of features/structures along Yarriambiack Creek in 1852. Within the study area: track (northeast) running along Yarriambiack Creek; 'Batchica' outstation – associated with Warracknabeal pastoral run. In the vicinity of/associated with the study area: pastoral homesteads – Warracknabeal (south).

Note: Location of study area (as depicted) and scale should be considered indicative – alignment/location of waterways, roads and features as depicted on historic maps of this period varies from present-day precisely mapped georeferenced makers.



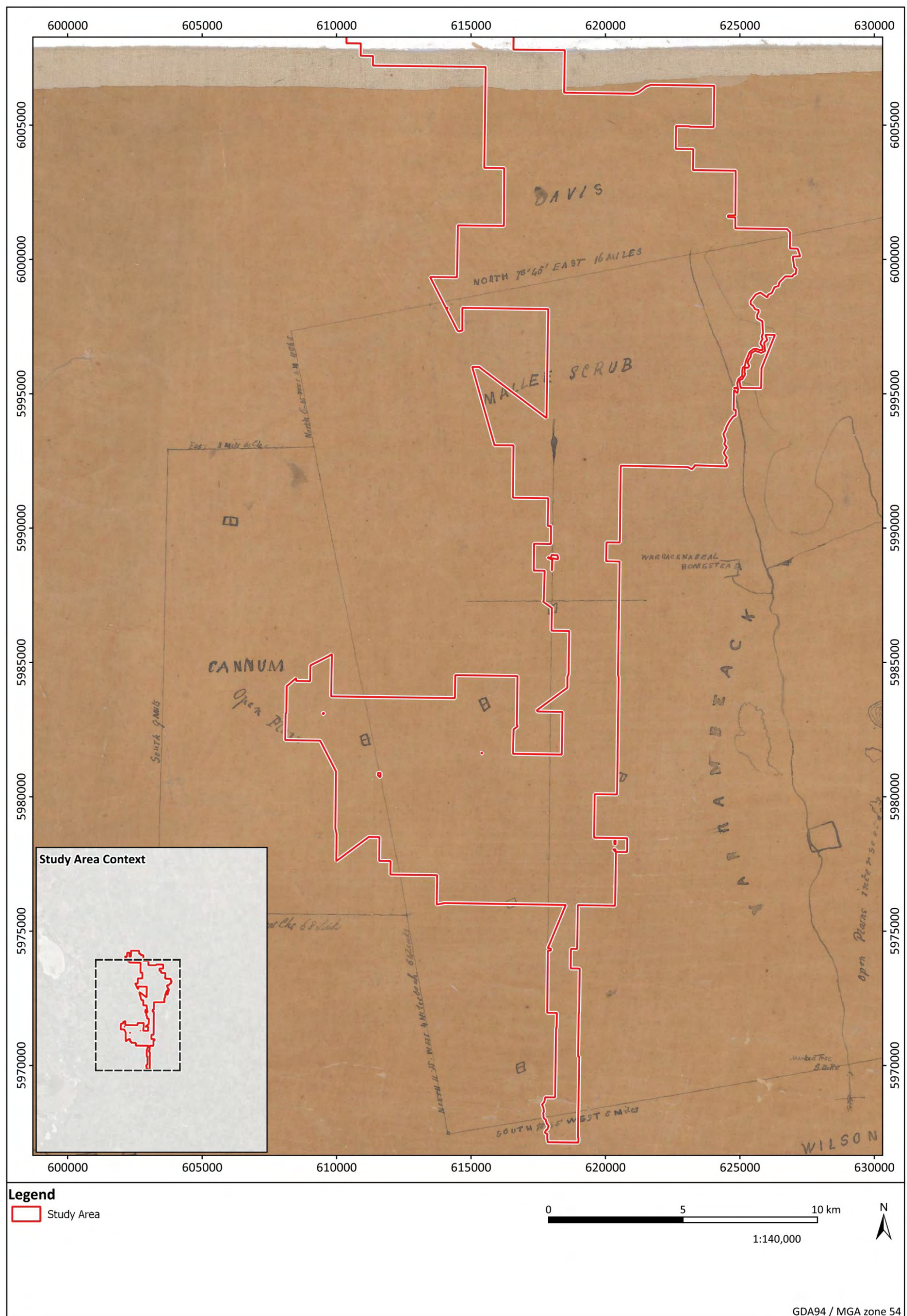


Map 11: 'Run Plan no. 357' – detail view (SGO, 1854b)

Map depicts the location and extent of pastoral runs in relation to the southern portion of the study area. Within the study area: run boundary (possibly fenced). In the vicinity of/associated with the study area: Antwerp homestead (west, on the Wimmera River); and a Government designated 'Aboriginal Reserve' due west on the Wimmera River.

Note: Location of study area (as depicted) and scale should be considered indicative – alignment/location of waterways, roads (etc.) as depicted on historic maps of this period varies from present-day precisely mapped georeferenced makers.





Map 12: 'Copy of Survey of Warracknabeal Station' – detail view [– c.1857]

Map depicts the location and extent of Warracknabeal and Cannum pastoral runs in relation to the study area. Within the study area: pastoral outstations (x3); run boundary (possibly fenced). In the vicinity of/associated with the study area: pastoral homesteads – Warracknabeal homestead (east).

*Note: Location of study area (as depicted) and scale should be considered indicative – alignment/ location of waterways, roads and features as depicted on historic maps of this period varies from present-day precisely mapped georeferenced makers.*



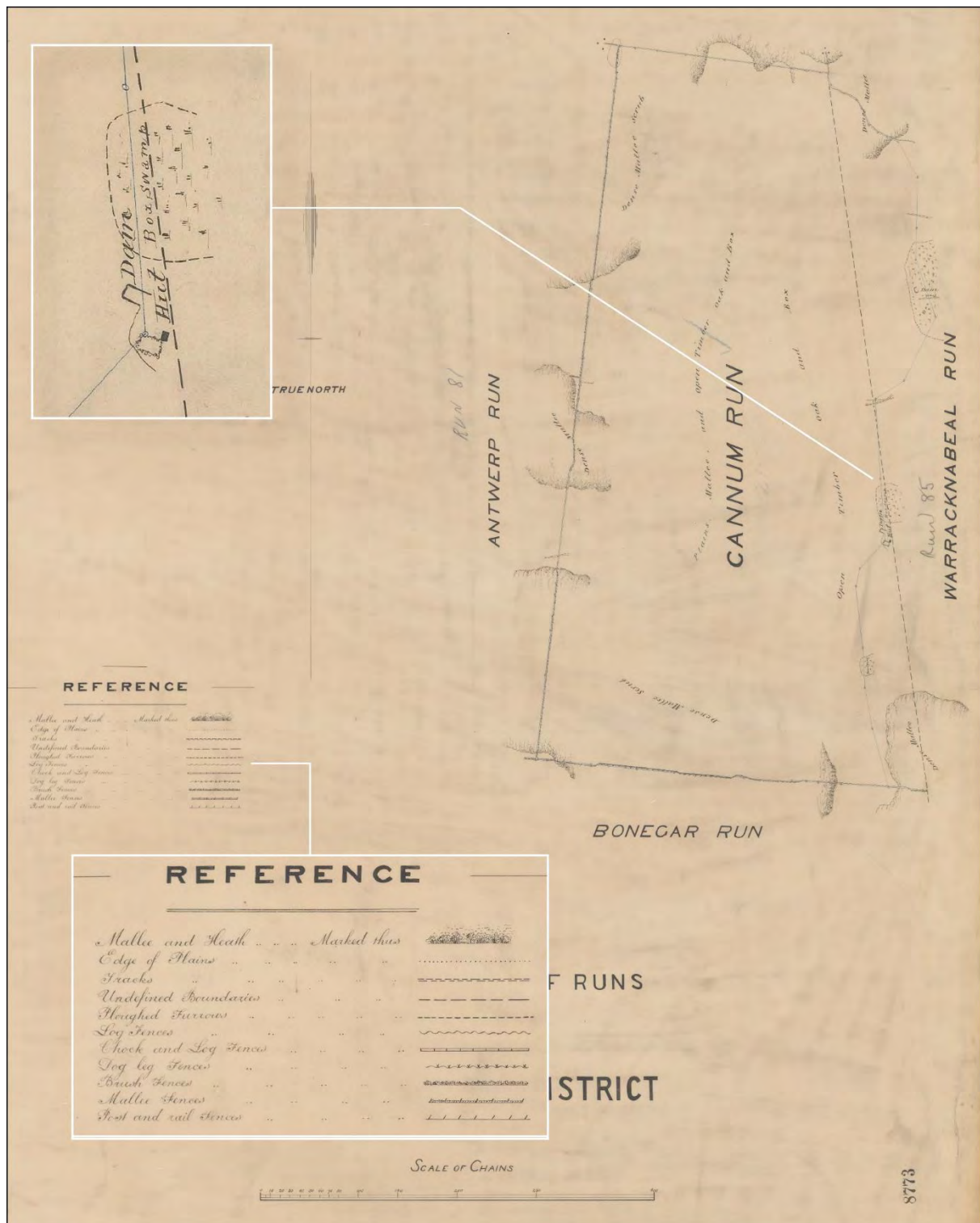
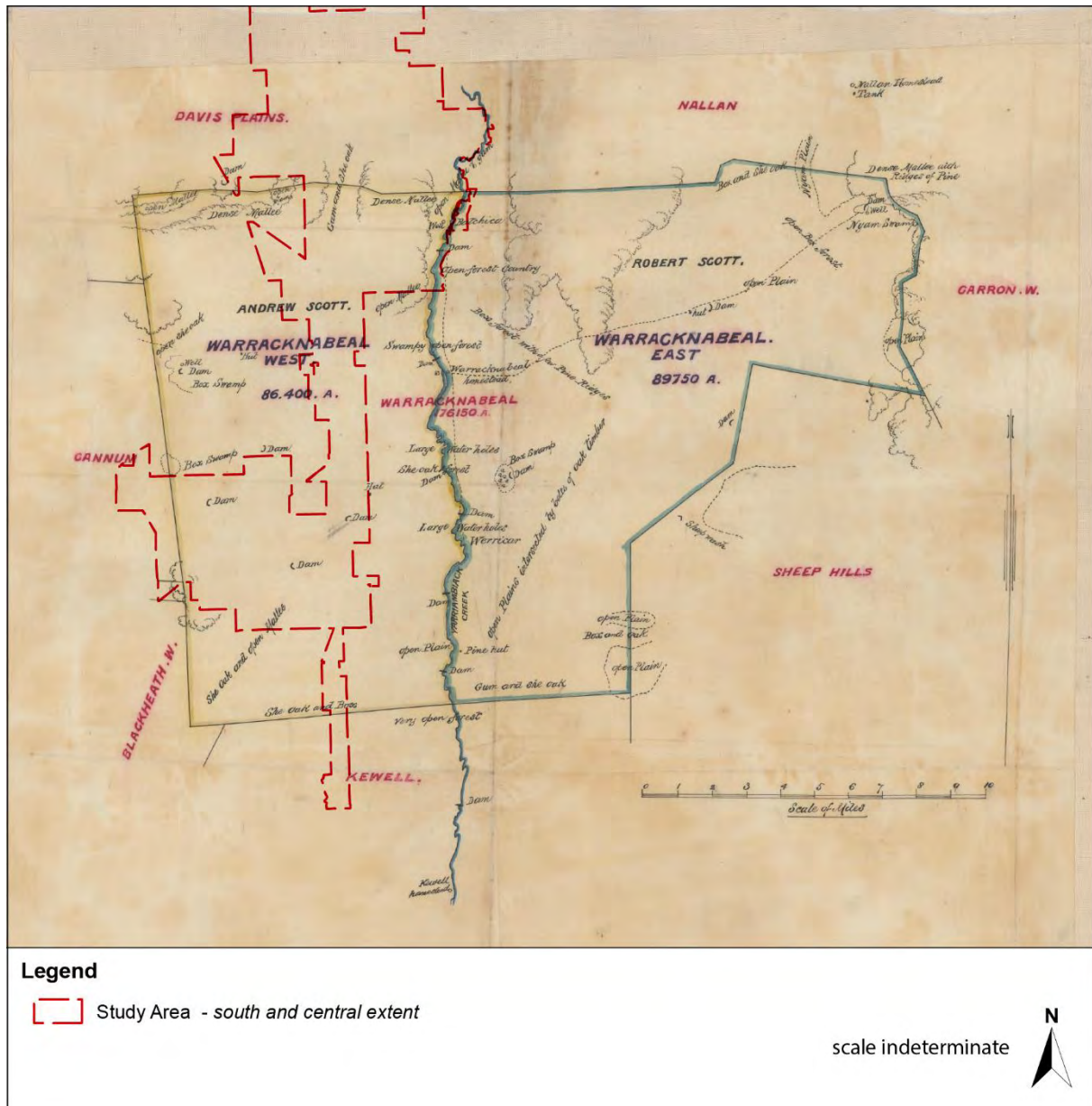


Figure 2: 'Plan of the Survey of Runs in the East Wimmera District', Cannum (Shaw, 1865)

Figure depicts the location and features associated with the Cannum pastoral run, including an outstation hut, fenced paddock and dam located in the study area (see Map 12 for location of Cannum run in relation to the study area)

A variety of fence types common within the Mallee and Wimmera regions are illustrated by this map.

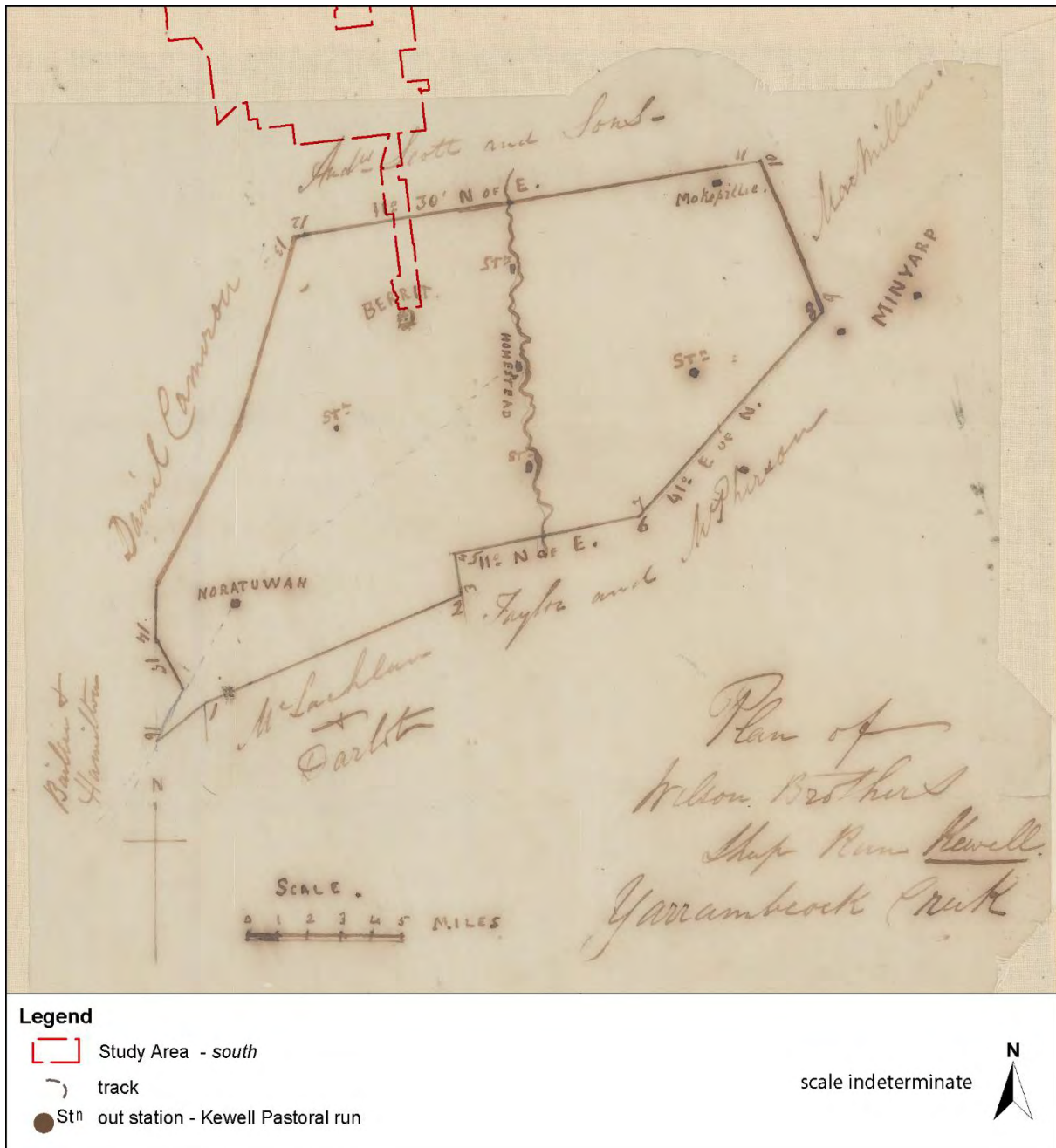


**Figure 3: 'Warracknabeal Pastoral Run - Warracknabeal West & Warracknabeal East' [– c.1870]**

Figure depicts part of Warracknabeal and Kewell pastoral runs in relation to the study area. Within the study area: outstation hut (east); Batchica, outstation hut; and dams. Landscape described variously as dense Mallee Scrub and She Oak, and open Mallee Scrub. Warracknabeal and Kewell pastoral run home stations located on Yarriambiack Creek – east of the study area.

