

Appendix

E

E.5 | Statement of Heritage Impact

Dinawan Wind Farm

Statement of Heritage Impact

Prepared for Spark Renewables Pty Limited

May 2024

Dinawan Wind Farm

Statement of Heritage Impact

Spark Renewables Pty Limited

E220305 RP1

May 2024

Version	Date	Prepared by	Reviewed by	Comments
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V2	27 May 2024	Antonella Skepasianos	Susan Lampard	Final for client review

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Executive summary

Spark Renewables Pty Limited (Spark Renewables) proposes to develop the Dinawan Wind Farm (the project). The project includes the installation, operation, maintenance and decommissioning of up to approximately 200 wind turbine generators (WTGs) and associated infrastructure. The project will have a generation capacity of up to approximately 1,200 megawatts (MW) (AC), equivalent to the needs of 700,000 NSW households per year. It will assist in meeting NSW and Australian Government emissions reduction targets and will abate approximately 3.2 million tonnes of greenhouse gases (GHG) annually. The project is State significant development (SSD) pursuant to Schedule 1 of *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP).

The project is on the traditional lands of the Wiradjuri people and several smaller nations of the Murrumbidgee plains, about halfway between the towns of Coleambally and Jerilderie and lies within the Murrumbidgee and Edward River local government areas (LGAs) in New South Wales (NSW).

EMM Consulting Pty Limited (EMM) has been engaged by Spark Renewables to prepare a statement of heritage impact (SoHI) to assess the potential historical heritage (built and archaeological) impacts of the project. This SoHI forms part of the environmental impact statement (EIS) for the project.

The project will be constructed in a landscape that was once a part of the Goolgumbra, Bundure and Kulki pastoral holdings that were established in the nineteenth century. Construction and operation of the project are expected to have no impact on heritage places identified on statutory heritage registers as all listed items are located over 5 kilometres (km) from the development footprint.

During survey, eight potential heritage sites were identified and deemed locally significant, predominantly representing late nineteenth and early twentieth century pastoral and agricultural networks. These sites include:

- Goolgumbra Station (DEHW001)
- shearers quarters (DEHW002)
- two surveyor's trees (DEHW003 & DEHW008)
- Hawk's Nest Station (DEHW004)
- Spring Plains Homestead ruins (DEHW005)
- 'old' hut (DEHW006)
- house, shed, garden, stockyard and tank site (DEHW007).

While all sites are outside the project's development footprint, DEHW001, DEHW002, DEHW003, DEHW005 and DEHW007 are intersected by the development corridor. Should amendments to the project's development footprint be required during further detailed design, direct impacts to identified heritage items within the development corridor will be avoided to the extent possible. Management measures for DEHW001 and DEHW003 have been provided if impacts to these sites cannot be avoided following detailed design.

To prevent potential indirect impacts to DEHW003, DEHW005 and DEHW008, it is recommended that construction personnel be informed of their location before commencing work near these sites. Clear demarcation of DEHW003, DEHW005 and DEHW008 and the placement of appropriate markers and signage as barriers to entry are also recommended.

The project's construction environmental management plan (CEMP) or similar will include the following measures to mitigate risks to heritage items:

- list of identified heritage sites
- management measures (including clearly defined responsibilities and actions)
- an unexpected finds protocol
- heritage awareness and management training for the site induction process
- a process for implementing management measures should impacts to identified heritage items become necessary due to changes to the development footprint.

Definitions and abbreviations

Item	Definition/abbreviation
CEMP	Construction Environmental Management Plan
Development footprint	The indicative extent of the project's ground disturbance area, including earthworks, associated with permanent infrastructure and temporary construction facilities. The development footprint will be within the development corridor; however, its exact location will be confirmed following detailed design.
DPHI	NSW Department of Planning, Housing and Infrastructure (formerly NSW Department of Planning and Environment (DPE))
DPI	Department of Primary Industries
EIS	Environmental Impact Statement
EMM	EMM Consulting Pty Limited
EnergyCo	Energy Corporation of NSW
EP&A Act	NSW <i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>
ha	Hectares
km	Kilometres
LEP	Local Environmental Plan
LGA	Local government area
LTO	Land Titles Office
MNES	Matters of national environmental significance
NSW	New South Wales
NZALC	New Zealand and Australian Land Company
Planning Systems SEPP	<i>State Environmental Planning Policy (Planning Systems) 2021</i>
Project area	The land required for the project. The project area is the maximum area considered for the project based on the extent of land where Spark Renewables holds landholder agreements.
REZ	Renewable Energy Zone
SEARs	Secretary's Environmental Assessment Requirements
SSD	State significant development
The project	Dinawan Wind Farm
WTGs	Wind Turbine Generators

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1 Introduction

1.1 Overview

Spark Renewables Pty Limited (Spark Renewables) proposes to develop the Dinawan Wind Farm (the project). The project includes the installation, operation, maintenance and decommissioning of up to approximately 200 wind turbine generators (WTGs) and associated infrastructure. The project is on the traditional lands of the Wiradjuri people and several smaller nations of the Murrumbidgee plains, about halfway between the towns of Coleambally and Jerilderie and lies within the Murrumbidgee and Edward River local government areas (LGAs) in New South Wales (NSW). The regional and local context of the project is shown in Figure 1.1 and Figure 1.2, respectively.

The project is within the South West Renewable Energy Zone (REZ), a region selected by the NSW Government for its significant potential for renewable energy generation and regional development.

The project will connect to the Dinawan Substation, currently under construction as part of the Project EnergyConnect interconnector that will run between Robertstown in South Australia and Wagga Wagga in NSW. The substation and interconnector are a separate approved project that is being built by Transgrid.

The main objective of the project is to generate renewable energy, consistent with NSW Government policy for development of infrastructure for renewable energy generation, and will significantly contribute to the target of 3.98 gigawatts (GW) of generation planned in the South West REZ. The project will have a generation capacity of up to approximately 1,200 megawatts (MW) (AC), equivalent to the needs of 700,000 NSW households per year. It will assist in meeting NSW and Australian Government emissions reduction targets and will abate approximately 3.2 million tonnes of greenhouse gases (GHG) annually.

EMM Consulting Pty Limited (EMM) has been engaged by Spark Renewables to prepare a statement of heritage impact (SoHI) to assess the potential historical heritage (built and archaeological) impacts of the proposed development. The project is State significant development (SSD) pursuant to schedule 1 of *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP). Accordingly, approval for the project is required under Part 4, Division 4.7 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). This SoHI forms part of the environmental impact statement (EIS) for the project.

1.2 Project terms and definitions

The SoHI uses the following project terms and definitions:

- The **project area** is the maximum area considered for the project based on the extent of land where Spark Renewables is proposing infrastructure. The project area contains the entirety of all 349 landholdings that overlap with the development corridor and is approximately 39,061 hectares (ha). The project area is discussed further in Section 1.3 of this report.
- The **development corridor** is the land within the project area where project components may be placed, providing the necessary flexibility for component placement during detailed design (i.e. micro-siting). It includes the land required for the permanent and temporary project components.
- The **development footprint** delineates the indicative extent of the project's ground disturbance area, including earthworks, associated with permanent infrastructure and temporary construction facilities. The construction footprint will be within the development corridor.

1.3 Project areas

The project area is approximately 39,061 ha and encompasses 349 land parcels. The majority of the land within the project area is privately owned, and can be considered as two distinct areas, the eastern wind area and the western wind area. The land within the project area is predominantly used for sheep and cattle grazing and some irrigated cropping.

Within the project area, the development corridor is approximately 7,256 ha. The development corridor is the land within the project area where project components may be placed, providing the necessary flexibility for component placement during detailed design (i.e. micro-siting). The development corridor has been refined based on the results of environmental surveys, including biodiversity, Aboriginal cultural and historical heritage surveys, and with consideration of community and regulatory stakeholder feedback.

A development footprint has also been provided and is approximately 1,339 ha within the development corridor. This assessment assumes that the development footprint will be disturbed. As part of detailed design, the development footprint may move within the development corridor; however, total direct surface disturbance is not anticipated to increase.

Direct impacts for public road upgrade works are required on Kidman Way, McLennons Bore Road, Wilson Road, Fernbank Road and Goolgumbra Road and will facilitate access to the development footprint. From the site access points, private internal roads will be used to traverse the development corridor.

The preferred point of connection to Transgrid's network is via the Dinawan Substation, which forms part of Project EnergyConnect and will be constructed on land adjacent to the project area. An overhead transmission line will connect the project's collector substations to the Dinawan Substation.

1.4 Project description

A full project description is provided in Chapter 3 of the EIS and an overview of the project layout is shown in Figure 1.3 and Figure 1.4. The project will comprise the following key components:

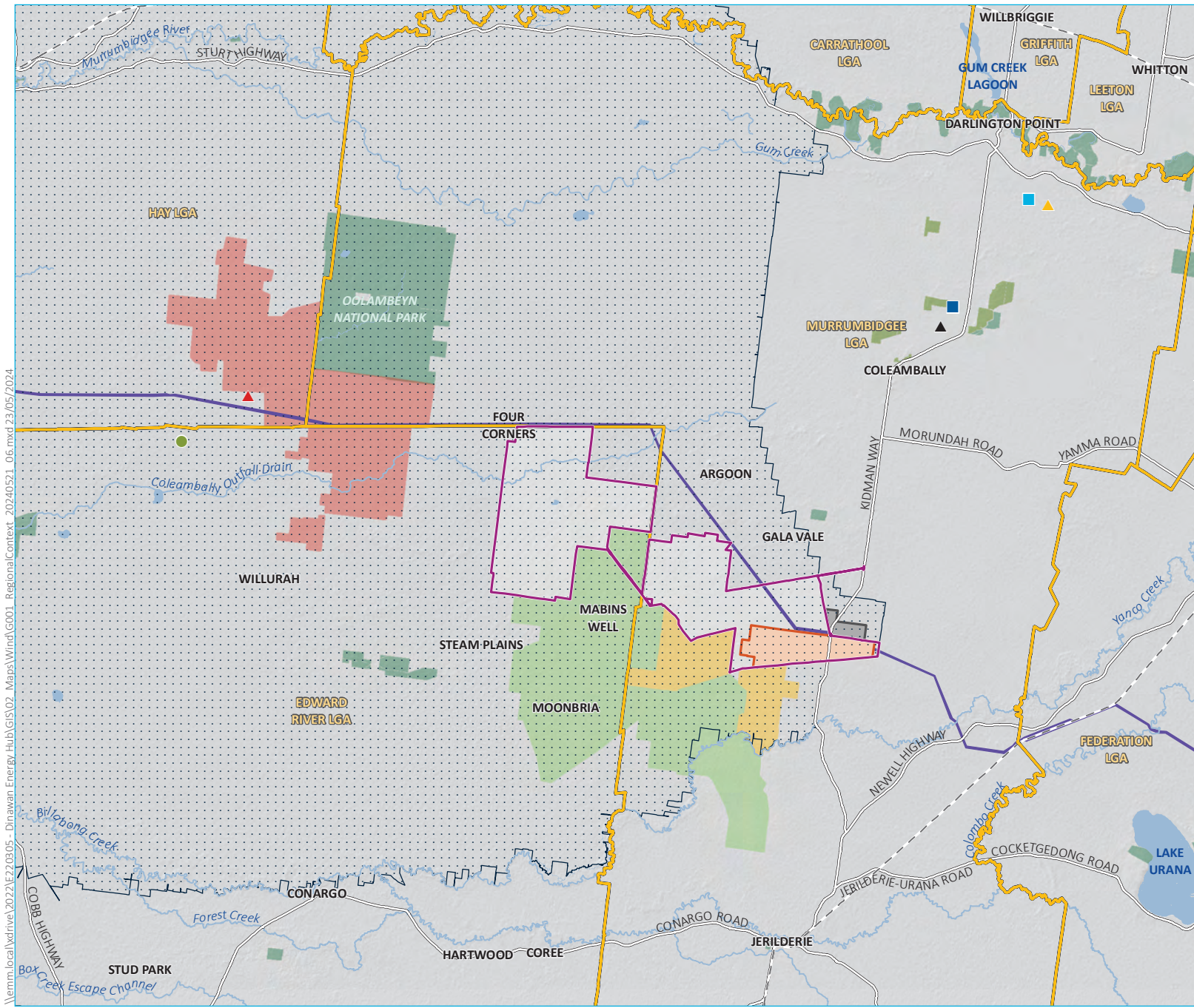
- a network of approximately 200 (3 blade) WTGs across two areas
- electrical collection system, substations and control rooms
- electricity transmission line infrastructure connecting the project substations to the Dinawan Substation
- operations and maintenance (O&M) infrastructure, including site offices and amenities, buildings, equipment and maintenance sheds and laydown, storage and parking areas
- temporary construction facilities, including worker accommodation facility, construction compounds, site offices and amenities, concrete batching plants (including rock crushing facilities), construction materials storage (including stockpiles), laydown areas, temporary meteorological masts, borrow pits, water tanks and storage and parking areas
- other permanent infrastructure, including hardstands, water tanks, permanent meteorological masts, new access tracks and upgrades to existing access tracks
- access points from the public road network and public road upgrades to facilitate the delivery of WTG components.

1.5 Project staging

It is anticipated that the project will be constructed in two stages:

- Stage 1 will be the construction of the eastern wind area, including associated public road upgrades, grid connection infrastructure and workforce accommodation facility. Stage 1 is within the Murrumbidgee LGA.
- Stage 2 will be the construction of the western wind area, including associated public road upgrades, grid connection infrastructure and workforce accommodation facility. Stage 2 is predominantly within the Edward River LGA, with the exception of additional public road upgrades and grid connection infrastructure within Murrumbidgee LGA.

The project's generation capacity and connection to the electricity grid is dependent on the outcomes of the South West REZ Access Scheme and the construction of electricity grid infrastructure (including Dinawan Substation). For the purposes of this assessment, it has been assumed that the project will connect to Dinawan Substation and project infrastructure will be housed within the full extent of the development footprint (i.e. this assessment has assessed impacts associated with the construction and operation of both stages 1 and 2).



- KEY**
- Project area
 - Dinawan Solar Farm project area
 - Renewable Energy Zone
- Project EnergyConnect (Transgrid)**
- Dinawan Substation
 - Transmission line
- Neighbouring renewable energy developments**
- ▲ Coleambally Solar Farm (operating)
 - ▲ Darlington Point Solar Farm (operating)
 - Coleambally BESS (approved)
 - ▲ Yarrabee Solar Farm (approved)
 - ▲ Pottinger Solar Farm (proposed)
 - Pottinger Wind Farm (proposed)
 - Woodland BESS (proposed)
 - Yanco Delta Wind Farm (approved)
 - Argoon Wind Farm (proposed)
 - Bullawah Wind Farm (proposed)
- Existing environment**
- Rail line
 - Major road
 - Named watercourse
 - Named waterbody
 - NPWS reserve
 - State forest
 - Local government area

Regional context

Dinawan Wind Farm
Statement of Heritage Impact
Figure 1.1

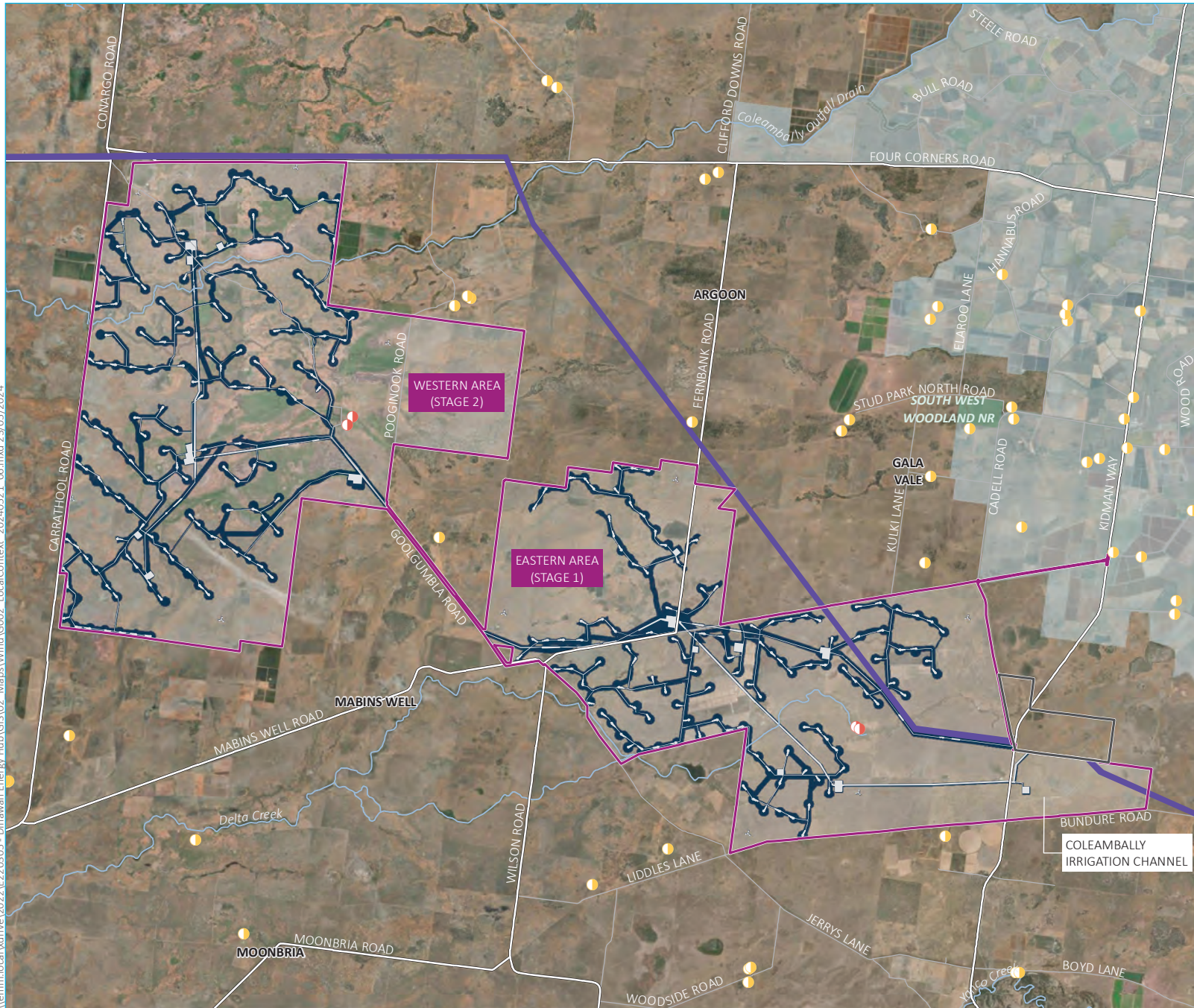


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Source: EMM (2024); Spark Renewables (2024); ABS (2021); DFSI (2020, 2021); GA (2011)

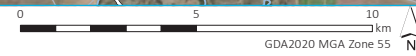


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- KEY**
- Project area
 - Development corridor
 - Development footprint
 - Project EnergyConnect (Transgrid)**
 - Dinawan Substation
 - Transmission line
 - Residence**
 - Associated
 - Non-associated
 - Existing environment**
 - Major road
 - Minor road
 - Watercourse (third order and higher)
 - Coleambally irrigation area
 - NPWS reserve

Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)

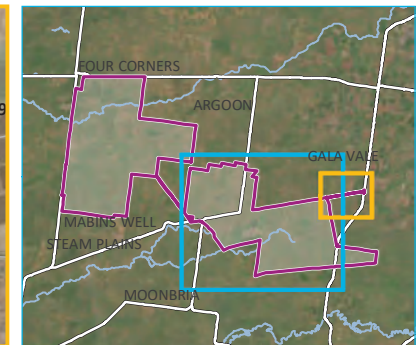
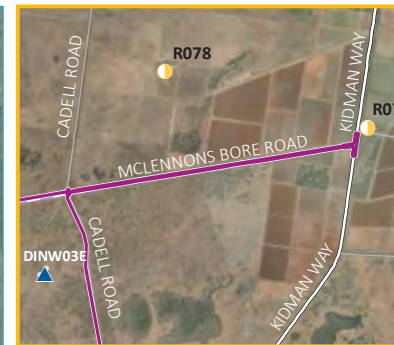
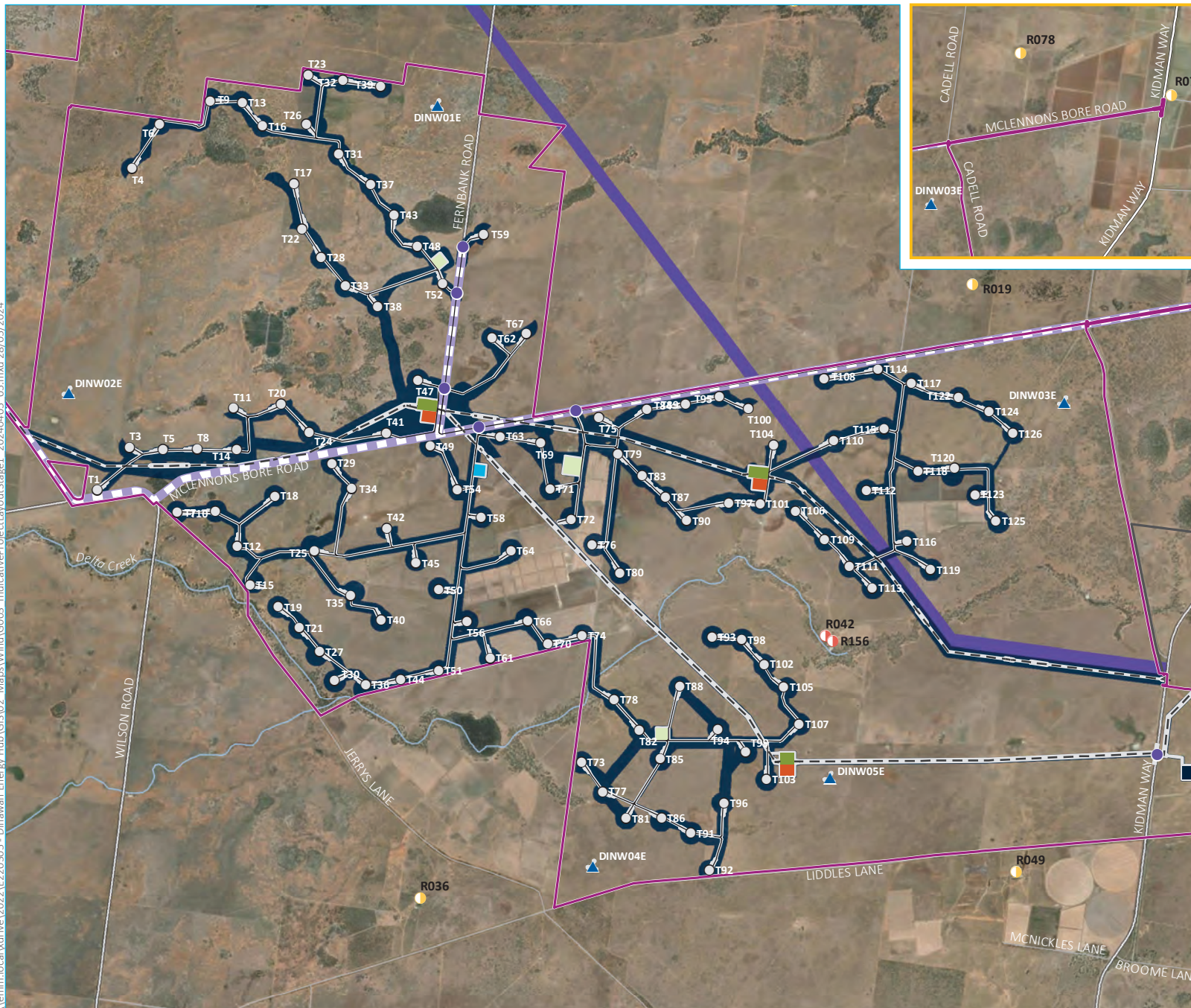


Local context

Dinawan Wind Farm
Statement of Heritage Impact
Figure 1.2



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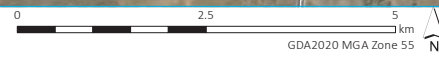


- KEY**
- Project area
 - Development footprint
 - Development corridor
- Project elements**
- Wind turbine generator (WTG)
 - ▲ Met mast
 - Site access point
 - Site access and electrical cabling
 - Transmission line
 - Proposed access route (heavy and OSOM vehicles)
 - O&M facilities
 - Substation
 - Switchyard
 - Construction compound
 - Workforce accommodation facility
- Project EnergyConnect (Transgrid)**
- Dinawan substation
 - Transmission line
- Residence**
- Associated
 - Non-associated
- Existing environment**
- Major road
 - Minor road
 - Watercourse (third order and higher)

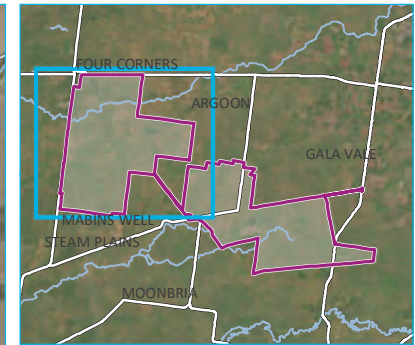
Indicative project layout - eastern area (Stage 1)

Dinawan Wind Farm
Statement of Heritage Impact
Figure 1.3

Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)



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- KEY**
- Project area
 - Development footprint
 - Development corridor
- Project elements**
- Wind turbine generator (WTG)
 - ▲ Met mast
 - Site access point
 - Site access and electrical cabling
 - Transmission line
 - Proposed access route (heavy and OSOM vehicles)
 - O&M facilities
 - Substation
 - Switchyard
 - Construction compound
 - Workforce accommodation facility
- Project EnergyConnect (Transgrid)**
- Transmission line
- Residence**
- Associated
 - Non-associated
- Existing environment**
- ◆ Bridge
 - Major road
 - Minor road
 - Watercourse (third order and higher)

Indicative project layout
- western area (Stage 2)

Dinawan Wind Farm
Statement of Heritage Impact
Figure 1.4

Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)



1.6 Purpose of this report

This SoHI supports the EIS for the project. It documents the historical development of the project area, initiatives built into the project design to avoid impacts to historical heritage values, and the management of those values into the future.

The specific objectives of this assessment are to:

- describe the existing environment including currently identified heritage items, and the built and natural landscape
- understand the historical development of the project area, what the drivers were and more recent changes
- achieve an understanding of surviving and potential heritage values, including built, archaeological, and significant landscapes
- assess the impact of the project on all listed and unlisted heritage values
- identify historical heritage constraints in the project area and impacts arising from the project
- provide management measures to reduce the impacts from the project on historical heritage values wherever possible
- where impacts are unavoidable, consider compensatory measures that are appropriate for the project.

This SoHI has been prepared in accordance with the legislative requirements set out in Chapter 2.

1.7 Authorship and acknowledgements

The report was prepared by Antonella Skepasianos, Archaeologist (EMM). The historical summary in this report (Chapter 5) was prepared by Amelia O'Donnell, Historian (EMM). The figures were created by Fidelma Gurnett. Quality assurance and technical review was provided by Dr Susan Lampard – Associate Archaeologist.

EMM would like to thank Catie Purtell, library administrator of Jerilderie library for her contribution to our understanding of local history.

2 Statutory framework

2.1 Legislation

In NSW, archaeological sites (both heritage items and relics) assessed to be of local or State significance are protected by two main pieces of legislation: the EP&A Act and the NSW *Heritage Act 1977* (Heritage Act). Under certain circumstances an additional layer of protection is added by the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

2.1.1 NSW Heritage Act 1977

The Heritage Act is legislation for the promotion and conservation of the heritage places, items, and objects of NSW. The Heritage Act is administered by the Heritage Council of NSW, whose role is to advise the Minister with responsibility for heritage on matters relating to the conservation of the State's heritage. In practice, this power is largely delegated to Heritage NSW.

i State Heritage Register

Under the Heritage Act, items of significance to the State can be recognised on the State Heritage Register (SHR). Items on the SHR cannot be demolished, nor can they be damaged, developed, altered or have excavation undertaken without approval from the Heritage Council of NSW (or its delegate) under Section 59 of the Act. Section 59 extends to relics inside the item's curtilage.

ii Archaeology and relics

The Heritage Act also protects 'relics', regardless of their listing status. It applies to all NSW land that is not listed on the SHR. Section 4(1) of the Heritage Act (as amended 2009) defines 'relic' as follows:

A "relic" means any deposit, artefact, object or material evidence that:

- (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and
- (b) is of State or local heritage significance.

