

APPENDIX 9

Historical Heritage Impact Assessment



GUNDARY SOLAR FARM

Historical Heritage Impact Assessment

FINAL

June 2024



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Historical Heritage Impact Assessment

FINAL

Prepared by
Umwelt (Australia) Pty Limited
on behalf of
Lightsource bp

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Report No. 22223/R10
Date: June 2024



QMS Certification Services

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Acknowledgement of Country

Umwelt would like to acknowledge the traditional custodians of the country on which we work and pay respect to their cultural heritage, beliefs, and continuing relationship with the land. We pay our respect to the Elders – past, present, and future.

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Table of Contents

1.0	Introduction	1
1.1	Project Overview	1
1.2	Assessment Requirements and Purpose of Report	2
1.3	Methodology	2
1.4	Limitations	3
1.5	Authorship	3
2.0	Statutory Context	6
2.1	Statutory Listings	6
2.1.1	Commonwealth Legislations and Policies	6
2.1.2	State Legislation	6
2.2	The Burra Charter (The Australian ICOMOS Charter for Places of Cultural Significance (2013))	7
2.3	Relevant Heritage Listings	8
3.0	Historical Context	12
3.1	Early Exploration of the Region	12
3.1.1	Land Use of the Project Area	13
4.0	Site Description	18
5.0	Historical Archaeological Assessment	23
5.1.1	Historical Archaeological Potential	23
5.1.2	Disturbance	23
5.1.3	Archaeological Potential of the Project Area.	24
6.0	Heritage Impact Assessment	26
6.1	Assessment of Heritage Impacts	26
6.1.1	Impacts to Heritage Items	26
6.1.2	Impacts to Historical Archaeology	28
7.0	Conclusions and Recommendations	29
7.1	Conclusions	29
7.2	Recommendations	29
8.0	References	30

Figures

Figure 1.1	Locality and Regional Context	4
Figure 1.2	Project Conceptual Layout	5
Figure 2.1	Heritage Context	11
Figure 3.1	Excerpt from the 1843-1846 Bakers Map of the County of Argyle, showing early land grants in the region	15
Figure 3.2	R. Dixon's 1837 Map of the 19 Counties showing early land grants in the County of Argyle	16
Figure 3.3	1907 Parish Map	17

Photos

Photo 4.1	General landscape overview within the Project Area	19
Photo 4.2	Example of undulating hills, within the Project Area	19
Photo 4.3	Example of a drainage line running through the Project Area	20
Photo 4.4	Dam located within the east portion of the Project Area. This is one example of several that have been constructed in the Project Area	20
Photo 4.5	Concrete water management infrastructure, located in a drainage line within the Project area	21
Photo 4.6	View looking north-east over the Project Area showing a creek line and wind break along a paddock fence	21
Photo 4.7	Eastern stockyard and dilapidated shed	22
Photo 4.8	Example of fencing within the Project Area	22

Tables

Table 1.1	SEARs Relevant to the HHIA	2
Table 2.1	Heritage items within 8 km of the Project Area	8
Table 6.1	Heritage Impact Gradings	26
Table 7.1	Management and Mitigation Measures	29

1.0 Introduction

Lightsource Development Services Australia Pty Ltd (Lightsource bp) proposes to develop the Gundry Solar Farm (the Project) in the Southern Tablelands of New South Wales (NSW), approximately 10 kilometres (km) southeast of Goulburn within the Goulburn Mulwaree Local Government Area (LGA). The location of the Project and its regional context is presented in **Figure 1.1**.

Umwelt has been engaged by Lightsource bp to prepare the Historical Heritage Impact Assessment (HHIA) for development of the Gundry Solar Farm.

1.1 Project Overview

The Project will involve the construction, operation, maintenance and decommissioning of a 400 Megawatt peak (MWp) solar farm with a Battery Energy Storage System (BESS) of up to 615 MWp and 1,810 Megawatt hour (MWh) capacity and associated infrastructure to connect the Project to the national electricity grid. The Project access will be via an existing driveway at 961 Windellama Road via the Hume Highway. Intersection works on Windellama Road is proposed as part of the Project to upgrade the Project access to accommodate heavy vehicles. The Project's conceptual layout is included in **Figure 1.2**.

The Project will supply electricity to the National Electricity Market (NEM), via a new onsite connection to the existing 330 kV overhead transmission line traversing through the north-west corner of the Project Area. The Project will generate enough clean energy for about 133,000 homes and reduce carbon emissions by 670,000 tonnes.

The Project would be located on land zoned RU1 – Primary Production under the Goulburn Mulwaree Local Environmental Plan (LEP). The area surrounding the Project is characterised predominantly by agricultural lands associated with rural residential properties, small settlements, conservation areas and rural tourism. Land within and adjacent to the Project has been subject to extensive cultivation associated with historic and more recent agricultural land uses.

The Project Area is bounded by Windellama Road on the west, for approximately 500 m, with Kooringaroo Road bordering the northeast corner of the Project Area. Properties directly north, east and west of the Project Area are privately owned rural residential properties with agricultural land use.

The Project will be developed across five freehold lots, covering an area of approximately 702 ha (the Project Area). These properties are primarily used for grazing activities. The Project infrastructure will cover approximately 512 ha (the development footprint).

The Project is expected to generate up to 400 Full Time Equivalent (FTE) jobs over the 18 to 24 month construction period with between two and four FTE jobs during operation.

The Project is classified State Significant Development (SSD) under the *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP), as the capital value of the Project is over \$30 million. A development application (DA) for the Project is required to be submitted under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.2 Assessment Requirements and Purpose of Report

This Historical Heritage Impact Assessment (HHIA) has been prepared by Umwelt in accordance with the Secretary’s Environmental Assessment Requirements (SEARs) issued on 10 November 2022 by the former Department of Planning and Environment (DPE) (now the Department of Planning, Housing and Infrastructure (DPHI)). SEARs relevant to this HHIA are outlined in **Table 1.1**, along with where this has been addressed in the HHIA.

Table 1.1 SEARs Relevant to the HHIA

SEARs	Where addressed in this HHIA
<p><i>Heritage – including:</i></p> <ul style="list-style-type: none"> • <i>assess the impact to historic heritage having regard to the NSW Heritage Manual</i> 	<p>Refer to Section 6.0</p>

This report includes:

- The identification of listed heritage items located within or in proximity to the Project Area.
- A summary of items, buildings, structures, or other elements of potential historical heritage significance (i.e., those which are not listed) located within or in proximity to the Project Area.
- The identification of any areas of historical archaeological potential within or in proximity to the Project Area.
- An assessment of the likelihood, extent, and nature of potential impacts to any listed or unlisted items of heritage significance located within or in proximity to the Project Area.
- Appropriate measures to avoid, manage and/or mitigate any identified impacts.

1.3 Methodology

This HHIA has been undertaken in accordance with guidelines set out in the *NSW Heritage Manual 1996* (Heritage Office and Department of Urban Affairs & Planning), including:

- Archaeological Assessments.
- Assessing Heritage Significance.
- Statements of Heritage Impact.
- Heritage Terms and Abbreviations.