*Note: Location of study area (as depicted) and scale should be considered indicative – alignment/ location of waterways and features as depicted on historic maps of this period varies from present-day precisely mapped georeferenced makers.*





**Figure 4: 'Plan of the Wilson Brothers Sheep Run Kewell' [-1845-1876]**

Figure depicts the location and features associated with the Kewell pastoral run, including home station (homestead) and outstations in the vicinity of the study area. Near the study area: 'Berrit' may be an Aboriginal place name and or local the timber reserve established by the late 1870s. May

*Note: Location of study area (as depicted) and scale should be considered indicative – alignment/location of waterways and features as depicted on historic maps of this period varies from present-day precisely mapped georeferenced makers.*



### 9.5.2 Land Acquisition & Farming Development

With the gradual expansion of settlement in Victoria and a series of new *Land Acts* of the 1860s and 1870s occupied pastoral runs were progressively surveyed and offered for sale – or selection under lease conditions – by the government. These Acts were designed to open up large sections of Victoria (held under pastoral leases) to settlement as smaller individual farms by providing for outright purchase and lease/purchase options, which were intended to provide individuals with limited capital an opportunity to acquire land. Of particular relevance to the study area is the *1869, 1878 and 1884 Land Act* and the *Mallee Land Act 1889*, which helped encourage settlement in areas such as the Wimmera and Mallee by: dividing large pastoral estates into smaller allotments available for lease; reducing annual lease fees; extending lease terms; and providing the opportunity to purchase allotments outright at the completion of a lease period. Prior to these changes to land legislation the establishment of profitable smaller scale farms in much of the study area would have been difficult due to environmental conditions (ABS, 1910; Dingle, 1984, pp. 65-66; 125; Nelson & Alves, 2009, pp. 245-247).

The establishment of irrigation systems in the Wimmera and Mallee region in the late-nineteenth and early-twentieth centuries played a major role in ensuring the viability of farming properties within the study area (Context 2012a, pp. 38-42). Elements of these irrigation systems – including water reserves, water tanks owned and managed by water trusts, and open cut water channels – are located throughout the study area (see Map 20).

#### 9.5.2.1 The Study Area (1875 to c.1950)

As discussed in Section 9.5.1, the vast majority of the study area was held under large pastoral runs until the mid-1870s; however, with progressive changes to land legislation individuals wishing to establish farms in the region progressively took up leaseholds on allotments made available for selection by the government (Context 2012a, pp. 15-16). A review of historic maps, pastoral occupation records, and secondary sources indicates that:

- By 1875, a number of individual allotments within the study area – e.g., along an existing track leading from Warracknabeal to Antwerp – were occupied under Government lease agreements (Map 13).
- By 1879, the majority of the southern extent of the study area – were located within the Parish of Kewell West – had been designated as a ‘Timber and Stone Reserve’; this 900 acre area of land was colloquially known as the Barrat or Barret timber reserve. One allotment to the northeast of this reserve was occupied under Government lease agreement by 1879 (Map 14; *Horsham times*, 19 Oct. 1883, p. 2; Map 14).
- By 1885, a significant portion of the study area (south) had been surveyed and was available for selection as a series of allotments for farming purposes under Government lease agreements (Map 17).
- By 1887, the entirety of the study area (north and south) had been surveyed and – with the exception of land reserved for townships, water reserves, and timber reserves – was available for lease or, in limited instances had been purchased outright (Map 18).
- By 1901, the majority of the study area (north and south) was occupied under Government lease agreements, or had been purchased outright (Map 19).

- During the period 1901 to c.1950 the majority of the study area was being used for mixed-use farming purposed, incorporating: grazing, primarily sheep; and cropping, predominately wheat (Dingle, 1984, pp. 106-107 & pp. 193-195; Context, 2012a, pp. 36-28; Map 23 and Map 24).
- The 'Barrat. Timber reserve – within the parish of Kewell East – was gradually reduced in size, and in the mid-1930s part of the original reserve encompassing the southern extent of the study area was opened for selection (*Horsham Times*, 19 Apr. 1935; *VGG*, 17 Apr. 1891, p. 1638; Map 25).

Detailed research into individual land occupiers/owners of the numerous properties located within the study area is outside the scope of this assessment. However, a general overview of the nature of farming activity, the type of structures that were potentially constructed, and landscape modifications that were undertaken by settlers of the Wimmera and Mallee region within the study area during the late-nineteenth and early-twentieth centuries is provided in Table 10.

**Table 10: Summary of land use and land modification within the study area (c.1875 to c.1950)**

Land Use / Modification	Evidenced within/in the vicinity of the study area
<b>Land Use</b>  Nature of predominate farming activity	<ul style="list-style-type: none"> <li>▪ Mixed-use farms (small to moderate size) combining: grazing – sheep were grazed more commonly than cattle; and crop production – wheat.</li> </ul>
<b>Built Structures</b>  Built structures commonly constructed on mixed use-farms in the region	<ul style="list-style-type: none"> <li>▪ Farmhouse – timber was the predominate building material, both for framing and cladding; however, dwellings constructed of wattle and daub, timber frame and corrugated iron clad, and brick have also been recorded in the region.</li> <li>▪ Farm buildings (e.g., shearing sheds, stables and stock sheds, storage sheds) – predominately timber framed and walled, and/or timber framed with corrugated iron cladding.</li> <li>▪ Fencing, including property boundary, internal paddock fencing, and stock yards – timber predominately used as the main building material (e.g., post and rail, post and wire, and/or mallee root fences).</li> </ul>
<b>Landscape modification</b>  Land Clearance	<ul style="list-style-type: none"> <li>▪ Extensive land clearance undertaken during the late nineteenth and early-twentieth centuries, carried out to create open pastures for grazing and to allow for cropping activity.</li> <li>▪ The substantial and tuberous root systems of trees and shrubs native to the region (colloquially know as Mallee Scrub) required significant effort to remove and necessitated the use of agricultural machinery such as iron rollers to crush the existing shrub, followed by a laborious process of digging to remove the Mallee Scrub's root system.</li> <li>▪ The clearance of large areas of native vegetation led to major soil erosion. Compounded by the naturally sandy geology of the region and exacerbated by intermittent periods of drought, this clearance contributed to issues with dust storms and sand drifts.</li> </ul>

**Table 10: Summary of land use and land modification within the study area (c.1875 to c.1950)**

Land Use / Modification	Evidenced within/in the vicinity of the study area
<b>Landscape modification</b>  Cropping activity/agricultural machinery	<ul style="list-style-type: none"> <li>▪ Use of agricultural machinery such as the stump jump plough (used to prepare and sow crops) was a significant feature of farming activity during the nineteenth and early twentieth century. This cropping activity altered the topography by levelling the landscape and disturbing natural soil horizons at surface and near surface level.</li> <li>▪ The gradual introduction of petrol fuelled agricultural machinery (e.g., tractors, combine harvesters) from c.1930 led to changes in farming practice.</li> </ul>
<b>Landscape modification</b>  Irrigation Trust Schemes	<ul style="list-style-type: none"> <li>▪ Access to a reliable water source for watering crops was an ongoing issue for settlers in the study area during the 1870s and 1880s.</li> <li>▪ During the late nineteenth and early-twentieth centuries Government-funded irrigation/water supply systems were constructed within the study area (Map 20), including: <ul style="list-style-type: none"> <li>- A series of open cut, gravity flow channels; and</li> <li>- A weir/dam at the township of Batchica.</li> </ul> </li> </ul>
<b>Landscape modification</b>  ‘Vermin’ fencing	<ul style="list-style-type: none"> <li>▪ As discussed in Section 9.5.1.1 by the late 1870s rabbits had multiplied to a point where they were having a significant impact on pastoral properties within the study area which, along with dingoes, were frequently reported as vermin responsible for stock and pasture losses during the 1870s and 1880s.</li> <li>▪ As a result of lobbying by landowners and occupiers, and ‘vermin control committees’ (established under the <i>Mallee Pastoral Leases Act 1883</i>) the Government funded the construction of a ‘vermin proof’ fence – colloquially known as the Mallee Fence. The fence was constructed between 1885 and 1886 and crossed directly through the entire Mallee region. Research suggests that this fence was located to the immediate north of the study area (Figure 5).</li> <li>▪ The Mallee Fence was constructed of posts (timber and steel) and wire. Two levels of wire netting were used: fine wire netting imbedded into the ground and up to ‘2ft’ (60cm) in height; the remaining height of the fence had larger mesh netting and was topped by strands of barb wire. The overall height of the fence was approximately 2.0m. By the early twentieth century much of the fence was in poor repair and not functional as an effective barrier.</li> </ul>
<b>Sources:</b> Connah, 1988, pp. 84-86, pp. 93-95; Context, 2012a, 2012b; Dingle, 1985, pp. 106-107, pp. 193-194; Pickard, 2010 and 2019, pp. 30-52.	

Aerial imagery dating to 1952 illustrates that, by mid twentieth century, the majority of the study area had been cleared of native vegetation, with only isolated patches of trees evident within property boundaries, water reserves and a small number of timber reserves. A relatively small number of what appear to be residential structures (farmhouse) and outbuildings are scattered across the study area, suggesting that farms of this period comprised relatively large acreages. It is presumed that a number of successful settlers in the region acquired additional allotments surrounding their original settled farm (see Map 21, Map 23, Map 24)



### **9.5.2.2 The Study Area (1950 – 2023)**

Although research into the chronological ownership of individual properties located within the study area is outside the scope of this assessment, it is reasonable to assume that the boundaries of farming properties established prior to 1950 altered over time. Subdivision and amalgamation of early farming properties has likely occurred to a degree resulting in: construction of new dwellings and outbuildings; tree/vegetation clearance; construction of property fencing – internal and boundary; and the establishment of a new surveyed roadways. However, as evidenced in maps and aerial images dating to 1950+ (Map 26 to Map 27) despite changes in ownership that can be presumed to have occurred post this date, much of the study area remained relatively unaltered, and likely continued to be used for farming purposes (grazing and crop production, primarily wheat). Landscape modification within the study area, including: minor tree clearance; establishment of farm access road and tracks; and construction of property fencing are evidenced in images dating 1963+ (Map 28 to Map 31; Google Earth Pro, 2023). Notes included within the captions of each map provide details of noted landscape modifications.

## **9.6 Peopling Victoria's Places and Landscapes**

### **9.6.1 Establishment of Rural Townships**

Government surveyors set aside areas of land as township reserves during surveys of the Wimmera and Mallee region in the 1870s and 1880s. A number of rural townships were established within these reserves during the nineteenth century. While many of these townships have persisted until the current day, a number of townships had only a relatively short life span (Context, 2012a, 2012b; Priestley, 1984, p. 68-70).

#### **The Study Area**

A brief description of townships established within or in the immediate vicinity of the study area during the nineteenth century are summarised below.

#### **Ailsa**

- Located within the Parish of Wallup, part of the township located within the study area (southeast; for location, see Map 35).
- Small township allotments with structures (x2 – south; and x1 – north) on purchased allotments – evident on a map dating to 1889 (Figure 6).
- A review of historic local newspapers (e.g., *Horsham Times*, 28, Feb. 1893, p. 4; 15, Mar. 1904, p.1; 18 Mar. 1924, p. 6, 10 Oct. 1939, p. 2; *Warracknabeal Herald*, 14 May 1918, p. 3) indicates that the following public/civic structures were located in the township during the late-nineteenth and early-twentieth centuries:
  - A school (c.1893-c.1949); and
  - A Presbyterian Church (c.1895-1939); the original church was demolished, and a new church was built in 1939.
- The township of Ailsa is evident in aerial images dating to 1952 to 1963; however, the resolution of the image prevents any clear determination being made as to the location of any structures or buildings within the study at that time (Map 27 and Map 31).

### **Crymillan**

- Located within the Parish of Yellangip, including surveyed township allotments within the study area (southwest; Map 34).
- Township allotments that were purchased or held under lease by c.1927 (Map 23).
- A review of historic local newspapers (e.g., *Horsham Times*, 10 Sep. 1889, p. 3; 19, May. 1898, p. 4) indicates that, with the exception of the water trust tank and channel, no other public/civic structures were located within the town reserve during the nineteenth century.
- The former surveyed township of Crymillan is evident in aerial images dating to 1963, where it appears to be open grassed land with scattered tree/brush cover; however, the resolution of the image prevents any clear determination being made as to the location of any structures or buildings within the study at that time (Map 29).

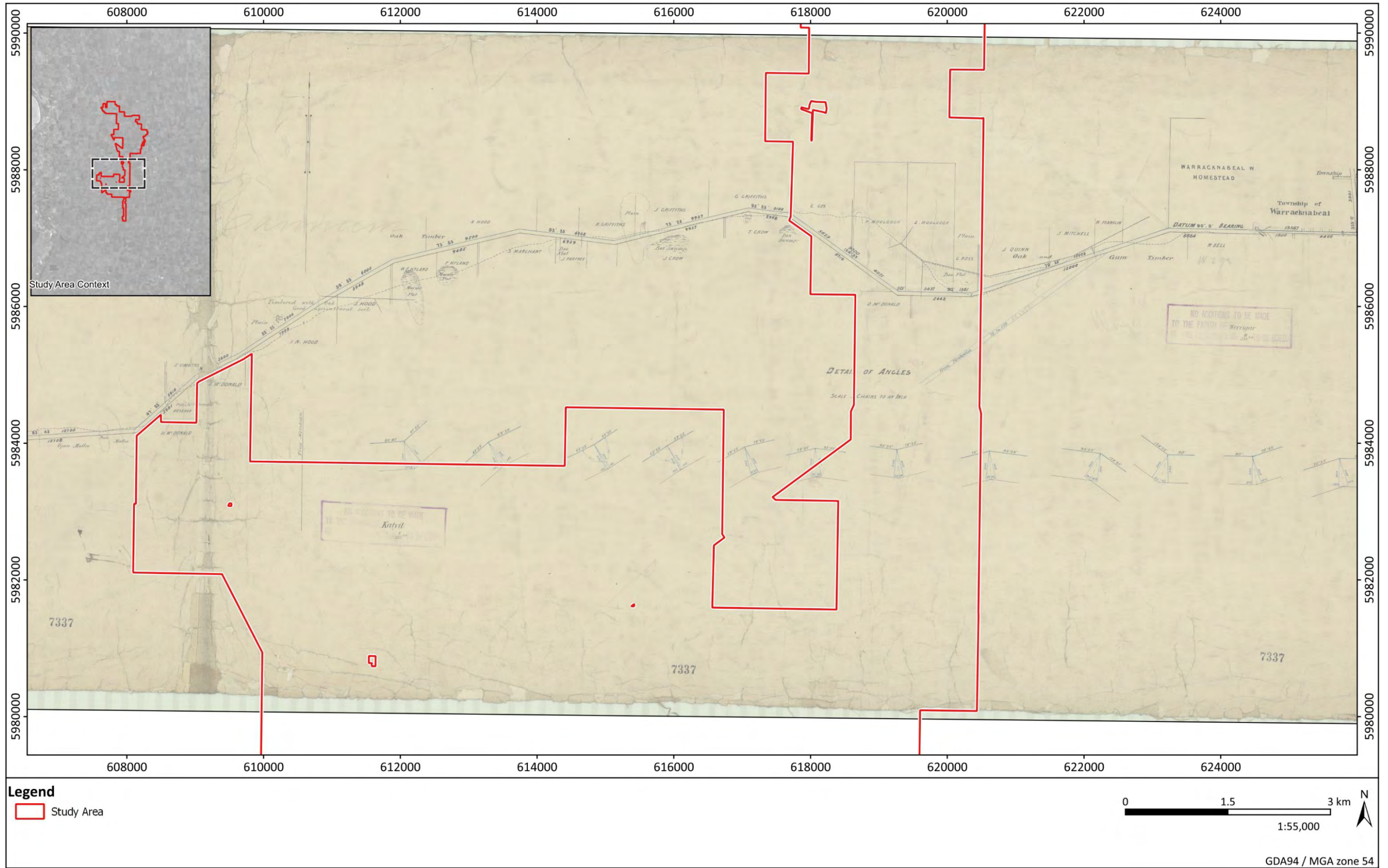
### **Batchica**

- Located within the Parish of Warracknabeal, immediately adjacent to the study area (east).
- An outstation is located within the study area (in the immediate vicinity of the later township) from the 1850s (Map 34).
- Land encompassing the later township was set aside as a 'camping reserve' in 1877 (*Victorian Government Gazette*, 01 Jul. 1877, p. 1040).
- A review of historic local newspapers (*The Riverina Herald*, 07 Mar. 1894, p. 3; *Victorian Government Gazette*, 07 Apr. 1898, p. 1333) indicates that the following public/civic structures were located in the township by the late-nineteenth century:
  - A school (c.1894+); and
  - A cemetery (established 1898).
- In an aerial image dating to 1963 the former township (immediately south of the study area) appears to be open grass land with fenced allotments; however, the resolution of the image prevents any clear determination being made as to the location of any structures or buildings within the study at that time (Map 29).