Section 139(1) of the Heritage Act states that:

A person must not disturb or excavate any land knowingly or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit.

Section 146 requires persons to notify the Heritage Council of NSW within a reasonable time if an unanticipated relic is discovered. The Heritage Act identifies the category of 'works', which refers to historical infrastructure, and is viewed as separate to that of archaeological 'relics' under the Heritage Act. 'Works' may be buried, and are therefore archaeological in nature, but exposing a 'work' does not trigger reporting obligations under the Heritage Act unless it is of demonstrable significance.

iii State Government Heritage and Conservation (s170) Registers

Section 170 of the Heritage Act requires State government agencies establish and maintain a register of heritage items, to be known as a Heritage and Conservation Register. State agencies are required to undertake due diligence with regard to the care, control and management of items listed on their Section 170 Heritage and Conservation Register. Additionally, State agencies must notify the Heritage Council of NSW 14 days in advance if they intend to remove an item from their register, transfer ownership, cease occupation, demolish. Section 170 does not place statutory requirements on individuals or non-State government entities.

2.1.2 NSW Environmental Planning and Assessment Act 1979

A framework for formally assessing cultural heritage values as part of the development and assessment process is provided within the EP&A Act. It requires that environmental impacts are considered before development and that appropriate measures to avoid, mitigate or ameliorate impacts are developed; this includes impacts on cultural heritage items and places as well as archaeological sites and deposits.

In accordance with the EP&A Act, local governments are directed to prepare planning instruments which regulate land use and planning. Local environmental plans (LEPs) and development control plans (DCPs) are examples of these. These documents provide guidance on planning decisions, identify environmentally sensitive areas, and include the identification of heritage items. Due to the size, economic value or impacts, some types of development are assessed as SSD or State Significant Infrastructure (SSI). Where a project is identified as SSD or SSI, the NSW department with responsibility for planning is the consent authority and directs the proponent to prepare an application for Secretary's Environmental Assessment Requirements (SEARs), which define the various studies and guidelines for the preparation of an EIS and supporting technical reports.

The project is SSD and an EIS is required to address the SEARs.

i Jerilderie Local Environmental Plan 2012

Part 5, Section 5.10 of the Jerilderie Local Environmental Plan 2012 (Jerilderie LEP) addresses the conservation of heritage significance within the former Jerilderie LGA (now part of Murrumbidgee LGA). The objectives of the Jerilderie LEP in relation to heritage are:

- a) to conserve the environmental heritage of Jerilderie
- b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views
- c) to conserve archaeological sites
- d) to conserve Aboriginal objects and Aboriginal places of heritage significance.

ii Murrumbidgee Local Environment Plan 2013

Part 5, Section 5.10 of the Murrumbidgee Local Environmental Plan 2013 (Murrumbidgee LEP) addresses the conservation of heritage significance within the Murrumbidgee LGA. The objectives of the Murrumbidgee LEP in relation to heritage are:

- a) to conserve the environmental heritage of Murrumbidgee
- b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views
- c) to conserve archaeological sites
- d) to conserve Aboriginal objects and Aboriginal places of heritage significance.

iii Conargo Local Environment Plan 2013

Part 5, Section 5.10 of the Conargo Local Environmental Plan 2013 (Conargo LEP) addresses the conservation of heritage significance within the former Conargo LGA (now part of Edward River LGA). The objectives of the Conargo LEP in relation to heritage are:

- a) to conserve the environmental heritage of Conargo

- b) to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views
- c) to conserve archaeological sites
- d) to conserve Aboriginal objects and Aboriginal places of heritage significance.

To achieve these objectives, development consent is required to demolish, move, alter, disturb or excavate a heritage item, an Aboriginal object or a building, work, relic or tree within a heritage conservation area. Schedule 5 of the Jerilderie, Murrumbidgee, and Conargo LEPs provide a list of heritage items, conservation areas and archaeological sites within the aforementioned LGAs. An assessment of these lists, coupled with additional heritage register searches, affirms that there are no listed sites either within the project area or in its immediate vicinity, as outlined in Table 4.1.

As this project will be assessed as SSD, the Jerilderie, Murrumbidgee, and Conargo LEP controls do not apply, however, potential for impact to items listed on Schedule 5 of the LEP must be considered.

2.1.3 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act is a Commonwealth Act that provides a legal framework for the protection of the environment. The EPBC Act definition of environment includes places of natural, Indigenous and historic heritage value. Under the EPBC Act, heritage places can be listed on:

- World Heritage List (WHL) – places inscribed on the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage List
- National Heritage List (NHL) – places of significance to the nation
- Commonwealth Heritage List (CHL) – items belonging to the Commonwealth or its agencies.

The EPBC Act requires actions on Commonwealth land (Section 26) and actions undertaken by a Commonwealth agency (Section 28) to be assessed to determine whether they are likely to have a significant impact on the environment. Heritage places may be listed on a statutory register, such as the WHL, NHL, CHL or State-based registers, or may be an unlisted item identified by a Commonwealth agency.

Additionally, actions that may impact on Matters of National Environmental Significance (MNES) must also be assessed for impacts. MNES that relate to heritage include identification on the WHL or NHL. Under the EPBC Act, an action that may have a significant impact on a MNES is deemed to be a ‘controlled action’ and can only proceed with the approval of the Commonwealth Minister for the Environment. An action that may potentially have a significant impact on a MNES is to be referred to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) for determination as to whether or not it is a controlled action. If deemed a controlled action the Project is assessed under the EPBC Act for approval.

The project will not have a significant impact on any world heritage properties or places listed on the NHL or CHL, and the EPBC Act is not discussed further.

2.2 Assessment approach and requirements

2.2.1 Secretary’s Environmental Assessment Requirements

This assessment has been prepared in accordance with the SEARs for the project, issued on 14 December 2022. The SEARs identify matters that must be addressed in the EIS and essentially form its terms of reference. Table 2.1 lists individual requirements relevant to this SoHI and where they are addressed in this report.

Table 2.1 Historic Heritage related SEARs

Requirement	Section addressed
Assess the impact to historic heritage having regard to the NSW Heritage Manual.	This report

A number of technical terms have been utilised throughout this report for the discussion of historical heritage. These are explained in the definitions and abbreviations.

2.2.2 Agency engagement

In addition to the SEARs listed above, additional engagement has been undertaken with a variety of other government agencies, councils, and other relevant stakeholders. Applicable comments from these groups have been collated and included in Table 2.2 below, along with EMM responses and the location of relevant information within this report.

Table 2.2 Relevant agency comments and EMM responses

Comment issuer	Comment	EMM response
NSW Department of Primary Industries (DPI)	Constraint mapping should be provided identifying key environmental and social constraints with appropriate buffers and separation distances. Constraints should include host dwellings, non-host dwellings, irrigation areas and infrastructure, airstrips, TSRs, riparian and wetland areas, threatened species, cultural heritage, etc.	Eight potential heritage constraints were identified as part of this assessment. Potential impacts to identified heritage constraints and management measures are addressed in Chapters 8 and 9 of this report.

2.3 Identifying listed heritage items

Statutory and non-statutory registers were reviewed as listing on statutory registers provides a basis under which the item or place is protected. Statutory listings provide legal protection for heritage items under the legislation outlined above. Statutory registers reviewed as a part of this assessment include the following:

- NHL – this register is made under the EPBC Act.
- CHL – this register is made under the EPBC Act
- SHR – this register is made under Part 3A of the Heritage Act. Items on the SHR undergo a rigorous assessment process and must reach a high significance threshold to be included. Inclusion on the SHR is directed by the Minister for Heritage.
- s170 register – this register is made under Section 170 of the Heritage Act. It is a register of heritage items that are owned or managed by state government authorities. Items on the s170 register may also be listed on other registers. Demolition, change to fabric and change of ownership require notification to the Heritage Council of NSW.
- Schedule 5 of the Jerilderie, Murrumbidgee and Conargo LEPs.
- State Heritage Inventory (SHI) – the SHI is not a single statutory register, but a central collection of state and locally listed statutory heritage items maintained by the Heritage Division.

Non-statutory listing is an acknowledgment of a site's or place's importance to sections of the community. Listings on such registers do not place legal requirements on development, but nevertheless influence the future of such listed items. Non-statutory registers reviewed as a part of this assessment include:

- National Trust of Australia, NSW (NT) – the NT is made up of autonomous state chapters. Each chapter is a community-based and non-government organisation, with a mandate to conserve and promote Australia's natural and cultural heritage. Classification by NT is a strong acknowledgment of heritage significance and while statutory constraints are not applicable, classification offers protection through visibility and community action
- Register of the National Estate (RNE) – the RNE is an archived list of heritage items that were protected under the now repealed Commonwealth *Heritage Commission Act 1975*, which was replaced by the EPBC Act. While many items were transferred from the RNE to the NHL or CHL, those that were not remain on the RNE as an indication of their heritage value.

3 Assessment methods

This SoHI has been prepared in accordance with the relevant government assessment requirements, guidelines and policies. This report and associated field survey were undertaken using the principles of *The Australian International Council on Monuments and Sites, Charter for Places of Cultural Significance* (also known as the Burra Charter, Australia ICOMOS, 2013) and the *NSW Heritage Manual* (NSW Heritage Office and NSW Department of Urban Affairs and Planning, 1996). Use of these documents satisfies the requirements of the SEARs.

The Burra Charter defines the concept of cultural significance as ‘aesthetic, historic, scientific, social or spiritual value for past, present or future generations’ (Australia ICOMOS 2013, Article 1.2). It identifies that conservation of an item of cultural significance should be guided by the item’s level of significance.

The Heritage Manual comprises the following guidance documents:

- *Assessing Heritage Significance* (DPE 2023a)
- *Statements of Heritage Impact Guidelines* (DPE 2023b)
- *Investigating Heritage Significance* (Heritage Council NSW 2022)
- *Assessing Significance for Historical Archaeological Sites and ‘Relics’* (NSW Heritage Branch 2009).

These documents have been used to guide this SoHI.

3.1 Research sources

Research for this report was conducted using primary sources such as maps, plans and gazettes, et cetera, which were accessed through online portals such as:

- Land and Property Information (LPI)
- National Library of Australia: Trove Online
- Historical aerial photographs (Land Insight & Resources)
- Jerilderie Library
- State Library of NSW (Mitchell Wing).

In addition to the archival research that was conducted for this report, local knowledge from staff at Jerilderie library contributed to this assessment.

3.2 Field survey methods

The EMM historic heritage team visited the project area in July 2023 to conduct a field survey as part of the preparation of this SoHI.

i Objectives

The purpose of the field survey was to record historical heritage with potential to be impacted by the project, record features of interest and their significance and identify likely management measures required prior to construction.

To assess the project area for possible landscape values, potential and significance, the team surveyed the project area.

ii Data collection methods

Site locations and their details were recorded with digital tablets using site recording forms created by EMM on the Survey123 application for ArcGIS (Esri© software). The digital tablets had a location accuracy of up to ± 3 m, similar to hand-held non-differential GPS units (~ 5 m). The Survey123 forms allowed for a site's location, details and representative photographs to be linked together, which avoids potential post-fieldwork issues around data integrity.

iii Survey plan

Field survey was conducted on a single occasion between 10–14 July 2023 and was undertaken by Associate Director Archaeologist Melanie Thomson and Archaeologist Antonella Skepasianos (EMM).

Given the size and historical context of the area, it was determined that achieving 100% coverage of the project area was not practical or warranted. Instead, a targeted field strategy was implemented, focusing on key sites within the project area that were identified through an extensive desktop review outlined in Section 5.4.2. Targeted sections of the project area were walked to identify if concentrations of non-Aboriginal artefacts were present and identify potential archaeological relics. The survey was refined further by prioritising potential sites that fell in, or in close proximity to the development footprint.

4 Existing environment

4.1 Introduction

Understanding the environmental context is crucial for predicting archaeological potential, including the likelihood of finding archaeological artefacts within the landscape, how they are spread spatially, and their state of preservation. The project area is mostly in the historical Bundure, Kulki and Goolgumbra pastoral runs, and crosses several parishes and two counties. Access to water, soil landscapes, geomorphology and land disturbance are characteristics that would have been valuable to squatters and pastoralists alike. Records of the subdivision and subsequent ownership of the land demonstrate the existence of dwellings for farmhands and workers, as well as their archaeological 'leftovers'. As such, the landscape features of the project area are an important guide to determine potential sites or historical structures that would have included huts, cottages, homesteads, outbuildings, as well as critical water sources including stock tanks and wells.

4.2 Landscape overview

The project area is situated wholly within the Riverina Bioregion, also known as the Riverine Plains, which extends from Ivanhoe in the north to Bendigo in the south, from Narrandera in the east to Balranald in the west (NPWS 2003, p. 91). The Plains are exceptionally flat, with an average gradient of 20 cm/km from 120 m above sea level (asl) in the east to 65 m asl in the west. This is a product of its geological evolution from a shallow embayment of the Southern Ocean (Pardoe & Martin 2011, p. 16; Soil Conservation Service NSW 1990). The subtle landforms across the Plains are a result of the evolution of its major river systems, the Murray and Murrumbidgee Rivers, and their major tributaries the Lachlan, Willandra, Edward, Yanco and Goulburn Rivers, throughout the Pleistocene and Holocene periods (Pardoe & Martin 2011, p. 16). The project area is located between the Murrumbidgee and Yanco Rivers within the Murrumbidgee subregion, which is characterised by alluvial fans with distributary channels and floodplains overlying Quaternary alluvial clays and sands, and where lunettes and low source-bordering dunes are common (NPWS 2003, p. 97). The relief of the topography within the project area is minute, with slopes of <1% and local relief of <5 m.

The Plains are characterised by a dry, semi-arid climate with hot summers and cool winters, with varying vegetation communities. These broadly include river red gums (*Eucalyptus camaldulensis*), river cooba (*Acacia stenophylla*), black box (*Eucalyptus largiflorens*), and white cypress pine (*Callitris glaucophylla*) in sandy areas, as well as saltbush shrubland, numerous grassland communities and water plants in swamps.

4.3 Heritage listings

The project area falls within the Murrumbidgee and Edward River LGAs. An extensive search of national, State and local heritage registers was conducted on 18 July 2023. No heritage listed sites were found within 5 km the project area. Table 4.1 provides a summary of the register search.

Table 4.1 Register search for the project area

Register	Register listing	Item number	Distance to project
WHL	None	N/A	N/A
NHL	None	N/A	N/A
CHL	None	N/A	N/A
SHR	None	N/A	N/A
S170	None	N/A	N/A

Table 4.1 Register search for the project area

Register	Register listing	Item number	Distance to project
Jerilderie LEP	None	N/A	N/A
Murrumbidgee LEP	None	N/A	N/A
Conargo LEP	None	N/A	N/A
NT – Non-statutory	None	N/A	N/A
RNE – Non-statutory	None	N/A	N/A

5 Historical summary

5.1 Historical themes

The Australian and NSW heritage systems employ a series of historic themes to guide the understanding of history and historical investigation in the nation and state. As part of any historic heritage assessment, it is important to review the historic themes when undertaking research on an area or place to provide proper context. The state and national themes are complementary to enable the historian to present a unified understanding of how an area fits into Australian history. The historic themes are also an important guide when assessing an item's heritage significance. They provide information on how an item may be historically significant at the local, state or national level.

Finally, historic themes help to develop interpretation and management strategies for items of heritage significance. A full list of these themes can be found on the Heritage NSW website. Historic themes in the study area were identified based on the historical background (as described below) and the results of the historical survey (Attachment A). The Australian and NSW historic themes relevant to the project area that have been used in this report are listed in Table 5.1.

Table 5.1 Historical themes

Australian theme	NSW theme	Local theme
1 Tracing the natural evolution of Australia	Environment – naturally evolved	There are two aspects to this theme: (1) Features occurring naturally in the physical environment which have significance independent of human intervention (2) Features occurring naturally in the physical environment which have shaped or influenced human life and cultures.
2 Peopling Australia	Aboriginal cultures and interactions with other cultures	Activities associated with maintaining, developing, experiencing and remembering Aboriginal cultural identities and practises, past and present; with demonstrating distinctive ways of life; and with interactions demonstrating race relations.
3 Developing local, regional and national economies	Agriculture	Activities relating to the cultivation and rearing of plant and animal species, usually for commercial purposes, can include aquaculture.
	Environment – cultural landscape	Activities associated with the interactions between humans, human societies and the shaping of their physical surroundings.
	Pastoralism	Activities associated with the breeding, raising, processing and distribution of livestock for human use.
4 Building settlements, towns and cities	Land tenure	Activities and processes for identifying forms of ownership and occupancy of land and water, both Aboriginal and non-Aboriginal.
5 Working	Labour	Activities associated with work practises and organised and unorganised labour.
8 Developing Australia's cultural life	Domestic life	Activities associated with creating, maintaining, living in and working around houses and institutions.

5.2 Key phases

Historical analysis has allowed for the division of the region's development into phases. These phases, and the themes in Table 5.1, provide a framework for understanding the project area and, therefore, its potential significance.

- Phase 1: Exploration
- Phase 2: Squatting
- Phase 3: The Back Blocks
- Phase 4: Grazing into the present

5.3 Historical context

5.3.1 The environment of pre and early contact

Information about the socio-cultural structure of Aboriginal society prior to European contact largely comes from ethno-historical accounts made by colonial settlers. These accounts and observations were often made after significant social disruption due to disease and displacement. As a result, this information is often contentious, particularly in relation to language group boundaries. Therefore, it is likely that language group boundaries were far more diffuse than the arbitrary demarcations drawn by colonial observers – this is a consideration when reading the historical summary of the project area as it pertains to the contact period.

The project area sits at the boundary of the traditional country of the Wiradjuri and Baraba Baraba people (Tindale, 1974:191–192, 201). Tindale (1974:201) records Wiradjuri Country covering 127,000 km² between the Great Dividing Range to the Willandra Lakes region and extending from north of Mudgee to the Murray River. The Wiradjuri nation was divided into three major groups based around the major waterways of the region— the Murrumbidgee, Gulari (Lachlan), and Wambuul (Macquarie) rivers (Greenwood, 2013:3). Baraba Baraba Country (over a dozen spelling variations including Baraparapa and Barapa Barapa) is recorded to cover 9,400 km² from north of Hay and Carrathool, NSW, south to Kerrang and Gunbowe in Victoria (Tindale, 1974:191–192).

The pre-European landscape around the Murrumbidgee and Murray Riverina were dominated by reed beds, grasses and open Eucalypt woodland and was more vegetated than today (Pardoe and Martin, 2011:17–18, 33). The ecological diversity of the region was supported and maintained by fire farming and the riverine environment offered a wealth of terrestrial food and material resources with freshwater aquatic foods, grasses and cereals found in and around rivers, creeks and floodplains (Pardoe and Martin, 2011:16–18, 30–36). Family groups travelled around country moving to a new area when resources diminished, seasons changed or if there was a death (Pardoe and Martin, 2011, pp. 38–39). Smaller groups came together for ceremonies and trade with the Murray and Murrumbidgee rivers acting as the region's communication and trade highways (Heritage Office and NSW Department of Urban Affairs and Planning, 1996:148; Kass, 2003:10). The Murrumbidgee and Murry River, as well as the associated tributaries, were also employed as movement highways in the European exploration and settlement of the region (Buxton, 1965:1).

From the 1790s, small-pox and other European diseases were brought to the region through traditional trade pathways from the east (Heritage Office and NSW DUAP, 1996:148). The redefinition of the limits of the colony in 1820 led to the swift dispossession of Indigenous peoples and Aboriginal/settler violence west of the Great Dividing Range (Former Mudgee Shire Heritage Committee, 2004:69). Nevertheless, ceremony continued into the 1870s and Wiradjuri and Baraba Baraba people continue to live in the local regions and care for Country (Heritage Office and NSW DUAP, 1996:149; Pardoe and Martin, 2011).

5.3.2 Exploration

The settlement of the Murrumbidgee and Murray Riverina was driven by river exploration (Jervis, 1952:1–4). An expedition party led by John Oxley journeyed along the Lachlan River in 1817, narrowly missing the Murrumbidgee River, and the Murray River was traversed by Hume and Hovell in 1824 (Gormly, 1906:38; Heritage Office and NSW DUAP, 1996:149). In 1829, Captain Charles Sturt led an expedition along the Murrumbidgee, reaching the Murray River on 14 January 1830 (Jervis, 1952:2–3). Arriving in the vicinity of Narrandera, Sturt observed a desolate and inhospitable landscape noting “neither beast nor bird inhabited these lonely and inhospitable regions” (Sturt in Jervis, 1952:3). Surveyor Major T. L. Mitchell, on the other hand, gave a glowing report of the landscape following his expedition down the Murrumbidgee and Murray into Victoria (Gormly, 1906:39). The first overland expedition between the Murrumbidgee and Murray Rivers was organised by Sturt in 1838 (Jervis, 1952:3). The goal of the journey was to drive cattle from Goulburn to the new Colony in South Australia and survey parts of the rivers that had not yet been traced but, as with the other parties, Sturt’s route did not enter country beyond the major rivers (Charles Sturt Museum, no date:1–2; Jervis, 1952:3).

The country between the Murrumbidgee and Murray was opened up by squatters on the hunt for water and grazing land (Jervis, 1952:4). Exploration in the vicinity of the project area did not occur until 1842 when squatting run managers Augustus Morris and F A Gwynne, and a man named Walker followed Billabong Creek from *Brookong* run at Urana, west past the current site of Jerilderie, to the Edward River (Jervis, 1952:4; Jerilderie Shire Council, 2012:4).

5.3.3 Squatting and pastoralism

i Squatting

“Squatting” was a form of pastoral landholding that occurred from the 1820s, whereby large scale sheep and cattle farming was established on Crown land outside the “limits of location” (State Library of NSW, 2023). The limits of location, that land under Government jurisdiction, was first defined by Governor Darling in 1826, but later expanded to 19 counties within c. 400 km of Sydney (Museums of History NSW, 2022). By the 1830s, squatting had become so widespread that the Government shifted focus from prevention to regulation with the introduction of a new system of pastoral licences, which allowed squatters to occupy lands outside the settled districts, provided they did so for pastoral purposes and paid an annual fee of £10 to the Crown (State Library of NSW, 2023). It was under this scheme that the first squatters came to the Riverina.

The first squatting runs around Jerilderie were taken up over the 1840s (Buxton, 1965:4; Jerilderie Shire Council, 2012:4). Early squatters in the region included James Kennedy, who established the 80,000 acre (32,375 ha) *Mary’s Creek* run on Billabong Creek in the early to mid-1840s, and Benjamin Boyd took up the 700,000 acre (283,280 ha) *Deniliquin* run prior to 1848 (Murrumbidgee Council, no date; Jervis, 1952:8; Heritage Office and NSW DUAP, 1996:150). The holders of the squatting runs did not reside on their properties but had station managers, stockmen, and station workers to oversee the daily workings of the pastoral stations (Jervis, 1952:19). Rudimentary bark and hide huts were constructed over the runs and workers practiced small-scale agriculture for self-sufficiency, growing fruits, vegetables, wheat, and fodder crops (Baylis, 1927, p. 301). Both cattle and sheep were grazed on the Western Riverina runs and properties were employed as rest stops to fatten cattle between the Victorian, South Australia, and Sydney/NSW markets (Heritage Office and NSW DUAP, 1996:150).

In 1847, the squatters were able to obtain leases with rights to pre-emptive purchase and compensation for their improvement of the land (Stuart, 1999:2). An Order in Council provided for ‘pastoralists’ (squatters) to hold land on 8- or 14-year leases for an annual rent. The Crown continued to hold a right of resumption. This new form of Australian tenure, the pastoral lease, had not existed in England and was a result of the 1847 Order in Council rather than common law (Babie, 2016:184). Despite the increasing land rights available to squatters, settlement of the Jerilderie region was slow, as squatting runs primarily focused on the viable water source offered by river frontages and by 1848 the majority of land around the Murrumbidgee and Murray River frontages had been claimed (Jervis, 1952:7).

The Riverina squatting runs were improved over the 1850s and 1860s with the increased transport of people and goods into the region (Jervis, 1952:19–20). Huts were replaced with more substantial housing, which included comforts such as glass windows and flooring, more fruits and vegetable varieties were planted, and there was extensive fencing of paddocks and stockyards over the properties (Jervis, 1952:19–20). The decline in beef markets as the gold rush waned combined with the outbreak of cattle diseases and decreasing river transport costs led to sheep and wool becoming the primary economic focus of the Western Riverina over the 1860s (Jervis, 1952:17; Buxton, 1965:30–32; Heritage Office and NSW DUAP, 1996:135, 151).

ii Free selection

Land ownership in NSW was transformed with the introduction of the *Crown Lands Alienation Act 1861* and the *Crown Lands Occupation Act 1861* collectively known as the ‘Robertson Land Acts’ (National Museum of Australia, 2021). The Acts aimed to break the long-established monopoly of the squatter pastoralists by permitting any person (free selectors) to select up to 320 acres of land, including that previously under pastoral lease (after 1866), on the condition of payment of a deposit of one quarter of the purchase price after survey and living on the land for three years (Legislative Assembly of New South Wales, 1861). The Acts provided security of tenure but required settlers to improve the landscape. Improvement was largely done by ring-barking to open up the land, removing weeds and pests, and promoting grass coverage (Stuart, 1999:320).

Prior to the introduction of the Robertson Acts, local landholders in the Riverina had been petitioning to have the region separated from the NSW Government (Craig, 1963). The local landholders were dissatisfied with the Sydney-based governing of the region (Lundy, 1951:52; Craig, 1963:v). The Riverina secessionist movement aimed to gain security for landholders, which was offered with the Robertson Acts so the movement was abandoned in 1863 (Lundy, 1951:52; Buxton, 1965:252).

Land was not immediately available for free selection in the Riverina as many squatters still had five or more years left on their 14-year pastoral leases (Buxton, 1965:247). In addition, the Acts made provisions for water reserves and in 1865, long blocks of land spaced every 6.4 km along Yanco and Columbo creeks were set aside as the part of the Yanco Reserve, which totalled 175,000 acres (48,562 ha) (Jervis, 1952:12; Buxton, 1965:249). The reserve allowed the local landholders, who had heavily invested in improving the land prior to the Acts to continue to have access the vital waterways (Jervis, 1952:12). Moreover, land selection in the Riverina was complicated by the fact that the Government had not completed any survey of the region, meaning agencies did not know what land was actually available for free selection (Buxton, 1965:262).

Even while land was still under lease, Riverina squatters played the system in order to retain as much of their runs as possible (Buxton, 1965:253). A known practice in the region included recruiting others, such as employees, family members and children to act as selectors on their land (Buxton, 1965). Other landholders employed provisions and amendments to the Acts to retain property (Buxton, 1965).

Unexpired pastoral leases, combined with drought, meant the back blocks did not pique the interest of selectors until well into the 1870s (Jervis, 1952:13; Buxton, 1965:327–334; Heritage Office and NSW DUAP, 1996:135). Descriptions of the Riverina back blocks in the *Town and Country Journal* indicates few changes in land tenure and land development occurred in the area by the early 1870s:

Many of them are either unoccupied or sparsely stocked. Others are held by the squatters who have river frontage as relieving runs; and in the wet seasons or before the grass, and water are parched up, the flocks are sent across, and there remain till the summer sets in. Of late years a few enterprising gentlemen have made many improvements on these blocks and by the expenditure of large sums of money in sinking wells, and storing water, some of those blocks are now made inhabitable throughout the year (*Australian Town and Country Journal*, 24 August 1872:24).