This HHIA has also been prepared with consideration of the best practice principles contained in the:

- *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 2013* (Australia ICOMOS. 2000) (the Burra Charter)

- NSW Heritage Branch (now Heritage NSW), Department of Planning, 2009, *Assessing Significance for Historical Archaeological Sites and ‘Relics’*
- NSW Heritage office (now Heritage NSW), Department of Planning, 2006, *The Historical Archaeology Code of Practice*.

A field inspection of the Project Area was undertaken by Umwelt in December 2022 to confirm the setting and context of the Project Area, and to identify if any potential heritage items are located within the Project Area. The field inspection was undertaken concurrently with the site survey that was undertaken to inform the Aboriginal Cultural Heritage Assessment for the Project (Umwelt 2024).

1.4 Limitations

This report focuses on an assessment of historical heritage within the Project Area. Aboriginal cultural heritage and archaeology is assessed in a separate report being prepared by Umwelt in 2023/24.

A Landscape and Visual Impact Assessment (LVIA) has been prepared as a stand-alone report for the Project by Envisage Consulting (2024) which considers the visual amenity and landscape characteristics of the Project Area and its surrounding context. Discussion of visual impacts within this report is limited to a consideration of impacts to historical heritage only.

1.5 Authorship

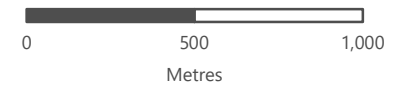
This report has been prepared by Melissa Moritz, Senior Heritage Consultant. Technical review has been undertaken by Karyn Cook, Principal Heritage Consultant.

FIGURE 1.2

Project Conceptual Layout

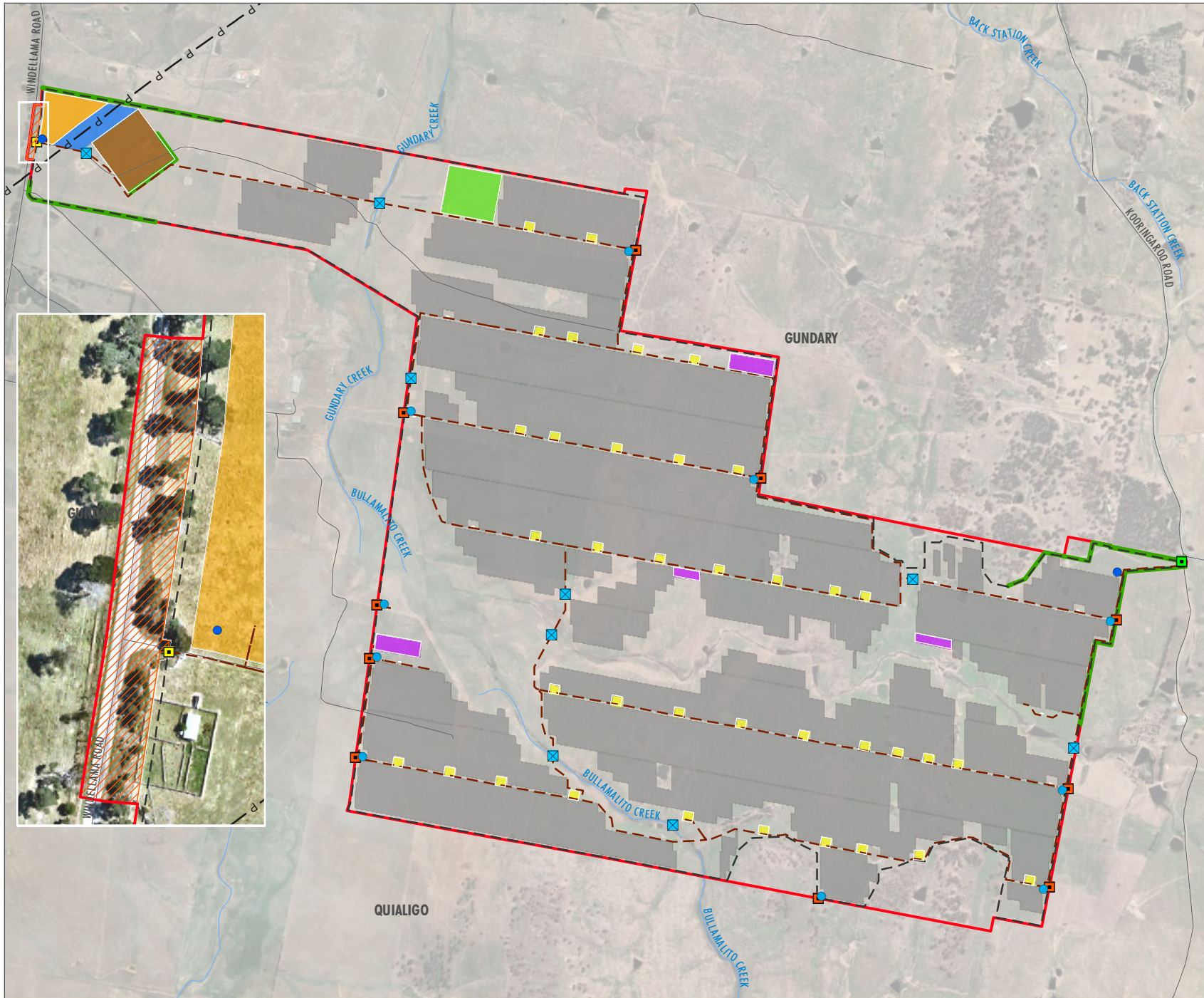
Legend

- Access Roads
- Security Fence
- Existing Transmission Line
- Roads
- Watercourses
- Watercourse / Bed Level Crossing
- Water Tank (40,000L)
- Water Tank (10,000L)
- Primary Access
- Emergency Access
- Emergency Gate
- Project Area
- Proposed Road Upgrade
- Solar Panels
- Landscaping Buffer (5m)
- Transgrid Line Works
- Centralised AC BESS
- Substation and O&M Facility Area
- Decentralised DC BESS
- Temporary Laydown Area



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2.0 Statutory Context

2.1 Statutory Listings

2.1.1 Commonwealth Legislations and Policies

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the Australian Government's environment and heritage legislation. This Act is triggered by developments or actions that will have a significant impact on Matters of National Environmental Significance (MNES), including world heritage areas, Commonwealth marine areas, nationally threatened species and communities and migratory birds. The EPBC Act includes a process for the assessment of proposed actions that have, or are likely to have, a significant impact on matters of national environmental significance. These actions require approval from the Commonwealth Minister, Environment and Heritage.

A new national heritage system was established in January 2004 under the EPBC Act. This led to the introduction of the National Heritage List, which recognises and protects places of outstanding heritage to the Nation, and the Commonwealth Heritage List, which includes Commonwealth owned or leased places of significant heritage value.

No National or Commonwealth listed heritage items, places or assets are located within the Project Area.

2.1.2 State Legislation

2.1.2.1 Heritage Act 1977

The *Heritage Act 1977* (Heritage Act) is administered by Heritage NSW. The purpose of the Heritage Act is to ensure cultural heritage in NSW is adequately identified and observed. The Heritage Act is the primary item of state legislation affording protection to items of environmental heritage (natural and cultural) in NSW. Under the Heritage Act 'items of environmental heritage' include places, buildings, works, relics, moveable objects, and precincts identified as significant based on historical, scientific, cultural, social, archaeological, architectural, natural, or aesthetic values. State significant items are listed on the NSW State Heritage Register (SHR) and are given automatic protection against any activities that may damage an item or place or affect its heritage and/or archaeological significance.