### **Lah**

- Located within the Parish of Yellangip (immediately adjacent to the study area (east) (Map 34).
- A crossing point over Yarriambiack Creek was located in the immediate vicinity of the later township from the 1850s.
- Land encompassing the later township (immediately east of the study area) was set aside as a 'camping reserve' in 1877 and revoked in 1893 (*Victorian Government Gazette*, 10 Feb. 1893, p. 804).
- Township allotments were surveyed by 1927, clearly located outside the study area.
- In an aerial image dating to 1963 a number of structures appear to be located in the township (east of the study area); however, the resolution of the image prevents any clear determination being made as to the location of any structures or buildings within the study at that time (Map 29).



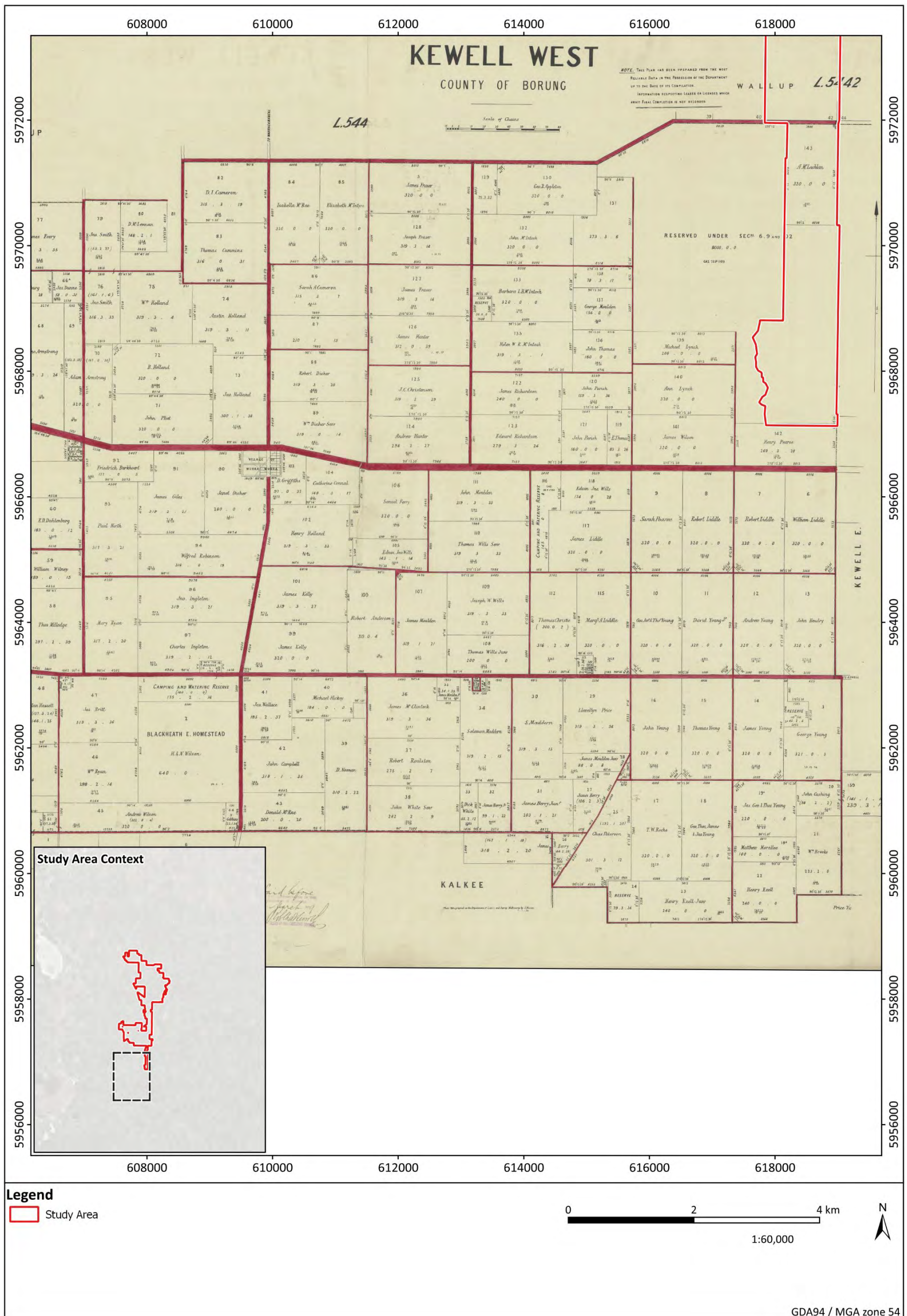


**Map 13: 'Plan of Road from Antwerp to Werrigar County of Borung' – detail view (DCLS, 1875)**

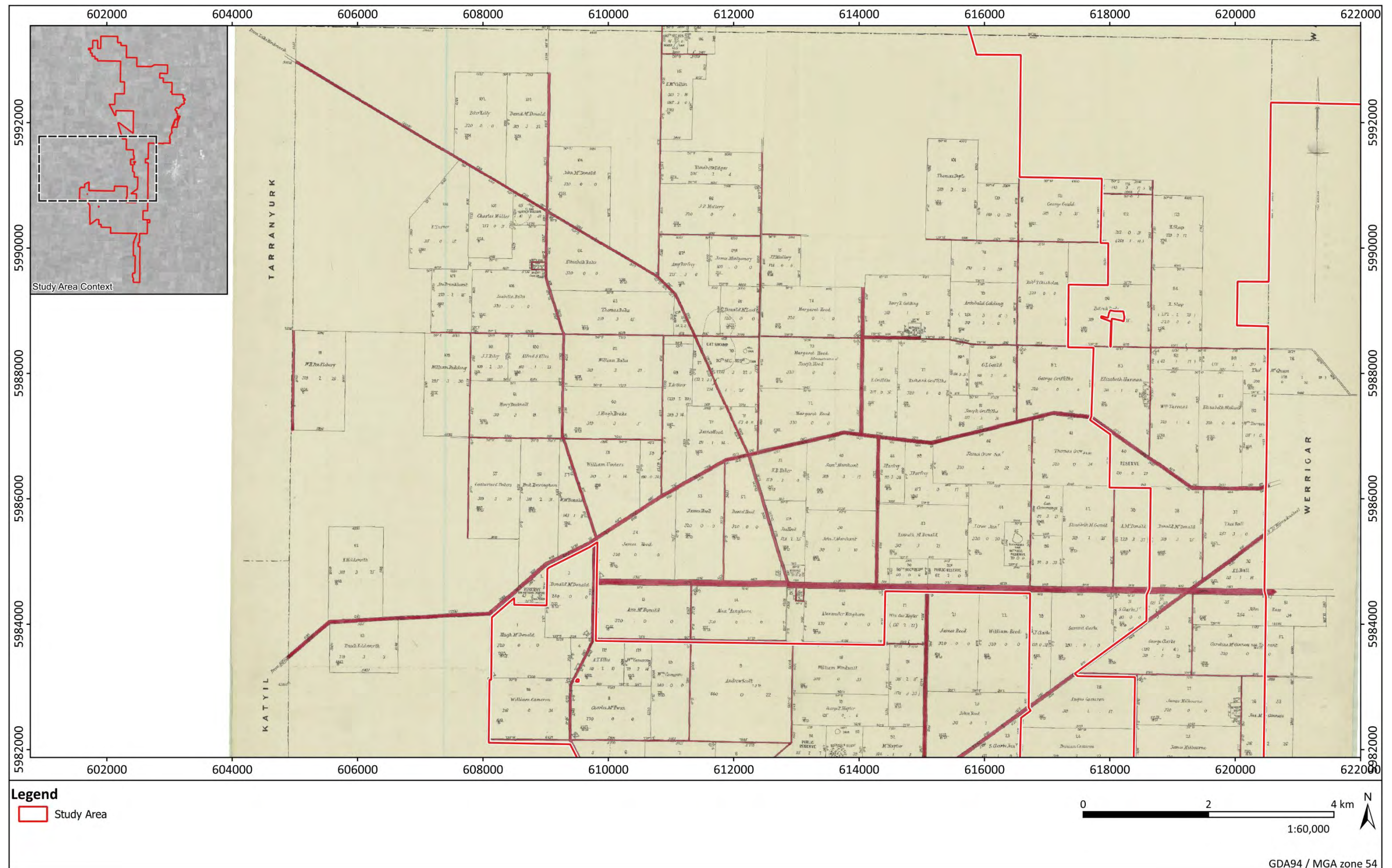
Map shows existing track, and newly surveyed road. Within the study area surveyed and selected farming allotments.

The existing track was likely used during the early pastoral era, potentially following a significant earlier route known and used by Aboriginal people.



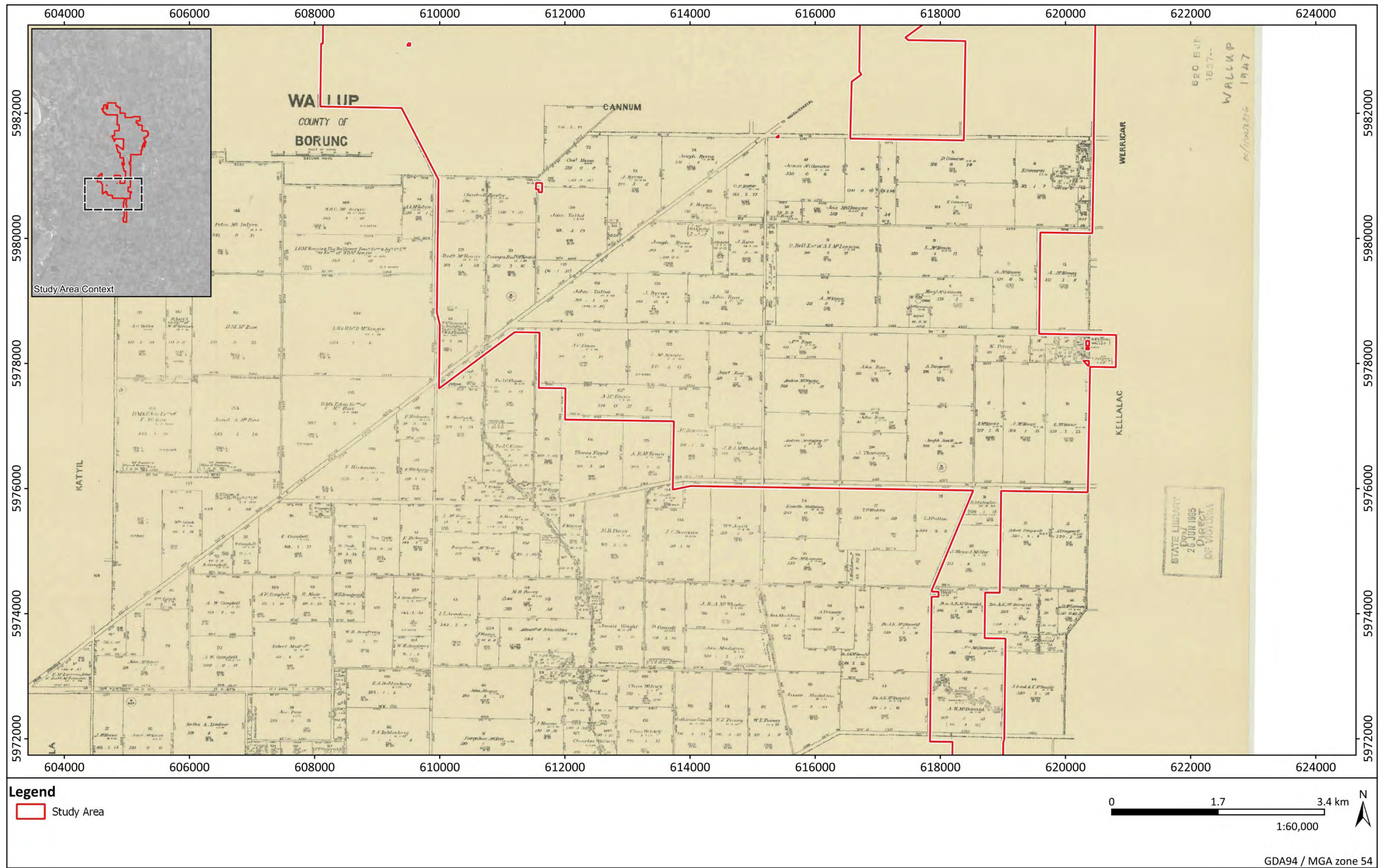






Map 15: 'Cannum, County of Borung' – detail view (DLS, 1881a)  
Within the study area surveyed and selected farming allotments. Newly proclaimed roads marked in red.





Map 16: 'Wallup, County of Borung' – detail view (DLS, 1881b)  
Within the study area surveyed and selected farming allotments. Newly proclaimed roads marked in red.