Yanko Reserve was dissolved in 1876, encouraging private selectors and corporate pastoral companies to the region (Jervis, 1952:12). By the end of year, it was reported that homes and fences had been constructed on both the river front and back blocks, and vineyards and orchards had begun to be planted on some of the stations (Jervis, 1952:13; Heritage Office and NSW DUAP, 1996:135).

The Crown Lands Act of 1884 repealed the 1861 conditions of land tenure and introduced new forms of tenure including conditional leases, special leases, annual leases, scrub leases, and occupation licences (Roth, 2014:4). In addition, run holders had to divide their holdings into a Leasehold area, leased to the runholder for fixed periods, and Resumed area, which was subject to annual lease (Kass, 2011:17). As part of the Act, NSW was divided into three pastoral divisions and runs were rebranded as Pastoral Holdings (Kass, 2011:17).

5.3.4 The back blocks

The project area is in the back blocks of the squatting district, that is, land between viable water sources (Jervis, 1952:22). The lack of permanent water sources and summer heat in the back blocks meant this land was not as attractive during initial settlement and attention was only given to the area once the stations of the river frontages were well established (Jervis, 1952:22; Buxton, 1965:2). The Western Riverina back blocks were improved over the 1850s and 1860s with the construction of the Yanko Canal in 1856, as well as, private sinking off wells and dams, and the installation of water tanks, which allowed for year-round occupation and grazing (Jervis, 1952:22; Buxton, 1965:55, 66). At this time there was demand for additional grazing land as squatters increased their stock numbers to meet the demand for beef and mutton as a result of the Gold Rush (Jervis, 1952:17; Heritage Office and NSW DUAP, 1996:134–135, 150). Moreover, land was in demand and became more valuable as the region became open to settlers with the development of steamer transport routes on the Murrumbidgee and Murray rivers (Jervis, 1952:17).

Specifically, the project area sits across the boundaries of Yanko Blocks A, B, C, D, E, G, and H (Plate 5.1). The blocks were developed as the back blocks of *Yanko* run (otherwise known as “Big Yanko”), taken up in 1850 on the south side of Yanco Creek by Augustus Morris on behalf of legislative assembly member and grazier William Charles Wentworth (*Jerilderie Herald and Urana Advertiser*, 14 September 1950:1; Jerilderie Shire Council, 2012:4). The Yanko blocks were sold over the 1850s and 1860s and either taken up as runs in their own right or as outstations for runs on the water frontage (*Jerilderie Herald and Urana Advertiser*, 14 September 1950:1).

Drought and declining wool prices forced the De Sailly's to sell *Bundure* and *Spring Plains* in 1863 (Craig, 1963:9). The sales advertisement boasted the properties featured "everything necessary for the efficient and economical working of a large sheep establishment" (*The Argus*, 4 June 1863:8). The properties were noted to feature 100 miles (161 km) of sheep proof fencing and also included:

[A] first-class galvanized iron woolshed, to accommodate 40 shearers, yards, sheepwash, grass paddocks, cultivation paddocks and huts, a superior residence of 11 rooms, with kitchen, barracks, stabling, garden, &c on *Bundure* and a comfortable cottage of five rooms with kitchen, &c at *Spring Plains* (*The Argus*, 4 June 1863:8).

In addition, the De Sailly's flock of 48,000 "first class sheep" were included in the sale (*The Argus*, 4 June 1863:8). The holdings did not sell until 1867, at which time the De Sailly's were recorded to be grazing 112,000 sheep their land holdings and had 165 employees on the run (*The Argus*, 7 October 1867:8; Lundy, 1951:52).

a The New Zealand and Australian Land Company

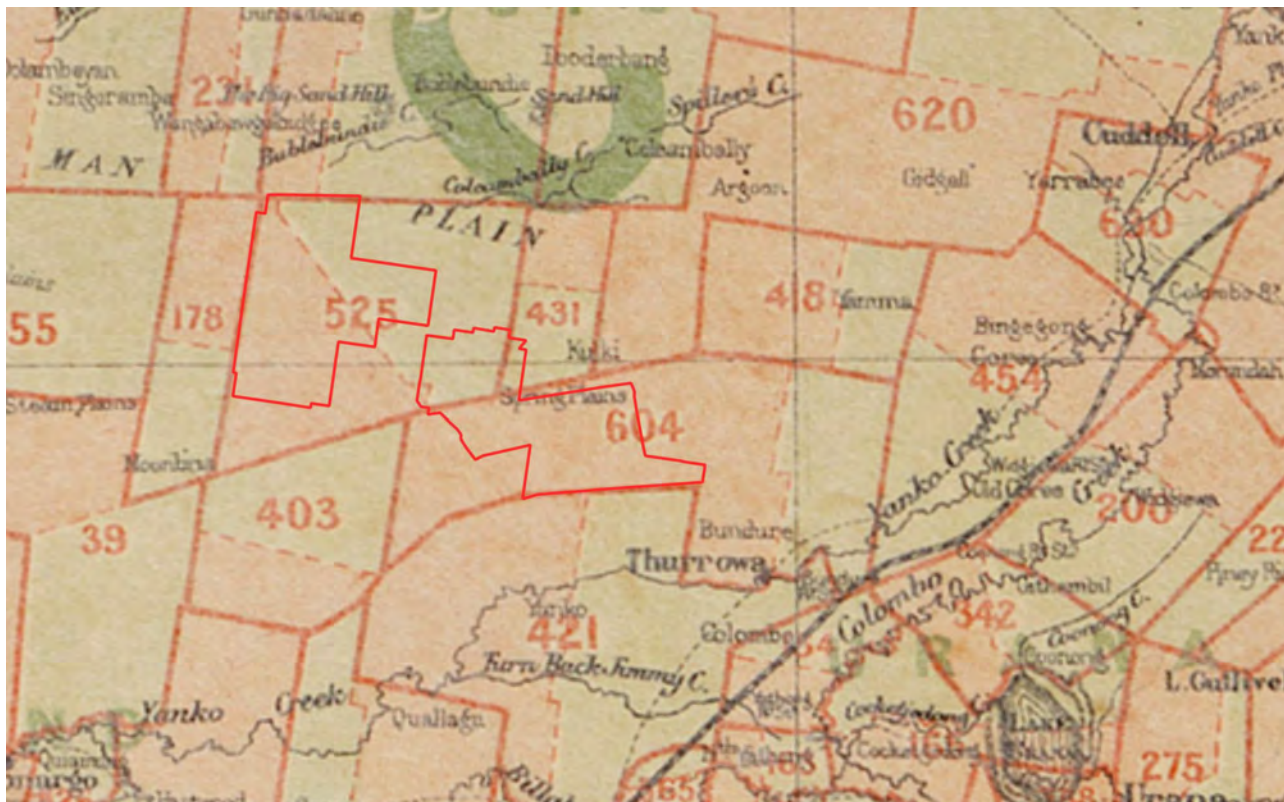
The majority of *Bundure* and *Spring Plains* were purchased by the New Zealand and Australian Land Company (NZALC) in 1867 (*The Argus*, 15 January 1867:5). The De Sailly's did not officially vacate their holdings until 1869 and property titles, including those in the project area were taken over NZALC from 1870 (*New South Wales Government Gazette*, 12 April 1878:1534; Lundy, 1951:52). A number of free selectors took up small farms west of the *Spring Plains* head station around this time but these properties were later incorporated into the Company's holdings (*The Albury Banner and Wodonga Express*, 22 December 1877:7).

The New Zealand and Australian Land Company, later the New Zealand and Australian Land Company of Glasgow, was a "free-standing company" focused on large-scale corporate pastoralism (Australian National University, 2011). The company was established as an amalgamation of the various companies and individuals in Glasgow between 1859 and 1877 and followed the British structure of an independent business operating overseas while based in another country (Scottish Record Office and National Library of Australia, no date:3). The NZALC was headquartered in Glasgow and operated in New Zealand provinces of Otago and Southland, and the Australian colonies of Queensland, New South Wales, and Victoria (Australian National University, 2011).

The New Zealand and Australian Land Company continued to run *Bundure* and *Spring Plains* as a sheep station and Merino stud with the daily running of the station overseen by managers, the first of which was Scottish-born Simon Fraser, who had been overseeing *Spring Plains* since at least 1866 (*Pastoral Times and Echuca and Moama Chronicle*, 27 January 1866:2; *Australian Town and Country Journal*, 24 August 1872: 24; Lundy, 1951:52). A visitor to *Bundure* in 1872 described the back blocks as "not much to boast of" with huts and fences noted to be "poor", though it is not clear if the author was referring to the general construction or condition or both (*Australian Town and Country Journal*, 24 August 1872:24). The author also chose to mention that the back blocks did not have gates only slip rails (*Australian Town and Country Journal*, 24 August 1872:24). Local settler Donald McLarty was appointed manager of *Bundure* and *Spring Plains* between 1874 and 1879 (Lundy, 1951:52). The *Bundure* flocks were devastated by drought in 1877, with the company losing over 50,000 sheep (Lundy, 1951:52). Following McLarty's death, his son, Donald S. McLarty took over as station manager until 1926.

Like his father, Donald McLarty oversaw the holding through difficult times, including three bushfires and losing half of the flock to drought between 1898 to 1902 (Lundy, 1951, p. 52; Lost Narrandera, 2021). Other managers of *Bundure* after Donald McLarty included W Murray, R Ownes and R H Wallace, who was manager in 1950, and Mr Hutchings (also Hutchins), who was manager by 1952 (Lundy, 1951:52–53; *Jerilderie Herald and Urana Advertiser*, 24 January 1952:1).

Following the 1884 Act, the original *Bundure* run and Yanko Blocks G (*Spring Plains*) and H were amalgamated into *Bundure* Holding in 1886, which became one of the largest holdings in the Jerilderie area (Lundy, 1951:52) (Plate 5.2). In 1969, Dalgety Company Ltd took over The New Zealand and Australian Land Company Ltd and began selling off the company's holdings (Lost Narrandera, 2021). A 25,000 acre (10117 ha) portion of the *Bundure* holding was resumed for the Coleambally Irrigation Scheme and by 1978 much of the holding had been sold off (Lost Narrandera, 2021). Grazing and agriculture continues in the project area into the present.



The project area is delineated in red.

Note: Number 525 represents Goolgumbra, Number 431 represents Kulki and Number 604 represents Bundure and Spring Plains.

Source: State Library of New South Wales, call no.: 1886 Z/M4 810/1895/1

Plate 5.2 **Detail from Index map of NSW showing pastoral holdings, 1886 showing the project area. Number 525 represents Goolgumbra**

ii Kulki

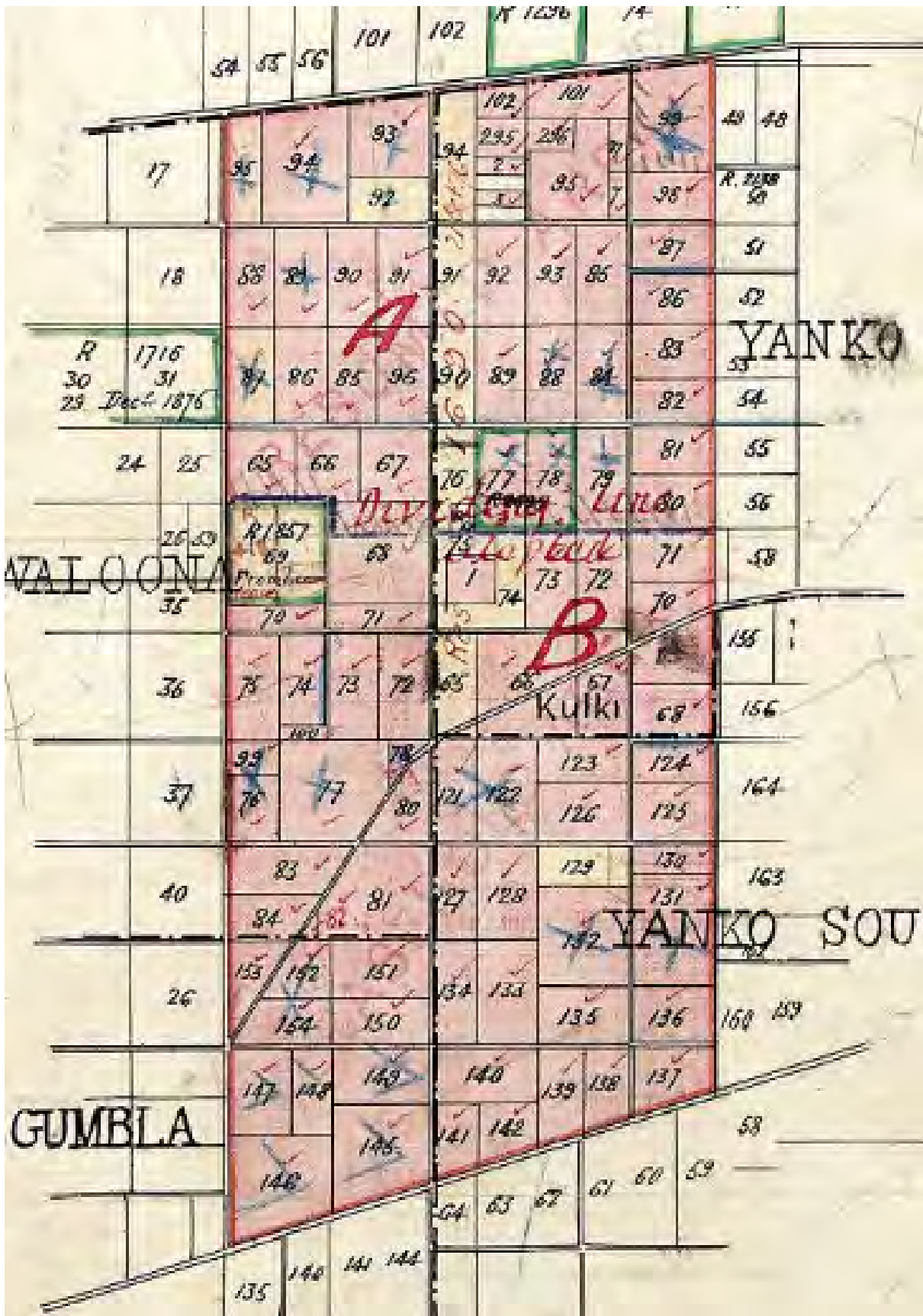
Kulki run, north of *Bundure*, was taken up by Thomas Hodges Mate in 1852 along with other Riverina properties (Plate 5.2) (*Jerilderie Herald and Urana Advertiser*, 28 September 1950a:1). *Kulki* covered the 30,000 acres (12140.6 ha) of Yanko Block E (Plate 5.3), and the daily workings of the property were managed by Thomas Mate's brother Willam Mate and, later Thomas' son, also William Mate (*Jerilderie Herald and Urana Advertiser*, 28 September 1950a:1). Mate established a Merino stud on the property and in 1872, 5,000 sheep and 500 cows were being grazed on the holding along with stud horses (*Australian Town and Country Journal*, 24 August 1872:24; *Wagga Wagga Advertiser and Riverine Reporter*, 31 July 1872:3).

As their property was subdivided following the 1861 Robertson Land Acts, the Mate family was known to have practiced “dummying” to retain as much valuable land as possible (*Jerilderie Herald and Urana Advertiser*, 28 September 1950a:1). “Dummying” was a practice whereby the landholder would have an individual select property in accordance with the Acts, which was later “sold” back to the landholder (Land and Property Information NSW, 2013:3). The Mate family put Kulki up for sale in 1891 and advertisements describe the property as:

Comprising 21,591 ACRES FREEHOLD and about 2000 ACRES LEASEHOLD, rich agricultural and grazing land, heavy carrying and very fattening. All fenced and subdivided into 30 paddocks of convenient size, watered by large well-constructed tanks, water being always available, even in the driest seasons. The other improvements consist of comfortable homestead, outbuildings and yards necessary for the effective working of the property, &c. (*The Argus*, 8 October 1891:2).

The Osbourne family purchased *Kulki* in 1894, living on and managing the property, until the holding was taken over by Thomas Milllear in 1909 (*Jerilderie Herald and Urana Advertiser*, 28 September 1950a:1).

The Milllear’s were a grazing family, who owned *Stud Park* sheep station in Victoria (The Pastoralists’ Review, 1909:338). *Kulki* was purchased, along with a 25,000 acre (10117.1 ha) section of neighbouring run *Goolgumbra*, as a place to graze and fatten the surplus sheep of *Stud Park* (The Pastoralists’ Review, 1909:343; *Jerilderie Herald and Urana Advertiser*, 1950a:1). In 1909, *Kulki* was noted to be watered by wells and windmills and was connected to *Stud Park* by telephone (The Pastoralists’ Review, 1909:343). The combined *Kulki* and *Goolgumbra* properties became known as *Walla* in 1912 and was later re-named *Stud Park North* (*Jerilderie Herald and Urana Advertiser*, 28 September 1950a:1). The Milllear’s retained *Kulki* into the 1950s (*Jerilderie Herald and Urana Advertiser*, 28 September 1950a:1).



Source: HLRV

Plate 5.3 Plan of Kulki run (run no 431), formerly Yanko Block E, c.1884

William Furlong took up Yanko Blocks B, C and D in 1852 and named the property *Goolgumbla* (also *Gulgumbla*) (Plate 5.2; Plate 5.4) (Lundy, 1951:50). In 1858, the Wilson brothers acquired Big Yanko and Goolgumbla and by 1865 Samuel Wilson had bought out his brothers' shares in the run to become the sole landowner (The Yanko Merino Stud, no date; Lundy, 1951:50). Wilson, who resided in England, had managers oversee his Riverina assets (Lundy, 1951:50–51). In 1868, *The Brisbane Courier* described improvements being made to *Goolgumbla*:

The Goolgumbla station being divided into a number of paddocks, of course water would have to be provided for sheep in each of the paddocks. This has been met by the fence ending at a well in every paddock, and troughs being laid immediately under the fence, so that sheep in different paddocks can water of the same well every night, as the wells are so judiciously placed that in some instances there are three wells watering the same paddock (*The Brisbane Courier*, 17 October 1868:6).

Sir Samuel McGaughey purchased *Goolgumbla* in 1872 and made further improvements to support sheep grazing on the dry back block (Lundy, 1951:50; Goolgumbla, 2023). By 1881, 1,200 ewes were depastured on *Goolgumbla* and the garden, house, and outbuildings were noted to be “in admirable order” (*The Albury Banner and Wodonga Express*, 2 December 1881:8). McGaughey shifted the focus of *Goolgumbla* to a stud farm in the first decade of the twentieth century (Goolgumbla, 2023). Goolgumbla rams became sought-after breeding stock as the harsh nature of the back block environment was believed to cull the weak stock resulting in the “survival of the fit best” and the high sale prices reflected the quality of the sheep produced on the property (*The Albury Banner and Wodonga Express*, 31 August 1906:13).

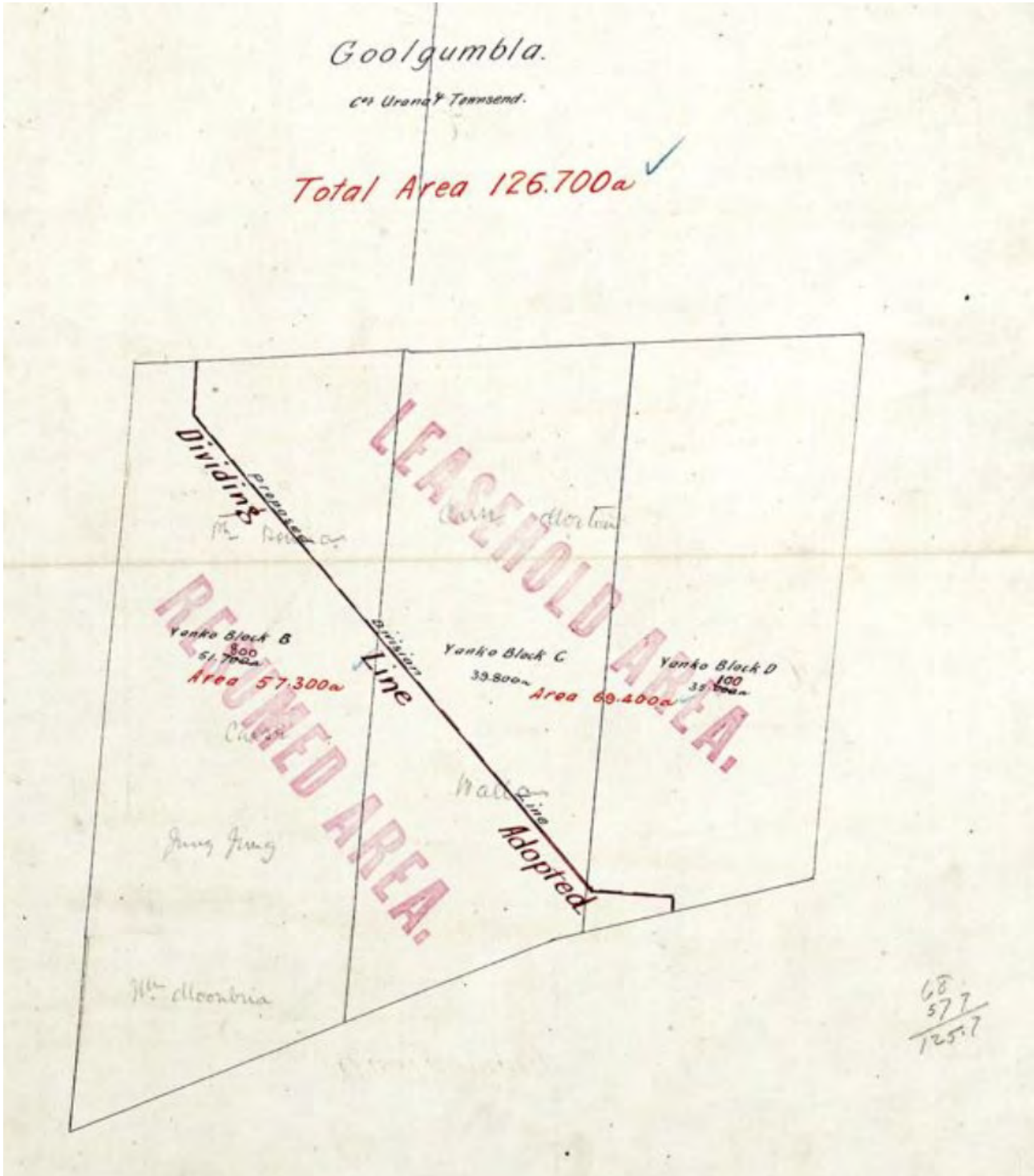
The introduction of mechanised shearing tools in the Riverina in the 1890s led to a drop in pay for shearers and organised unrest among the itinerant labourers (*Bathurst Free Press and Mining Journal*, 6 August 1895:3). The Wolseley Shearing Machine had been installed at *Goolgumbla* and, as a result, police were requested to oversee the beginning of the shearing season on the holding in 1895 (*Bathurst Free Press and Mining Journal*, 6 August 1895:3; *Narandera Argus and Riverina Advertiser*, 19 May 1899:3).

George Earnest Stuart took over *Goolgumbla* in 1913 and shearing continued under the Stuart family, who advertised their sheep as having “big frames carrying heavy fleeces of good quality wool showing great character” (*The Farmer and Settler*, 6 June 1940b:11; Goolgumbla, 2023). A letter written by Renie Ryan, the child of a *Goolgumbla* shearer, in 1924 notes that 20 shearers were employed on the holding and the shearers' families also resided on property (*The Australian Worker*, 3 September 1924:5). By 1940, 40,000 sheep were being sheared annually on *Goolgumbla* (*The Farmer and Settler*, 6 June 1940b:11). A sheep stud continued on *Goolgumbla* until 1986 and sheep continue to be grazed on the property (Goolgumbla, 2023).

In 1913, *Goolgumbla* was sold to George Earnest Stuart (Goolgumbla, 2023). Around this time, three smaller farms were subdivided from the primary *Goolgumbla* holding including the 13,000 acre (5,261 ha) *Yoorooga* in the east of the holding, the 5,000 acre (2,023 ha) *Waringa* (also *Booroorbah*) in the west, and the 600 acre (242.8 ha) *Barrabool* (Lundy, 1951:50–51). The Stuart family continued working the stud farm, which was managed by Leslie Ion Stuart from 1932 until the holding was sold in 1950 (Lundy, 1951:50–51; Goolgumbla, 2023). Nine rooms of the *Goolgumbla* homestead were destroyed by fire in 1950 (*Jerilderie Herald and Urana Advertiser*, March 2 1950b:3).

Killen-Henderson Partnership purchased *Goolgumbla* in 1950, later forming Pastoral Development Holdings and the Goolgumbla Pty Ltd subsidiary to manage the holding (Goolgumbla, 2023). In 1964, the Dalgety organisation acquired *Goolgumbla* and in 1979, Arthur and Jean Trethowan purchased the holding (Goolgumbla, 2023). The Trethowan's ran the *Goolgumbla* stud until the property passed into the Commonwealth Government Superannuation Fund Investment Trust in 1986 (Goolgumbla, 2023). From 1998, the Rollinson family has grazed sheep and cattle on *Goolgumbla* as part of their larger land holdings across NSW and Victoria (Goolgumbla, 2023).

Historic aerial imagery of the Goolgumbla homestead complex (Plate 5.5 to Plate 5.8) reveals its well-established presence, featuring the main homestead, sheds, gardens, and outbuildings amidst paddocks, fields, and ornamental plantings serving as windbreaks. The layout is further accentuated by visible dams to the south and a network of organised roads and tracks encircling the complex, indicative of the station's self-sufficiency. The aerial imagery demonstrates that the Goolgumbla homestead has retained its original character and remains relatively unchanged since 1958.



Source: HLRV (n.d.)

Plate 5.4 Plan showing the area of Goolgumbla run (run no 525), formerly Yanko Blocks B, C and D, c.1884



Source: Historical Imagery Viewer 223_08_009

Plate 5.5 1958 aerial imagery of Goolgumbla head station



Source: Historical Imagery Viewer 4176_06_152

Plate 5.6 1977 aerial imagery of Goolgumbla head station



Source: Historical Imagery Viewer 3600_14_145

Plate 5.7 1993 aerial imagery of Goolgumbla head station



Source: Historical Imagery Viewer

Plate 5.8 2023 aerial imagery of Goolgumbla head station

5.4 Archaeological sensitivity

This section provides a summary of the archaeological potential and sensitivity of the project area based on the historical context. Factors that contribute to the area's archaeological potential, such as squatting and subsequent historical phases that could be reflected in the archaeological record are explored below. Previous land disturbance has also been considered when determining archaeological potential and sensitivity in the project area. The predictive model was constructed to evaluate the potential presence of historical sites in the project area and is detailed in Section 5.4.2.

i Squatting and pastoralism

The presence of squatters and their creation of a distinct spatial pattern is distinct from farms located within established boundaries. Due to the uncertain land tenure, squatters were reluctant to invest in fencing or creating paddocks. The distance from commercial centres also influenced the layout of homesteads and outstations. Initially, basic structures such as bark gunyahs, tents, or temporary huts were used by squatters, with more permanent slab or bark huts built near water sources. Shearing sheds were constructed early on, as they were essential to the wool industry (Pickard 2008: 60).

In the early days, shepherds played a crucial role in managing sheep, distributing them throughout the run during the day and penning them at night in folds made of hurdles or stone where available. This system was cost-effective as labour was inexpensive, and perimeter fencing was not introduced until the late 1860s. The introduction of perimeter fencing led to a change in the management approach, with regular mustering replacing continuous supervision of the stock (Roberts 2006: 112).

There is a possibility that ephemeral structures were once erected in the project area. The development footprint traverses through the Goolgumbla, Kulki and Bundure pastoral runs that were established in the 1860s. As land tenure systems became more formalised and regulated, many squatting runs were eventually incorporated into the pastoral leasehold system. While there is no evidence of any established squatting run, it is possible that some areas initially operated as informal squatting runs before being formally surveyed and established as pastoral runs. However, without specific evidence or documentation, it remains speculative.