The Heritage Council of NSW, appointed by the Minister, is responsible for heritage in NSW, as constituted under the Heritage Act. The Council is a cross-section of heritage experts, with the Heritage NSW being the operational arm of the Council.

No State listed heritage items are located within the Project Area.

2.1.2.2 Relics Provision of the Heritage Act 1977

The Heritage Act affords automatic statutory protection to 'relics' which form part of archaeological deposits (except where these provisions are suspended by other prevailing legislation). The Heritage Act defines a 'relic' as any deposit, object, or material evidence that:

- relates to the settlement of the area that comprises NSW, not being Aboriginal settlement, and

- is of state or local heritage significance.

Sections 139-145 of the Heritage Act prevent the excavation or disturbance of land known or likely to contain relics, unless in accordance with an excavation permit. Section 60 excavation permits are required to disturb relics within SHR items/places, while Section 140 permits are required for items/places that are not listed on the SHR.

No areas of historical archaeological potential are located within the Project Area. As the project is designated as SSD, no consent for the Project is required under the Heritage Act.

2.1.2.3 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EPA Act) governs strategic planning and development assessment processes undertaken by State and Local Government in NSW. The Act requires that Local Governments prepare planning instruments (such as Local Environmental Plans [LEPs] and Development Control Plans [DCPs]) in accordance with the Act to provide guidance on the level of environmental assessment required.

2.1.2.4 Goulburn Mulwaree Local Environmental Plan 2009

The Project Area falls within the Goulburn Mulwaree LGA and is therefore subject to the planning provisions of the *Goulburn Mulwaree Local Environmental Plan 2009* (LEP).

Part 5 Clause 5.10 of the LEP provides the statutory framework for heritage conservation including the conservation of:

- the environmental heritage of Goulburn Mulwaree
- the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings, and views
- archaeological sites
- Aboriginal objects and Aboriginal places of heritage significance.

2.2 The Burra Charter (The Australian ICOMOS Charter for Places of Cultural Significance (2013))

The Burra Charter is a set of best practice principles and procedures for heritage investigations and conservation. The charter was developed by the Australian group of the international professional organisation for conservation; the International Council for Monuments and Sites (ICOMOS). Although it is not a statutory document, the Burra Charter provides a best practice standard for heritage management in NSW and Australia. The policies and legislative guidelines of the Heritage Council of NSW and Heritage NSW are consistent with and guided by the Burra Charter.

2.3 Relevant Heritage Listings

To inform this assessment, searches of all relevant historical heritage databases were undertaken. This includes searches of:

- The Commonwealth Heritage List
- The National Heritage List
- The State Heritage Register
- Section 170 Heritage and Conservation Registers (where publicly accessible)
- relevant Local Environmental Plans (LEPs).

As a result of these searches, it has been identified that:

- no heritage items or places listed on the Commonwealth or National Heritage Lists are located within the Project Area
- no State listed heritage items are located within the Project Area
- no items listed on any s170 Heritage and Conservation Registers (NSW State agency heritage registers) are located within the Project Area
- no items listed on Schedule 5 of an LEP are located within the Project Area.

The closest State listed heritage items to the Project Area are located within the township of Goulburn, to the north of the Project Area. These heritage items include Goulburn Railway Station, Yard and Moveable Heritage (SHR Item 01152) and the Lansdowne Property (SHR Item 00132) and are located over 7 km away from the Project Area.

There are several local heritage items in the vicinity (< 8 km) of the Project Area. These are listed in Table 2.1 along with their distance from the Project Area. **Figure 2.1** shows the location of these heritage items in relation to the Project Area. The nearest local heritage item is 'Pelican' Homestead (Item I599 on the Goulburn Mulwaree LEP 2009). This is located approximately 3.4 km west of the Project Area.

Table 2.1 Heritage items within 8 km of the Project Area

Item Number	Name	Significance	Km from Project Area
I599	"Pelican" homestead and shearing shed (1860)	Local (Goulburn Mulwaree LEP 2009)	3.4
I013	Dwelling, "Corrinyah"	Local (Goulburn Mulwaree LEP 2009)	5.0
I014	Dwelling, "Homeden"	Local (Goulburn Mulwaree LEP 2009)	5.3
I006	Dwelling, "Wyoming"	Local (Goulburn Mulwaree LEP 2009)	5.3

Item Number	Name	Significance	Km from Project Area
I012	Dwelling, "Weston"	Local (Goulburn Mulwaree LEP 2009)	5.3
I595	"Tirranna" homestead, gardens, Gibson family cemetery and veterans allotments (circa 1829)	Local (Goulburn Mulwaree LEP 2009)	5.7
I015	Homestead, "Yattalunga" (1860)	Local (Goulburn Mulwaree LEP 2009)	5.9
I596	Tirranna Public School (1869)	Local (Goulburn Mulwaree LEP 2009)	5.9
I597	St Andrew's Anglican Church and Cemetery (1860)	Local (Goulburn Mulwaree LEP 2009)	6.0
I016	Dwelling, "Rosebank"	Local (Goulburn Mulwaree LEP 2009)	6.1
I011	Dwelling, "Sofala"	Local (Goulburn Mulwaree LEP 2009)	6.2
I498	"Irriwilbin" homestead (circa 1860)	Local (Goulburn Mulwaree LEP 2009)	6.2
I010	Dwelling, "Brigadoon" (1891)	Local (Goulburn Mulwaree LEP 2009)	6.2
I032	"Lumley Park" homestead, outbuildings and curtilage (circa 1828)	Local (Goulburn Mulwaree LEP 2009)	6.3
I009	Dwelling, "Wyadra" and outbuildings	Local (Goulburn Mulwaree LEP 2009)	6.3
I008	Dwelling, "Allfarthing"	Local (Goulburn Mulwaree LEP 2009)	6.5
I003	Nooga	Local (Goulburn Mulwaree LEP 2009)	6.5
I594	"Burrungurroolong" homestead, gardens and stables (1882)	Local (Goulburn Mulwaree LEP 2009)	6.8
I007	Dwelling, "The Towers" (circa 1840)	Local (Goulburn Mulwaree LEP 2009)	7.0
I210	"Garroorigang" (formerly Mulwaree Inn) and stables (1857)	Local (Goulburn Mulwaree LEP 2009)	7.3
I331	South Hill complex, early homestead (circa 1860)	Local (Goulburn Mulwaree LEP 2009)	7.4
1152	Goulburn Railway Station, yard group and movable relics	State (SHR)	7.6
I209	Railway roundhouse, part of former railway infrastructure and turntable	Local (Goulburn Mulwaree LEP 2009)	7.6
132	Lansdowne	State (SHR)	7.6
I214	"Lansdowne Park" (1822–1825)	State/Local (Goulburn Mulwaree LEP 2009/SHR)	7.6