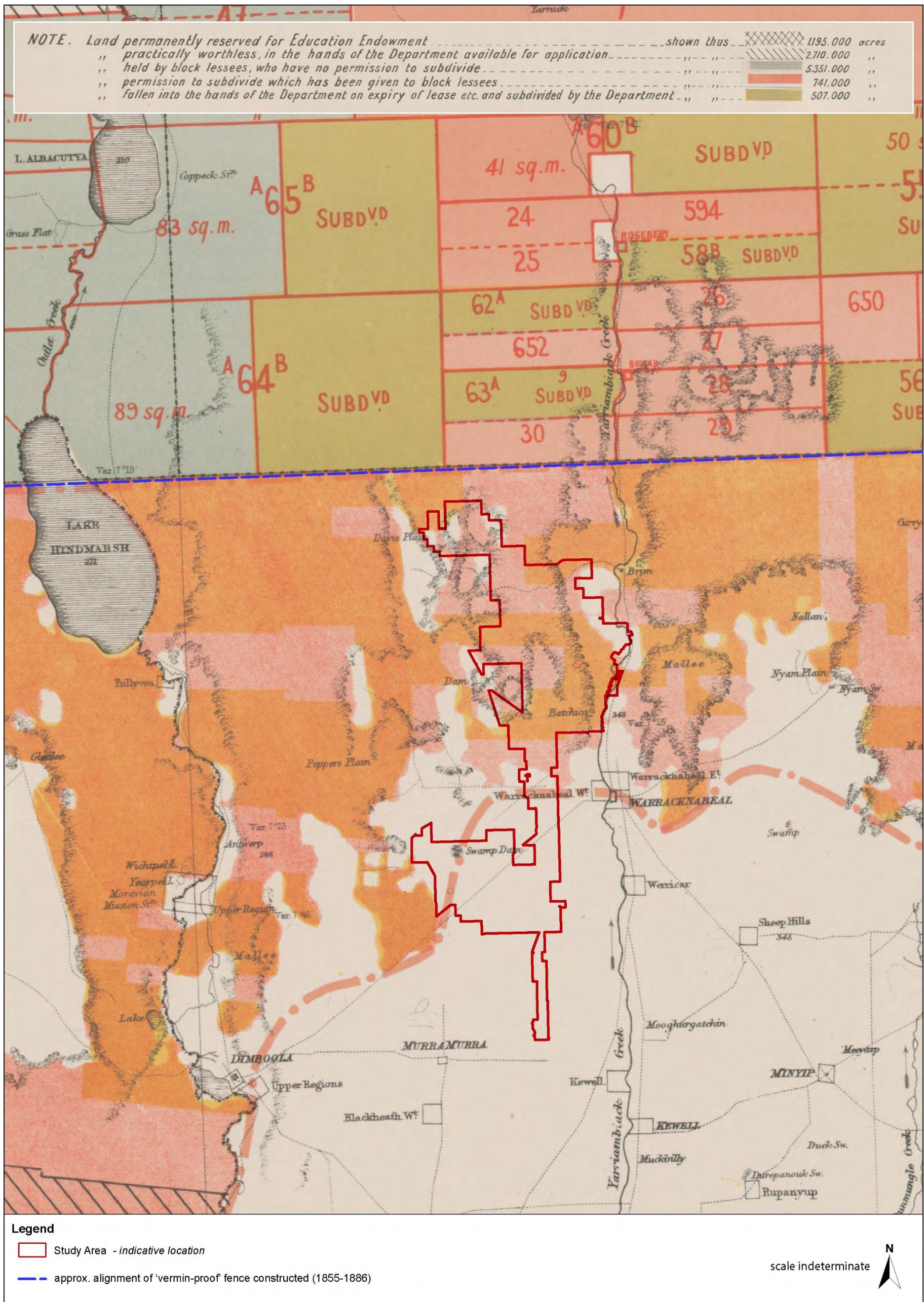
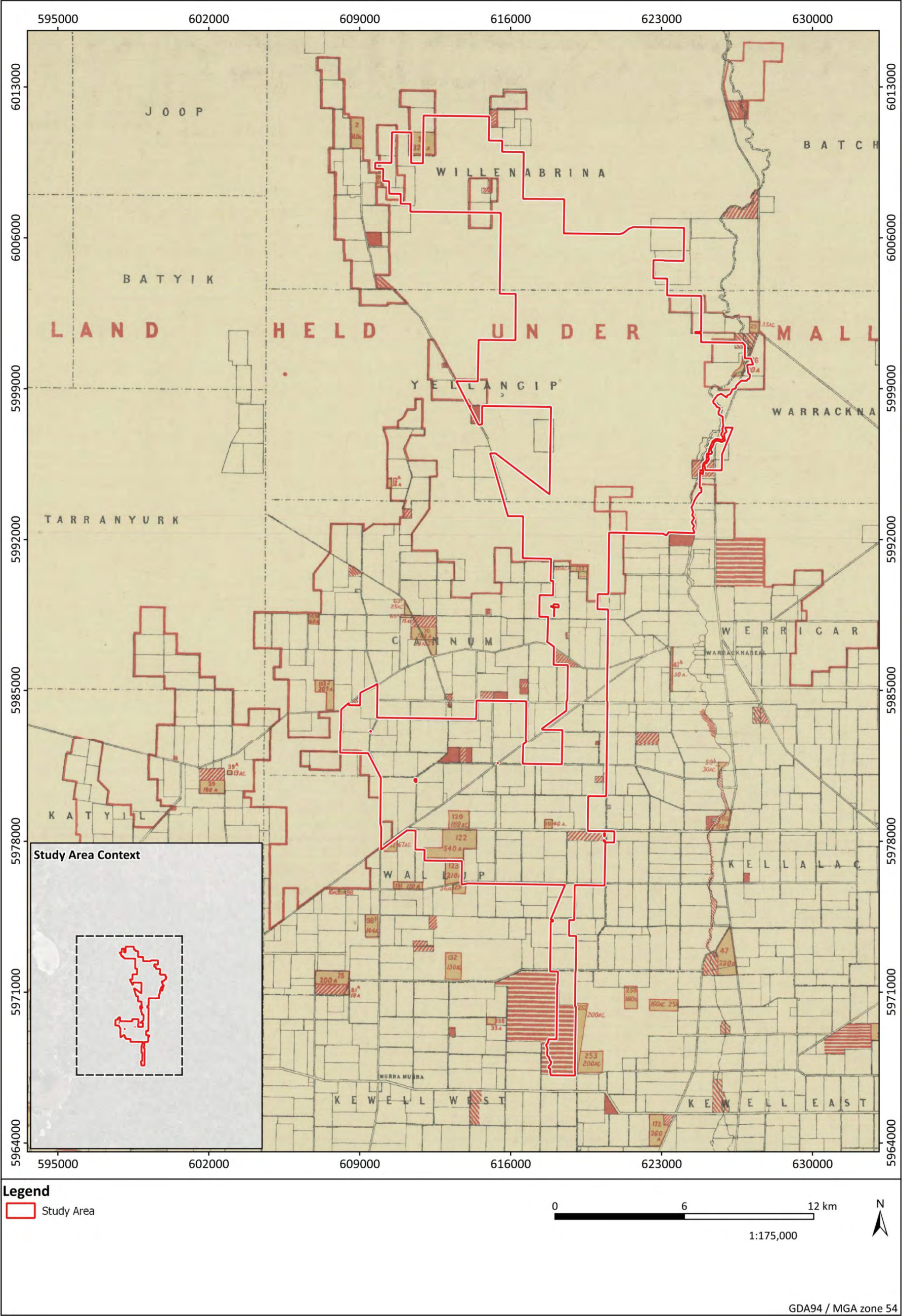


Figure 5: 'Mallee Blocks Under Section 4' – detail view (DLS, c.1883)

Depicts the location of Mallee allotments and location of 'Vermin-proof' fence constructed 1885-1886, in relation to the study area.



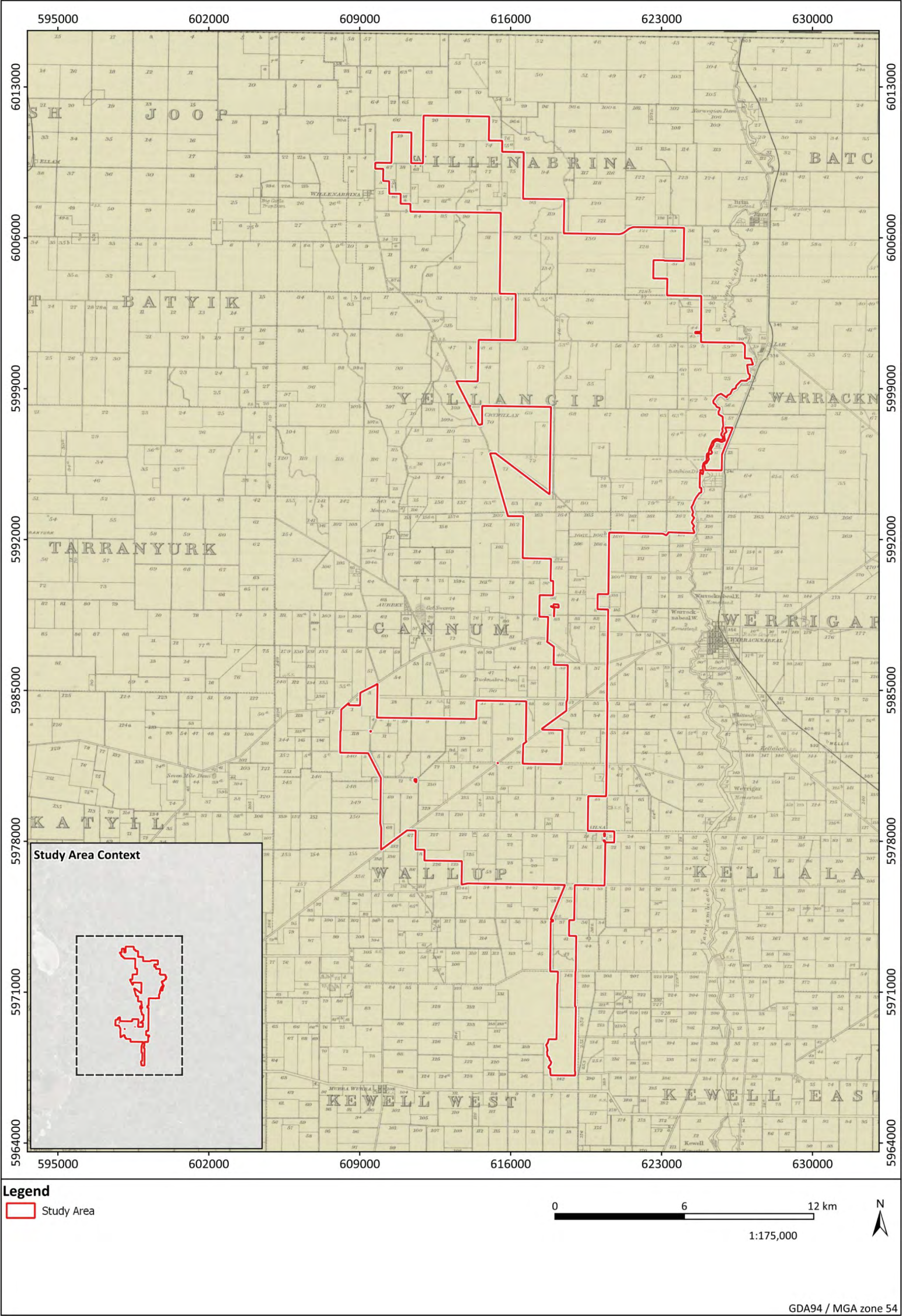


Map 17: 'Borong Sheet 2' - Land held under Mallee Act – detail view (DCLS, 1885)

Map shows area surveyed and held under the Mallee Act.

*Note: Location of study (as depicted) and scale should be considered indicative – the alignment/ location of waterways, roads and features as depicted on historic maps of this period varies from present-day precisely mapped georeferenced makers.*





Map 18: 'Geodetic Survey of Victoria – Division I south Co. of Borung – detail view (DLS, 1887)

Map shows multiple surveyed allotments within the study area, available for leasehold.

*Note: Location of study area (as depicted) and scale should be considered indicative.*



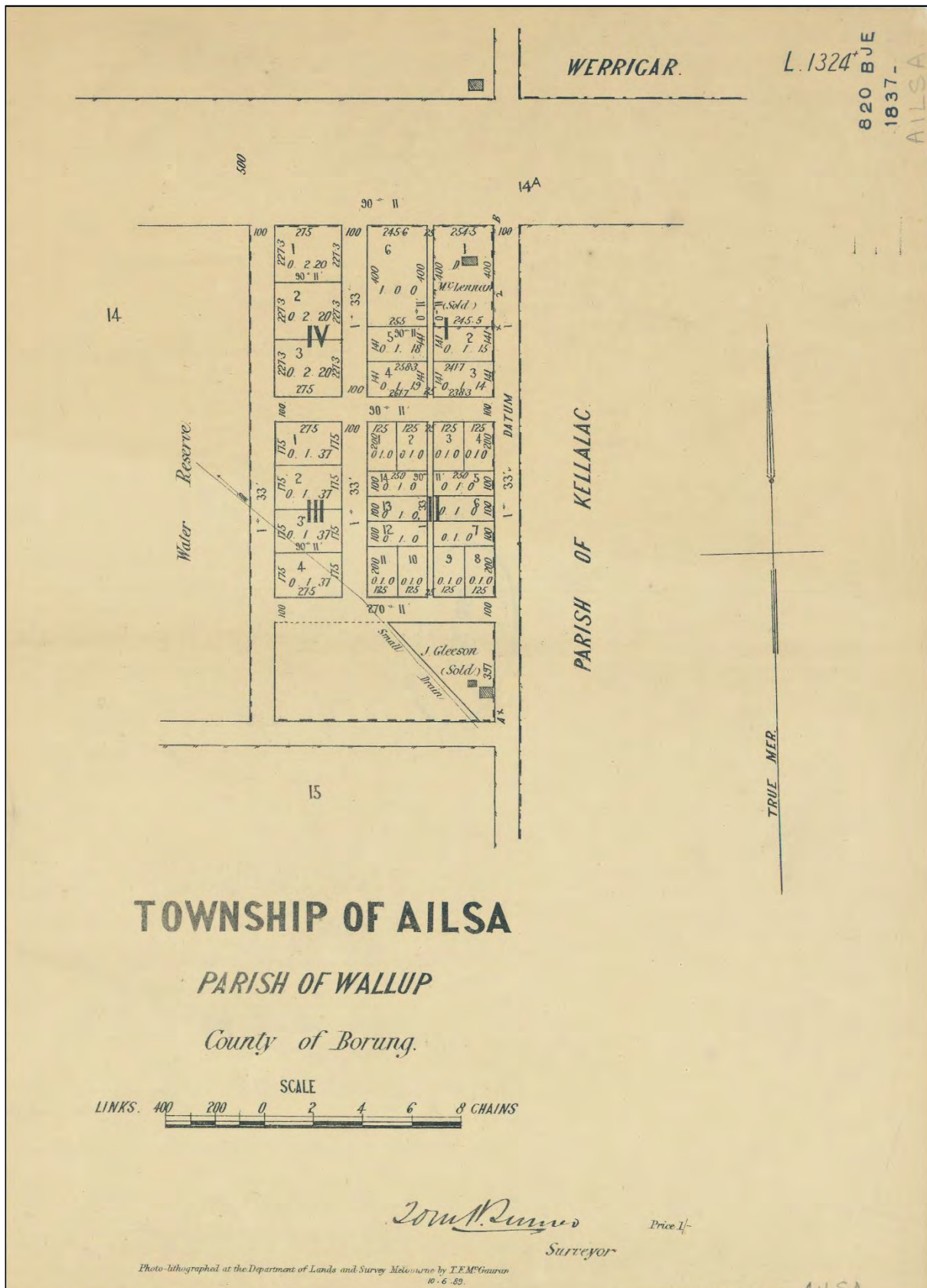


Figure 6: 'Township of Ailsa, Parish of Wallup, County of Borung' (DLS, 1889)

Depicts the layout of the township of Ailsa in 1889, and location of structures north and south, likely located within or the immediate vicinity of the study area



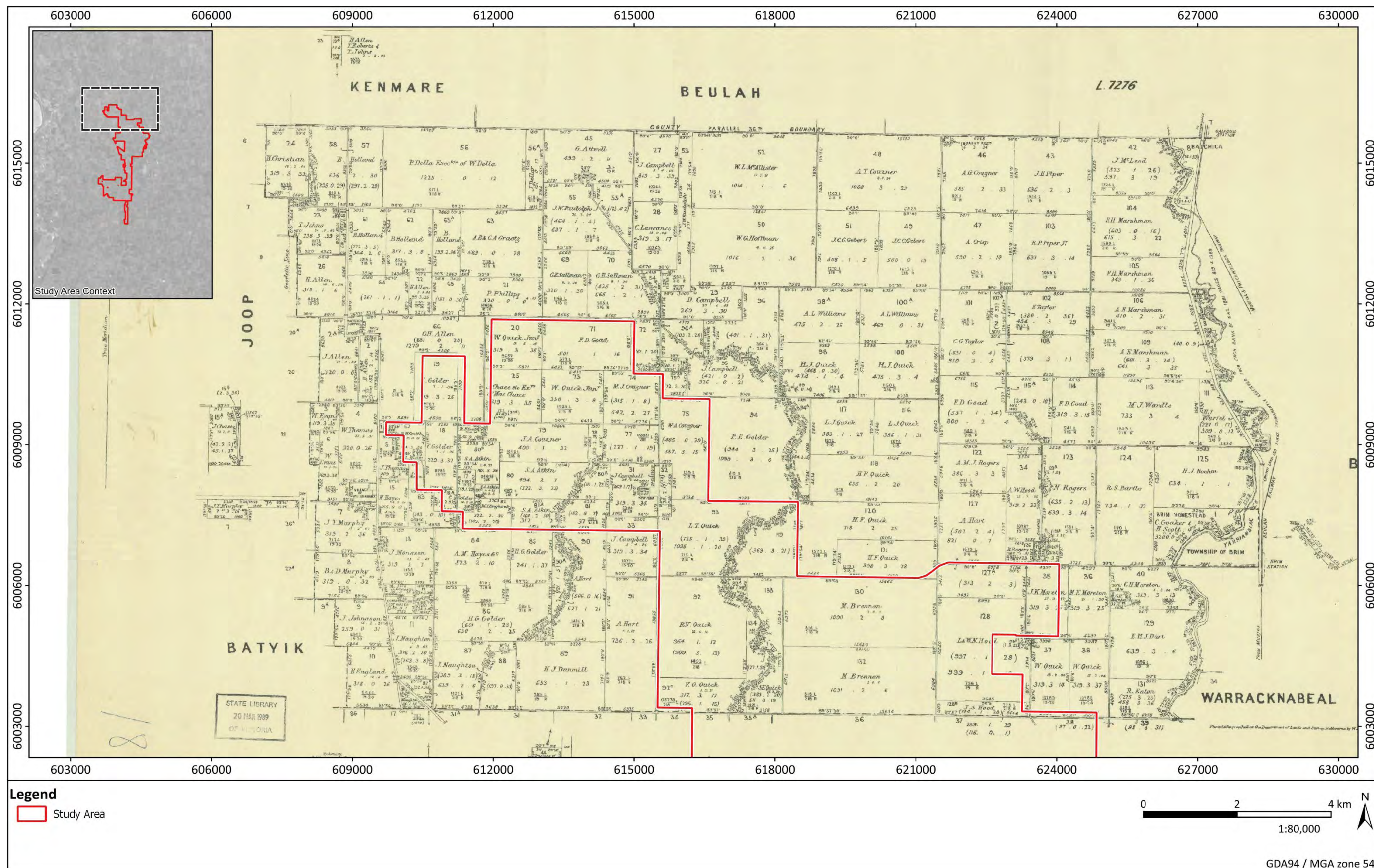
*Note: Location of study area (as depicted) and scale should be considered indicative.*



Channels shown in red constructed by Council or local land owners, those in blue by the Water Trust; those in green by Board of Works or State water board. Dashed lines proposed additions.