Evidence of squatting is not anticipated in the project area.

ii Archaeological potential

As the development footprint encompasses an area that exhibits an extensive pastoral and farming history, it is possible that the development footprint may contain further early archaeological sites that were formed by pastoralists who utilised the area for pastoral, agricultural and domestic activities. These sites could hold research value, providing insights into rural pastoralism throughout the later part of the nineteenth and early twentieth centuries. This includes providing an enriched understanding of the historical development and practices of pastoralism during its formative stages. Such sites could provide valuable information about the ways in which settlers adapted to and interacted with the landscape, technology, and local ecosystems. Given the early dates and the nature of these properties, they are likely to meet the significance criteria outlined in the NSW Heritage Manual, as assessed in Chapter 7.

iii Previous disturbance and land use

Previous land disturbance has a significant impact to the survivability of archaeological materials. While there are natural processes that can disturb and/or destroy archaeological material, anthropogenic intervention through agricultural practices would have resulted in the most significant impacts to the project area.

'Laser-levelling' was an agricultural practice that was introduced to the local area after its invention in 1977. This system comprised a laser beam transmitter, a receiver, and a 'carry drag scoop' fitted to a tractor. Where the landscape rises above the chosen level, a cutting blade grades the surface and deposits the soil in areas that fall below the chosen level, resulting in a flat landscape, which is visible in the eastern portion of the project area. This practice reduced watering requirements per hectare from 1 megalitre (ML) to roughly 0.5 ML (Green & Middlemas 1985, p. 40-2). The treatment of the land with laser-levelling will have moved archaeological material from some locations and covered it in others. An important factor when considering the preservation of archaeological material is depth. Building foundations, post-holes, wells, cisterns and privies will have survived the effects of laser-levelling as these features occur at depth and are likely to survive.

5.4.2 Predictive model

Based on background research involving documentary sources, maps, plans, and aerial imagery, a predictive model for identifying historic site types and locations was formulated to facilitate the identification of potential sites that were to be targeted during the field survey. This model is the result of an extensive analysis that includes:

- landscape features in the project area and surrounds
- colonial period ecological conditions
- proximity to listed heritage items in the region
- examination of historic Crown plans, as well as county, parish, Land Titles Office (LTO) charting maps and aerial imagery
- consideration of the historical context of the project area.

The model undertook predictive analysis to assess the probability of the presence of historical sites occurring in the project area, specifically in the development footprint. These predictive insights were systematically integrated into the decision-making framework during archaeological survey.

The list of Crown plans that were accessed as part of the archival research is provided in Table 5.2. Most of these plans record structures such as huts, wells, and stockyards across the project area.

Based on the archaeological sites registered in the region, a review of historical plans and aerials and the environmental context, conclusions can be drawn regarding the potential presence and location of historic sites within the project area (Table 5.3).

Table 5.2 Crown plan list

Lots	Section	DP	Plan #	Small #	Parish-County	Note
2	-	756265	3881	1803	Carse	Tank and old tank
27	-	756299	T 1427	1803	Morton	Homestead and tanks
126	-	756418	1229	1881	Goolgumbbla - Urana	House, garden, stockyard and tanks
34	-	756418	38	1881	Goolgumbbla - Urana	House, stockyard and tanks
6	-	756418	1641 R	1881	Goolgumbbla	Hut and sheep yard

Table 5.3 Potential historic sites within the project area

Site type	Characteristics	Potential
Artefact scatters	Predominant indicators of historical sites in the region. Can be present across various landforms, even in disturbed contexts. Linked with historic structures such as homesteads, outbuildings, and wells. May involve surface materials such as glass, ceramics, or building fragments.	Moderate
Extant buildings	Presence of homesteads, cottages, and smaller residences reflecting the sustained utilisation of historical farming structures. Most of the surviving buildings are likely to be in current use, with abandoned sites contributing to the cultural landscape.	High
Historic stockyards	Possible persistence of stockyards from squatting phase and later periods. These stockyards might be either in use or abandoned, and their preservation could be attributed to the absence of modern development in certain areas. Changes in agricultural practices in the area could render historic stockyards obsolete, potentially leading to their removal or abandonment.	High
Pastoral landscape infrastructure	Range of infrastructure encompassing fencing, pastoral tracks, dams, stock tanks, and wells. The existence of these features is contingent upon their functional purpose. As agricultural practices evolve and modernise, there is a possibility of fencing replacement. Water sources, historically strategically located for consistent availability, are expected to either persist or adapt due to technological advancements. It is also plausible that new watercourses could be established to sustain the ongoing agricultural activities in the area.	High
Historically modified trees	Historical surveyors frequently blazed marks on trees to denote the boundaries of the property they were surveying. This phenomenon is retained when native vegetation has been conserved. While the project area has been substantially cleared, pockets of trees still exist. However, the extensive clearance of vegetation diminishes the probability of this occurrence within the project area.	Low

5.4.3 Potential sites

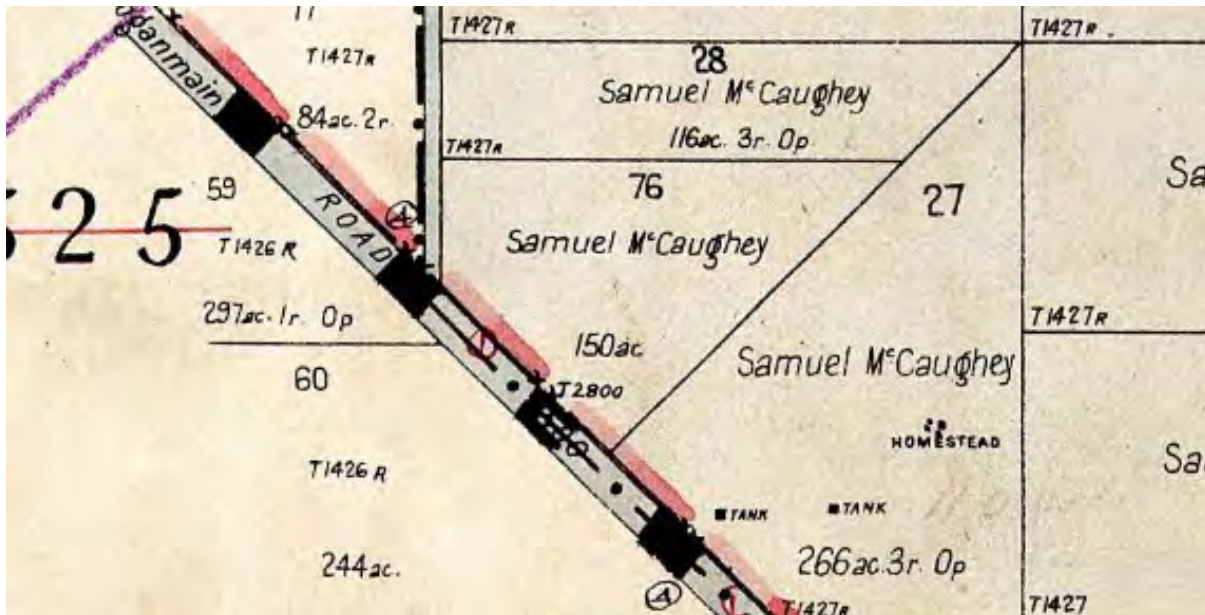
Through a systematic analysis of relevant historical aerials, maps and plans specific to the project area, potential sites were identified in various locations. This process involved georeferencing these historical documents to approximate their spatial locations within the project area (Figure 5.1 and Figure 5.2). Subsequent analysis of associated aerial imagery allowed for the identification of structures, topographical features, or other indicators aligning with the historic maps, facilitating targeted survey efforts. It is important to note that the verification of the site's existence, especially in areas where aerial imagery provides limited insights, hinges upon ground truthing methodologies. These potential sites were targeted during the field assessment (Section 6).

i Stockyards and shed near Goolgumbla

A potential site was identified on Lot 76 DP 756299 in the Parish of Morton, County of Townsend. The site sits on the boundary of Yanko Blocks B and C, which were developed as a back block of *Big Yanko* run c.1850 (see Section 5.3.4iii).

A run plan of *Goolgumbla* was not located and later plans of the area do not depict surviving infrastructure in detail. The 1904 Parish of Morton map does show the location of the current *Goolgumbla* homestead on Lot 27 DP 756299, which abuts the south-east boundary of Lot 76, but no infrastructure is recorded on the site (Plate 5.9). The *Goolgumbla* homestead was well established by 1881 (*The Albury Banner and Wodonga Express*, 2 December 1881:8).

A photograph of Goolgumbra rams for sale in *The Farmer and Settler* (6 June 1940:11) may include a ram shed in the background, but the 1957 aerial photograph offers the first confirmed image of the site (Plate 5.12). The complex consists of a central structure surrounded by a rectilinear enclosure divided into four primary paddocks. A second structure is located to the east of the centre building. The complex was located away from the homestead and associated outbuildings. A clearer view of the complex can be seen in the 1976 aerial photograph; however, it appears the paddock area around the buildings may have been reduced and the cultivation paddock east of the site had been established by this time (Plate 5.13).



Note: The potential stockyard and sheds are located on Lot 76 DP 756299 (Goolgumbra pastoral run).

Source: HLRV

Plate 5.9 1904 Parish of Morton, County of Townsend map



Source: *The Farmer and Settler*, 6 June 1940:11

Plate 5.10 Photograph of Goolgumbra rams with unidentified farm buildings in the background



Source: Goolgumbla (n.d.)

Plate 5.11 Photograph of Goolgumbla sheep shearers with stockyards in the background



The potential historical site is denoted by the blue arrow.

Source: Historical Imagery Viewer 223_08_009

Plate 5.12 1957 aerial imagery of potential stockyards and shed site



The potential historical site is denoted by the blue arrow

Source: Historical Imagery Viewer 2486_06_36

Plate 5.13 1976 aerial imagery of potential stockyards and shed site

ii Shearing complex

A possible site was identified across Lot 48 DP 756265 in the Parish of Carse, and Lot 31 DP 756299 in the Parish of Morton, both of which are in the County of Townsend. The site is north-west of the Goolgumbbla head station and also sits on the boundary of Yanko Blocks B and C, forming part of the *Goolgumbbla* run taken up by William Furlong in 1852 (Lundy, 1951:50). *Goolgumbbla* was further developed under the Wilsons before being purchased by Samuel McGaughey in 1872 (Lundy, 1951:50; Goolgumbbla, 2023).

McGaughey advertised tenders to build a woolshed on *Goolgumbbla* in 1875 and shearing was underway by 1877 (*The Pastoral Times*, 10 April 1875:3, 28 July 1877:2).

Aerial imagery dating from 1957 show a complex of buildings between two stands of trees (Plate 5.14). A large t-shaped structure is at the centre of the complex and a group of smaller buildings are located to the south-east. It also appears a series of smaller structures are located to the west and north of the largest building. It is possible that these structures served as living quarters for shearers and their families employed on the property with the largest building possibly functioning as the shearing shed. The complex changes little from 1957 to 1992 with the exception of additions to and reconfiguration of the east building group and the potential removal of some of the structures to the west (Plate 5.15 to Plate 5.17). Recent aerial imagery indicates the roofline of the central building has been modified or replaced (Plate 5.18).



The potential historical site is denoted by the blue circle.

Source: Historical Imagery Viewer 223_08_009

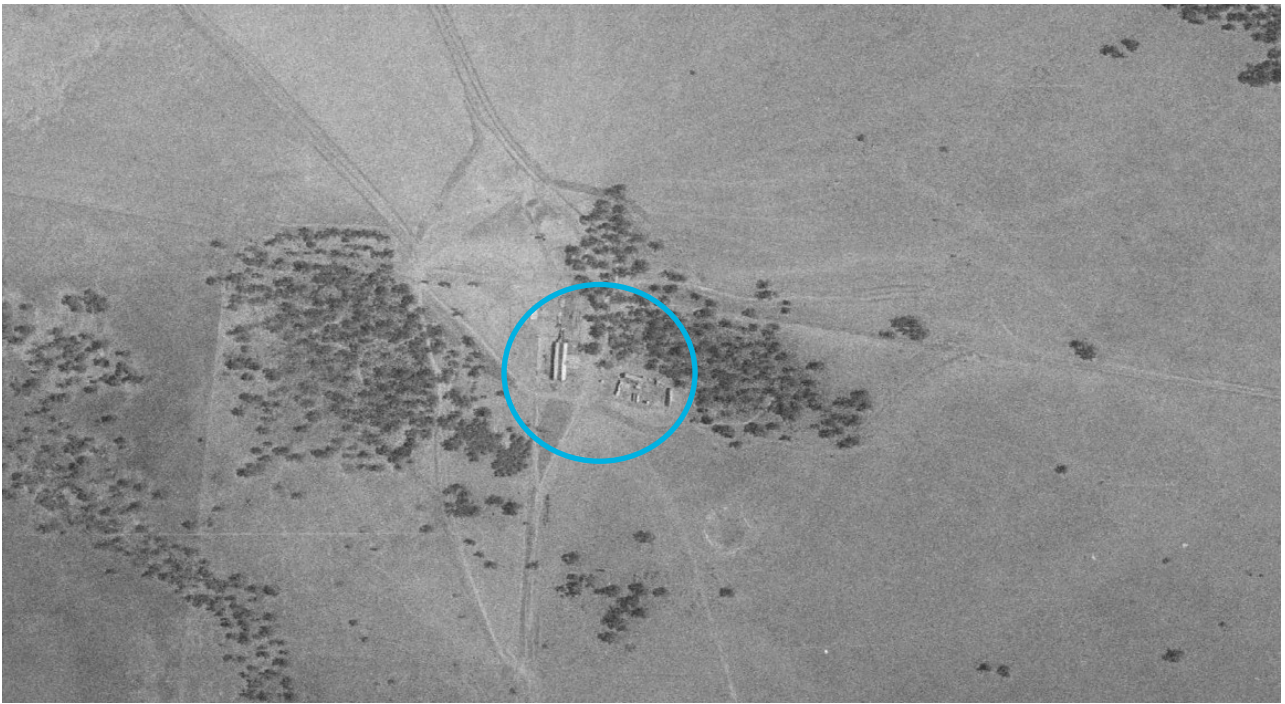
Plate 5.14 **1957 aerial imagery of shearing complex**



The potential historical site is denoted by the blue circle.

Source: Historical Imagery Viewer 2486_06_368

Plate 5.15 **1976 aerial imagery of shearing complex**



The potential historical site is denoted by the blue circle.

Source: Historical Imagery Viewer 2486_06_368

Plate 5.16 **1987 aerial imagery of shearing complex**



The potential historical site is denoted by the blue circle.

Source: Historical Imagery Viewer 4176_05_121

Plate 5.17 **1992 aerial imagery of shearing complex**



The potential historical site is denoted by the blue circle.

Source: SixMaps

Plate 5.18 Current aerial image of the shearing complex site

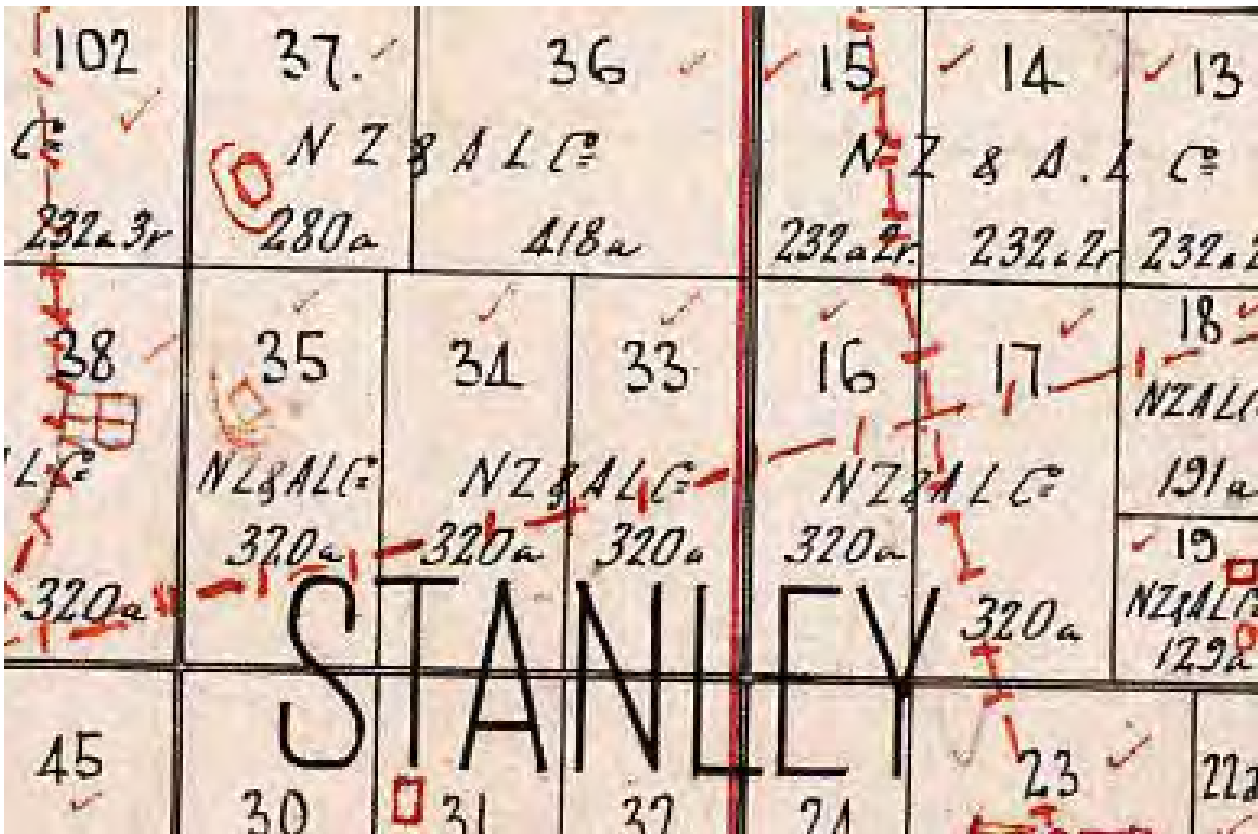
iii Hawk's Nest station

A potential site was identified on Lot 33 DP 756444 in the Parish of Stanley, County of Urana. Current maps note the property is known as *Hawk's Nest*. This site was identified through the examination of aerial imagery that highlighted the presence of several buildings north of a creek line since 1957, with the site continuing to undergo expansion up to the present day.

Lot 33 DP 756444 is on the east boundary of Yanko Block G, known as Spring Plains, which was developed as a back block of Big Yanko run between 1850 and 1860 (*Jerilderie Herald and Urana Advertiser*, 14 September 1950:1) (see Section 5.3.4i).

The c.1884 Bundure run plan shows that a fence line ran through Lot 33 north of the current homestead site (Plate 5.19). This fence was not illustrated on the 1890 Parish of Stanley map, but a “brush fence” is shown following the alignment of the creek at the southern boundary of the lot (Plate 5.20).

Historical aerial photographs show three structures of an unknown date on the site in 1957 (Plate 5.21). The first structure in the south of the group appears to be a small cottage with a square footprint. The building is at the junction of the north-south and east-west roads that run through the south of the property. Moving north-east, the photograph shows an area of darker soil likely representing a paddock or stock yard. A rectangular light spot in the area may be an outbuilding. The third potential structure is in the north of the property group. A rectilinear stand of trees surrounds a long rectangular building. Moreover, a large rectangular dam or tank is to the south of the building group. This dam cuts through the east-west unnamed watercourse in this area. The majority of structures on the current site were added between 1985 and the present, with the original cottage that was visible in the 1957 aerial imagery persisting to the present (Plate 5.22 to Plate 5.25).



Note: Hawk's Nest is located on Lot 33 DP 756444. The dashed lines indicate an established fence line.

Source: HLRV

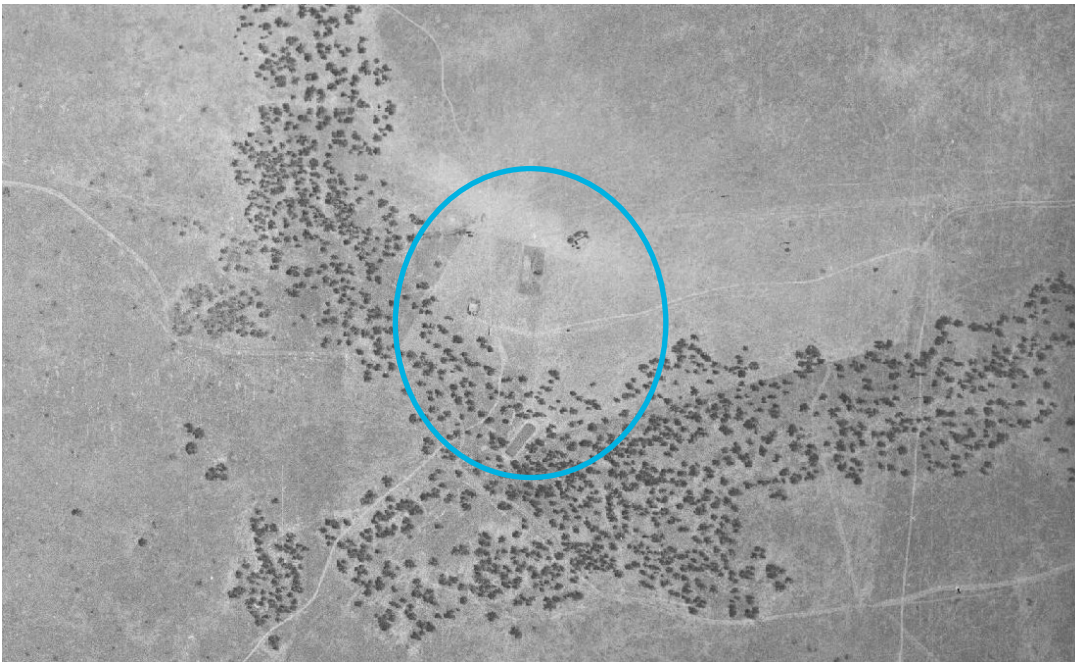
Plate 5.19 Detail of c.1884 plan of Bundure Holding (Pastoral Run Number: 604)



Note: Hawk's Nest is located on Lot 33 DP 756444. The dashed lines indicate an established fence line.

Source: HLRV

Plate 5.20 Detail of 1890 Parish of Stanley, County of Urana map



The potential historical site is denoted by the blue circle.

Source: Historical Imagery Viewer 223_01_107

Plate 5.21 1957 aerial imagery showing the Hawk's Nest site



The potential historical site is denoted by the blue circle.

Source: Historical Imagery Viewer 3482_01_008

Plate 5.22 1985 aerial imagery showing the Hawk's Nest site



The potential historical site is denoted by the blue circle.

Source: Historical Imagery Viewer 3781_01_144

Plate 5.23 1990 aerial imagery showing the Hawk's Nest site



The potential historical site is denoted by the blue circle.

Source: Historical Imagery Viewer 4293_01_198

Plate 5.24 1995 aerial imagery showing the Hawk's Nest site



The potential historical site is denoted by the blue circle noting several additions to the site since 1957.

Source: MetroMap

Plate 5.25 2023 aerial imagery showing the Hawk's Nest site

iv Spring Plains Homestead

A potential site was identified on Lot 34 DP 756418 in the Parish of Goolgumbbla, County of Urana. The site is towards the western boundary of Yanko Block G, which was developed as a back block of *Big Yanko* run between 1850 and 1860 (*Jerilderie Herald and Urana Advertiser*, 14 September 1950:1). Block G contains *Spring Plains*, which was taken up as an outstation of *Bundure* run under the ownership of the De Saily brothers in 1860 (Lundy, 1951:51–52; Buxton, 1965:68).

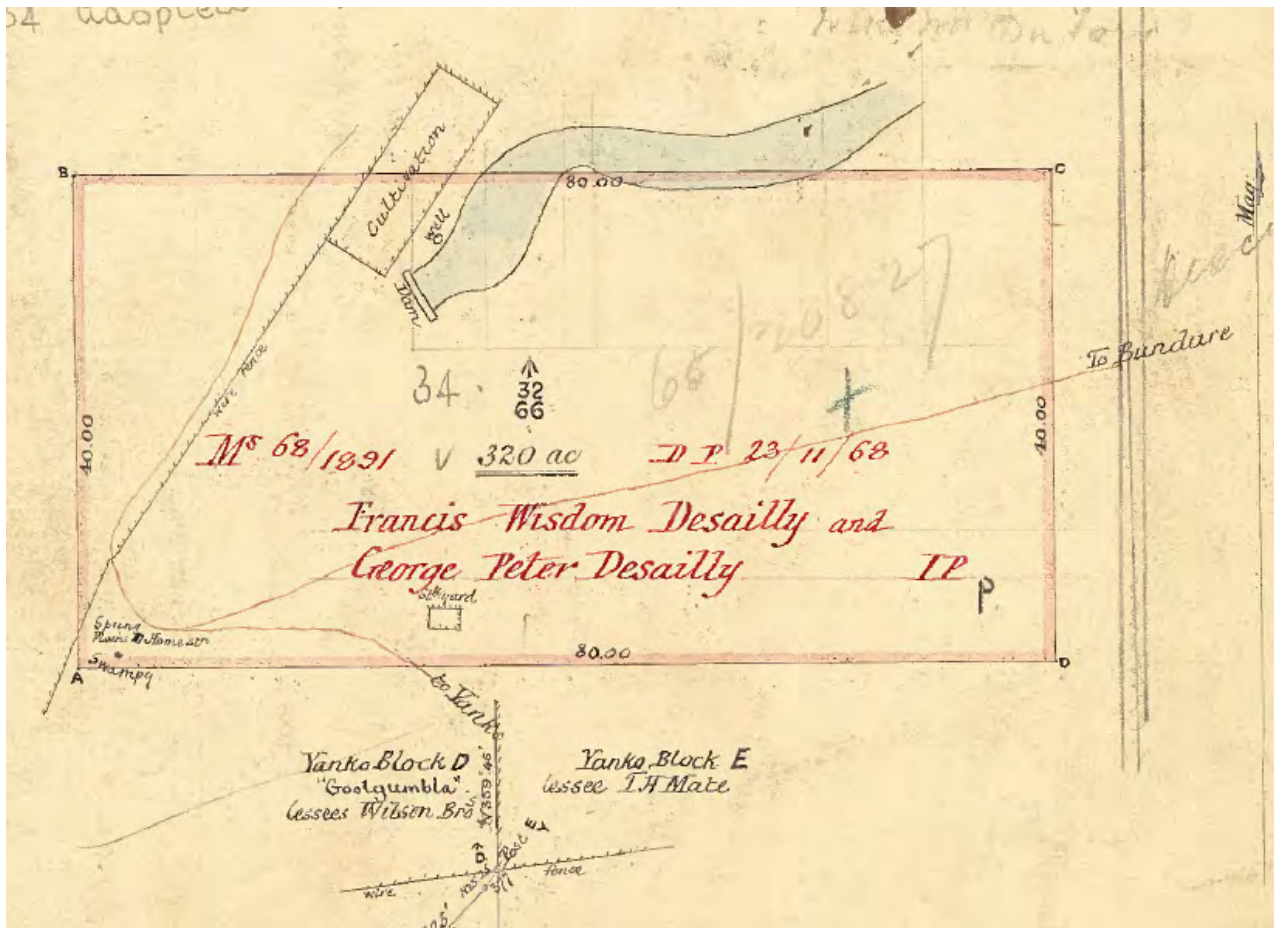
The De Saily's developed the 320-acre (130 ha) Lot 34 DP 756418 as the home station of the *Spring Plains* back block (Plate 5.26). The Crown plan of the property, created following the 1860s land acts, shows infrastructure present on the property at the time of survey (Plate 5.26). *Spring Plains* home station/ homestead is shown in the south-west corner of the property (Plate 5.26). In 1863, the homestead was described as "a comfortable cottage of five rooms with kitchen" (*The Argus*, 4 June 1863:8). A stockyard is depicted in the north-west of the homestead and a fenceline to the north-west, which connects to a cultivation paddock in the north-west of the property (Plate 5.26). A large dam and a well are adjacent to the cultivation paddock.