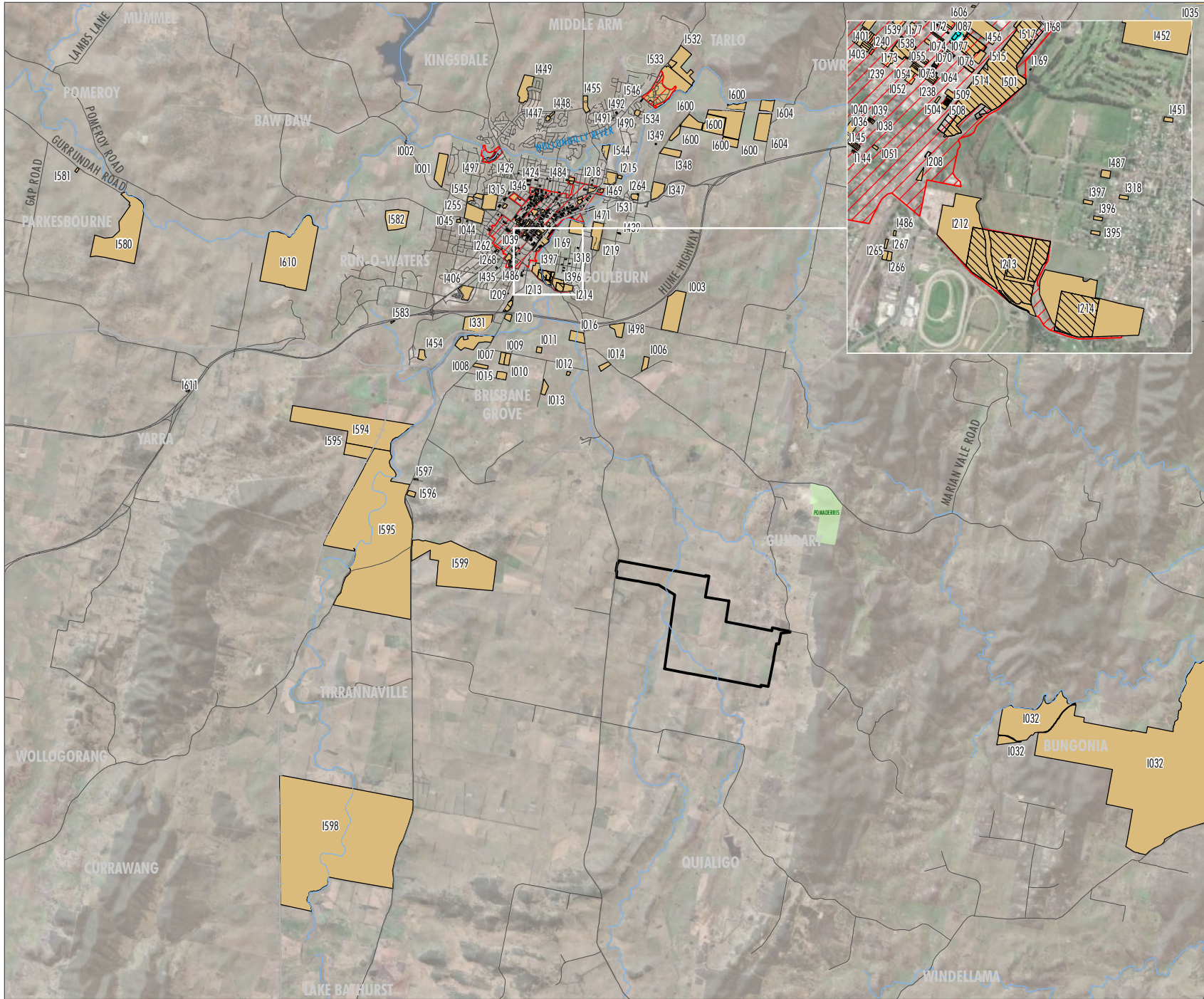
Item Number	Name	Significance	Km from Project Area
	Lansdowne Estate Conservation Area	Local (Goulburn Mulwaree LEP 2009)	7.6
I454	Barn (former Wynella Estate, 1870)	Local (Goulburn Mulwaree LEP 2009)	7.8
178	Goulburn Brewery	State (SHR)	7.9
I213	Goulburn Brewery (circa 1840)	State/Local (Goulburn Mulwaree LEP 2009/SHR)	7.8
I598	“Springfield” homestead, outbuildings and gardens	Local (Goulburn Mulwaree LEP 2009)	7.9

FIGURE 2.1

Heritage Context

Legend

- Roads
- Railway
- Watercourses
- Project Area
- NPWS Estate
- Heritage Sites**
- Conservation Area - General (Goulburn Mulwaree Local Environment Plan)
- Item - General (Goulburn Mulwaree Local Environment Plan)
- State Heritage Register Curtilage
- Commonwealth Listed Heritage Sites



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3.0 Historical Context

The following section provides a concise history of the region as it relates to the development of the Project Area.

3.1 Early Exploration of the Region

In the immediate period following the settlement of Sydney cove in 1788, movement of the new settlers further inland and beyond the Sydney Basin was slow. Very little was known about the vast Australian continent and while some much of its coastline had been comprehensively explored and surveyed, even less was known of the inland areas (State Library NSW 2009).

Most of the early exploratory expeditions were government sponsored, as the government had a particular interest in locating sources of water and land suitable for grazing and agriculture. Future expeditions also sought to ascertain the best routes for travel and communication (State Library of NSW 2009). There were some exceptions to these official expeditions with individual explorers and runaway convicts.

As convicts worked at the edge of European settlements in road gangs and clearing land for pastoral estates, they passed along tales of a route to China located past vast fields, fresh water sources and valuable resources such as ores, limestone, marble and chalk quarries located in the unexplored land to the west of the 19 counties (Watkin Tench 1793).

In order to prevent convicts running into the bush in attempts to walk to China, Governor John Hunter sponsored an exploration party in 1798 to disprove the myth (EH&A 2010). The expedition set out on 14 January 1798, led by former convict John Wilson (State Library NSW 2013). The party included 11 men, including some Irish convicts. Many of the party grew tired of the difficult terrain and climbing through the bushland near Picton and most of the party returned to Sydney with the guards. Only three continued on, (John Price, John Wilson and another man, possibly a convict named Roe) heading in a south westerly direction through what is now known as the Southern Highlands, to the junction of the Wollondilly and Wingecarribee Rivers. They travelled more than 160 km south of Parramatta within two weeks before heading home after running out of provisions (State Library NSW 2013).

A second expedition to the southwest was conducted by Wilson, Price and a man named Collins in early March of the same year (State Library NSW 2013). This time armed with better rations, the men reached Mount Towrang overlooking the Goulburn Plains before turning back to Parramatta and Sydney. Hume and Meehan camped at South Hill, to the south of contemporary Goulburn during their 1818 expedition, and this encampment was mentioned again in Hume's 1822 expedition to Yass Plains (EH&A 2010).

Further exploration into the Goulburn area was undertaken in 1814 and 1818 by Hamilton Hume, Charles Throsby and James Meehan. This was based on the accounts of Wilson and Price and opened up a route to the Southwestern district of NSW (now known as the Southern Tablelands and Southern Highlands) (EH&A 2010). Despite reports of arable land within the Goulburn Plains, settlement beyond the Cowpastures (now Southern Highlands) was limited until 1819. Permits were required to move through the Cowpastures, with the exception of military and civil officers and the families of John Macarthur and Walter Davidson who held sheep farms in the area (EH&A 2010).

The first permit to cross the Cowpastures was given in 1820, leading to the start of settlement in the Goulburn Plains.