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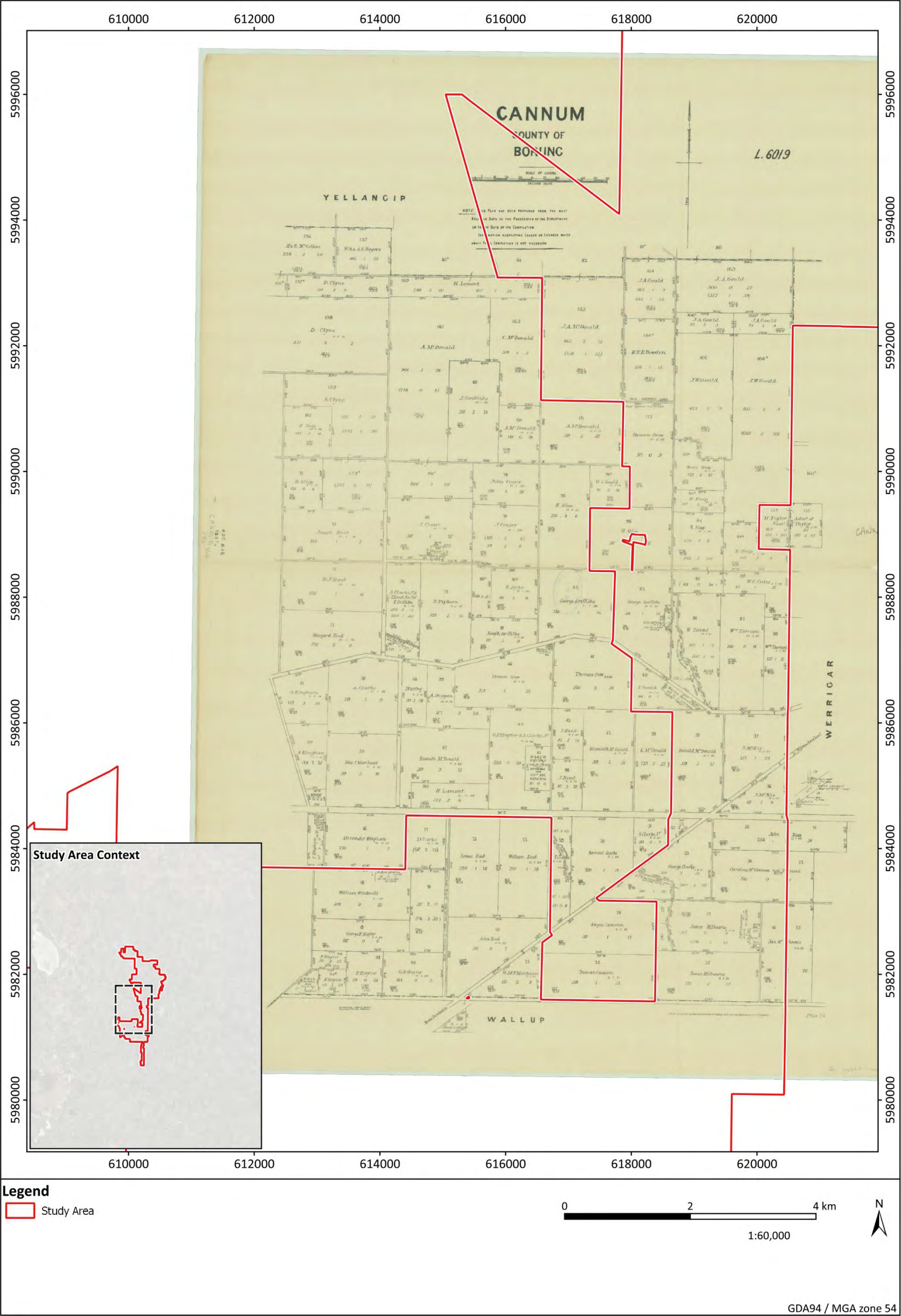




Map 21: 'Willenabrina County of Borung' – detail view (DLS, 1927a)

Map shows multiple allotments held under leasehold by a variety of individuals, some allotments purchased by this date.

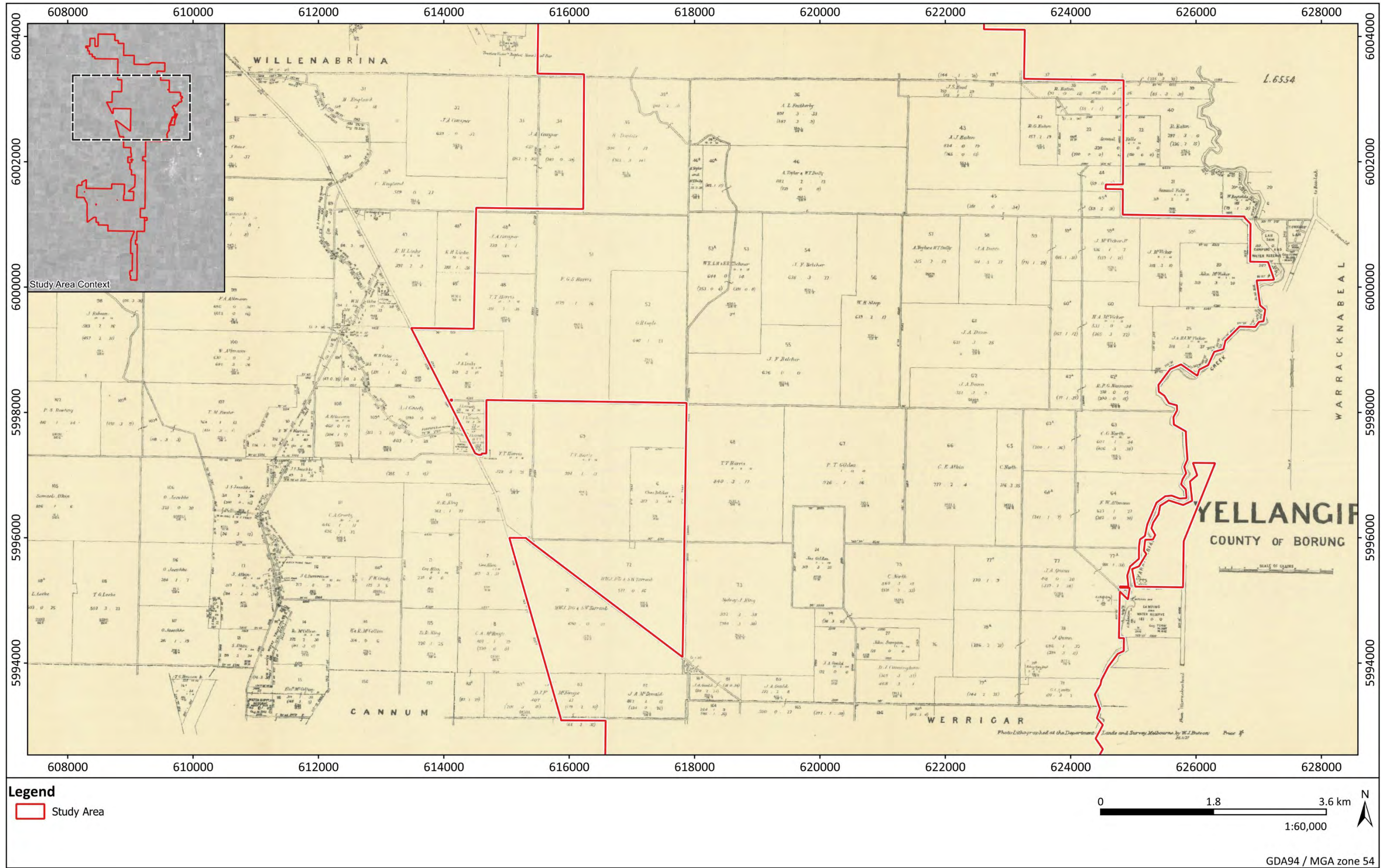




Map 22: 'Cannum County of Borung' (DLS, 1916)

Map shows multiple allotments held under leasehold by a variety of individuals, some allotments purchased by this date.

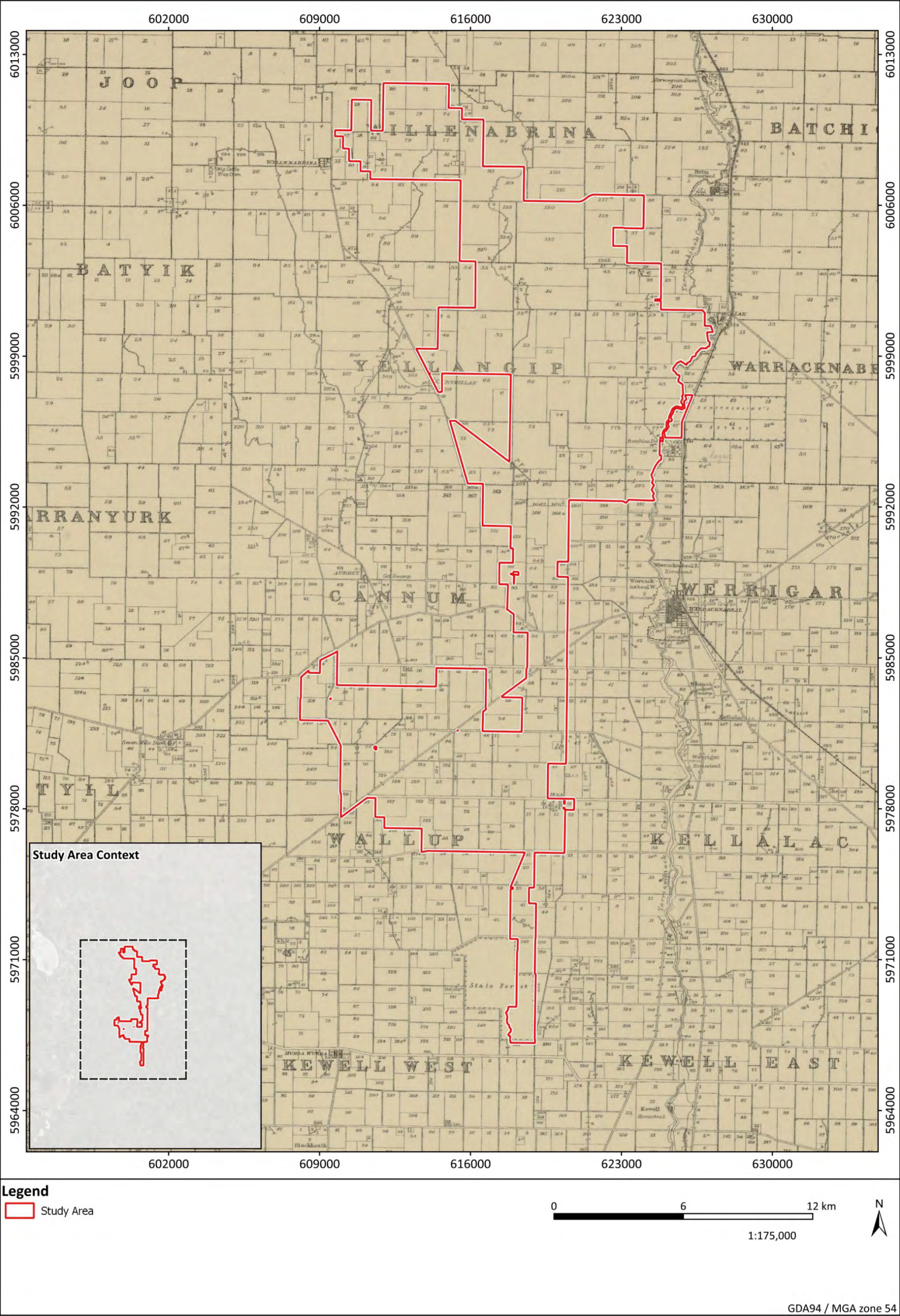




**Map 23: 'Yellangip County of Borung' – detail view (DLS, 1927b)**

Map shows multiple allotments held under leasehold by a variety of individuals, some allotments purchased by this date.





Map 24: 'County of Borung Sheet 2 – detail view (DLS, 1935)

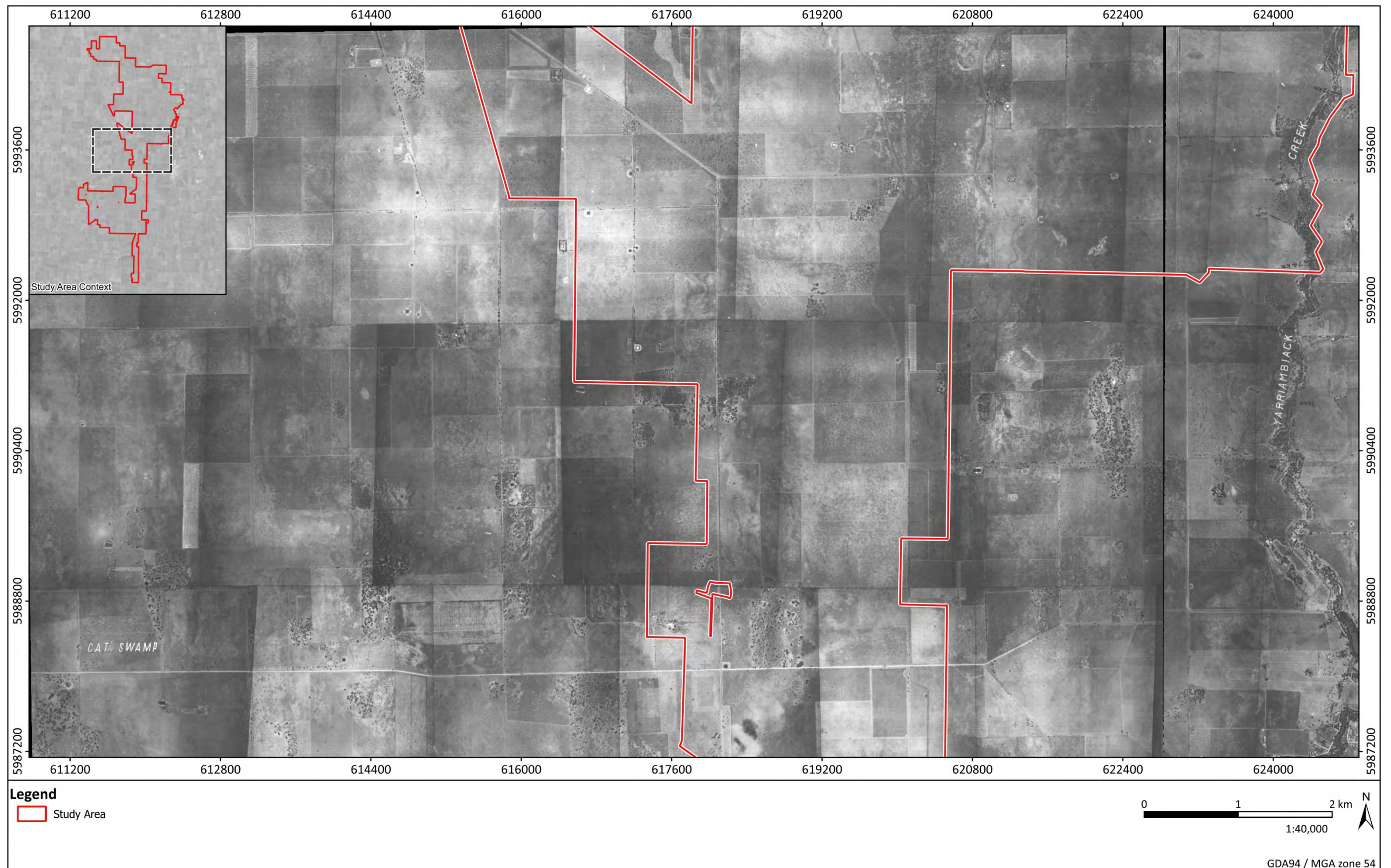
Map shows multiple allotments held under leasehold by a variety of individuals, some allotments purchased by this date. Townships of Ailsa, Batchica, Crymillan and Lah evident on this map.