A visitor to the *Spring Plains* home station in 1882 described the property as:

Notwithstanding the splendidly rich soil on which it stands, a very desolate looking spot. A dismal, lonely bush-grave stands within a few yards of the buildings, and serves to enhance the general appearance of gloom which hangs over the scene. Two boundary-riders (sometimes only one) and a cook are the sole occupants of the place, and they appear to be supremely happy in their vegetative style of existence (*The Albury Banner and Wodonga Express*, 10 November 1882:22).

The "bush-grave" is not marked on the Crown plan, nor any future plans. The *Bundure* run plan, created after the Crown Lands Act of 1884, records the water sources on the Lot but it does not appear the other features were mapped with accuracy (Plate 5.27). Similarly, the 1890 Parish of Goolgumbbla maps does not indicate any features beyond those shown on the Crown plan (Plate 5.28).

The *Spring Plains* homestead and 5 km of fencing was destroyed by fire in 1952 and in 1977 the property was purchased by Victorian farmers Bernard John McCarthy, Owen Geoffery McCarthy, and Ronald Francis McCarthy (*Jerilderie Herald and Urana Advertiser*, 24 January 1952:1; HLRV Old Form Torrens Register Vol. 95 Fol. 189). The 1957 aerial imagery reveals a cluster of trees, possibly indicating the location of the homestead, as suggested by the alignment with georeferenced parish and Crown plans (Plate 5.29 and Plate 5.30). Additionally, while the dam depicted in historic plans has most likely been updated and is not the original structure, its location in aerial imagery aligns with its depiction on Parish and Crown plans, situated north-east of the homestead. The presence of the well cannot be determined from aerial imagery, although the stand of trees to the north of the dam align with the orientation of the cultivation paddock.



Source: Crown plan 38-1881

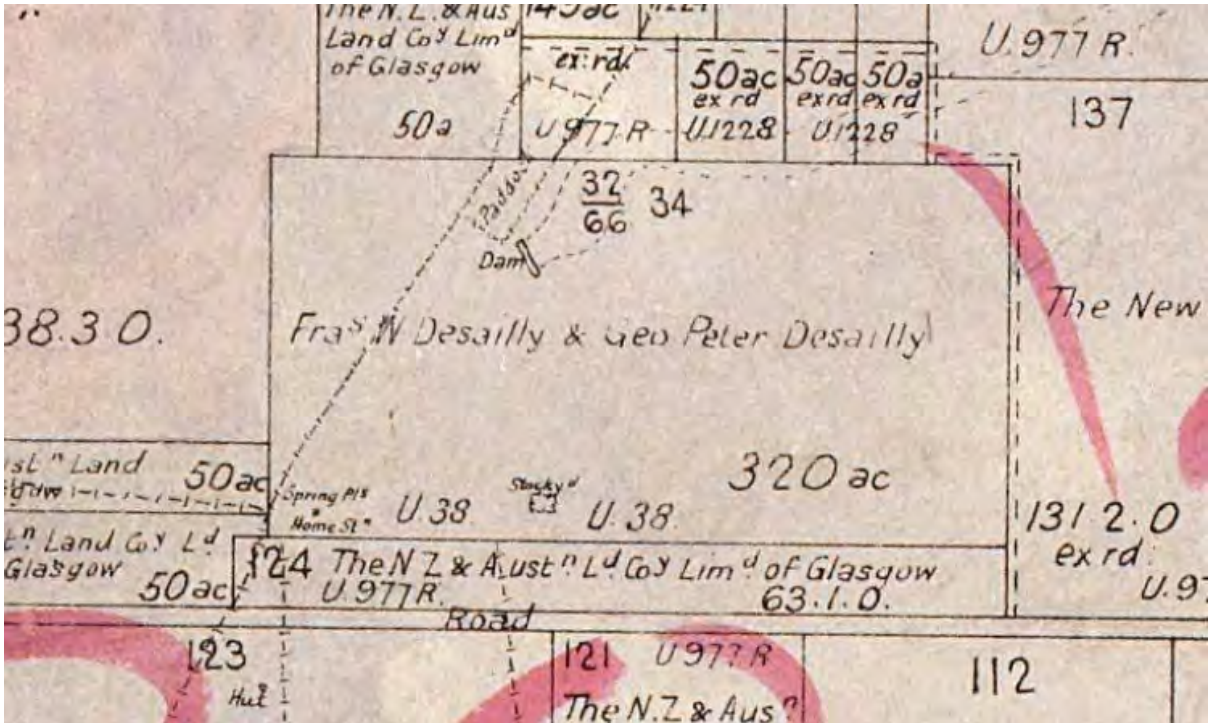
Plate 5.26 Crown plan 38-1881, showing the Spring Plains home station on the bottom left (1 December 1866)



Note: The lot labelled 32/66 is the location of the Spring Plains home station and the square features show water sources.

Source: HLRV

Plate 5.27 Detail of c.1884 plan of Bundure Holding (Pastoral Run Number: 604)



Source: HLRV

Plate 5.28 Detail of 1890 Parish of Goolgumbra, County of Urana map showing the Spring Plains home station and associated infrastructure



The potential historical site is denoted by the blue circle.

Source: Historical Imagery Viewer 223_01_105

Plate 5.29 1957 aerial imagery showing the site of the Spring Plains home station



The potential historical site is denoted by the blue circle.

Source: Sixmaps

Plate 5.30 Current aerial imagery of Lot 34 DP 756418 showing the site of the Spring Plains home station

v Old hut

A potential site was identified on Lot 123 DP 756418 in the Parish of Goolgumbla, County of Urana. The site is located towards the west boundary of Yanko Block G, which was developed as a back block of *Big Yanko* run between 1850 and 1860 (*Jerilderie Herald and Urana Advertiser*, 14 September 1950:1).

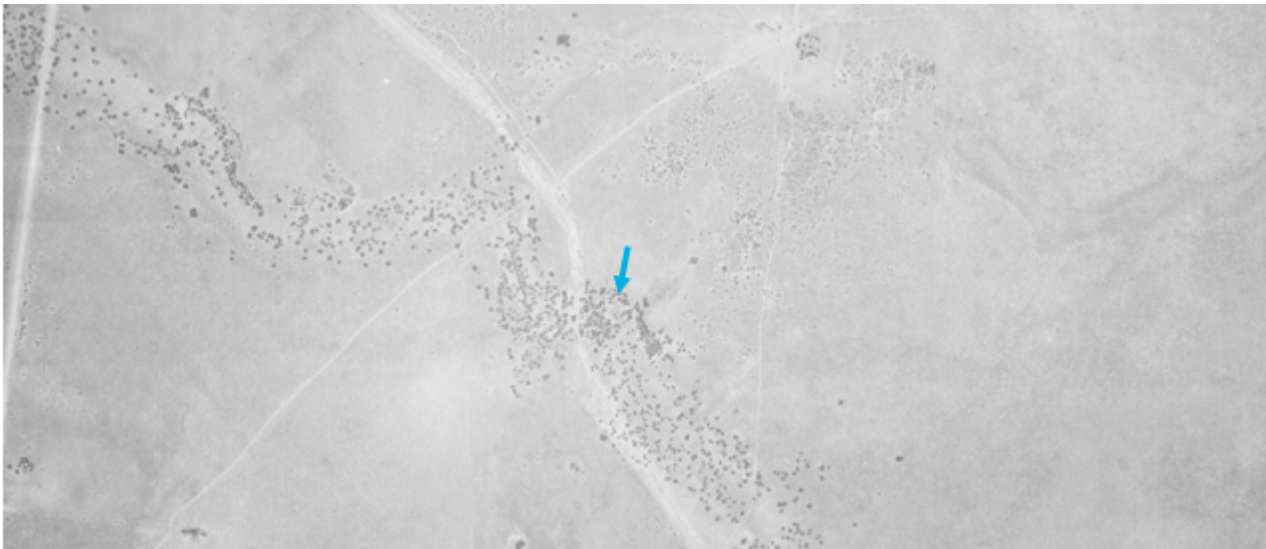
A portion of Lot 123 was included in the Crown plan *Spring Plains* home station property (Plate 5.31). The plan indicates an “old hut” with an associated fence enclosure was located on a sand hill and that the landscape to the south-west was “very swampy”. Huts constructed of local timber generally formed the first phase of housing on a squatting run and were improved or abandoned, as larger, more modern, dwellings and farm infrastructure was built (Stuart, 1999:v). Moreover, the open country of squatting runs meant a single head station was not suitable to oversee the whole operation of the run, as such, an overseer’s hut in the vicinity of the head station, and a series of shepherds’ or stockmen’s huts located at permanent water sources were constructed over the grazing landscape (Stuart, 1999:v). Therefore, the hut on Lot 123 may have been the first phase of the *Spring Plains* homestead or a shepherds’ hut.

The hut is not visible on the 1957 aerial imagery of Lot 123 (Plate 5.32), indicating that the hut was either dismantled, or abandoned and left to deteriorate.



Source: Crown plan 38-1881

Plate 5.31 Detail of Crown plan 38-1881, showing a portion of Lot 123 DP756418 with the ‘old hut’ and stockyard (1 December 1866)



The approximate location of the hut is denoted by the blue arrow.

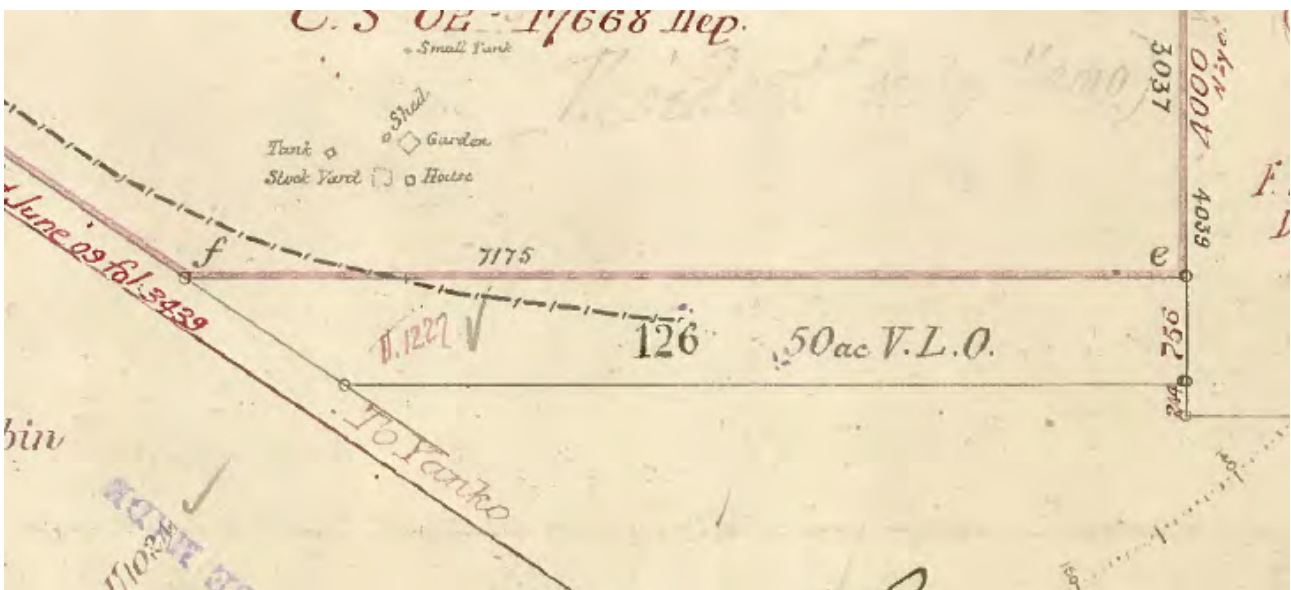
Source: Historical Imagery Viewer 223_01_105

Plate 5.32 1957 aerial imagery showing the location of the 'old hut' site

vi House, shed, garden, stockyard and tank

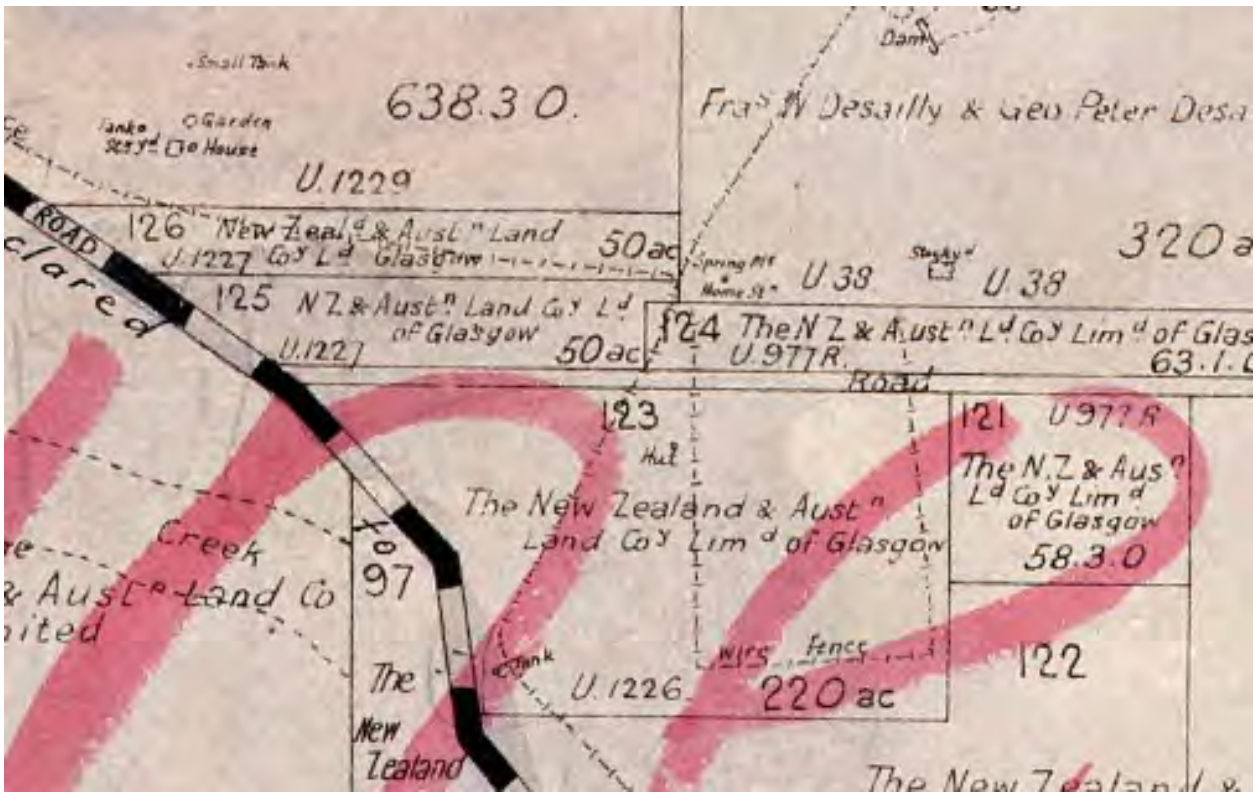
The information provided in Section 5.4.3v is also applicable to another potential site located on Lot 126 DP 756418. Both sites share a similar historical context, with Lot 126 being situated in close proximity to Lot 123. Lot 126 is depicted in Crown plan 1229-1881 (Plate 5.33), which reveals structures including as a house, shed, garden, stock yard, and tank. Georeferencing places their location in the project area. This site likely served as an additional head station, necessary due to the expansive nature of open country squatting. These ancillary structures, forming a complex near Spring Plains, extended the operational reach of the run, optimising the utilisation of grazing landscape (Stuart, 1999:v).

Furthermore, aerial imagery from 1968 (Plate 5.35) appears to corroborate the presence of a small structure that aligns with the location of the structures depicted in historical maps but is not visible by 1986 (Plate 5.36).



Source: Crown plan 1229-1881

Plate 5.33 Detail of Crown plan 1229-1881, showing established fence lines on Lot 126 DP 756418, the location of the potential site (June 1876)



Source: HLRV

Plate 5.34 Detail of 1890 Parish of Goolgumbra, County of Urana map showing established fence lines on Lot 126 DP 756418, the location of the potential site



The potential historical site is denoted by the blue arrow. Red outline denotes the lot boundaries of interest. Dashed line shows a 500 m buffer zone around the lots of interest.

Source: Land Insight

Plate 5.35 1968 aerial imagery showing the location of the potential site



The potential historical site is denoted by the blue arrow. Red outline denotes the lot boundaries of interest. Dashed line shows a 500 m buffer zone around the lots of interest.

Source: Land Insight

Plate 5.36 1986 aerial imagery showing the location of the potential site

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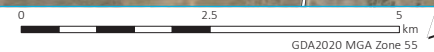
- KEY**
- Project area
 - Development corridor
 - Development footprint
 - Estimated site location - historic plans
- Residence**
- Associated
 - Non-associated
- Existing environment**
- Major road
 - Minor road
 - Watercourse (third order and higher)

Key assessment locations based on predictive model - eastern area

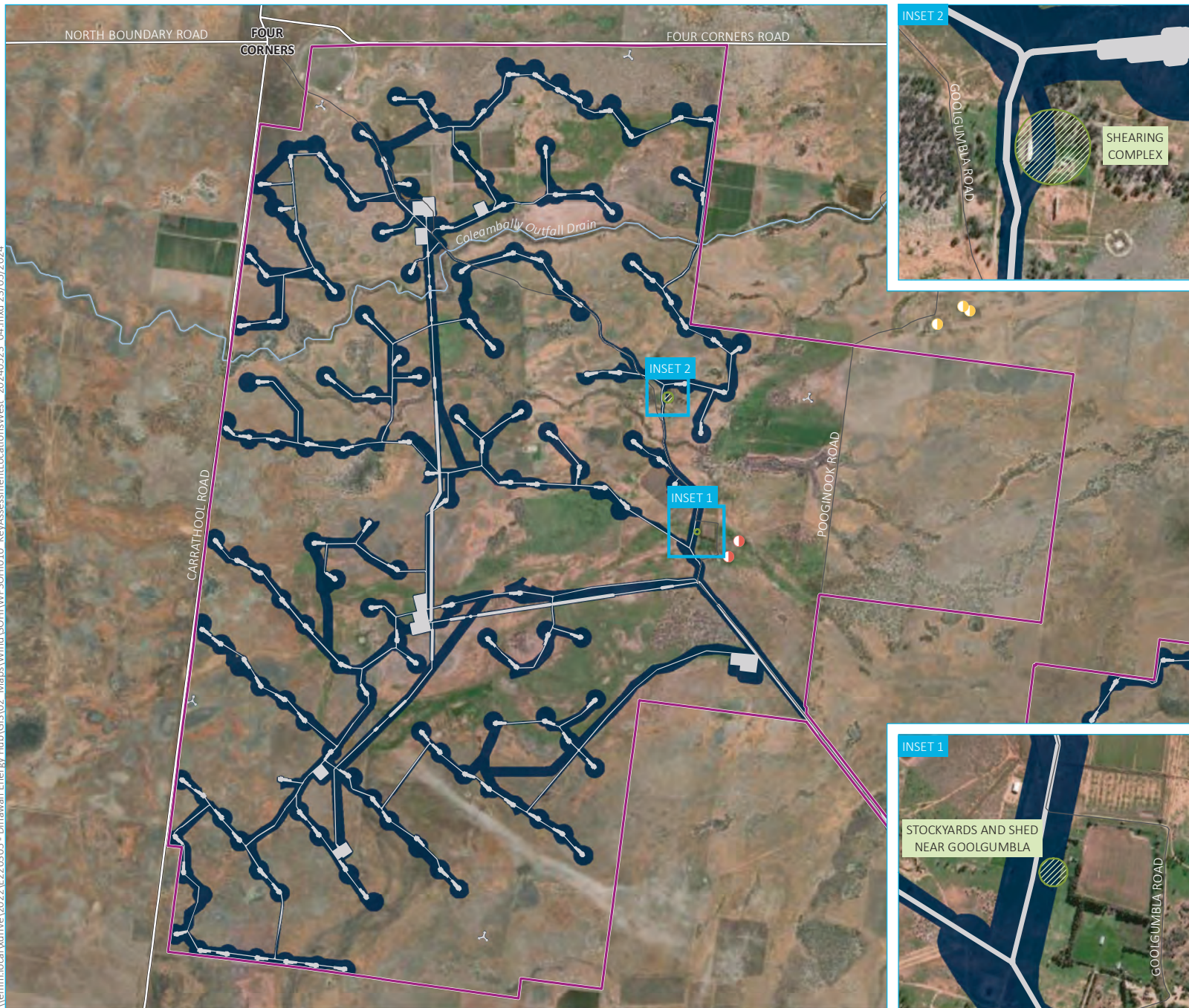
Dinawan Wind Farm
Statement of Heritage Impact
Figure 5.1



Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)



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- KEY**
- Project area
 - Development corridor
 - Development footprint
 - Estimated site location - historic plans
- Residence**
- Associated
 - Non-associated
- Existing environment**
- Major road
 - Minor road
 - Watercourse (third order and higher)

Key assessment locations based on predictive model - western area

Dinawan Wind Farm
Statement of Heritage Impact
Figure 5.2



Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)

6 Field assessment

6.1 Overview

The landscape within the project area is largely flat and is characterised by densely grassed paddocks with low visibility at the time of the inspection, with exception to scald marks and exposures caused by fence lines and access tracks. Soil composition within the development footprint consists mainly of eroded red and brown clays, with occasional occurrences of grey-brown soils in flood-prone areas. A noticeable rise of red aeolian sands (rudosols) is observed in the south-eastern corner of the project area, consistent with soil mapping data. The general context of the landscape in which the project is situated is seen in Plate 6.1 to Plate 6.4.

Historical ground disturbance is evident throughout the development footprint, dating back to nineteenth century agricultural clearing activities. Extensive laser leveling has resulted in a notably flat landscape, particularly in the Hawk's Nest area west of Kidman Way. Agricultural modifications such as the installation of fences, access tracks, excavation of dams and presence of slash piles (accumulations of woody debris that are piled after logging or land clearing operations) indicate ongoing land management practices. Current land use remains primarily agricultural, with sheep and cattle grazing continuing as dominant activities in the project area and broader region (Figure 6.1).

During the field survey, several sites were recorded, aligning with sites identified through the predictive model. The sites are detailed in Attachment A.



Plate 6.1 Stage 2 (west) project area – view south



Plate 6.2 **Stage 2 (west) project area – view north**



Plate 6.3 **Stage 1 (east) project area – view west**



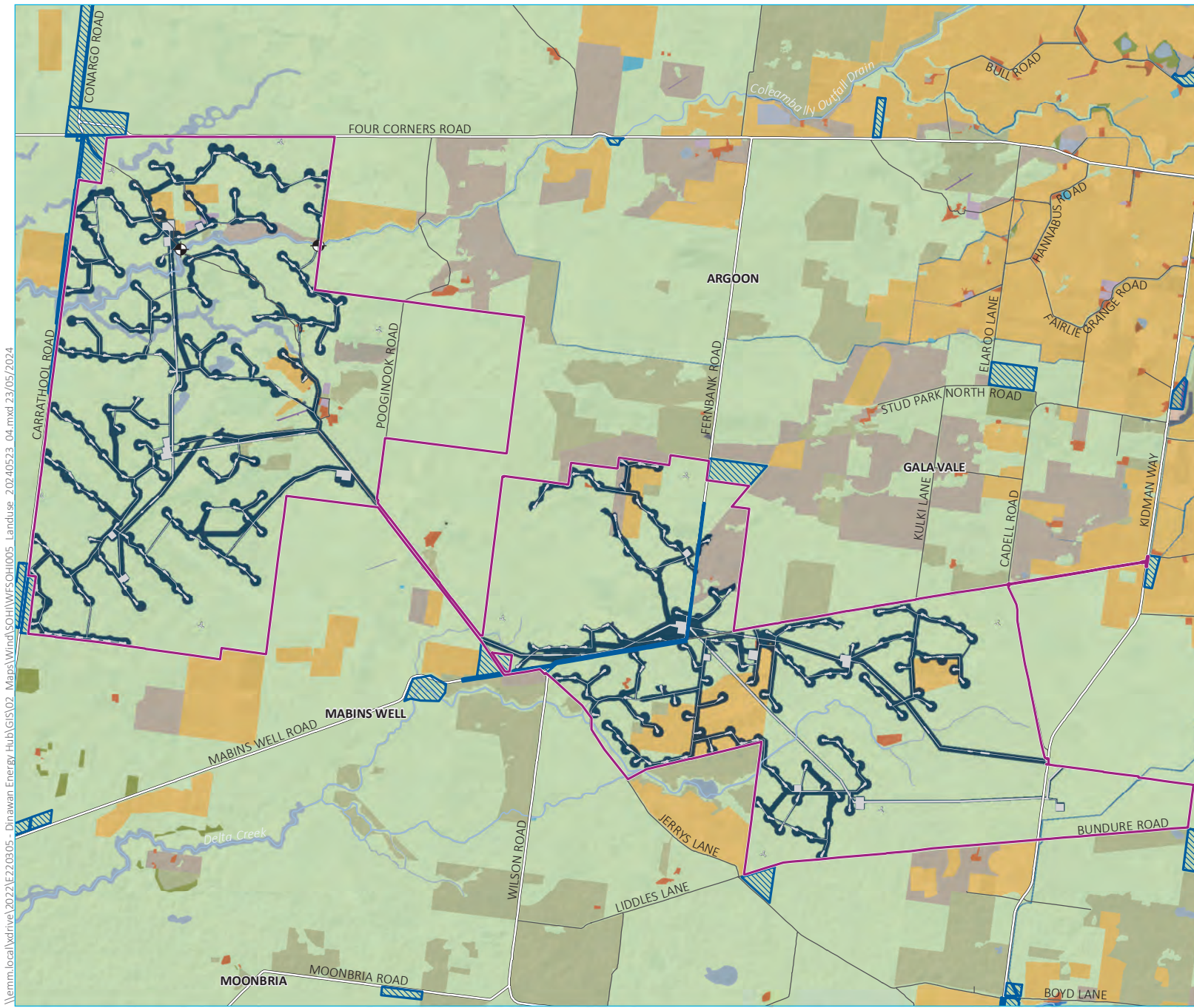
Plate 6.4 **Stage 1 (east) project area – view north**

6.2 Site description

A significant feature of the landscape, in conjunction with the rural nature of the project area, is the ongoing presence of pastoral and agricultural activities.

The field survey included the investigation of key sites within the project area that were identified through the predictive model (Section 5.4.2). A summary of sites identified during the field survey is presented in Table 6.1 and shown on Figure 6.2 and Figure 6.3. Further details on the field assessment results are available in Attachment A.

All eight sites are outside the development footprint, with five of these sites intersected by the development corridor.