The first land around Goulburn was granted in 1824 and the settlement pattern was typically new landholders setting up pastoral stations that were built and run by convict labour (EH&A 2010).

The pastoral expansion across the Nineteen Counties of NSW was one of the main employers of convict labour in the 1820s to 1840s. It was the cause of settlement in the Goulburn Plains leading to the establishment of roads, villages and towns (EH&A 2010).

Many landholders lived on their pastoral estates however some also ran their stations from their estates in the Cumberland Plains or nearer to Sydney. Instead, their sons were sent out to manage the stations, or overseers or super intendants employed to oversee the daily running of the often large land holdings (EH&A 2010). Baker's 1843 map of the County of Argyle shows the extent the Goulburn Plains had been settled. This map (**Figure 3.1**) also shows the original land grants applied to the Project Area (**Figure 3.1**).

Although pastoral stations were established from the 1820s, a township in Goulburn was not formed for several years. In 1929 a town plan was approved, located at the river crossing of the Wollondilly River however this was relocated away from the flood prone site, further south to the Mulwaree Ponds. In 1826 this township was described 'a few scattered buildings of brick and others of wood' (EH&A2010).

Goulburn township grew during the 1830s, however this stalled with collapse of the wool prices, combined with the end of convict transportation in the 1840s. While other areas of NSW recovered from the Depression of 1841, the Gold Rush from 1851 drew people away from the mundane occupations in pastoral centres, including Goulburn. Population numbers did not return or increase until the late 1950s (EH&A 2010), however its growth as a regional town continued, servicing as a central location with the rich pastures of the south western region and was declared a regional city in the late 1860s. Gold mining occurred within the wider region to varying success with the Argyle, Camden & Kind goldfields proclaimed to the southeast of Goulburn in November 1881 (including the Project Area). The train line was extended to Goulburn in 1869 and provided new impetus for the development of Goulburn, with the new wealth of the colony from the Gold Rush and expanding population providing sustained growth until the 1890s.

The town flourished in the twentieth century, serving a district that continued to produce food and goods to support the growing nation and continues to be a crucial regional town within fertile lands of the Goulburn Plains and surrounding regional district.

During late 2022, Goulburn was declared a Regional City under the *State Environmental Planning Policy (Transport and Infrastructure) 2021*.

3.1.1 Land Use of the Project Area

The Project Area, located to the south of the Goulburn township, is located within land grants made to Thomas and William Bradley in 1831 and 1834. At this time, the Project Area formed part of the head station of the Bradley family, who were referred to as pioneers with extensive land grants in the district (The Australasian, 1930). The Project Area passed through several hands before being purchased by a syndicate who attempted to subdivide the land by 1882.

The Project Area is also located within the southern extent of the Argyle Camden & Kind goldfields (gazetted in 1881). However, it is unclear to what extent, if any, gold mining occurred within the Project Area during the late nineteenth century and no documented evidence available suggests it did occur in the Project Area.

In 1902, Mr A.R Maple Brown purchased a large but irregular portion of property, and within several years negotiated for some adjoining blocks to create 'Gundry Plains' a property of slightly more than 10,000 acres, including the Project Area (The Australasian, 1930). **Figure 3.3** shows the extent of the Project Area located in Maple Brown's land.

At the time of purchase by A.R Maple Brown, the former station had been allowed to deteriorate with few buildings of note (The Australasian, 1930). The old woolshed (outside the Project Area) was standing, however required substantial modification and alteration to make suitable for use. Other buildings on the property were either scrapped or removed to different stations (The Australasian, 1930). Other improvements to the property included substantial plantings of trees, shrubs and orchards, with a plantation of pines established to provide shelter to animals and humans alike from the severe cold winds that blew across the open Goulburn Plains in winter (Sydney Stock and Station Journal, 1921).

In addition to these modifications, documentary evidence shows that extensive works were undertaken to rid the Gundry Plains property of rabbits, including the construction of several rabbit proof fences and the digging out of several burrows across the paddocks (The Australasian, 1930).

A homestead was constructed in c.1907 (outside the Project Area) on a site pre-selected and planted by Maple Brown so that by the time the house was occupied, it was already set within a 'delightful setting' (The Australasian, 1930). The homestead was described in the 1920s as follows:

The homestead which is quite modern is happily placed on a eminence – a long fronted house, with wide spaced verandas, and lofty well-lit rooms, and surrounding gardens are truly beautiful, enclosed within the hedges and English trees (Sydney Stock and Station Journal, 1921)

This homestead, located outside the Project Area, based on aerial imagery and topographic maps is likely extant and located approximately 600 m southwest of the Project Area along Windellama Road (identified as Receiver 31 in the EIS and LVIA for the Project).

Despite the success of the Gundry Plains property in the breeding of merino sheep, the land was progressively subdivided and sold, likely from the 1920s onwards based on dates of subdivision plans and newspaper notifications. Subdivision started with the lands closer to the township of Goulburn and continued until 1952 when the Gundry Plains homestead and an associated 795 acres of land was sold to Mr Phil Wench (The Goulburn Evening Post, 1952).

During the extensive phase of subdivision of the Gundry Plains property, the Project Area was sold to the Fife family, who owned the land until the 2010s when it was sold to the current owners (pers Comm. Meg Bowman, 2023).