Base Map dates to 1883 with additions/annotation sot c.1979

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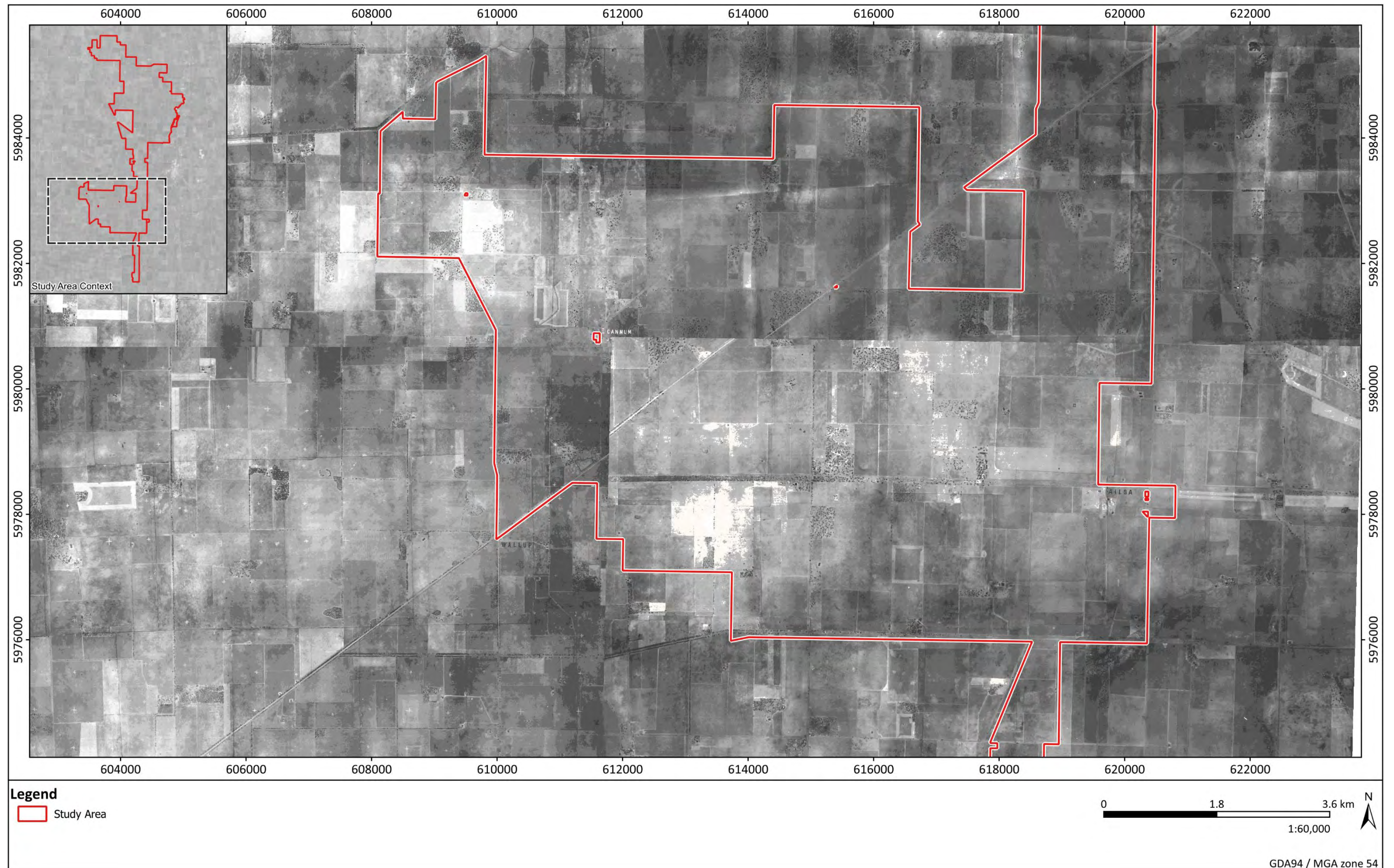




Map 26: Aerial View of the Study Area (central) dating to 1952

Mosaic created from: DLS 1952a & DLS 1952b.

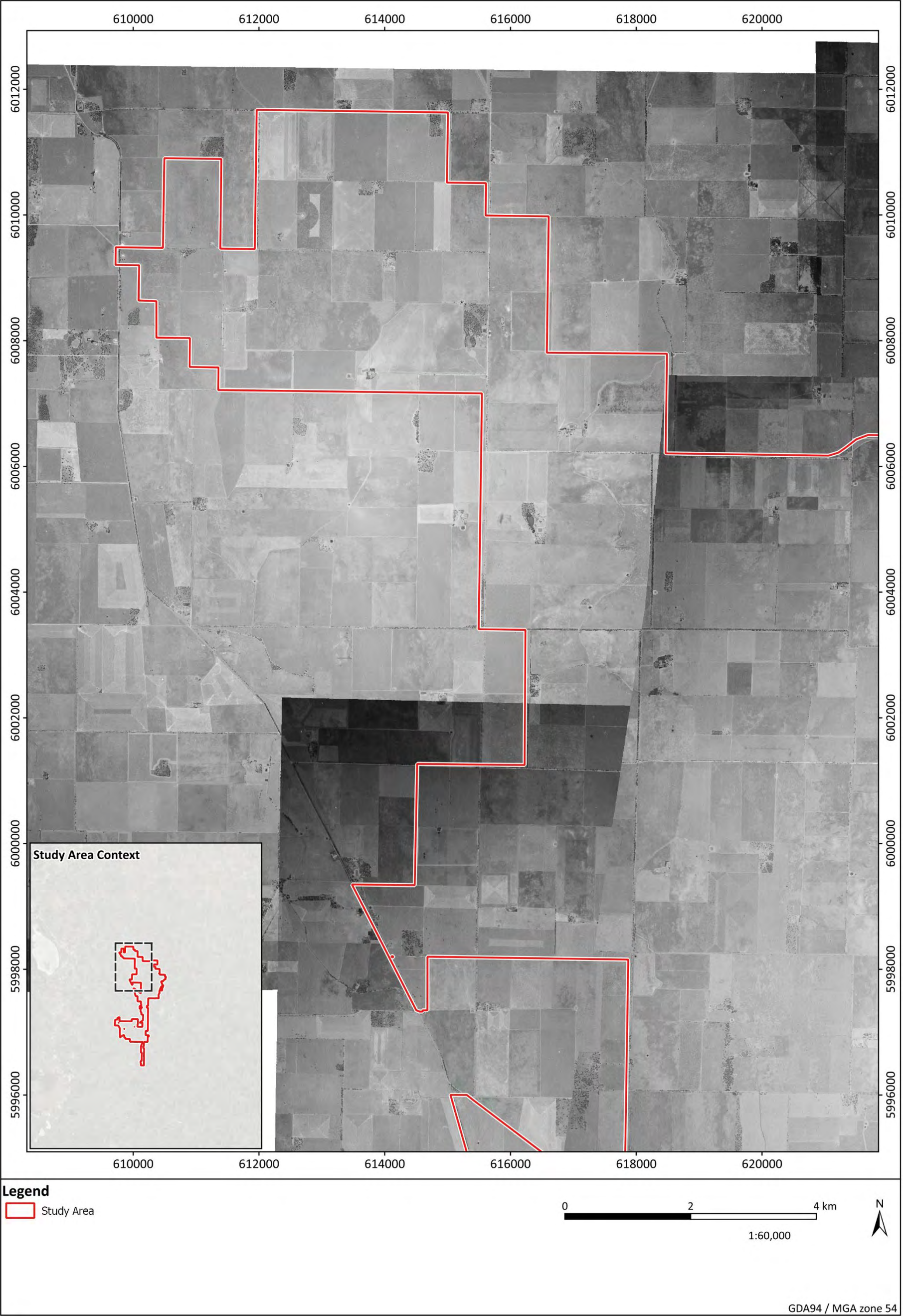




Map 27: Aerial View of the Study Area (central) dating to 1952

Mosaic created from: DLS 1952a & DLS 1952b.

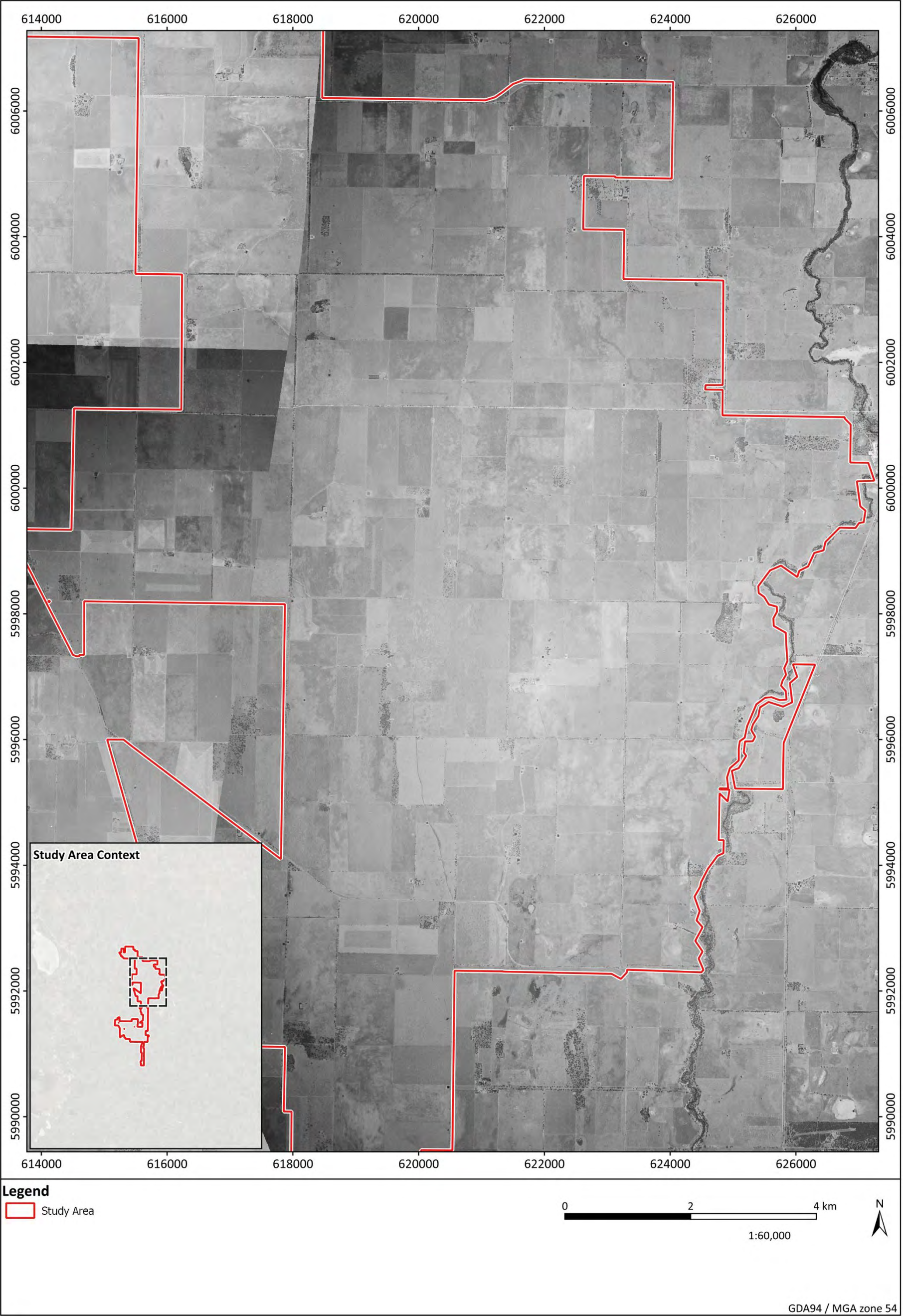




Map 28: Aerial View of the Study Area (northwest) dating to 1963

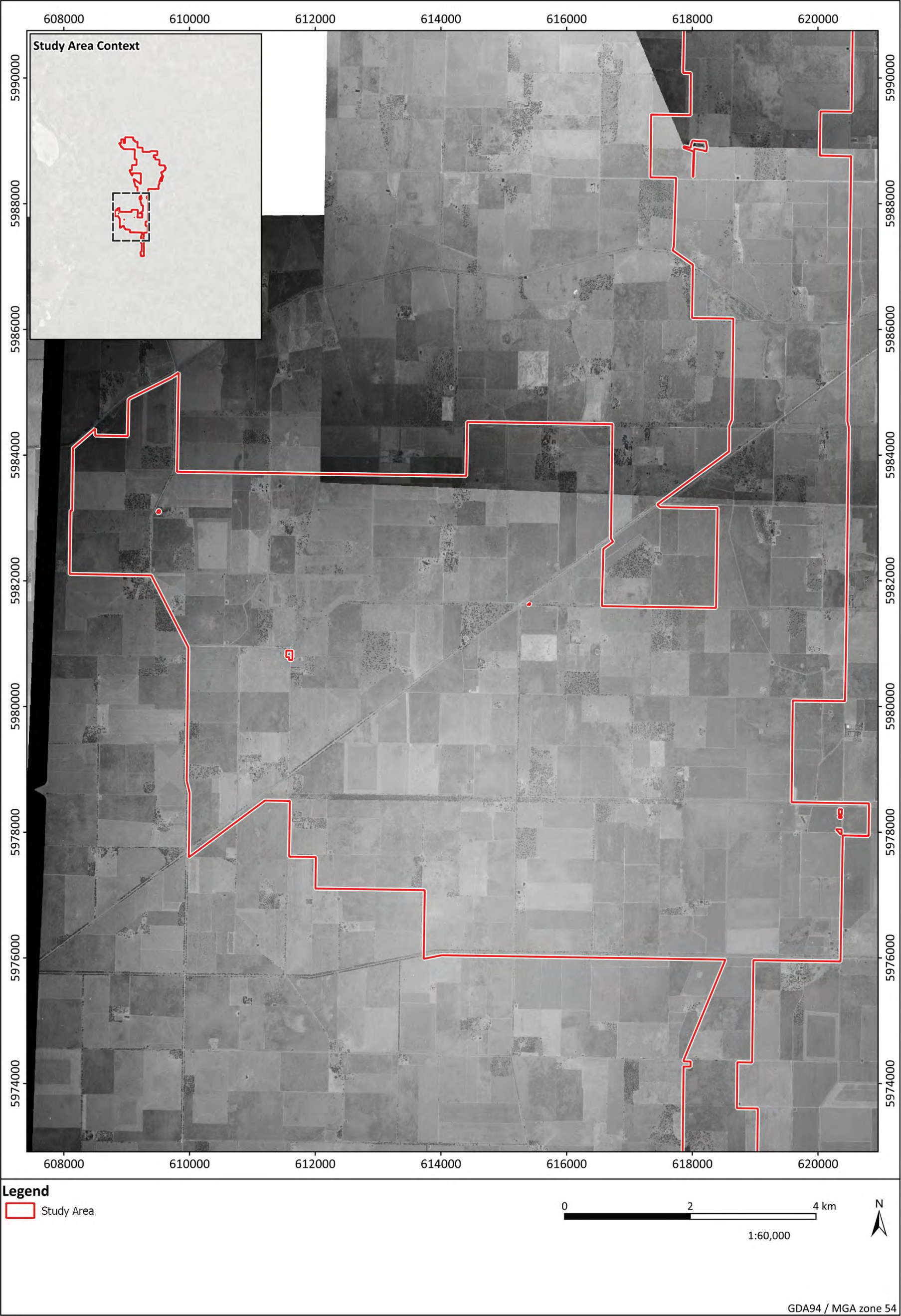
Mosaic created from: Horsham Project CAD 16, 20 & 20 (CAP (Geoscience Australia) 1963).