KEY

- Project area
- Development corridor
- Development footprint
- Traveling stock reserve

Land use

- 1.1.0 Nature conservation
- 1.2.0 Managed resource protection
- 2.1.0 Grazing native vegetation
- 3.2.0 Grazing modified pastures
- 3.3.0 Cropping
- 4.1.0 Irrigated plantation forests
- 4.2.0 Grazing irrigated modified pastures
- 4.3.0 Irrigated cropping
- 4.4.0 Irrigated perennial horticulture
- 5.2.0 Intensive animal production
- 5.3.0 Manufacturing and industrial
- 5.4.0 Residential and farm infrastructure
- 5.7.0 Transport and communication
- 5.8.0 Mining
- 5.9.0 Waste treatment and disposal
- 6.2.0 Reservoir/dam
- 6.3.0 River
- 6.4.0 Channel/aqueduct
- 6.5.0 Marsh/wetland

Existing environment

- Bridge
- Major road
- Minor road
- Watercourse (third order and higher)

Land use

Dinawan Wind Farm
Statement of Heritage Impact
Figure 6.1



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Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); DPIE (2020); ESRI (2024)

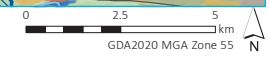


Table 6.1 **Identified sites**



ID	Site name	Indicative site photo	Inspection summary	Within development footprint	Within development corridor
DEHW001	Goolgumbla Station		<p>Head station for the Goolgumbla Run, well established by 1881. The property consists of a main house, garden, various outbuildings, sheds, timber stockyards, and other farming buildings. Constructed primarily from dry pressed brick or weatherboard, these structures feature corrugated iron roofing. Flooring is typically timber floorboards or concrete. Some structures have been modified, reconfigured or extended. Additionally, the remains of a concrete cistern were discovered on the property. Modern upgrades include the installation of a swimming pool and likely repainting and reflooring of some structures.</p>	No	Yes
DEHW002	Shearers quarters		<p>Early twentieth century shearers quarters north of the Goolgumbla homestead on a gentle incline with sandy silty loam soil. Comprising three early twentieth century structures and one later addition, connected by sandstock brick paving in a running bond pattern. Exhibits early twentieth century construction techniques with subsequent renovations, additions, and extensions.</p>	No	Yes

Table 6.1 **Identified sites**



ID	Site name	Indicative site photo	Inspection summary	Within development footprint	Within development corridor
DEHW003	Surveyor's tree		A native tree positioned at true north, featuring a non-Aboriginal scar marked with the inscription 'BM FH 445'.	No	Yes
DEHW004	Hawk's Nest		Established in the twentieth century, constitutes a farming complex with original cottage now in a state of disrepair. Among the notable features are milk sheds, a chicken shed, windmill, tank stand, grain shed, shearing shed, machinery shed, stockyards, shearing quarters, drenching station, and a stock loading ramp. A recent residence has been built and is currently inhabited.	No	No

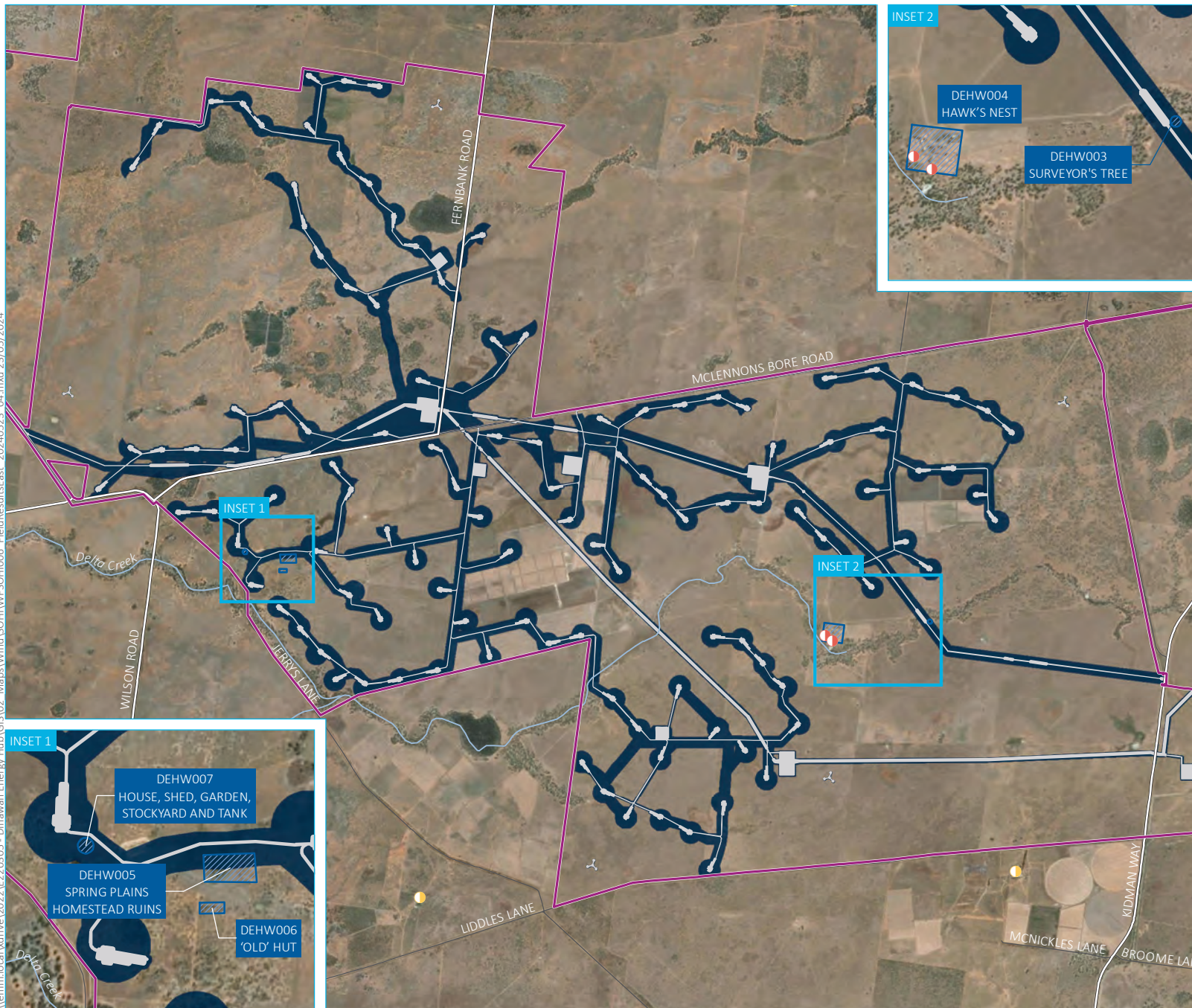
Table 6.1 **Identified sites**

ID	Site name	Indicative site photo	Inspection summary	Within development footprint	Within development corridor
DEHW005	Spring Plains homestead ruins		<p>Ruins of the Spring Plains homestead. Significant scattering of fragmented red sandstone bricks, some with remnants of lime mortar and paint, including a few intact examples. To the east, remnants of a chicken coop were evident, featuring chicken wire, timber posts, and metal components. To the west, a small, brick ruin bonded with sandy cement mortar was found in situ, along with possible stack bond brick paving. Peppercorn trees formed a circular pattern around the homestead ruins. A deep depression to the south served as a scrap yard, containing remnants of old vehicles, glass bottles, ceramic fragments, marbles, clay pipe stems, scrap metal, and other discarded items. Aboriginal artefacts were also discovered on-site around this location. Other artefacts include scrap metal and timber scattered across the site, potentially indicating previous structures or debris. The south of the site appeared heavily disturbed due to rabbit warrens and the nature of the scrapyard, which served as a dumping ground for more modern discarded materials, making it unlikely to contain secure deposits. No evidence of the grave mentioned in archival research was found on-site.</p>	No	Yes
DEHW006	'Old' hut		<p>Scatter of artefacts, including timber, glass, and ceramic fragments, found near the location of the annotated hut in historic plans indicating that the hut likely stood in this vicinity. However, there is no foundational evidence of the hut or its remains in the area, suggesting that it may have been demolished or destroyed due to abandonment.</p>	No	No

Table 6.1 **Identified sites**

ID	Site name	Indicative site photo	Inspection summary	Within development footprint	Within development corridor
DEHW007	House, shed, garden, stockyard and tank		Stand of peppercorn trees identified near the location of the annotated features in historic maps and plans. However, no structural evidence or artefacts were found in the georeferenced area or its surroundings.	No	Yes
DEHW008	Surveyor's tree		A native tree featuring a scar potentially of Aboriginal origin, marked with the inscription 'BM 38'. This site is identified in the <i>Dinawan Wind Farm Aboriginal Cultural Heritage Assessment</i> (EMM 2024).	No	No

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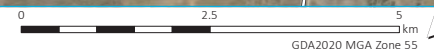
- KEY**
- Project area
 - Development corridor
 - Development footprint
 - Identified heritage site - surveyed
- Residence**
- Associated
 - Non-associated
- Existing environment**
- Major road
 - Minor road
 - Watercourse (third order and higher)

Identified historical heritage sites
- eastern area

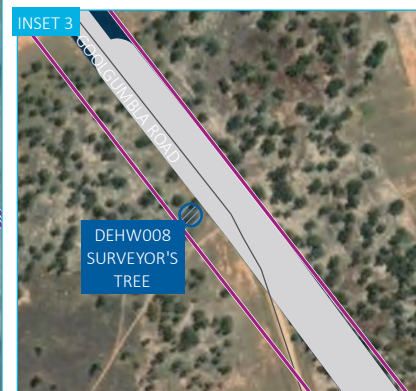
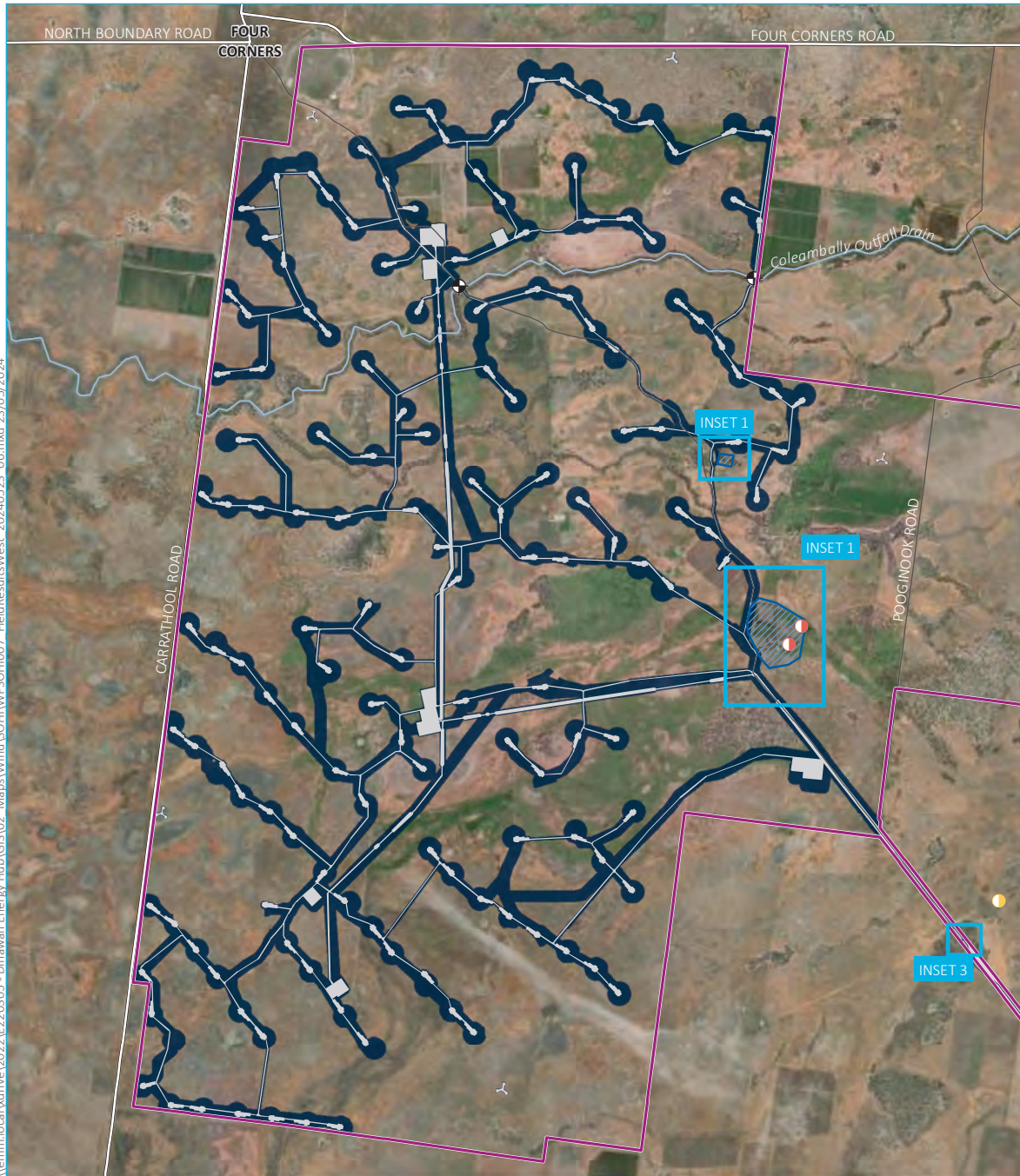
Dinawan Wind Farm
Statement of Heritage Impact
Figure 6.2



Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)



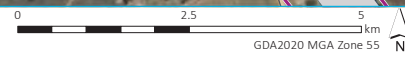
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- KEY**
- Project area
 - Development corridor
 - Development footprint
 - Identified heritage site - surveyed
- Residence**
- Associated
 - Non-associated
- Existing environment**
- Bridge
 - Major road
 - Minor road
 - Watercourse (third order and higher)

Identified historical heritage sites
- western area

Dinawan Wind Farm
Statement of Heritage Impact
Figure 6.3



Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)

7 Assessment of significance

7.1 The significance framework

In NSW, historical value is ascribed to buildings, places, archaeological sites and landscapes modified in the Australian historical period for purposes other than traditional Aboriginal use. The assessment of heritage significance is based on the Burra Charter (Australia ICOMOS 2013) and further expanded upon in *Assessing Heritage Significance* (DPE 2023a). The heritage manual lists seven criteria to identify and assess heritage values that apply when considering if an item is of heritage significance. In general, a place may be considered to be of heritage significance if it meets one or more of the following criteria listed in Table 7.1.

Table 7.1 NSW heritage assessment criteria

Criterion	Explanation
a)	An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area) (<i>Historical Significance</i>).
b)	An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area) (<i>Historical Association</i>).
c)	An item is important in demonstrating aesthetic characteristics and/ or a high degree of creative or technical achievement in NSW (or the local area) (<i>Aesthetic/creative/technical achievement</i>).
d)	An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural, or spiritual reasons. (<i>Social, cultural, spiritual Significance</i>).
e)	An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area) (<i>Research Potential</i>).
f)	An item possesses uncommon, rare, or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area) (<i>Rarity</i>).
g)	An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places; or cultural or natural environments (or a class of the local area's cultural or natural places; or cultural or natural environments) (<i>Representativeness</i>).

Source: *Assessing Heritage Significance* (DPE 2023a, p.21).

These criteria may be fulfilled at different significance thresholds, ranging from world to local, depending on the importance of the place, and the contribution it makes to our understanding of the past. Descriptions of the applicable significance thresholds are provided in Table 7.2.

Table 7.2 Levels of cultural heritage significance

Significance	Description
World	Heritage values contribute to our understanding of the pattern and evolution of world history and heritage and the place is considered to be of outstanding value to humanity.
National	Heritage values make an outstanding contribution to our understanding of the pattern and evolution of Australia's history and heritage.
State	Heritage values contribute to our understanding of the wider pattern and evolution of NSW's history and heritage.
Local	Heritage values contribute to our understanding of the pattern and evolution of local history and heritage.

Source: *Assessing Heritage Significance* (DPE 2023a, p.21).

7.2 Significant cultural landscapes

Cultural landscapes come in different forms, from having the appearance of wilderness to countryside to urban areas. The common factor that all cultural landscapes possess is they are a moment in time in a continuum of change created by human action (Meinig, 1979). Cultural landscapes can be broadly defined as designed, evolved or associative (ICOMOS - *World Heritage Cultural Landscapes*, 2009), with designed landscapes being largely represented by gardens; evolved landscapes by development; and associative landscapes being more indebted to the intangible, the religious or sacred. Cultural landscapes are also dynamic (Stuart, 1997), regardless of the pace of change. The significance of a landscape is dependent on how it reflects values of the heritage standards in Australia and the Burra Charter, which was developed to reflect the values of the community. Interpretability is an important factor, that is, the ability of a landscape to tell a story is a socially and scientifically valuable attribute. So, while all human interactions with nature result in the formation of cultural landscapes, significance varies on what can be identified and interpreted and considered to be valuable to the community.

7.3 Statements of significance

The significance of each item identified during field survey and/or research, as well as the cultural landscape within the project area is assessed in Attachment B against each of the NSW heritage assessment criteria (refer to Table 7.1). A summary statement of significance for each site is provided in Table 7.3.

Table 7.3 Assessment of significance

Site	Statement of significance
Goolgumbra Station (DEHW001)	<p><i>Goolgumbra</i> holds local significance for its role in the development of Australian agriculture, particularly in the sheep breeding industry. Purchased by Sir Samuel McGaughey in 1872, it became a renowned hub for innovative sheep breeding practices, including the introduction of vital infrastructure such as well and trough systems. The property's association with influential figures and its role in shaping local communities through economic activities highlight its cultural importance.</p> <p><i>Goolgumbra's</i> evolution over time reflects broader themes of agricultural innovation and development, contributing to its social significance. Moreover, <i>Goolgumbra</i> presents opportunities for research into various aspects of agricultural practices, land management, and social dynamics in rural Australia. Its history, physical remains, and ongoing agricultural activities provide valuable resources for interdisciplinary studies, offering insights into agricultural innovation, economic development, and cultural heritage preservation.</p>
Shearers quarters (DEHW002)	<p>The shearing quarters at <i>Goolgumbra</i> hold local significance for their role in the region's wool industry, providing accommodation for shearers and contributing to the area's agricultural development. The site is also representative of typical shearing accommodation found in rural NSW during the late nineteenth and early twentieth centuries, offering insights into the living and working conditions of shearers and pastoral workers. The site's integration within a larger pastoral property underscores its contribution to the self-sufficient nature of agricultural operations in remote areas.</p> <p>The archaeological resource in this site also has the potential to hold local significance. If found, archaeological relics, could offer valuable insights into the early properties and living conditions of shearers and their families within the Riverina region.</p>
Surveyor's tree (DEHW003)	<p>The surveyor's tree is of local significance as a surviving historical survey marker. The tree also contributes to the cultural landscape of the region.</p>
Hawk's Nest (DEHW004)	<p><i>Hawk's Nest</i>, established as part of the <i>Bundure</i> Station, contributes to the cultural landscape of the Riverina at a local level. While its exact founding date remains uncertain, its presence within the <i>Bundure</i> holding by 1964 suggests its role as an outstation. As a representative example of small-scale family farms prevalent in the late nineteenth and twentieth centuries, <i>Hawk's Nest</i> is emblematic of the region's rural heritage.</p>

Table 7.3 **Assessment of significance**

Site	<i>Statement of significance</i>
Spring Plains homestead ruins (DEHW005)	The ruins of Spring Plains homestead hold local significance as a surviving example of the region’s agricultural development dating back to the mid-nineteenth century. Originally established as the home station of the Spring Plains back block by the De Saily brothers, this site once played a crucial role in the early settlement and cultivation of the area, serving as a focal point for agricultural activities. Despite its destruction by a fire in 1952, remnants of the homestead and surface artefacts persist, providing potential insights into the region’s past. While the surviving remains of the Spring Plains homestead may not individually meet all criteria for significance, collectively, they contribute to a broader cultural landscape of historic homesteads that enrich the community identity within the Riverina region.
‘Old’ hut’ (DEHW006)	The site, once part of the Spring Plains outstation of Bundure run, featured an old hut dating back to at least 1866. These huts, typically constructed of local timber, often represented the initial phase of housing on squatting runs. However, as settlement progressed, these structures were either upgraded or left behind as larger, more modern dwellings and farm infrastructure were established. The archaeological resource discovered at the site as well as potential subsurface archaeological material have the potential to be of local significance.
House, shed, garden, stockyard and tank (DEHW007)	Crown plans of the site revealed structures including a house, shed, garden, stock yard and tank, indicating that this site likely served as an additional head station and as such the potential archaeological resource of this site would be of local significance.
Surveyor’s tree (DEHW008)	The surveyor’s tree is of local significance as a surviving historical survey marker. The tree also contributes to the cultural landscape of the region.
Significant cultural landscapes	The cultural landscape of the project area is of local significance for its ability to demonstrate the early historic character of the Riverina region. It is the result of about 5,000 years of Aboriginal use of the land and 180 years of occupation by the new immigrants to the colony. Made up of remnant native bushland, exotic and deliberate plantings for ornamental and resource purposes, buildings and ruins, creating significant and non-significant archaeological sites.

8 Heritage impact assessment

8.1 Background to assessing impacts

The assessment of a project’s impacts to the heritage significance of a place or an item is to understand change, if it is beneficial to the place or item, and how changes can be managed to best retain significance. The historical landscape in Australia, be it rural or urban, is by social agreement, a significant aspect of our identity. That agreement is codified in legislation, the intent of which is to encourage the conservation of cultural heritage by incorporating it into development where feasible. In many situations, avoiding impacts is impossible, but the aim is to reduce those impacts by either project re-design or managing the loss of information through methods that reduce and/or record significance before it is removed. The framework around assessing significance and therefore suitable levels of impact is to understand how the place or item came to be, how important it was (and may be still) in the development of the local area or the State (the colony at the time) and providing guidance on its management. This is what this report aims to do.

The project’s potential impacts on identified heritage values are assessed using criteria developed from the *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties* (ICOMOS 2011). This document was prepared by the International Council on Monuments and Sites (ICOMOS), the peak professional body working for the conservation of cultural heritage places and provides a comprehensive method for assessing impacts at all types of heritage places.

Under ICOMOS guidelines, cultural heritage places can be of differing levels of importance, or significance: local, State, National and World (refer to Section 7.1) (Australia ICOMOS 2013a). Places of local significance are important only to their immediate community, places of State significance to the wider region, and places of National significance to the country as a whole. Places of World significance are important to all of humanity, possessing one or more outstanding universal values. Places of differing heritage significance have differing sensitivity to impact. Places of World Heritage significance will be more vulnerable to change than a local heritage site and aspects of a World Heritage place that represent outstanding universal values are the most sensitive of all. The differing significance of a place’s heritage values and their relative sensitivity to impact is summarised in Table 8.1.

Table 8.1 Levels of cultural heritage sensitivity

Sensitivity	Justification	Status
Extreme	Attributes which convey Outstanding Universal Values of World Heritage Place	Fulfills criteria for local, state, national and international listing
Very high	Exceptional, rare or outstanding attributes demonstrating important themes in national or international history and heritage	Fulfills criteria for local, state, national or potentially international listing
High	Attributes demonstrating important themes in state history and heritage	Fulfills criteria for local and state listing
Moderate	Attributes demonstrating important themes in local history and heritage	Fulfills criteria for local listing and may fulfill criteria for state listing
Low	Attributes demonstrating minor themes in local history and heritage	May fulfill criteria for local listing and does not fulfill criteria for state listing
Negligible	Attributes that have no heritage significance	Does not fulfill criteria for local or state listing

Source: ICOMOS (2011)

The degree of impact an activity will have on a heritage place is assessed in terms of the magnitude of change to the acknowledged heritage values of a place as summarised in Table 8.2. These impacts may be direct, such as the demolition of heritage buildings, or indirect, such as changes to the views or setting of a heritage place. In some cases, indirect impacts might also cause physical damage to a heritage place, such as excessive vibration causing structural damage, or excessive pollution causing damage to surfaces.

Table 8.2 Determining magnitude of change

Magnitude	Example criteria
Major	Change to all or most significant aspects of the place, such that its heritage values are substantially reduced or destroyed.
Medium	Change to some significant aspects of the place, such that some of its heritage values are partially reduced.
Low	Minor change to significant aspects of the place, such that some of its heritage values are slightly reduced.
Negligible	Changes to insignificant aspects of the places, such that its heritage values are not reduced
No change	No change

Source: ICOMOS (2011)

The final assessment of the significance of impact on a heritage place is a factor of the cultural heritage sensitivity of the place, combined with the predicted magnitude of change, as outlined in Table 8.3. A prediction of impact significance can be made both before and after the implementation of identified mitigation measures, allowing the efficacy of the measures to be assessed and revealing residual impacts that need to be considered.

Table 8.3 Estimating impact significance

Significance of impact		Magnitude of change				
		Major	Medium	Low	Negligible	No change
Cultural heritage sensitivity	Extreme	Very large	Large/very large	Moderate/ large	Slight	Neutral
	Very high	Very large	Large/very large	Moderate/ large	Slight	Neutral
	High	Large/very large	Moderate/large	Slight/ moderate	Slight	Neutral
	Moderate	Moderate/large	Moderate	Slight	Neutral/ slight	Neutral
	Low	Slight/moderate	Slight	Neutral/ slight	Neutral/ slight	Neutral
	Negligible	Slight	Neutral/slight	Neutral/ slight	Neutral	Neutral

Source: ICOMOS (2011)

8.2 Sources of impact

The project involves the installation, operation, maintenance, and decommissioning of up to approximately 200 WTGs alongside associated infrastructure, including grid connection facilities and upgrades to public roads. The project has the potential to result in two types of impacts to the sites of identified heritage significance:

- Direct impacts in the form of demolition of structures and ground disturbance to facilitate the installation of WTGs, construction of project infrastructure (both permanent and temporary), access track establishment and public road upgrades.

- Indirect impacts, namely changes to views through the placement of infrastructure in visual sight lines and potential vibration impacts from construction activities occurring in close proximity to identified sites.

Direct impacts will occur within the development footprint, the indicative extent of the project’s ground disturbance area. Direct impacts may also occur within the development corridor, which provides flexibility for infrastructure placement during detailed design (i.e. micro-siting).

8.3 Assessment of impacts

The identified sites, including DEHW006 and DEHW007 should their archaeological resource be realised, hold *local* significance. These sites represent late nineteenth and early twentieth-century networks of pastoral and agricultural activity that have persisted into the present day. Their significance lies in their historical, social, cultural and representative significance as well as their research potential. Although the employment of laser levelling has altered the project area to some extent, these sites are tangible examples of a thriving rural pastoral region that embraced innovative practices and infrastructure to facilitate the production and distribution of resources throughout Australia. The significance of this landscape lies in the layers of history that have shaped it over time, with its nuanced elements adding depth and value to its overall cultural heritage. Figure 8.1 to Figure 8.8 depict each heritage item in relation to the development footprint and development corridor, providing spatial context and aiding in understanding the potential impacts of the project to these items.

Relics and structural remains associated with the pastoral and agricultural landscape of the region have been identified near the development footprint and development corridor. These sites likely contain relics reflecting farming and pastoralism, offering insights into historical practices and land use patterns. Additionally, their presence perpetuates the legacy of early settlers and pioneers in the Riverina region.

Construction and operation of the project are expected to have no impact on heritage values that have been formalised through inclusion on statutory heritage registers as all listed items are over 5 km from the development footprint.

8.3.1 Direct impacts

Table 8.4 provides a summary of the potential direct impact to the identified heritage items and the expected magnitude of change caused by these impacts.

Table 8.4 Potential direct impacts to items of historical heritage within the project area

Site ID	Site name	Potential impact	Likely magnitude of change
DEHW001	Goolgumbra Station	No direct impacts	No change
DEHW002	Shearer’s quarters	No direct impacts	No change
DEHW003	Surveyor’s tree	No direct impacts	No change
DEHW004	Hawk’s Nest Station	No direct impacts	No change
DEHW005	Spring Plains homestead ruins	No direct impacts	No change
DEHW006	‘Old’ hut	No direct impacts	No change
DEHW007	House, shed, garden, stockyard and tank	No direct impacts	No change
DEHW008	Surveyor’s tree	No direct impacts	No change
N/A	Significant cultural landscape	Impact cannot be avoided	Low

While all sites are outside the project's development footprint, DEHW001, DEHW002, DEHW003, DEHW005 and DEHW007 are intersected by the development corridor. Should amendments to the project's development footprint be required during further detailed design, direct impacts to identified heritage items within the development corridor will be avoided to the extent possible. Management measures for DEHW001 and DEHW003 have been provided if impacts to these sites cannot be avoided following detailed design.

No direct impacts are expected from the project to any heritage items, with the exception of the adverse effects on the cultural landscape due to the placement of project infrastructure in a predominantly rural landscape; however, these impacts will modify the landscape rather than destroy it.

8.3.2 Indirect impacts

Table 8.5 provides a summary of the potential indirect impacts to the identified heritage items and the expected magnitude of change caused by these impacts.