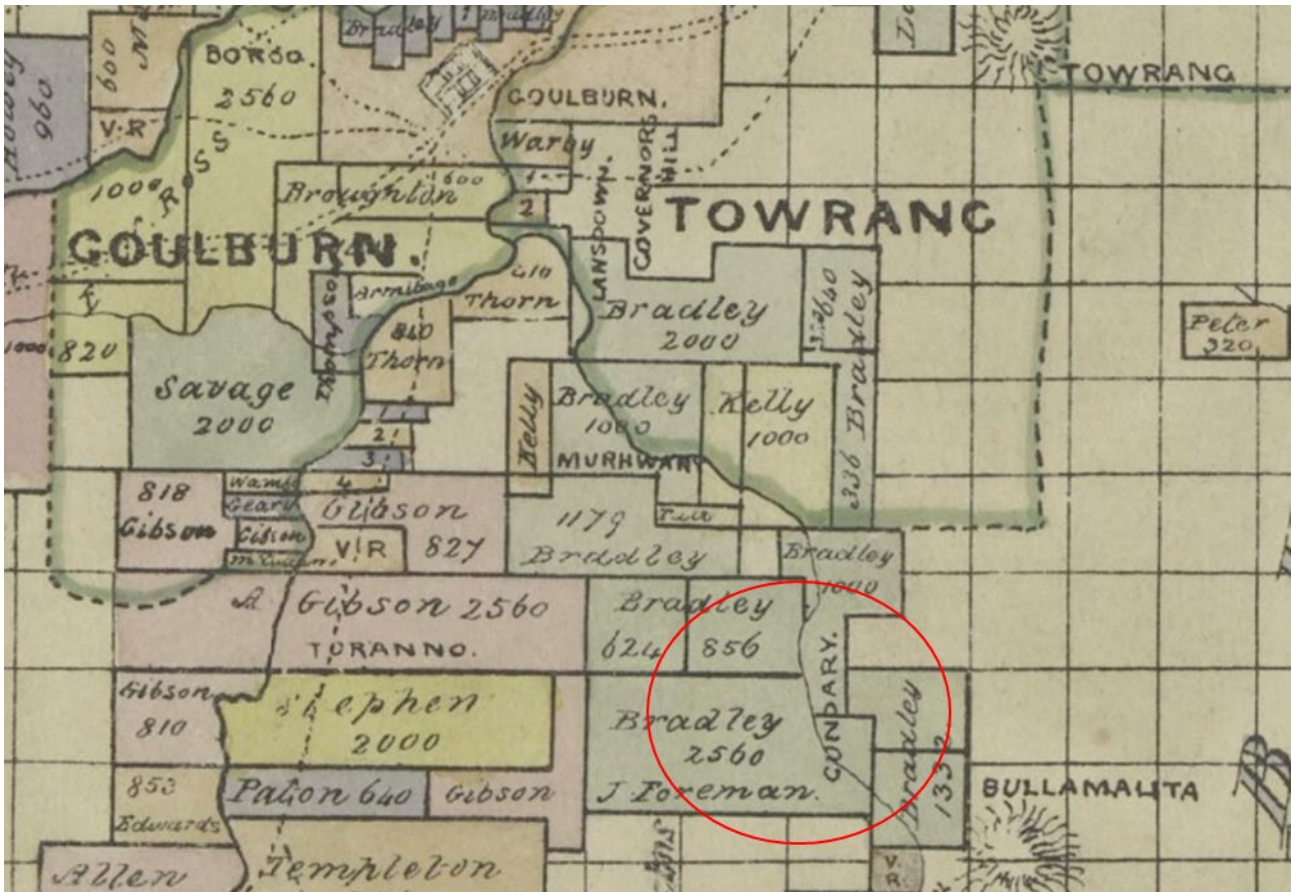


Figure 3.1 Excerpt from the 1843-1846 Bakers Map of the County of Argyle, showing early land grants in the region

The Project Area is circled in red.

Source: State Library of NSW

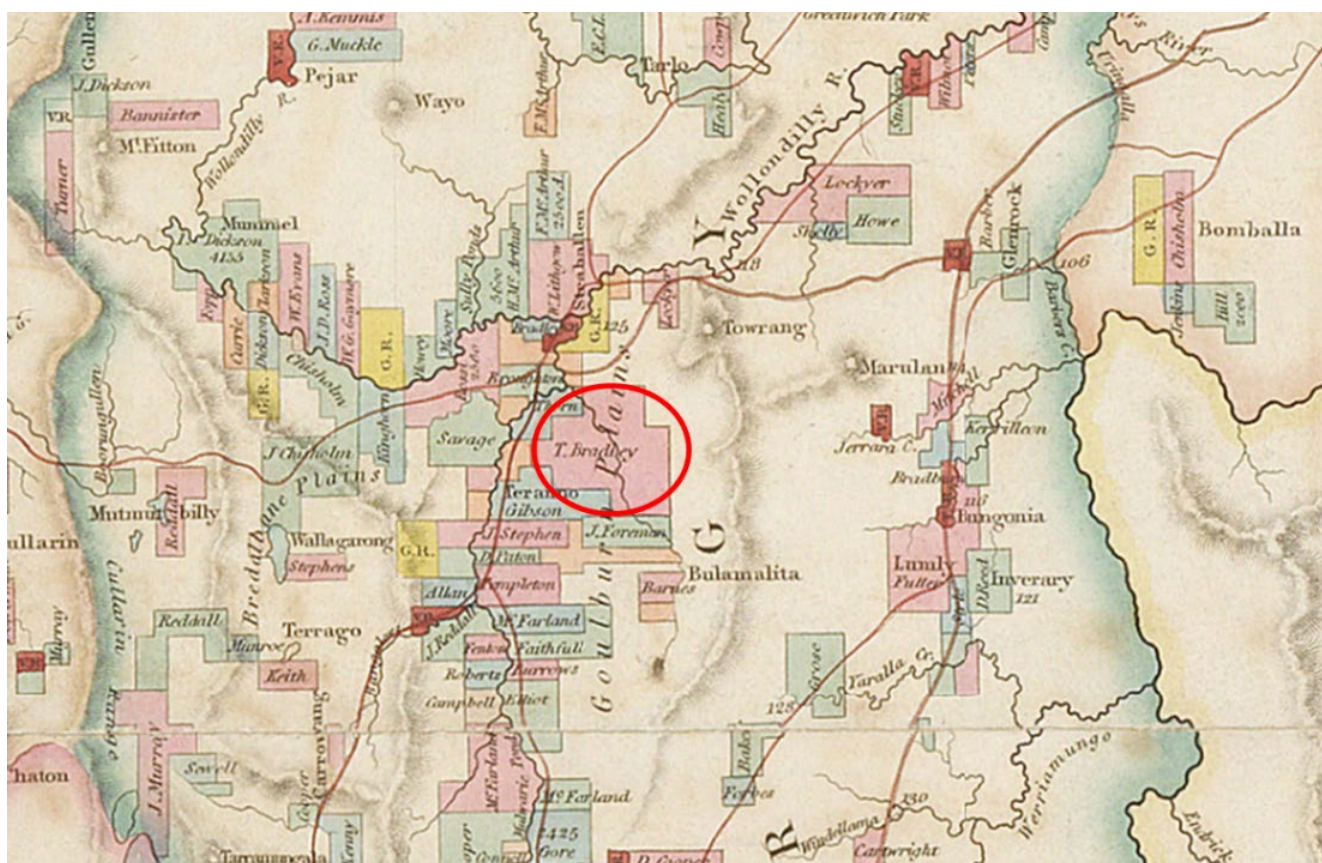


Figure 3.2 R. Dixon's 1837 Map of the 19 Counties showing early land grants in the County of Argyle
 The approximate location of the Project Area is shown in red.

Source: State Library NSW

FIGURE 3.3

Parish Map

Legend

□ Project Area



Scale: 1:0 at A4
GDA2020 MGA Zone 55

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4.0 Site Description

The Project Area is located within a working agricultural property primarily utilised for cattle and sheep grazing. The Project Area is irregularly shaped and encompasses approximately 702 hectares of land. The western boundary of the Project Area is bounded by Windellama Road and eastern access is gained via a private gate off Kooringaroo Road.

The landscape of Goulburn largely consists of undulating rolling hills with low to moderately inclined slopes, prominent ridgelines and hillcrests overlooking creek lines and flood plains. Due to the agricultural nature of the property, the vast majority of vegetation has been previously cultivated, with scattered isolated trees and remnant vegetation distributed sparsely across the landscape (**Photo 4.1 to Photo 4.2**). No evidence of the plantations, orchards and garden plantings from earlier phases of land use associated with A. R Maple Brown are visible across the Project Area. Some pine trees have been planted as wind breaks along fencelines within the Project Area (**Photo 4.6**). Based on aerial imagery available for the Project Area, these were likely planted in the mid to late twentieth century.

Gundry Creek and Bullamalito Creek, both perennial tributaries subject to intermittent flooding, are the dominant landform elements in the wider landscape. Several drainage lines and dams have also been constructed across the Project Area as part of the agricultural use (**Photo 4.3 to Photo 4.6**).