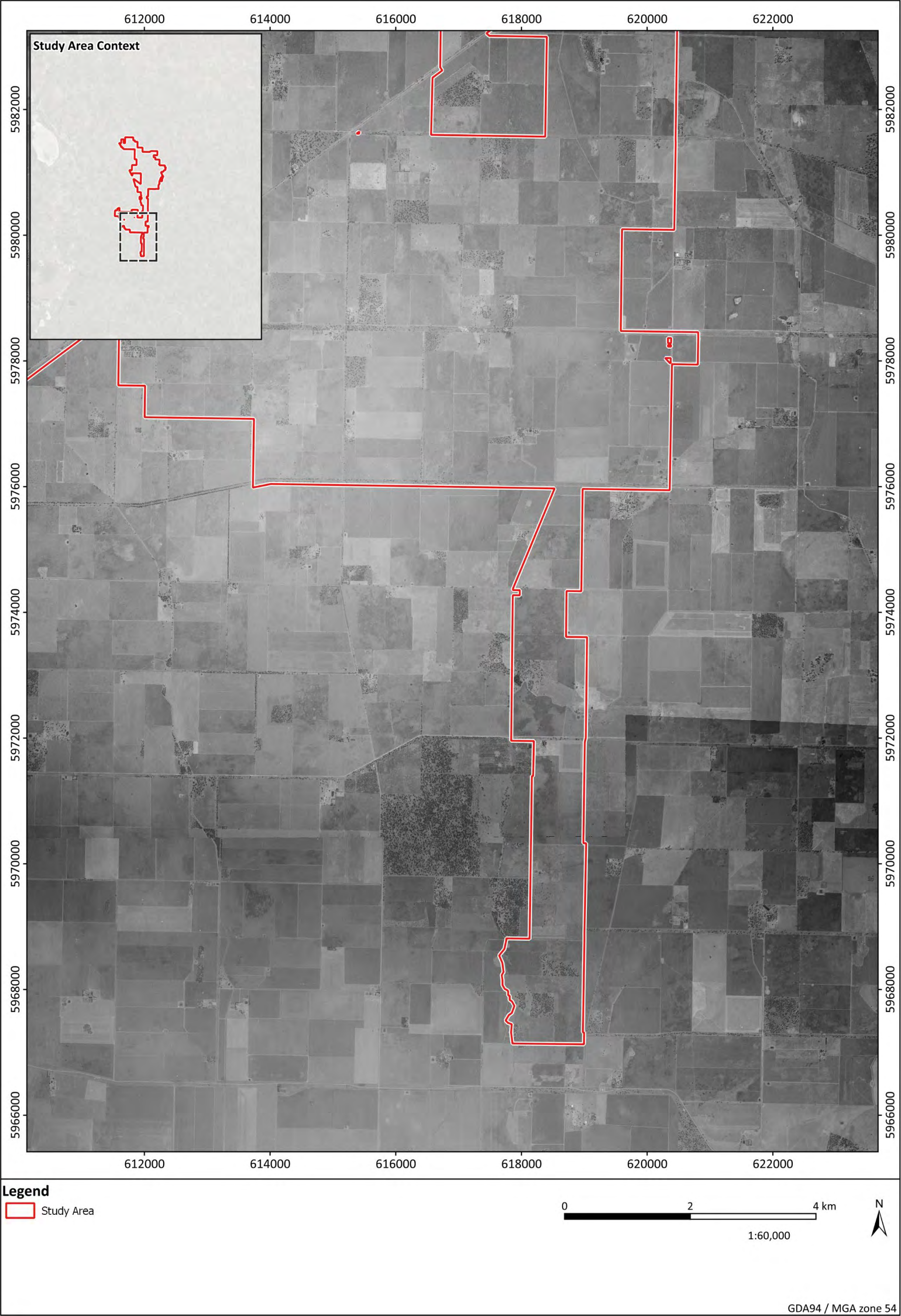
Map 29: 'Aerial View of the Study Area (northeast) dating to 1963/1964  
Mosaic created from: CAP (Geoscience Australia), 1963a, 1963b & 1964c & 1964.





**Map 30: 'Aerial View of the Study Area (central) dating to 1963/1964**  
Mosaic created from: CAP (Geoscience Australia), 1963a, 1963b & 1964c & 1964.

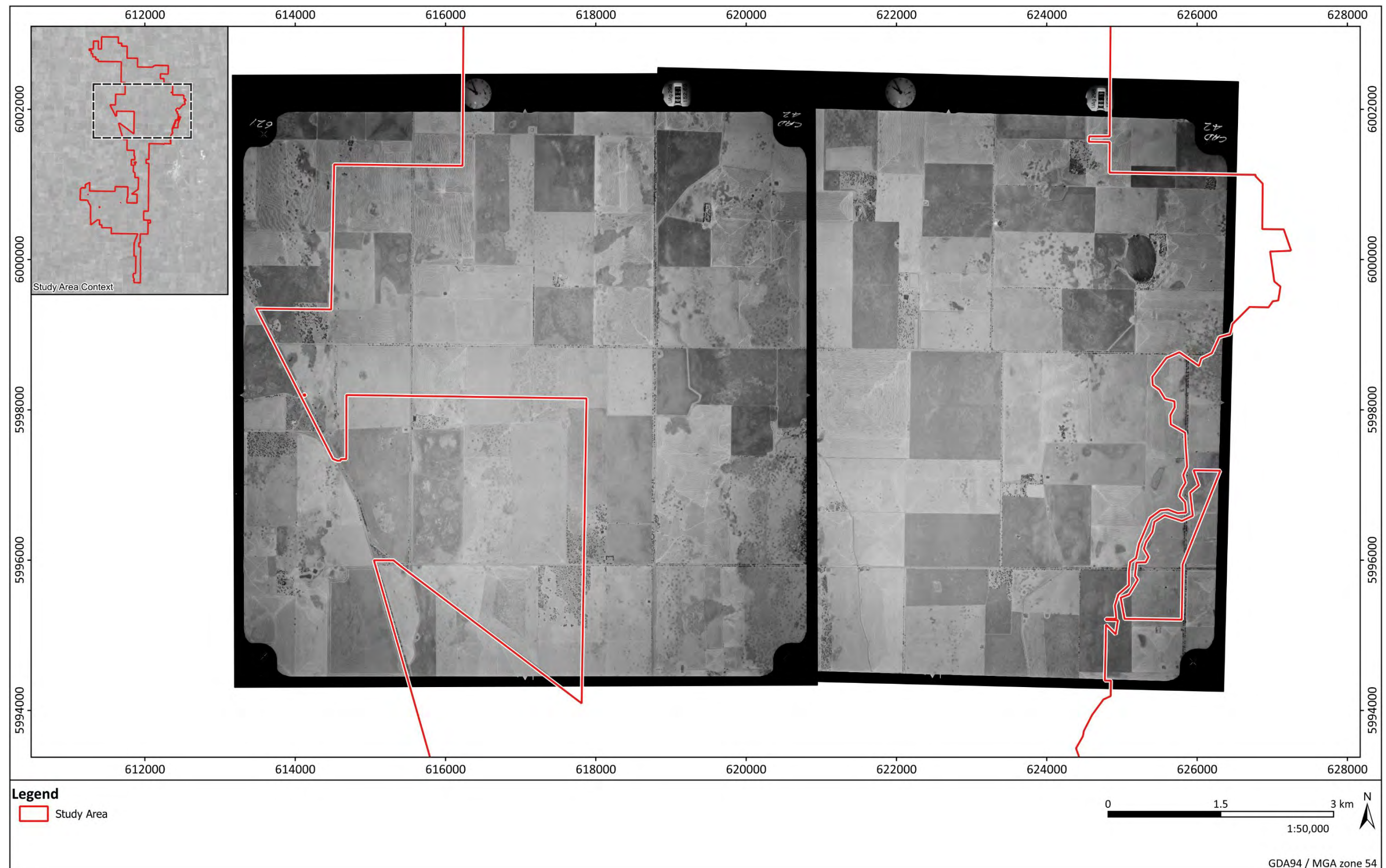




Map 31: ‘Aerial View of the Study Area (south) dating to 1963/1964

Mosaic created from: CAP (Geoscience Australia) 1963a, 1963b & 1964c & 1964.





Map 32: Aerial View of the Study Area (central) dating to 1975

Mosaic created from: CAP (Geoscience Australia) 1975 and CAP (Geoscience Australia) 1979.

## **Part Three: Assessment Results & Recommendations**

### **10.0 Assessment Results**

#### **10.1 Assessment Criteria and Methodology**

The cultural heritage significance and archaeological potential of historic places/sites identified within the study area has been assessed using:

- The principles of the *Australia ICOMOS Burra Charter*, 2013;
- The criterion for assessing cultural heritage significance established by the Heritage Council of Victoria (Heritage Council of Victoria, 2008; Appendix 1);
- The categories of significance as detailed in Heritage Victoria's *Guidelines for Investigating Historical Archaeological Artefacts and Sites* (Heritage Victoria, 2015); and
- Heritage Victoria's *Policy for Determining Low Archaeological Value* (Heritage Victoria, 2016)

With consideration given to the results of desktop research (Sections 6.0 to Section 9.0), the assessment results provided below relate to: a previously identified historical site (VHI site no. H7325-0011); and the potential for currently unknown or unrecorded significant historical structures, landscape modification and/or areas of archaeological potential to be preserved within the study area.

##### **10.1.1 Limitations**

The assessed heritage significance and archaeological potential held by a historic place is not fixed and can change over time due to alterations in the fabric of a place or as the result of new information being obtained (e.g., pertaining to the history of that place). As such, the assessment results provided below are based on the established occupation history of the study area as determined by desktop research. It should therefore be noted that additional background research and/or an on-site assessment of identified historic structures, features or areas of archaeological potential may alter the assessment of significance and archaeological potential provided below.

#### **10.2 Overview of Results**

As a result of background research, a number of historical structures, features and landscape modifications dating to the nineteenth and early-twentieth century that may be preserved within the study area have been identified, including: pastoral outstations; historic tracks/roadways linking pastoral home stations and outstations to townships and other pastoral runs in the region; water supply infrastructure; and fencing – run boundaries and internal paddocks.

Predictively, land in the immediate vicinity of water sources and the alignment route of historic tracks/roadways located within the study area has been assessed as having some potential to contain previously unidentified historical archaeological sites. The presence of historic access routes and the close proximity of pastoral home stations to the study area increases the likelihood for additional built structures and landscape features to be preserved within the study area that are not marked on the historic maps reviewed during this assessment (e.g., historic river/creek crossings, sheep washes, stock pens, pastoral run tracks, and unidentified outstations).



### **10.3 Currently Listed/Registers Heritage Sites**

One previously recorded archaeological site (H7325-0010, Cannum 1 Survey Marker) is located within the study area. This site has significance at a local and potentially regional level. As discussed in Section 7.0 and Section 8.0, this site is currently subject to statutory protection under the *Heritage Act 2017* and cannot be damaged or destroyed without a Consent issued by Heritage Victoria. The site consists of a deliberately marked tree (survey marker). Given the relative rarity of survey markers/marked trees of this type within the region, it is considered unlikely that Heritage Victoria would issue a Consent allowing its removal.

It should be noted that the site was recorded in 1994 and as such there is a possibility that the tree is no longer preserved and/or that its current mapped location does not accurately reflect the true location of the site (see Map 5). A site inspection would need to be undertaken to determine the precise location and current condition of the site.

### **10.4 Areas of Archaeological Potential – identified during the Desktop Assessment**

As a result of the desktop assessment it has been determined that the majority of historic sites associated with the occupation of the study area during the nineteenth and early-twentieth centuries – as evident on historic maps of the period – are located in the vicinity of water sources, including Yarriambiack Creek, and natural water holes or swamps, and in the vicinity of a series of historic tracks linking pastoral outstations to home stations and early townships (see Section 9.0).

#### **10.4.1 Nineteenth-Century Pastoral Outstations**

At least seven (7) pastoral run outstations have been identified as having potentially been located within the study area during a period dating from the 1840s to 1870s. In addition, there are several other outstations located in close proximity to the northern boundary of the study area (see Map 33, Map 34, Map 35). As the type of building materials used to construct outstation huts – and any associated animal yards likely located in the immediate vicinity of each outstation – is uncertain, it is difficult to make an accurate assessment of the likelihood for remnant structural elements to be preserved at the sites of the identified former outstations. However, as detailed in Section 9.3, it is considered likely that timber was the primary building material used for structures during this period; as result, it is unlikely that any remnant structures are preserved to a significant height above ground level. It is also noted that the majority of the study area has been subject to intensive cropping over an extended period dating from the late-nineteenth century to the present-day. This activity has likely had a negative impact on any extant historical archaeological sites located within the study area. However, any structural features preserved at surface and/or sub-surface level would likely meet the criteria for protection as an archaeological site under the *Heritage Act 2017*. In addition to the aforementioned structural features there is also a possibility that deposits of historically significant artefacts are preserved at the locations of the identified former outstations. Any such deposit and/or associated artefact would also be subject statutory protections (see Section 8.0 for details of relevant statutory protections).

In order to determine whether significant archaeological features or deposits associated with the identified pastoral outstation are preserved within the study area, an on-site archaeological survey would need to be undertaken. In addition, a review of high resolution historic aerial imagery, or a LiDAR (Light Detection and Ranging) survey of each potential outstation location may help clarify the location of any significant structures or landscape modifications – both of which are beyond the scope of this preliminary assessment.

#### **10.4.2 Nineteenth to Early-Twentieth Century Townships**

Four (4) historic townships (Ailsa, Batchica, Crymillan and Lah) have been identified as being established within, or in the immediate vicinity of, the study area during late-nineteenth century (see Map 33, Map 34, Map 35). Predictively, there is a variable possibility (low to moderate) that structural features and/or archaeological deposits – associated with the nineteenth- to early- twentieth century occupation of these townships – are preserved at surface and/or sub surface level. If preserved, any such archaeological features or deposits would possibly meet the criteria for protection as an archaeological site under the *Heritage Act 2017* (see Section 8.0 for details of relevant statutory protections).

In order to determine if significant archaeological features or deposits associated with the identified townships are preserved within the study, an on-site archaeological survey would need to be undertaken. In addition, a review of high resolution historic aerial imagery, or a LiDAR (Light Detection and Ranging) survey of each township location may help clarify the location of any significant structures or landscape modifications – both of which are beyond the scope of this preliminary assessment.

#### **10.4.3 Farmhouses and Outbuildings (Late-Nineteenth to Early-Twentieth Century)**

There is a possibility that remnant structures dating from the late-nineteenth to early-twentieth century are preserved within the study area (e.g., abandoned farmhouses, outbuildings and stock yards). It is noted that the majority of the study area has been subject to intensive cropping over an extended period dating from the late-nineteenth century to the present-day, and so that any abandoned or disused structures (e.g., farmhouses) located in cropping areas are likely to have been demolished. As it is considered likely that timber was the primary building material used for structures during this period (see Section 9.3), it is considered unlikely that any remnant structures are preserved to any significant height above ground level. Predictively, it is unlikely that historically significant (abandoned) farming buildings with more than low archaeological potential are located within the study area. However, if any early abandoned farmhouses are located within the study there is a possibility that features or deposits of significant artefacts would be preserved at the site, which would meet the criteria for statutory protection under the *Heritage Act 2017* (see Section 8.0 for details of relevant statutory protections).

In order to determine if significant archaeological features or deposits associated with early farming properties are likely to be preserved within the study area it would be necessary to undertake detailed historic research of individual properties (i.e., original Crown allotments) within the study area. In addition, a review of high resolution historic aerial imagery – beyond the scope of this preliminary assessment – may help clarify the location of any significant structures or landscape modifications associated with this early farming period.

#### **10.5 Historically Significant Structures/Features (non-Archaeological) Potentially Preserved within the Study Area**

There are a number of historic structures/features associated with water infrastructure dating to the late nineteenth and early-twentieth centuries that are likely to be at least partially preserved within the study area. Structures/features that have the potential to have some significance at a local level include:

- Water channels, dams and tanks (Map 20; Map 33, Map 34, Map 35).

None of these features are currently subject to statutory protections and predictively it is unlikely that any would meet the criteria for protection as an archaeological site or heritage building of local and/or State significance if subjected to a more detailed assessment (e.g., a site inspection). Specifically, although a place



or historic feature may be assessed as holding some local significance, this does not mean it will automatically meet the criteria for statutory protection, i.e., meet the criteria for inclusion in the Heritage Overlay (HO), Victorian Heritage Inventory (VHI) or Victorian Heritage Register (VHR) (see Section 8.0 for details of statutory protections). Though a historic place or feature may not meet significance criteria as established by the heritage council and/or local planning policies, it can still be considered to have heritage value by the local community. In these circumstances the best option would be to consult with relevant stakeholders (Heritage Victoria, local council and land holders) to determine if the preservation of these historic heritage structure/features is a desired outcome that is warranted. If preservation is not warranted then it may still be appropriate to undertake archival recording of the identified historic site/place so that the heritage values of the feature can contribute to the long-term preservation of the known history of the region.

## **10.6 Shared Cultural Heritage**

It is noted that a Preliminary Cultural Heritage Assessment for Aboriginal Cultural heritage has been prepared concurrently with this report (Heritage Insight, 2023). This assessment concluded that:

- There is a high likelihood that Aboriginal cultural material will be present within the study area;
- Such material could be in the form of a range of site types, including earth features, stone artefact deposits/scatters, scarred trees, or Aboriginal ancestral remains; and
- Aboriginal cultural material would most likely be located in proximity to waterways and/or lunettes (see Heritage Insight, 2022 for details).