Table 8.5 Potential indirect impacts to items of historical heritage within the project area

Site ID	Site name	Potential impact	Likely magnitude of change
DEHW001	Goolgumbbla Station	Vibration from use of plant and equipment during construction within the development footprint.	Negligible
		WTGs are situated to the west of the site, with the nearest WTG approximately 850 m away. This proximity has the potential to disrupt the visual aesthetics both to and from the site; however, significant vegetation around the curtilage of Goolgumbbla Station will obstruct views of WTGs and other project infrastructure.	Low
DEHW002	Shearer's quarters	Vibration from use of plant and equipment during construction within the development footprint.	Negligible
		WTGs are situated to the north, east, south and west of the site, with the nearest WTG approximately 240 m north of the site. DEHW002 has no aesthetic significance, therefore changes to the visual curtilage will not impact on the heritage values of the site. Significant vegetation around the site will also obstruct views of WTGs and other project infrastructure from this site.	No change
DEHW003	Surveyor's tree	Vibration from use of plant and equipment during construction within the development footprint.	Negligible
		WTGs are situated to the north of the site, with the nearest WTG approximately 875 m away. As DEHW003 has no aesthetic significance, changes to the visual curtilage will not impact on the heritage values of the site. Significant vegetation around the site will also obstruct views of WTGs and other project infrastructure from this site.	No change
DEHW004	Hawk's Nest Station	Vibration from use of plant and equipment during construction are unlikely to occur as the development footprint and development corridor are approximately 650 m from the site.	Negligible
		WTGs are situated to the north of the site, with the nearest WTG approximately 830 m away. As DEHW004 has no aesthetic significance, changes to the visual curtilage will not impact on the heritage values of the site. Vegetation around the site will also obstruct views of WTGs and other project infrastructure from this site.	No change

Table 8.5 Potential indirect impacts to items of historical heritage within the project area

Site ID	Site name	Potential impact	Likely magnitude of change
DEHW005	Spring Plains homestead ruins	Vibration from use of plant and equipment during construction within the development footprint.	Negligible
		As DEHW005 has no aesthetic significance, changes to the visual curtilage will not impact on the heritage values of the site. Vegetation around the site will also obstruct views of WTGs and other project infrastructure from this site.	No change
DEHW006	'Old' hut	Vibration from use of plant and equipment during construction within the development footprint.	Negligible
		As DEHW006 has no aesthetic significance, changes to the visual curtilage will not impact on the heritage values of the site.	No change
DEHW007	House, shed, garden, stockyard and tank	Vibration from use of plant and equipment during construction within the development footprint.	Negligible
		As DEHW007 has no aesthetic significance, changes to the visual curtilage will not impact on the heritage values of the site.	No change
DEHW008	Surveyor's tree	Vibration from use of plant and equipment during construction within the development footprint.	Negligible
		No WTGs are within 4.5 km of the site. Vegetation around the site will obstruct views of WTGs and other project infrastructure from this site.	Negligible
N/A	Significant cultural landscape	Visual impact to the cultural landscape due to the installation of project infrastructure will diminish the rural character of the project area.	Low

8.3.3 Unmitigated impacts

The significance of predicted unmitigated impacts to each of the sites is assessed in Table 8.6 using the rankings established in Table 8.4 and Table 8.5.

Table 8.6 Assessment of significance of unmitigated impact

Site ID	Site name	Heritage sensitivity	Magnitude of change	Impact significance
DEHW001	Goolgumbra Station	Low	No change/low	Neutral/slight
DEHW002	Shearer's quarters	Low	No change/low	Neutral/slight
DEHW003	Surveyor's tree	Low	No change/low	Neutral/slight
DEHW004	Hawk's Nest Station	Low	No change/low	Neutral/slight
DEHW005	Spring Plains homestead ruins	Low	No change/low	Neutral/slight
DEHW006	'Old' hut	Low	No change/low	Neutral/slight
DEHW007	House, shed, garden, stockyard and tank	Low	No change/low	Neutral/slight
DEHW008	Surveyor's tree	Low	No change/low	Neutral/slight
N/A	Significant cultural landscape	Low	Moderate	Slight

8.4 Statement of heritage impact

The construction of the project has the potential to affect the broader heritage value of the project area. Impacts may occur to unidentified relics that are related to the early colonial uses of the project area, relics that belong to archaeological resources or structures that offer insights to the pastoral history of the project area. Additionally, there will be loss of significance of the existing cultural landscape, which consists of cleared fields, and the installation of WTGs and other project infrastructure that will aesthetically impact the overall rural landscape of the project area. The impacts of the project can be managed through the implementation of the management measures listed in Chapter 9.

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- KEY**
- Project area
 - Development corridor
 - Development footprint
 - Identified heritage site - surveyed
- Residence**
- Associated
 - Non-associated
- Existing environment**
- Major road
 - Minor road
 - Watercourse (third order and higher)

DEHW001 - Goolgumbla Station

Dinawan Wind Farm
Statement of Heritage Impact
Figure 8.1



Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)



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- KEY**
- Project area
 - Development corridor
 - Development footprint
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- Residence**
- Associated
 - Non-associated
- Existing environment**
- Major road
 - Minor road
 - Watercourse (third order and higher)

DEHW002 - Shearers quarters

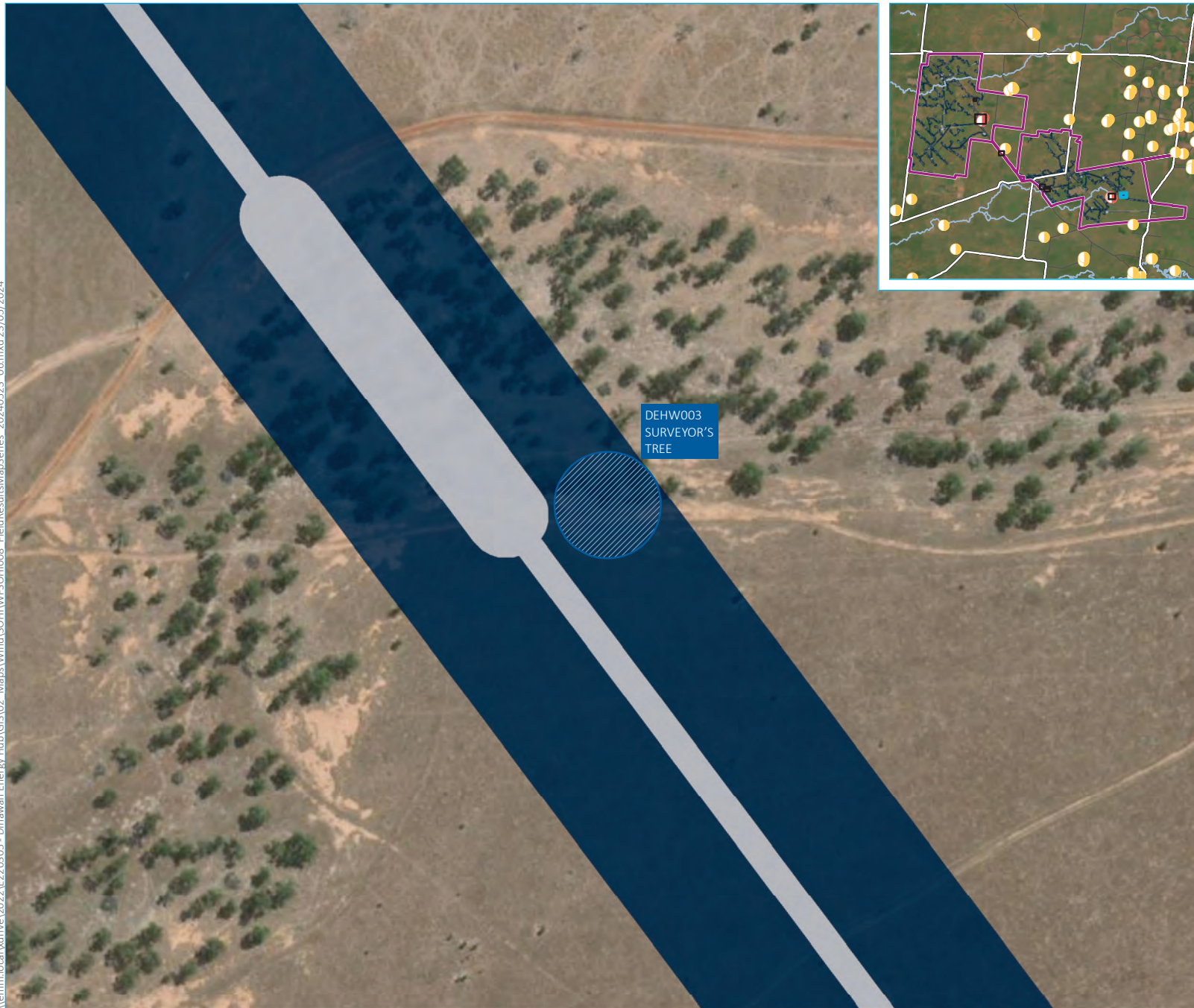
Dinawan Wind Farm
Statement of Heritage Impact
Figure 8.2



Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)



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- KEY**
- Project area
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 - Minor road
 - Watercourse (third order and higher)

DEHW003
SURVEYOR'S
TREE

DEHW003 - Surveyor's tree

Dinawan Wind Farm
Statement of Heritage Impact
Figure 8.3



Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)



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- KEY**
- Project area
 - Development corridor
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- Residence**
- Associated
 - Non-associated
- Existing environment**
- Major road
 - Minor road
 - Watercourse (third order and higher)

DEHW004
HAWK'S NEST

R042

R156

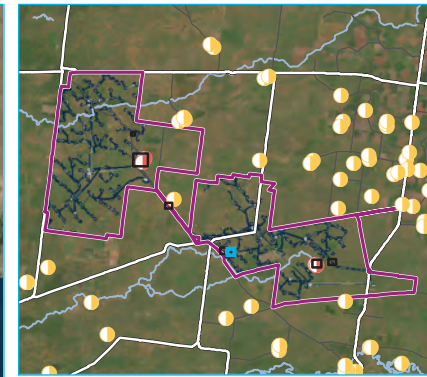
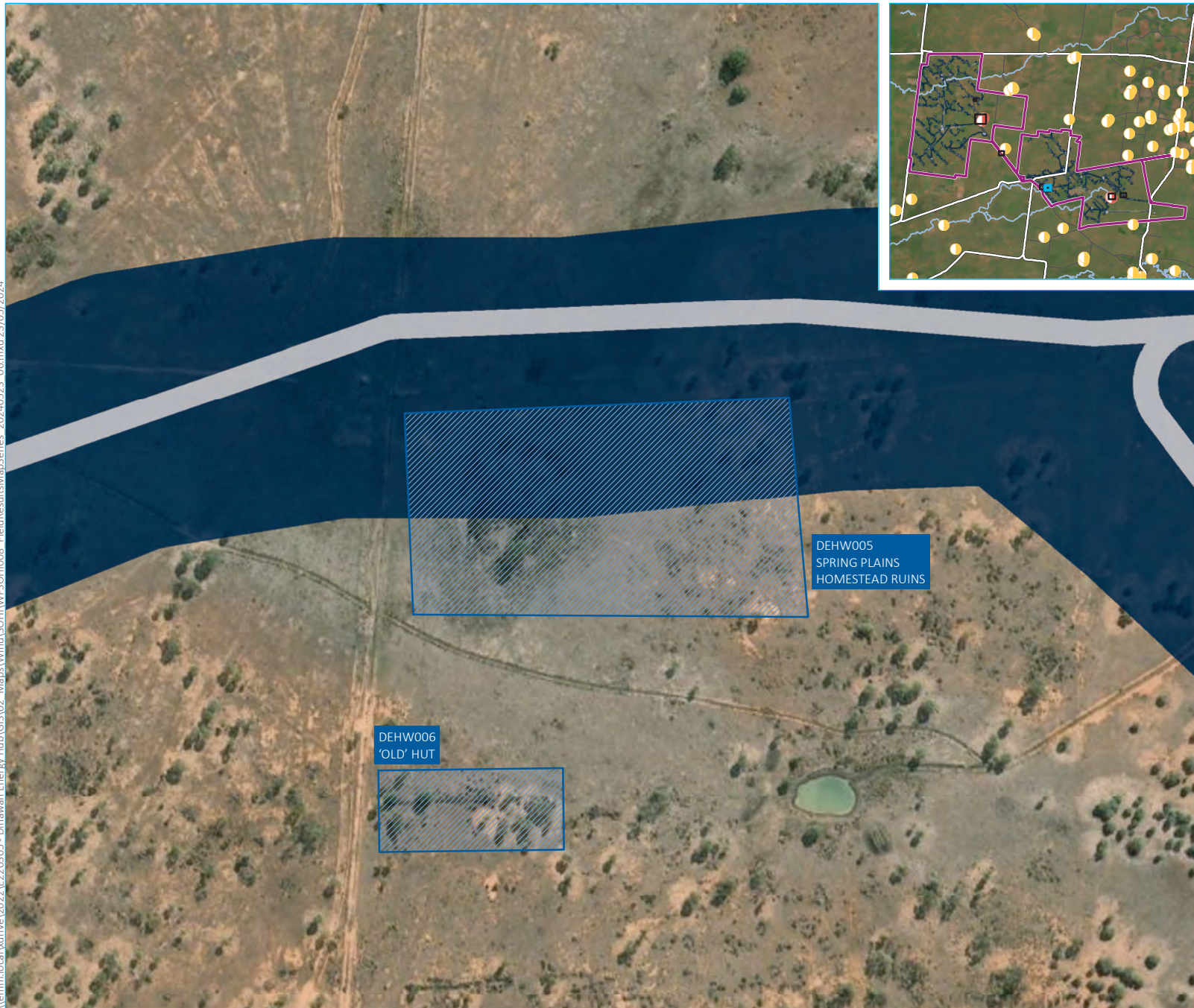
DEHW004 - Hawk's Nest

Dinawan Wind Farm
Statement of Heritage Impact
Figure 8.4

Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)



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- KEY**
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- Major road
 - Minor road
 - Watercourse (third order and higher)

DEHW005
SPRING PLAINS
HOMESTEAD RUINS

DEHW006
'OLD' HUT

DEHW005 - Spring Plains homestead ruins

Dinawan Wind Farm
Statement of Heritage Impact
Figure 8.5



Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)



GDA2020 MGA Zone 55

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- KEY**
- Project area
 - Development corridor
 - Development footprint
 - Identified heritage site - surveyed
- Residence
- Associated
 - Non-associated
- Existing environment
- Major road
 - Minor road
 - Watercourse (third order and higher)

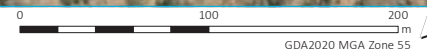
DEHW006
'OLD' HUT

DEHW006 - 'Old' hut

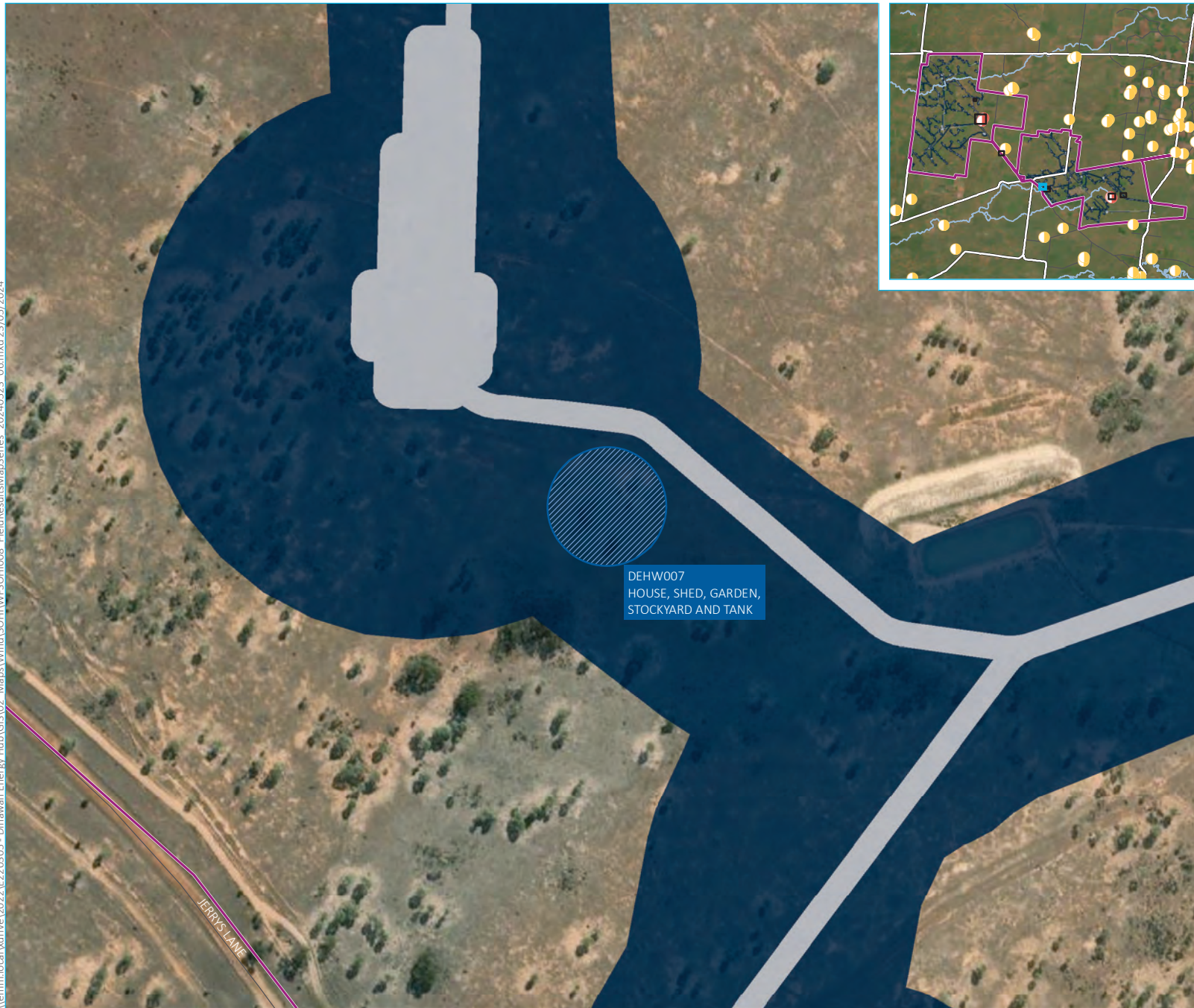
Dinawan Wind Farm
Statement of Heritage Impact
Figure 8.6



Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)



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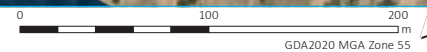
- KEY**
- Project area
 - Development corridor
 - Development footprint
 - Identified heritage site - surveyed
- Residence
- Associated
 - Non-associated
- Existing environment
- Major road
 - Minor road
 - Watercourse (third order and higher)

DEHW007 - House, shed, garden, stockyard and tank

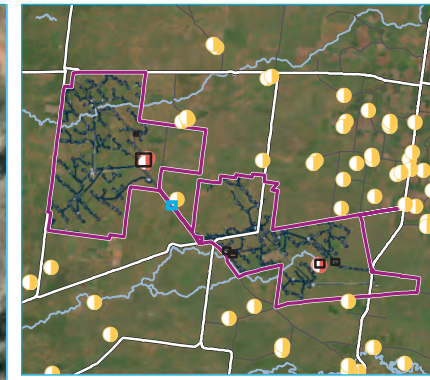
Dinawan Wind Farm
Statement of Heritage Impact
Figure 8.7



Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)



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- KEY**
- Project area
 - Development corridor
 - Development footprint
 - Identified heritage site - surveyed
- Residence
- Associated
 - Non-associated
- Existing environment
- Major road
 - Minor road
 - Watercourse (third order and higher)

DEHW008
SURVEYOR'S
TREE

DEHW008 - Surveyor's tree

Dinawan Wind Farm
Statement of Heritage Impact
Figure 8.8



Source: EMM (2024); Spark Renewables (2024); DFSI (2020, 2021); ESRI (2024)



9 Management measures

9.1 Heritage management objectives

The overriding objective in managing heritage significance is the avoidance of impacts. Avoidance removes the need for mitigation or amelioration and is in keeping with the philosophy of the *Burra Charter 2013* (Australia ICOMOS 2013). In all cases where significant heritage values may be affected by a project, it is prudent to take a precautionary approach. The *Burra Charter (Australia ICOMOS 2013)* advocates a cautious approach whereby as much as necessary is done to care for the item and make it useable, but otherwise change it as little as possible so that its cultural significance is retained. With these principles in mind, the following management measures are proposed.

9.2 General management measures

The project's construction environmental management plan (CEMP) or similar will include the following measures to mitigate risks to heritage items:

- list of identified heritage sites
- the site-specific management measures outlined in Section 9.3 (including clearly defined responsibilities and actions)
- an unexpected finds protocol
- heritage awareness and management training for the site induction process
- a process for implementing management measures should impacts to identified heritage items become necessary due to changes to the development footprint.

9.3 Site specific management measures

To prevent potential indirect impacts to DEHW003, DEHW005 and DEHW008, it is recommended that construction personnel be informed of their location before commencing work near these sites.

To avoid potential indirect impacts to DEHW003, DEHW005 and DEHW008, it is recommended that prior to construction works in the vicinity of these sites, each site is clearly demarcated and appropriate markers and signage are placed as barriers to entry.

If the development footprint is amended in proximity of DEHW001 and impacts to the ram shed and stockyards cannot be avoided, archival recording of the site will be required prior to impacts occurring.

If the development footprint is amended in proximity of DEHW003 and impacts cannot be avoided, archival recording of the site will be required prior to impacts occurring. Subject to the easement requirements of the transmission line, Spark Renewables should consult with an arborist to determine whether the tree can be partially removed (i.e. maintained in situ below any height limitations for vegetation within the easement), whilst avoiding impacting the marking on the tree or its longevity.

10 Conclusion

Spark Renewables proposes to develop the Dinawan Wind Farm, a large-scale project that includes the installation, operation, maintenance and decommissioning of up to approximately 200 WTGs and associated infrastructure.

Situated in a region steeped in history, with European exploration and settlement dating back to the mid-nineteenth century, the area showcases a rich history of pastoral and agricultural activities. This heritage is exemplified by thriving pastoral holdings where station management oversaw stock management and agricultural activities.

During field survey, eight potential heritage sites were identified and deemed locally significant, predominantly representing late nineteenth and early twentieth-century pastoral and agricultural networks.

While all sites are outside the project's development footprint, DEHW001, DEHW002, DEHW003, DEHW005 and DEHW007 are intersected by the development corridor. Should amendments to the project's development footprint be required during further detailed design, direct impacts to identified heritage items within the development corridor will be avoided to the extent possible. Management measures for DEHW001 and DEHW003 have been provided if impacts to these sites cannot be avoided following detailed design.

No direct impacts are expected from the project to any heritage items, with the exception of the adverse effects on the cultural landscape due to the placement of project infrastructure in a predominantly rural landscape; however, these impacts will modify the landscape rather than destroy it.

To prevent potential indirect impacts to DEHW003, DEHW005 and DEHW008, it is recommended that construction personnel be informed of their location before commencing work near these sites. Clear demarcation of DEHW003, DEHW005 and DEHW008 and the placement of appropriate markers and signage as barriers to entry are also recommended.

The project's construction environmental management plan (CEMP) or similar will include the following measures to mitigate risks to heritage items:

- list of identified heritage sites
- management measures (including clearly defined responsibilities and actions)
- an unexpected finds protocol
- heritage awareness and management training for the site induction process
- a process for implementing management measures should impacts to identified heritage items become necessary due to changes to the development footprint.

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Attachment A

Field assessment results

A.1 Identified sites

A.1.1 Goolgumbla Station (Site ID: DEHW001)

The Goolgumbla Station, designated as site DEHW001, holds significant historical value as the former head station of the Goolgumbla pastoral run, representing nineteenth century pastoral, agricultural, and domestic activities in the Riverina region. Its enduring presence underscores its success in contributing to the wool production industry of the area. While the development footprint abuts the defined limits of the site, it does not intersect it. The site is partially within the development corridor.

The complex comprises the main homestead, additional living quarters, an office building, gardens, a cistern, sheds, and stables, constructed from a combination of brick, plasterboard, and timber with corrugated iron. Earliest aerial imagery from 1958 (Plate 5.5) confirms the Goolgumbla head station was well established, with minimal changes observed up to the present. All structures identified during the field survey were visible in the earliest aerial photographs, with modifications over time such as building extensions, air conditioning installations, and retouches reflecting the site's active use. Additionally, the presence of mature plantings visible since 1958 reveal a continuity in the site's landscape. The trees, positioned to the west of the main driveway, may have served as windbreakers, especially considering the adjacent paddocks further west. This placement suggests they were likely planted to protect the paddocks from strong winds, thereby safeguarding crops or livestock from potential damage.

Structures identified through aerial imagery and survey outside the immediate complex include the ruins of a fire affected house, dated from 1977, situated in the north-east corner, alongside a timber stockyard and an iron clad timber shed known as the ram shed based on landowner accounts, confirmed since at least 1958.

Surface artefacts were not found on the site, deeming the site's historical significance primarily to its built heritage elements. However, there is a high potential for archaeological resources, such as cesspits and rubbish dumps, to exist throughout the site. Photographs of the site are shown in Plate A.1 to Plate A.14.



Plate A.1 Weatherboard dwelling within the Goolgumbla complex (DEHW001), view north.



Plate A.2 Dry pressed brick dwelling with plasterboard extension within the Goolgumbla complex (DEHW001), view north-west.



Plate A.3 Brick office building within the Goolgumbla complex (DEHW001), view north-east.



Plate A.4 Brick office building within the Goolgumbla complex, view south-west.



Plate A.5 Weatherboard dwelling with brick chimney within the Goolgumbla complex (DEHW001). Underground cistern can be seen in foreground, view west.



Plate A.6 Weatherboard outbuildings within the Goolgumbla complex (DEHW001), view south.



Plate A.7 Detail of weatherboard outbuildings within the Goolgumbla complex (DEHW001), view south-east.



Plate A.8 Detail of weatherboard outbuilding within the Goolgumbla complex (DEHW001), view south.



Plate A.9 Ruins of fire affected dwelling north-east of the Goolgumbla complex (DEHW001), shed and tank to the south are intact, view east.



Plate A.10 Timber stockyard north-west of the Goolgumbla complex (DEHW001), view north.



Plate A.11 Detail of the stockyard's covered area featuring corrugated iron roofing and dry pressed brick pavement, view south.



Plate A.12 Detail of the stockyard's covered area featuring corrugated iron roofing upheld by timber posts, view north.



Plate A.13 Timber and iron clad ram shed near stockyards, view east.



Plate A.14 Interior of the ram shed, showing timber floorboards and a timber pen.

A.1.2 Shearers quarters (Site ID: DEHW002)

Field survey identified site DEHW002 in the western portion of the project area, 100 m east of the project's development footprint and partially within the development corridor. Historical aerial imagery pinpointed structures in the area, prompting further investigation. Ground truthing confirmed the existence of what can be characterised as a twentieth century shearing complex.

Comprising three structures designated as building A, B and C, the complex is connected by sandstock brick paving arranged in a running bond pattern. According to aerial imagery, these structures appear to be constructed in different stages in the twentieth century, with modifications and extensions observed over time.

The northernmost building (Building A), externally clad with corrugated iron and three chimneys, featured timber and plasterboard interiors, with timber flooring and sections with retained linoleum suggesting renovations. This building houses ten bedrooms at the west end, divided into five rooms each to the north and south, separated by a narrow hallway. Additionally, a large dining hall with wooden furniture and a fireplace occupied the centre of the structure, with a framed shearers quarters schedule, confirming the site as a shearing complex, on the wall. The kitchen and pantry, equipped with a wood stove marked "THE YOUNGER RANGE", as well as modern amenities, was located to the east end of the property, with glass and ceramic vessels present throughout.

To the south, another iron-clad building with a brick chimney (Building B), comprises three rear rooms and a large front section where the number of rooms could not be discerned as access was restricted. The rear rooms, presumed storage, feature broken timber doors, timber floorboards and empty interiors. It is possible that this structure served as the quarters for the head shearer or, alternatively, an additional structure to house additional shearers.

The westernmost structure (Building C) is supported by brick piers and is clad in weatherboard. The building has been extended southward to accommodate a bathroom and laundry. The original section contained eight bedrooms, surrounded by a covered timbered verandah.