No residential dwellings are situated within the Project Area. Several non-residential structures are present within the Project Area, being related to the agricultural nature of the property. A gable roof open shed is situated adjacent to the western access to the Project Area, off Windellama Road. This shed, which likely was constructed within the last 20 years, is enclosed by a simple timber board fence, which is partially painted white and partially natural timbers. This structure likely serves as a stockyard or similar.

A second stockyard is located on the eastern side of the Project Area and is a recent construction of galvanised metal (**Photo 4.7**). Immediately to the south, a highly weathered corrugated iron sheet shed is located midslope, adjacent to a primary access track within the Project Area. This shed, likely constructed in the c.1960s is associated with the former agricultural use of the Project Area, and at present is not utilised (**Photo 4.7**). The structure is in poor condition and consists of a basic skillion roof, timber framing and corrugated iron sheet walls and internal wall divisions. Fragments of timber and sheets of rusted metal are dispersed in the immediate area.

Access to the paddocks is gained via unformed tracks with metal post and wire fencing and standard metal livestock gates (**Photo 4.8**). No vegetation remains in these corridors. This part of the Project Area contains no structural features outside of fencing demarcating paddocks and property lines.



Photo 4.1 **General landscape overview within the Project Area**



Photo 4.2 **Example of undulating hills, within the Project Area**



Photo 4.3 Example of a drainage line running through the Project Area



Photo 4.4 Dam located within the east portion of the Project Area. This is one example of several that have been constructed in the Project Area



Photo 4.5 Concrete water management infrastructure, located in a drainage line within the Project area



Photo 4.6 View looking north-east over the Project Area showing a creek line and wind break along a paddock fence



Photo 4.7 Eastern stockyard and dilapidated shed



Photo 4.8 Example of fencing within the Project Area

5.0 Historical Archaeological Assessment

Historical archaeology in Australia generally relates to the study of the past using physical evidence in conjunction with historical sources. Historical archaeology is generally defined as comprising the period since European arrival in Australia in 1788. An archaeological resource is the physical evidence of the past and may comprise sub-surface evidence including building foundations, occupation deposits, features and artefacts. Archaeological resources are irreplaceable and have the potential to contribute to our knowledge and understanding of early history using information that is unavailable from other sources (DUAP 1996:2).

The historical archaeological potential of the Project Area is the likelihood that there may be physical evidence relating to early development and occupation present beneath the current ground surface of the Project Area.

5.1.1 Historical Archaeological Potential

Archaeological potential is defined as “the degree of physical evidence presents on an archaeological site, usually assessed on the basis of physical evaluation and historical research” (Heritage Office and Department of Urban Affairs and Planning, 1996).

Archaeological research potential of a site is the extent to which further study of relics likely to be found is expected to contribute knowledge about the history of NSW which is not demonstrated by other sites or archaeological resources. The archaeological potential of the Project Area, assessed using the following gradings:

- **Low Potential:** land use history suggests limited development or use, or there is likely or known to have been quite high impacts in these areas. However, deeper sub-surface features such as wells, cesspits and their artefact-bearing deposits, and deeply embedded footings or piles may survive at depth.
- **Moderate Potential:** land use history suggests limited phases of low to moderate development intensity, or that there have been impacts in this area. A range of archaeological remains may survive, including building footprints and shallower remain or deposits as well as deeper sub-surface features.
- **High Potential:** substantially intact historical archaeological remains could survive in these areas.

The assessment of potential is dependent on the extent of disturbance that has occurred in the area of the assessment. This has been considered in the following section.

5.1.2 Disturbance

In order to assess the extent of disturbance, the following classifications are used:

- **Low disturbance:** the area or feature has been subject to activities that may have had a minor effect on the integrity and survival of archaeological remains.
- **Moderate disturbance:** the area or feature has been subject to activities that may have affected the integrity and survival of archaeological remains. Archaeological evidence may be present; however, it may be disturbed.

- **High disturbance:** the area or feature has been subject to activities that would have had a major effect on the integrity and survival of archaeological remains. Archaeological evidence may be greatly disturbed or destroyed.

The historical overview presented in **Section 3.0** demonstrates that the Project Area has likely been subject to activities which would have resulted in a range of localised disturbances within the landscape. This includes:

- Activities associated with agricultural use such as land clearing, leveling activities / earthworks, construction of in-ground infrastructure such as septic tanks, water and electricity services, construction of dams, drainage lines and other water management measures.
- Removal of redundant structures associated with the agricultural use of the Project Area during different stages of land ownership across the last c.190 years of agricultural and pastoral land use.

5.1.3 Archaeological Potential of the Project Area.

As outlined in **Section 3.0**, the Project Area has remained largely undeveloped. Early land use patterns were likely pastoral activities of the Project Area as part of the larger Bradley family holdings (1831-1902), as part of the Gundry Plains property (1902-c.1920s). This agricultural and pastoral land use continues to present day.

Historical records associated with the establishment of Gundry Plains (which included the current Project Area) identified that structures were located within the broader landscape prior to 1902. However, there is no clear evidence within the historical record to suggest that these structures were located within the current Project Area.

While some of the pre-1902 structures may have been located within the Project Area, the size and nature of the original Bradley family holdings indicates that structures would have been spread across a wide landscape to facilitate pastoral use of the property and are unlikely to have included intensive development of any particular area, including the Project Area.

Structures associated with the Bradley family holdings, if located within the Project Area, would likely have been sheds, stockyards or other ancillary shelters and structures and fences. These would have been of a lightweight construction and often temporary in nature. This type of construction is unlikely to have resulted in any clearly identifiable footprint following their removal. If present, evidence of these structures would likely be limited to post-holes or footings, which would not reveal any new or significant information that would contribute meaningfully to an understanding of the Project Area or local area's history.

The purchase of the Project Area in the early 1900s and the establishment of Gundry Plains by A.R Maple Brown marks a phase of large-scale improvement, clearing and development of the wider property, including the removal of deteriorated buildings and structures, establishment of rabbit-proof fencing and digging out of numerous burrows across the paddocks, followed by extensive planting of gardens and plantations (outside of the Project Area) and shelter trees within the paddocks. This would have resulted in ground disturbance varying from low to high across large areas of the Gundry Plains property, including the Project Area. These ground disturbances would have resulted in the impact, truncation and/or removal of earlier phases of land use (if present) within the Project Area within the footprint of any landscape modification undertaken by A.R Maple Brown.

Due to the land use history, any archaeological remains within the Project Area are likely to be fragmented or previously disturbed. This includes any evidence of early development of the Project Area as part of the 1831-1902 Bradley family home station and the post 1902 development of the Gundry Plains property. The archaeological potential of the Project Area is therefore considered to be nil to low. If present within the Project Area, any truncated or fragmented archaeological remains are unlikely to have research potential as they are unlikely to provide new or significant information about the history of the Project Area.

6.0 Heritage Impact Assessment

This section assesses the likely impacts of the Project on the heritage items identified in **Section 2.3** in vicinity of the Project Area and any assessed areas of historical archaeological identified in **Section 5.1.3**.

The impact assessment has been undertaken using the heritage impact gradings included in **Table 6.1**. The gradings have been developed in accordance with the Heritage NSW guidelines and the Burra Charter.