Given that the majority of potentially significant historical (non-Aboriginal) historic sites are also likely to be located in the vicinity of waterways there is a moderate possibility that Aboriginal cultural material and historical (non-Aboriginal) archaeological features and/or deposits are preserved within the study area in close proximity.

No heritage sites/places have been identified within the study area that specifically hold shared cultural heritage values (i.e., hold historical (non-Aboriginal) and Aboriginal cultural heritage value). However, it should be noted that background research conducted as part of this HHA (as per the project scope) was limited to a review of 'European' primary and secondary historic records, with a particular focus on the identification of structures, landscape features and areas of historical (non-Aboriginal) archaeological potential. In order to identify places that potentially hold shared cultural heritage value a more in-depth assessment of the history of early European occupation of the study area – including a review of primary source material pertaining to interactions between Aboriginal people and European settlers – would need to be undertaken. In addition, although archaeological surveys conducted in the vicinity of the study area – i.e., on lands occupied by Europeans during the nineteenth century – have recorded the presence of Aboriginal sites (see Heritage Insight, 2023), an assessment/determination of shared cultural heritage should be undertaken in collaboration with the traditional owners. Collaboration with the Registered Aboriginal Party (RAP) for the study area, Barengi Gadjin Land Council (BGLC), is beyond the scope of this assessment.

## 11.0 Management Conditions & Recommendations

### 11.1 Management Conditions

The following management conditions apply to historical heritage within the study area as a whole.

#### **Condition 1: Statutory Protection – Victorian Heritage Inventory Site H7325-0010: Cannum 1 Survey Marker**

One archaeological site listed on the Victorian Heritage Inventory (VHI) – H7325-0010, Cannum 1 Survey Marker – is located with the study area. Under Section 123 of the *Heritage Act 2017*, a consent is required to uncover, excavate, damage, or disturb a site listed on the Victorian Heritage Inventory. In compliance with the *Act*, a consent will be required for any works activities that will impact/or will potentially impact the listed site.

If there is **potential for proposed works to impact the site**, then a **Consent application for Heritage Inventory site (H7325-0100) must be submitted to Heritage Victoria**. The Consent must be approved and issued by the Executive Director of Heritage Victoria prior to any disturbance of the site.

The issued Consent will be subject to conditions, including any requirements for: archaeological monitoring, excavation and/or recording during the proposed works, artefact management, and post-excavation reporting.

#### **Condition 2: Statutory Protection – Previously Unidentified Historical Archaeological Sites**

Based on this assessment, there is variable potential (low to moderate) for previously unidentified historical (non-Aboriginal) or contact archaeological sites to be discovered during future proposed works activities.

If during the course of works a suspected historical (non-Aboriginal) or contact archaeological site is identified, any such site will be protected under Section 123 of the *Heritage Act 2017*. To ensure compliance with the *Act*, the following protocol **MUST** be followed:

- 1) All works in the vicinity of the discovery must cease immediately and, if necessary, protective fencing should be erected around the relevant area; and
- 2) The client/project manager must notify Heritage Victoria as soon as practicable (Heritage Victoria will then advise on an appropriate management strategies).

### 11.2 Management Recommendations

#### **Management Recommendation 1: Additional Investigations – Archaeological Field Survey**

As a result of this assessment, a number of potential historical archaeological sites have been identified (as set out in Section 10.4 and illustrated in Map 33, Map 34 and Map 35). It is recommended that consideration be given to commissioning a targeted archaeological field survey of these identified sites to determine if historical archaeological features and/or deposits are preserved at these targeted locations that would warrant protection under the *Heritage Act 2017*. The field survey could be augmented by detailed, site-specific historic research. A targeted field survey would mitigate the risks of encountering and potentially inadvertently disturbing an unidentified historic archaeological site during the proposed activity. The discovery of a previously unidentified archaeological site during work may have significant time and cost implications for the project.



### **Management Recommendation 2: Additional Investigations – Historic Feature Survey**

As a result of this assessment, it has been determined that a number of historical features – primarily water infrastructure (as set out in Section 10.5 and illustrated in Map 20; Map 33, Map 34, Map 35) – are potentially preserved within the study area. Though unlikely to meet the criteria for statutory protection under the *Heritage Act 2017* or the *Planning and Environment (Planning Schemes) Act 1996*, these features may be considered to have some heritage value by local residents.

It is therefore recommended that consideration be given to commissioning a preliminary targeted site inspection to map the location of these identified features in order to determine their current condition. It would also potentially be beneficial to undertake additional historic research to locate and map the historic location of features (channels, dams, tanks) associated with the late nineteenth to early-twentieth century water infrastructure works.

The results of this assessment could then be used during consultation with local residents, local council and Heritage Victoria should it be anticipated that any of these historic features will be impacted by the proposed activity.

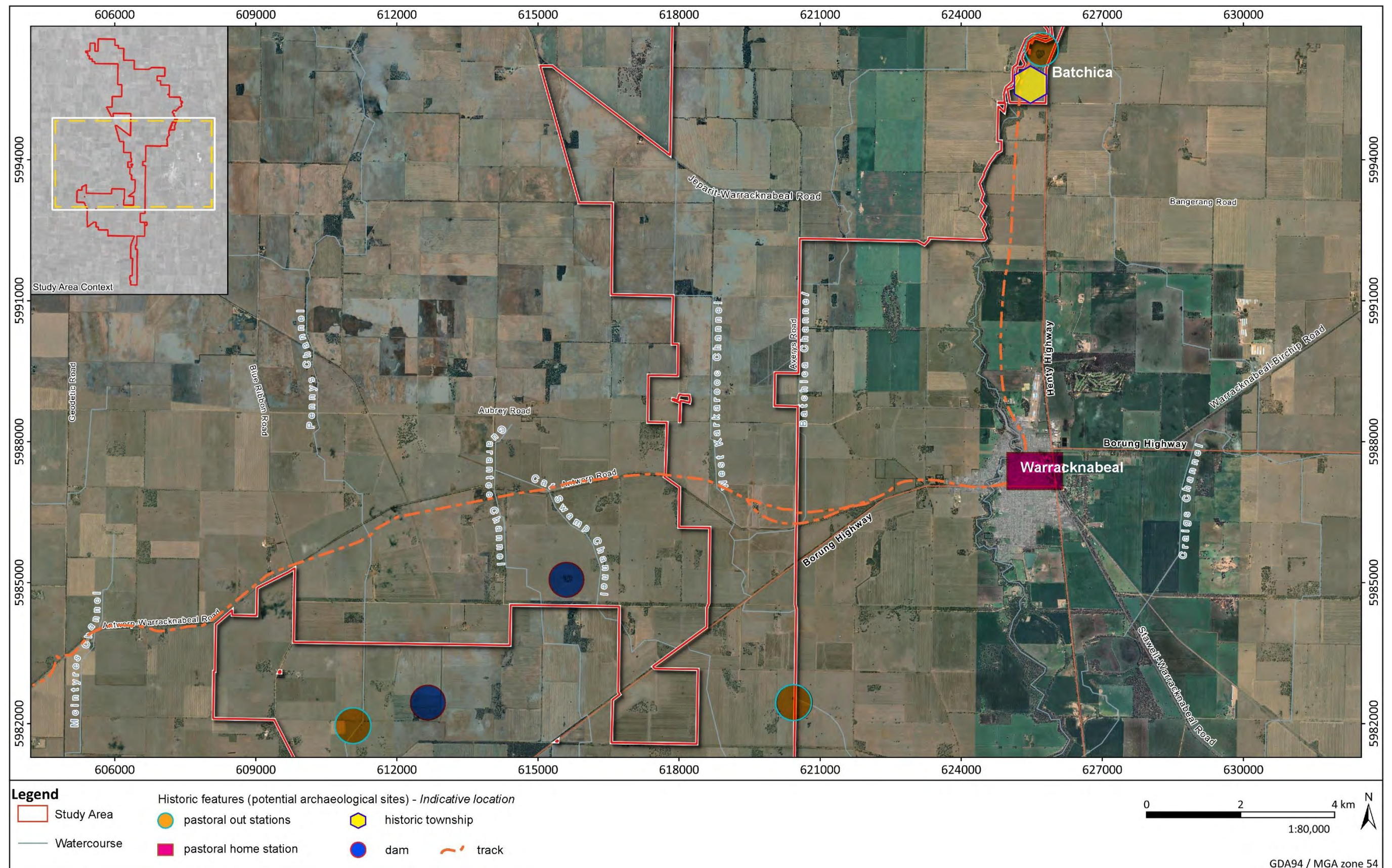
### **Management Recommendation 3: Revised Historic Register Search & Planning Scheme Review**

Currently there is only one (1) registered/listed historic heritage site located within the study area (see Section 6.0); and there are no additional site types (e.g., dry stone walls) that are subject to blanket protection under the Yarriambiack Shire Planning Scheme see (Section 8.2.2). However, it is important to be aware that should there be any significant delay in the commencement of on-site works, a revised historic register search and a review of the Yarriambiack Shire Planning Scheme provisions should be undertaken to confirm that no new site/places have been identified, and that no amendments to the planning scheme have been made applicable to the protection or management of historic heritage within the LGA.





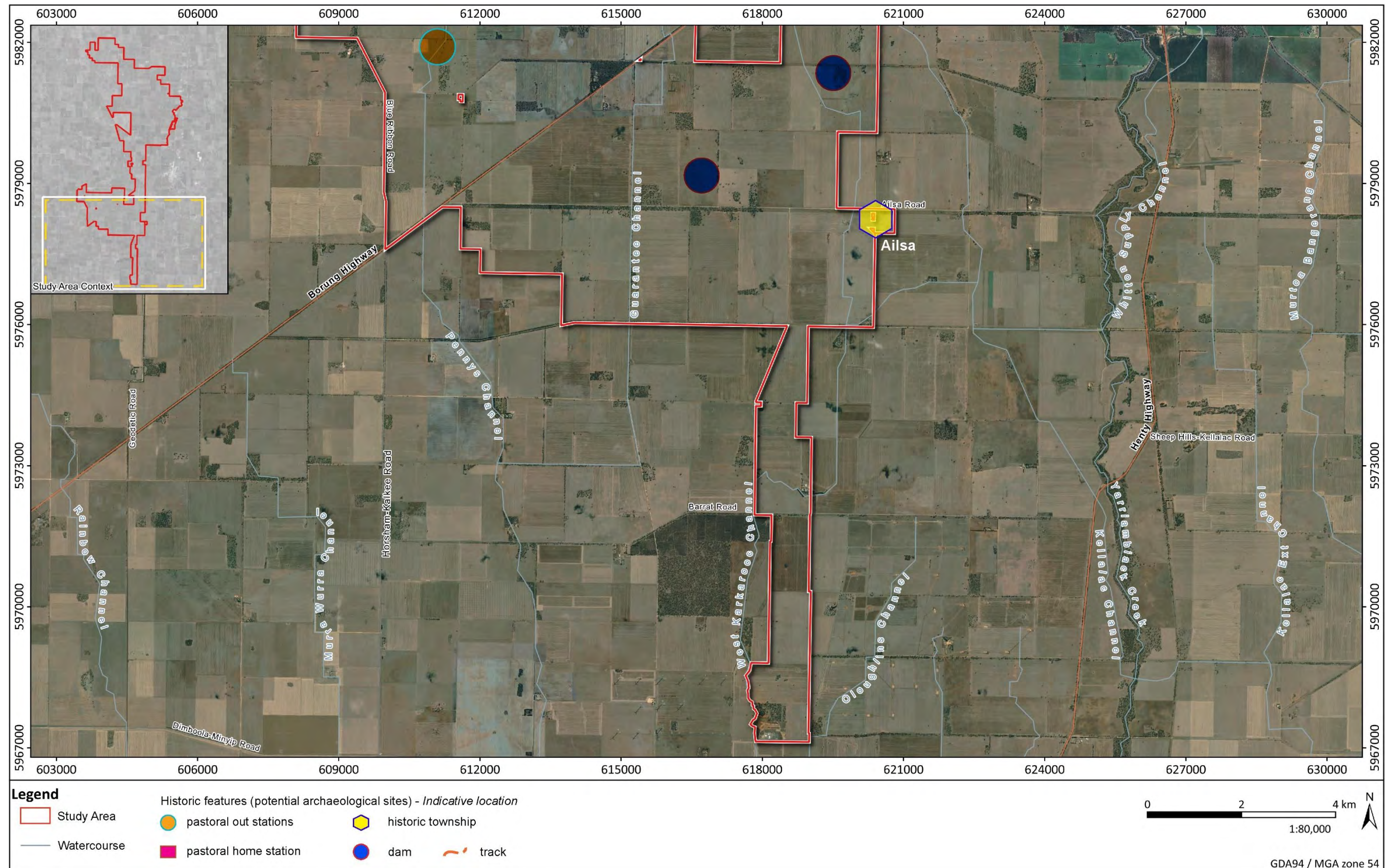




Map 34: Location of Potential Archaeological Sites/Features & Extant water channels within the Study Area (central)

Location of potential archaeological sites is approximate to account for potential inaccuracies in historic maps, sourced to identify the location of these sites/features. At least a portion of the extant channels may have some historic heritage significance. Adapted from Google Earth Pro 2023, imagery dating 2021.





Map 35: Location of Potential Archaeological Sites/Features & Extant water channels within the Study Area (south)

Location of potential archaeological sites is approximate to account for potential inaccuracies in historic maps, sourced to identify the location of these sites/features. At least a portion of the extant channels may have some historic heritage significance. Adapted from Google Earth Pro 2023, imagery dating 2021.



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## **APPENDICES**



**Appendix 1: Victoria's framework of historical themes (Heritage Council of Victoria, 2010)**

## **Victoria's framework of historical themes (Heritage Council of Victoria, 2010)**

### **1. Shaping Victoria's environment**

- 1.1 Tracing climate and topographical change
- 1.2 Tracing the emergence of Victoria's plants and animals
- 1.3 Understanding scientifically diverse environments
- 1.4 Creation stories and defining country
- 1.5 Living with natural processes
- 1.6 Appreciating and protecting Victoria's natural wonders

### **2. Peopling Victoria's places and landscapes**

- 2.1 Living as Victoria's original inhabitants
- 2.2 Exploring, surveying and mapping
- 2.3 Adapting to diverse environments
- 2.4 Arriving in a new land
- 2.5 Migrating and making a home
- 2.6 Maintaining distinctive cultures
- 2.7 Promoting settlement
- 2.8 Fighting for identity

### **3. Connecting Victorians by transport and communications**

- 3.1 Establishing pathways
- 3.2 Travelling by water
- 3.3 Linking Victorians by rail
- 3.4 Linking Victorians by road in the 20th century
- 3.5 Travelling by tram
- 3.6 Linking Victorians by air
- 3.7 Establishing and maintaining communications

### **4. Transforming and managing land and natural resources**

- 4.1 Living off the land
- 4.2 Living from the sea
- 4.3 Grazing and raising livestock
- 4.4 Farming
- 4.5 Gold mining
- 4.6 Exploiting other mineral, forest and water resources
- 4.7 Transforming the land and waterways



## **5. Building Victoria's industries and workforce**

- 5.1 Processing raw materials
- 5.2 Developing a manufacturing capacity
- 5.3 Marketing and retailing
- 5.4 Exhibiting Victoria's innovation and products
- 5.5 Banking and finance
- 5.6 Entertaining and socialising
- 5.7 Catering for tourists
- 5.8 Working

## **6. Building towns, cities and the garden state**

- 6.1 Establishing Melbourne Town, Port Phillip District
- 6.2 Creating Melbourne
- 6.3 Shaping the suburbs
- 6.4 Making regional centres
- 6.5 Living in country towns
- 6.6 Marking significant phases in development of Victoria's settlements, towns and cities
- 6.7 Making homes for Victorians
- 6.8 Living on the fringes

## **7. Governing Victorians**

- 7.1 Developing institutions of self-government and democracy
- 7.2 Struggling for political rights
- 7.3 Maintaining law and order
- 7.4 Defending Victoria and Australia
- 7.5 Protecting Victoria's heritage

## **8. Building community life**

- 8.1 Maintaining spiritual life
- 8.2 Educating people
- 8.3 Providing health and welfare services
- 8.4 Forming community organisations
- 8.5 Preserving traditions and commemorating
- 8.6 Marking the phases of life

## **9. Shaping cultural and creative life**

- 9.1 Participating in sport and recreation
- 9.2 Nurturing a vibrant arts scene
- 9.3 Achieving distinction in the arts
- 9.4 Creating popular culture
- 9.5 Advancing knowledge