Historic aerial imagery of the site revealed a rectangular structure positioned at the easternmost end of the complex, oriented north to south. This structure's existence is evident in the earliest aerial photographs dating back to 1957. However, by 1992, the building was no longer visible, indicating its demolition. Further investigation on-site confirmed the demolition of this structure. It was observed during the field investigation that the eastern end of the site sloped downhill. This topographical feature likely contributed to the decision to demolish the easternmost building, as the eastern area exhibited damp, marshy conditions compared to the drier conditions observed in the west, suggesting it was impractical to maintain a building in this area, particularly if constructed with materials such as timber or plasterboard. Remnants of the demolished structure were found in situ in the form of brick pavers. Furthermore, substantial artefact scatters were identified throughout the eastern area, including items such as bricks, ceramics, glass, and metal fragments. Adjacent to these finds, a depression marked by timber beams was identified, possibly serving as a sheep dip.

Interpretation suggests this complex served as one of the shearing quarters for the Goolgumbra run, located 2.5 kms north-west of the homestead, likely facilitating efficient sheep handling and shearing operations. Water tanks, portable refrigeration units and modern discarded items suggests that this complex is still in use seasonally; however, each building contained a substantial amount of blown grass, indicating the complex has not been accessed for an extended period of time. Adjacent structures, including a woolshed and silos, indicate a self-sufficient operation undertaking all necessary tasks on-site, which is likely what it would have been since the complex's inception. Photographs of the site are shown in Plate A.15 to Plate A.39.



Plate A.15 Landscape view of site DEHW002, recognised as the shearers quarters. Buildings B and A are featured in the foreground from left to right, with Building C visible in the background. The shearing shed can be partially seen behind Building C. View west.



Plate A.16 Building A of DEHW002, showing a brick fireplace and corrugated iron clad exteriors. This building accommodates the kitchen, dining area, and bedrooms, with the pantry visible in the foreground as a return in the structure. A portable refrigeration unit is positioned to the east. View north.



Plate A.17 Example of sandstock brick paving arranged in a running bond pattern. Located on the western end of Building A. View north.



Plate A.18 Kitchen interior of Building A, showing a brick fireplace with wood stove insert to the east, alongside modern kitchen amenities to the west. A doorway leading to the pantry is visible in the background. View south.



Plate A.19 Detail of wood stove featuring the maker's mark 'YOUNGER RANGE No. 9,' dating from c. 1843-1959.



Plate A.20 Bedroom interior in Building A showcasing timber floorboards, a window, and a bedframe with a mattress. Similar rooms are found throughout the building. Blown grass visible on the floor. View south.



Plate A.21 Linoleum flooring retained within a bedroom of Building A, amidst timber flooring renovations.

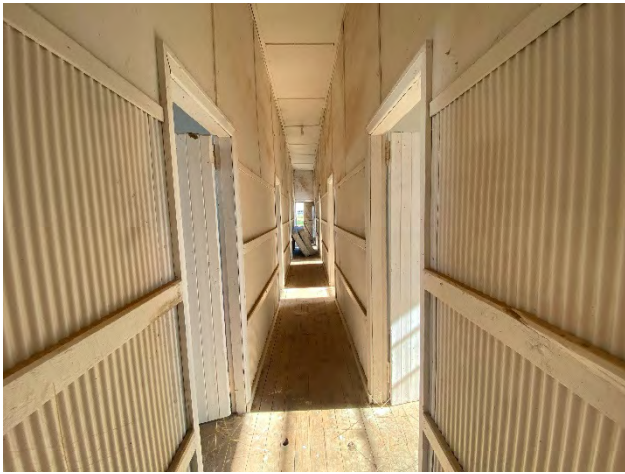


Plate A.22 Narrow hallway within Building A dividing bedrooms to the north and south. View west.



Plate A.23 Detail of fireplace and wood stove in kitchen of Building A. View south east.



Plate A.24 Shearing quarter's schedule in dining hall of Building A.



Plate A.25 Two brick fireplaces located outside the kitchen area of Building A, connecting to wood stove and fireplace in kitchen. View west.



Plate A.26 Building B of DEHW002, featuring corrugated iron-clad exteriors and an awning supported by timber posts. Entrance is barricaded. View east.



Plate A.27 Building B of DEHW002. The single window is covered, obstructing views inside. View north.



Plate A.28 Three small back rooms in Building B of DEHW002, featuring broken timber doors. These compact spaces may have served as storage areas. View west.



Plate A.29 Brick fireplace associated with Building B. View south.



Plate A.30 Building C of DEHW002, a weatherboard structure elevated by brick piers. View west.



Plate A.31 Detail of Building C showing steps leading to the main entrance, along with the green vinyl extension housing the laundry and bathroom area. View south.



Plate A.32 Interior of the extension of Building C, revealing metal basins, a washing machine, and shower and toilet cubicles. Blown grass covers the floor of this area. View south.



Plate A.33 Detail of toilet and shower cubicles within Building C. View north.



Plate A.34 Southern end of the verandah within Building C. View west,



Plate A.35 Detail of sandstock brick pavers outside Building C.



Plate A.36 Brick pavers in situ marking the location of the demolished building depicted in historic aerial imagery.



Plate A.37 Artefact scatter east of shearing complex: includes base fragments of a gin and wine vessel, as well as intact examples.



Plate A.38 Landscape shot of DEHW002. Concentration of artefacts in foreground. View east.



Plate A.39 Possible sheep dip within DEHW002. View south.

A.1.3 Survey marker tree (Site ID: DEHW003)

An additional site, designated as DEHW003, was identified during field investigations in the eastern region of the project area, approximately 10 m east of the development footprint and within the development corridor (Figure 8.3). The site contained a native tree exhibiting a non-Aboriginal scar blazed with survey indicators "BM FH 445", suggesting historical land surveying activities in the area (Plate A.40 and Plate A.41).

Historically, in NSW, land surveys played a pivotal role in delineating property rights and establishing boundaries. This system, established in January 1836 and last amended in 1983, employed survey marks such as those observed on this example to demarcate property lines, Crown land, reserves and larger geographic boundaries including parishes and counties (The Board of Surveyors of New South Wales, 2002:9, 12). Photographs of the site are shown in Plate A.40 and Plate A.41.



Plate A.40 Survey marker tree assigned as site DEHW003. View north.



Plate A.41 Detail of survey marker tree with "BM FH 445" inscription. View north.

A.1.4 Twentieth century station – Hawk’s Nest (Site ID: DEHW004)

An additional site that is still in active use was surveyed based on a targeted selection from the predictive model. It is positioned 750 m north of the development footprint in the eastern section of the project area and is designated as DEHW004. This site was recognised as a twentieth century station, characterised by the original cottage now in a state of abandonment and disrepair. Noteworthy components of the complex include milk sheds, a former chicken shed, a tank stand with a windmill, a grain shed, a shearing shed, a machinery shed, stockyards, shearing quarters, a drenching station, and a stock loading ramp. Many of these structures have undergone renovations but still uphold historic value. A more recent residence within the complex has been built and is currently occupied. Representative photographs of the site are shown in Plate A.42 to Plate A.48.



Plate A.42 Original weatherboard dwelling within DEHW004 now abandoned and in a state of disrepair. View south.



Plate A.43 Woolshed situated within DEHW004, highlighting external renovations that have been undertaken, including the installation of a new roof. View east.



Plate A.44 Internal view of woolshed, internal renovations include new flooring. View south.



Plate A.45 Milk sheds within DEHW004. View west.



Plate A.46 West-facing view of DEW004 showing wool shed, silos and modern dwelling.



Plate A.47 East-facing view of DEHW004 with water tank, tank stand and windmill.



Plate A.48 Stock loading ramp DEHW004. View north..



Plate A.49 Original cottage with the functional shearers' quarters to the west. View south.

A.1.5 Spring Plains homestead ruins (Site ID: DEHW005)

An additional site, designated as DEHW005, was discovered in the eastern section of the project area, approximately 50 m south of the development footprint and partially within the development corridor. This site has been identified as the ruins of the Spring Plains homestead, with georeferencing of historic plans confirming its location as the original homestead dating back to at least 1866 before it burnt down in 1952.

The site featured a significant scattering of fragmented red sandstock bricks, some still showing remnants of lime mortar and paint, with a few intact examples scattered across the area. Adjacent to the site's eastern edge, remnants of a chicken coop were observed, characterised by chicken wire, timber posts, and metal components. On the western side, a small brick ruin bonded with sandy cement mortar was found, accompanied by stack bond brick paving and is interpreted as a possible fireplace. A circular pattern of peppercorn trees surrounding the homestead ruins suggest ornamental plantings around the property.

Towards the south, a deep depression serving as a scrap yard, containing remnants of old vehicles, glass bottles, ceramic fragments, marbles, clay pipe stems, scrap metal, and other discarded items was found. Aboriginal artefacts were also uncovered in this area.

The southern area appeared heavily disturbed due to rabbit warrens and the nature of the scrapyard, which functioned as a dumping ground for more modern discarded materials, making it less likely to contain secure deposits. Additionally, remnants of an F. Metters wood stove door were discovered on site.

To the east of the homestead, timber posts were identified, likely remnants of the original stockyard depicted in historic plans. Despite thorough investigation, no evidence of a marked grave, as mentioned in archival research, was found on-site. Depending on the intensity and duration of the fire, grave markers, headstones, or any physical features associated with the grave could have been damaged or completely consumed. Additionally, the heat from the fire could cause the ground to shift or collapse, further disturbing or destroying the grave. It is also possible that the grave was relocated after the homestead burnt down. Photographs of the site are shown in Plate A.50 to Plate A.61.



Plate A.50 Site DEHW005 depicting scattered bricks in the foreground and ornamental peppercorn trees in the background. View west.



Plate A.51 Intact ruins of DEHW005 understood to be Spring Plains homestead. View south-west.



Plate A.52 Detail of a collapsed rendered brick ruin with an in situ concrete foundation in the background. Interpreted as possible chimney remains. View east.



Plate A.53 Detail of in situ sandstock brick paving.



Plate A.54 Remnants of what is interpreted as a chicken coop, featuring timber posts, metal components, and chicken wire. Ornamental peppercorn trees are visible in the background. View east.



Plate A.55 Example of rabbit warrens within DEHW005. View east.



Plate A.56 Detail of fire oven door remnants bearing the "F. METTERS SYDNEY" makers mark, established in 1891.



Plate A.57 Artefact scatter within DEHW005.



Plate A.58 Detail of ceramic sherd with "[H]UGHES ENGLA[ND]" makers mark, likely Thomas Hughes & Son Ltd established in 1895.



Plate A.59 Detail of timber post in the vicinity of the georeferenced stockyard site. View east.



Plate A.60 Scrapyard located south of the Spring Plains homestead, displaying scattered scrap metal and remnants of old vehicles. View north-west.



Plate A.61 Detail of the scrapyard demonstrating the slope towards the south, indicating an elevation gradient. View east.

A.1.6 Old hut (Site ID: DEHW006)

Investigation of the area 100 m south of DEHW005 was conducted based on predictive modelling indicating the possible presence of a small hut in this vicinity. Although no structural remnants or foundations indicative of a small hut were discovered (Plate A.64), a scatter of artefacts was uncovered, and the site was identified as DEHW006 accordingly. Situated 300 m south of the development footprint, the artefacts incorporated domestic items such as ceramic and glass sherds, including fragments of cups, plates, mugs, and some intact cutlery (Plate A.65). The absence of structural evidence suggests that the hut was likely of temporary nature and constructed mainly of timber.

Positioned in a relatively swampy area, the hut's location raises the likelihood that it was dismantled at some point. This scenario aligns with historical patterns, suggesting that the hut may have served as an initial phase of housing on a squatting run, potentially marking the beginnings of the Spring Plains homestead or serving as a shepherds' hut before being abandoned or taken down due to the unfavourable conditions of its surroundings.



Plate A.62 Exposure within site DEHW006. View north.



Plate A.63 Artefact scatter within DEHW006.

A.1.7 House, shed, garden, stockyard and tank (Site ID: DEHW007)

DEHW007 sits in the eastern section of the project area, approximately 10 m south of the development footprint, completely enclosed within the development corridor. Historical research, referencing archival records, georeferenced this site as the former location of various structures documented in historic plans, including a house, shed, garden, stockyard, and tank, suggesting these structures once functioned together as an additional head station. However, upon investigation, no traces of surviving structural remnants, footings, or signs of demolition were uncovered, indicating a complete leveling of the area, likely for grazing purposes. However, two non-native peppercorn trees were discovered within the cleared space, indicating past human activity as these trees are typically deliberately planted. Their presence implies former structures on the site, as multiple trees suggest intentional planting rather than natural growth. Although surface artefacts were absent, suggesting low chances of surviving evidence on the surface, there remains potential for subsurface evidence.



Plate A.64 Site DEHW007 and surrounds. Note the low visibility and lack of surface exposures with the exception of a narrow track. View north.



Plate A.65 Peppercorn trees within DEHW007. View north.

A.1.8 Surveyor's tree

DEHW008 was identified during field investigations south-west of Goolgumbra Road, situated in the project area, and is approximately 5 m west of the development footprint and development corridor. The site comprises a native tree exhibiting a scar possibly Aboriginal in origin, blazed with survey indicators "BM 38," suggesting historical land surveying activities in the area. The site was also identified as being of potential Aboriginal origin in the *Dinawan Wind Farm Aboriginal Cultural Heritage Assessment* (EMM 2024).



Plate A.66 Survey marker tree assigned as site DEHW008. View south-west.



Plate A.67 Detail of survey marker tree with "BM FH 445" inscription. View south.

Attachment B

Assessment of significance

B.1 Assessment of identified sites

The significance of the items identified during field survey and/or research is assessed in Table B.1.

Table B.1 Assessment of significance

Criterion	Assessment	Significance
DEHW001 Goolgumbla Station		
a) Historical significance	The historical significance of Goolgumbla is evident through its evolution over time and its association with prominent figures in Australian agriculture. Goolgumbla saw significant developments in sheep grazing infrastructure, such as the implementation of well and trough systems to provide water to multiple paddocks and improved sheep breeding practices in Australia. The property continued to thrive under subsequent ownership, with notable mentions of its well-maintained buildings and high-quality breeding stock. Goolgumbla remained a prominent agricultural establishment, transitioning through various owners until the present day. The continuous use of Goolgumbla for agricultural purposes underscores its enduring significance in the Australian pastoral landscape.	Local
b) Historical association	The Goolgumbla Station holds significant historical importance due to its association with Sir Samuel McGaughey, a prominent figure in the Australian sheep industry. Purchased in 1872 by McGaughey, the property became a hub for his pioneering efforts in sheep breeding, establishing a renowned stud on the premises in 1908. McGaughey's innovative techniques, including the introduction of artesian water bores and large tanks for water conservation during droughts, marked him as a pioneer in agricultural practices in Australia. His contributions extended beyond agriculture, having direct involvement in the New South Wales Legislative Council as well as his appointment as a Knight Bachelor in 1905. The legacy of Sir Samuel McGaughey lives on in various institutions, notably Yanco Agricultural High School, which he helped establish.	Local
c) Aesthetic/ creative/ technical achievement	While Goolgumbla may have had some technical innovations related to its infrastructure and farming practices, it does not meet the threshold for aesthetic/creative/technical significance.	N/A
d) Social, cultural, spiritual significance	Goolgumbla holds potential for meeting the criteria for Social, Cultural, and Spiritual significance. Its historical associations with influential figures in the Australian sheep industry, the establishment of a stud farm, and the impact on local communities through employment and economic activities suggest cultural significance. Additionally, the property's evolution over time and its role as a centre for agricultural innovation and development may contribute to its social and cultural significance.	Local
e) Research potential	The property's rich history, spanning over a century and involving prominent figures in the Australian sheep industry, offers opportunities for investigation into various aspects of agricultural practices, land management, and social dynamics in rural Australia. Furthermore, the transition of Goolgumbla from a pastoral station to a stud farm, as well as its subsequent ownership changes and land use adaptations, present avenues for interdisciplinary research exploring themes such as agricultural innovation, economic development, and cultural heritage preservation. The site's archival records, physical remains, and ongoing agricultural activities provide valuable resources for historical, archaeological, and environmental studies that can contribute knowledge and understanding of Australia's rural and pastoral heritage.	Local

Table B.1 Assessment of significance

Criterion	Assessment	Significance
f) Rarity	Although pastoral runs were relatively common in the early colonial period, the total number of the successful runs, overall, is historically low. Factor into this equation, changes in the landscape, urban growth, dilapidation and technological improvements, and surviving evidence of this important phase in the region's development becomes rarer. The association with Sir Samuel McGaughey, a prominent figure in the Australian sheep industry, also adds a rare and significant dimension to its historical importance. Additionally, the transition of Goolgumbbla from a grazing property to a sought-after stud farm highlights its unique role in agricultural development and breeding practices during the early twentieth century. Confirmation of elements in built, archaeological or landscape (such as plantings and modified landforms) would be highly significant.	Local
g) Representativeness	Goolgumbbla is representative within the context of Australian pastoral history, showcasing the evolution of rural landscapes and agricultural practices from the mid-nineteenth to the twentieth century.	Local
DEHW002 - Shearers quarters		
a) Historical significance	The shearing quarters site within the Goolgumbbla run demonstrates historical significance as a tangible representation of the evolution of sheep shearing practices. The shearing complex remained a vital hub for the region's wool industry, accommodating numerous shearers and their families, as noted in historical accounts and correspondence from the early twentieth century. The continuity of shearing activities on the property underscores the enduring importance of Goolgumbbla in sustaining sheep grazing and wool production in the region. Additionally, the physical remains of the shearing quarters, including the interconnected buildings and associated artefact scatters, provide valuable insights into the material culture and working conditions of shearers during this period.	Local
b) Historical association	Does not fulfil this criterion.	N/A
c) Aesthetic/ creative/ technical achievement	Does not fulfil this criterion.	N/A
d) Social, cultural, spiritual significance	The shearers quarters holds significance in terms of social and cultural aspects. This site served as more than just functional buildings; they were centres of social interaction and cultural exchange for shearers and their families. The presence of multiple families residing on the property during shearing seasons suggests a vibrant social community, reflecting the diverse backgrounds of rural workers in the late nineteenth and early twentieth centuries. Additionally, the continuity of shearing activities at Goolgumbbla underscores its enduring cultural and social significance within the local community.	Local
e) Research potential	The shearers quarters at Goolgumbbla offers research potential across various disciplines. As a significant component of the region's rural and pastoral heritage, the site has the potential to provide valuable insights into the historical development of sheep farming and shearing practices in the Riverina. Topics such as labour relations, social dynamics within shearing communities, and the broader economic and cultural impact of the wool industry can be explored within this site. Additionally, the physical remains of the quarters, including the archaeological resource present opportunities for interdisciplinary studies examining themes of architecture, material culture, and social history.	Local
f) Rarity	Does not fulfil this criterion.	N/A

Table B.1 Assessment of significance

Criterion	Assessment	Significance
g) Representativeness	The shearers quarters demonstrate representativeness as it is a typical example of shearing accommodation found in rural NSW during the late nineteenth and early twentieth centuries. As a well-preserved complex related to shearing operations, such as accommodation, dining, and storage, the site offers a comprehensive insight into the living and working conditions of shearers and pastoral workers during this period. Additionally, the site's location within a larger pastoral property and its integration with other infrastructure, such as woolsheds and silos, reflects the self-sufficient nature of agricultural operations in remote areas.	Local
DEHW003 - Surveyor's tree		
a) Historical significance	The function of survey trees was important in the development of the colony as a way to mark new road alignments and the corner of properties. Surveyor's, or blaze trees, have a place in the historical development of the colony as benchmarks, permanent markers, and cemetery markers; the re-use of Aboriginal scar trees for government has also been recorded. The date of the survey tree in the project area has not been ascertained but may be associated with the north-south and east-west orientated fence lines and is not necessarily old as these types of trees were still in use until the twentieth century.	Local
b) Historical association	Does not fulfil this criterion.	N/A
c) Aesthetic/ creative/ technical achievement	Does not fulfil this criterion.	N/A
d) Social, cultural, spiritual significance	Does not fulfil this criterion.	N/A
e) Research potential	Does not fulfil this criterion.	N/A
f) Rarity	Does not fulfil this criterion.	N/A
g) Representativeness	Does not fulfil this criterion.	N/A
DEHW004 - Hawk's Nest		
a) Historical significance	<i>Hawk's Nest</i> was built on land that was taken up as Bundure Station, one of the major pastoral stations south of the Riverina region. While historical records do not clearly indicate when the homestead was established on the site, the property was known by the name <i>Hawk's Nest</i> in 1964, when it was still part of the Bundure holding, likely serving as an outstation. <i>Hawk's Nest</i> is an example in the cultural landscape of small-scale family farms within the region that were established and worked over the later nineteenth and twentieth centuries.	Local
b) Historical association	Does not fulfil this criterion.	N/A
c) Aesthetic/ creative/ technical achievement	Does not fulfil this criterion.	N/A
d) Social, cultural, spiritual significance	While <i>Hawk's Nest</i> does not fulfil this criterion, the homestead forms part of a cultural landscape of small-scale historic farmsteads which contribute to the community identity in the Riverina.	Local

Table B.1 **Assessment of significance**

Criterion	Assessment	Significance
e) Research potential	<i>Hawk's Nest</i> has the potential to contribute new understandings to the processes of pastoral selection in the Riverina region and New South Wales more broadly. Previous archaeological research has concentrated on homesteads and pastoral cultural landscapes in New South Wales established during the early and mid-19 th century, such as The Monaro (Hancock 1972). Spatial analyses of <i>Hawk's Nest</i> and the landscape of small-scale family farms within the region has the potential to contribute new information regarding settlement and land use patterns of twentieth century free selectors and how these modes of settlement differed and evolved from land selection in the nineteenth century.	Local
f) Rarity	Does not fulfil this criterion.	N/A
g) Representativeness	<i>Hawk's Nest</i> has the potential to demonstrate the characteristics of a twentieth century selector homestead within the pastoral cultural landscapes of the Riverina region and NSW more broadly.	Local
DEHW005 - Spring Plains homestead ruins		
a) Historical significance	The <i>Spring Plains</i> homestead ruins possess historical significance as they represent a tangible link to the region's agricultural development, originating in the mid-19 th century. Established as the home station of the Spring Plains back block by the De Saily brothers, the homestead played a pivotal role in the early settlement and cultivation of the area. While active, the homestead served as a central hub for agricultural activities. Despite enduring a devastating fire in 1952, remnants of the homestead, including scattered red sandstock bricks, structural ruins, and surface artefacts endure, potentially offering valuable insights into the region's past. The historical documentation of the site, coupled with its physical remains, contributes to its significance as a surviving representation of the region's agricultural heritage and early settlement history.	local
b) Historical association	Does not fulfil this criterion.	N/A
c) Aesthetic/ creative/ technical achievement	Does not fulfil this criterion.	N/A
d) Social, cultural, spiritual significance	While the surviving remains of the Spring Plains homestead do not individually meet this criterion, the site itself forms part of a cultural landscape of historic homesteads which contribute to the community identity within the Riverina region.	Local
e) Research potential	The ruins of <i>Spring Plains</i> have the potential to yield archaeological information regarding land selection and the lifeways of a families living in an isolated rural community from the turn of the nineteenth century to the turn of the twentieth century. The homestead and associated infrastructure were destroyed by fire in 1952. impacting the site significantly. Archaeological survey identified heavily disturbed surface structural remains, some in situ, and artefact scatters on the property, however, it is unlikely that these remains meet the threshold to be considered relics. Despite this, the ruins of <i>Spring Plains</i> homestead may have the potential to contribute new understandings to the processes of pastoral selection in the Riverina region and New South Wales more broadly should the archaeological resource exist beyond what was identified during survey.	Local
f) Rarity	Does not fulfil this criterion.	N/A
g) Representativeness	The ruins of Spring Plain have the potential to demonstrate the characteristics of a nineteenth century selector homestead within the pastoral cultural landscapes within the Riverina and NSW more broadly.	Local

Table B.1 Assessment of significance

Criterion	Assessment	Significance
DEHW006 - 'Old' hut		
a) Historical significance	Does not fulfil this criterion.	N/A
b) Historical association	Does not fulfil this criterion.	N/A
c) Aesthetic/ creative/ technical achievement	Does not fulfil this criterion.	N/A
d) Social, cultural, spiritual significance	Does not fulfil this criterion.	N/A
e) Research potential	Does not fulfil this criterion.	N/A
f) Rarity	Does not fulfil this criterion.	N/A
g) Representativeness	As the region has a rich agricultural and pastoral history that is perpetuated today, the archaeological resource within the site of the 'Old' hut has the potential to contribute to the historical and social representativeness of the local community.	Local
DEHW007 - House, shed, garden, stockyard and tank		
a) Historical significance	This site likely functioned as an additional head station within the Bundure run, a common practice due to the vast expanse of open country squatting. These ancillary structures, clustered near Spring Plains, effectively extended the operational reach of the run, optimizing the use of the grazing landscape. While the only remaining evidence of this site consists of non-native peppercorn trees deliberately planted in the area, there is a possibility that archaeological resources may survive at the subsurface level. The potential archaeological resource has the ability to provide valuable insights into historical patterns and the evolution of agricultural practices in the region.	Local
b) Historical association	Does not fulfil this criterion.	N/A
c) Aesthetic/ creative/ technical achievement	Does not fulfil this criterion.	N/A
d) Social, cultural, spiritual significance	Does not fulfil this criterion.	N/A
e) Research potential	The potential archaeological resource of this site holds the potential to provide valuable archaeological insights into early pastoral activities in the local area dating back to 1876.	Local
f) Rarity	Does not fulfil this criterion	N/A
g) Representativeness	Given the region's enduring agricultural and pastoral legacy, the potential archaeological resource could enhance the historical and social representation of the local community.	Local
DEHW008 Surveyor's Tree		
a) Historical significance	The function of survey trees was important in the development of the colony as a way to mark new road alignments and the corner of properties. Surveyor's, or blaze trees, have a place in the historical development of the colony as benchmarks, permanent markers, and cemetery markers; the re-use of Aboriginal scar trees for government has also been recorded. The date of the survey tree in the project area has not been ascertained but may be associated with the north-south and east-west orientated fence lines and is not necessarily old as these types of trees were still in use until the twentieth century.	Local

Table B.1 Assessment of significance

Criterion	Assessment	Significance
b) Historical association	Does not fulfil this criterion.	N/A
c) Aesthetic/ creative/ technical achievement	Does not fulfil this criterion.	N/A
d) Social, cultural, spiritual significance	Does not fulfil this criterion.	N/A
e) Research potential	Does not fulfil this criterion.	N/A
f) Rarity	Does not fulfil this criterion.	N/A
g) Representativeness	Does not fulfil this criterion.	N/A
Significant cultural landscapes		
a) Historical significance	The project area is an example of colonial use of the landscape created by cultivation, building and deliberate and incidental landform modification. It is historically significant for its role in the pastoral support of the region in the early days of colonial excision from traditional Aboriginal uses, and later as an area where smaller farms supported family units.	Local
b) Historical association	Does not fulfil this criterion	N/A
c) Aesthetic/ creative/ technical achievement	The project area is within an aesthetically significant cultural landscape. The landscape represents an example of a pre- and post-colonial deliberate and incidental land modification along the Riverina.	Local
d) Social, cultural, spiritual significance	The cultural landscape of the project area is esteemed by the Aboriginal and European communities of the region. The landscape contains places significant to Aboriginal groups. Moreover, the history in European selection and farming in the area is represented in the rural character of much of the landscape.	Local
e) Research potential	The cultural landscape of the project area has the potential to contribute substantial archaeological understandings regarding the history and creation of landscapes within the Riverina region. Pastoral cultural landscapes have been subjects of archaeological inquiry in small numbers and the relatively early dates of squatters' occupation of the land is a rare phenomenon in the Australian historical and material record.	Local
f) Rarity	The cultural landscape of the project area is an uncommon example of the Aboriginal and colonial landscape use.	Local
g) Representativeness	The cultural landscape of the project area is representative of early rural landscapes in the colony and later in the state of NSW. This landscape has its counterparts across the state and in the Murrumbidgee and Jerilderie regions. It has the ability to demonstrate the slow development of the land when uses do not significantly change.	Local

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