Table 6.1 Heritage Impact Gradings

Grading	Definition
Major Adverse	An action which will have a severe, long term and possibly irreversible impact on the heritage item. Major adverse impacts include the partial or complete demolition of a heritage item or addition of new structures in its vicinity that would destroy the visual setting of the items. The action will have a substantial impact on the fabric and or values of the heritage item. Actions of a major adverse impact cannot be fully mitigated.
Moderate Adverse	An action that will have an adverse impact on a heritage item. Moderate adverse impacts include the modification of a heritage item, including partial removal of significant fabric or elements, altering the setting of a heritage item or landscape and construction of new structures which alter the visual setting of the heritage item. Actions of a moderate adverse impact may be able to be reduced through appropriate mitigation measures.
Minor Adverse	An action that will a minor adverse impact on a heritage item. This may include an action affecting only a small element of the heritage item, or a small or partial impact on the setting of a heritage place. The action may be temporary or reversible. Actions of a minor adverse impact are able to be minimised or reduced through use of appropriate mitigation measures.
Negligible Impact	Actions which do not affect the heritage values of a place, or do not affect significant elements, fabric, views, or the setting of a heritage item.
Minor Positive	An action which will bring a minor benefit to a heritage item, such as improving an item's visual setting.
Moderate Positive	An action which will bring a moderate benefit to a heritage item, such as the removal of an intrusive element or fabric, or a substantial improvement to the heritage items setting or reinstatement of obscured views.
Major Positive	Major positive impacts include actions which include a major benefit to the heritage item and add to or increase the heritage values of the item. This includes actions such as the reconstruction of significant elements, removal or substantial intrusive elements or structures in the curtilage or reinstatement of a heritage items visual curtilage or setting. This can also include the reintroduction of former uses of an item which are key to demonstrating its heritage significance.

6.1 Assessment of Heritage Impacts

6.1.1 Impacts to Heritage Items

6.1.1.1 Physical Impacts to Heritage Items

As identified in **Section 2.3**, there are no listed heritage items within the Project Area. As part of the review of the historical development and existing context of the Project Area, no potential heritage items were

identified within the Project Area. The Project will therefore not result in any physical impacts to heritage items within the Project Area.

The nearest local heritage item is 'Pelican' Homestead (Item I599 on the Goulburn Mulwaree LEP 2009). This is located approximately 3.4 km west of the Project Area. The Project will not require any intervention or works within the curtilages of this heritage item. No other heritage items are located within 4 km of the Project Area. As such, the Project will have no physical impacts on heritage items in the vicinity of the Project Area.

6.1.1.2 Visual Impacts to Heritage Items

The Project Area is located within undulating and gently sloping hills of the Gundry Plains, a cultivated landscape characterised by mostly cleared open pastures on mostly lower elevated landforms with undulating hilly areas (Envisage 2024). The Project Area includes typical aspects of this landscape, with undulating hills and drainage lines, and steeper inclines to the east.

The nearest heritage item, 'Pelican' Homestead is located approximately 3.4 km west of the Project Area and is set within a similar landscape of undulating pastoral plains. As identified in **Table 2.1**, several other local heritage items are located approximately 7 km north of the Project Area within the Gundry Plains, as well as in the semi-rural and urban landscape of Goulburn.

Review of the State Heritage Inventory (SHI) citation for the 'Pelican' Homestead indicated that the significance of this pastoral property, although located within a similar rural landscape to the Project Area, stems from the significant historical development of the property as a convict-built property and associations with a locally significant family. No significant views or vistas to or from the Project Area were indicated in the available information. Views to or from this heritage item from Windellama Road are unlikely to be obscured or adversely impacted by the Project based on the distance between the Project Area and the item, as well as the nature of development that is proposed.

Similarly, the cluster of heritage items located within 7 km to the north of the Project Area such as 'Dwelling Coorinyah' and 'Homestead Yattalunga (1860)' do not identify any significant views to or from the heritage items within their citations. Similarly, the wider landscape has not been identified as a contributory element to the significance of these heritage items.

The State Heritage Register items located within the Goulburn township, which are located 7 km to the north of the Project Area are located beyond the gentle rolling hills of the landscape to the north of the Project Area, which will provide a visual buffer between the Project and these items.

The LVIA prepared for the Project (Envisage, 2024) includes a detailed assessment of visual impacts on the scenic quality and landscape character of the area surrounding the Project, with a particular focus on the potential for impacts on Goulburn as a regional city. This included a consideration of the potential for the Project to impact on the Heritage Conservation Areas and urban quality of the regional city. The LVIA found that:

The assessed impact [on the landscape character of Goulburn City's landscape] was low. Given its distance from the city, its relative low-profile height, and dark visually recessive colour, it is not anticipated that the Project would affect the regional city's scenic quality or landscape character experienced from the city's urban precincts, growth fringe precincts, heritage conservation areas or heritage items (Envisage 2023; 35)

The LVIA assessment provides clarity on the level of visibility of the Project from within, and adjacent to, the heritage conservation areas and heritage items in Goulburn and that, while it may be ‘theoretically visible’ (Envisage, 2024) from several heritage items, the Project would not result in any changes to the landscape character, setting and urban nature of Goulburn nor the semi-rural nature of the fringe areas between Goulburn and the Project.

The Project would not remove any evidence of the historical development of the region, a contributory element to the significance of heritage conservation areas. No indirect (visual) impacts to the heritage significance of the listed heritage items in the vicinity would result from the Project.

6.1.2 Impacts to Historical Archaeology

The construction of the Project would result in some ground disturbing works, such as leveling, installation of footings for new structures (including solar panels, onsite substation etc), underground cabling and formation of internal access tracks.

Section 5.1.3 of this report identifies that the potential for the Project Area to contain historical archaeological remains is generally low to nil. Although there are ground disturbing works proposed across the Project Area, if archaeological remains are present, they are anticipated to be limited to fragmentary remains of structures that are unlikely to have any identifiable heritage significance. Direct impacts to historical archaeological remains of significance are therefore not anticipated in association with the Project.

7.0 Conclusions and Recommendations

7.1 Conclusions

As identified in **Section 2.3**, there are no listed heritage items within the Project Area, and no potential heritage items were identified during the review of the available desktop information and site context and visual inspection of the Project Area.

As identified in **Section 6.1**, the Project would not result in any physical or visual impacts to heritage items within the vicinity of the Project Area.

As identified in **Section 5.1.3**, the Project Area is considered to have low to nil potential to contain archaeological remains. The potential risk to any harm to any as yet unidentified archaeological resource is therefore assessed as low.

7.2 Recommendations

Table 7.1 presents the heritage related management and mitigation measures proposed for the Project based on the findings of this report.

Table 7.1 Management and Mitigation Measures

No	Management and Mitigation measure	Timing
1	An unexpected heritage finds protocol should be established and included in the environmental management policies for the project. This should include identification of contact persons within the Proponent team as well clearly identified steps to be implemented. All project team members and construction contractors should undertake a heritage-specific induction to support the use of this protocol.	Prior to construction and during construction.
2	In the unlikely event that unexpected historical archaeological material is discovered, all work in the area should cease and suitably qualified archaeologist should be consulted to determine an appropriate course of action. Depending on the extent and significance of the archaeological remains encountered, additional assessment and investigations, and consultation with Heritage NSW may be require prior to the re-commencement of works.	During construction

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