

West Wyalong Solar Farm

Heritage Assessment (non-
Aboriginal)

Report to Lightsource Development
Services Australia

Bland Shire Local Government Area

January 2019



 artefact

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EXECUTIVE SUMMARY

Artefact Heritage Services Pty Ltd (Artefact Heritage) has been engaged by Lightsource Development Services Australia Pty Ltd to prepare a Heritage Assessment (HA) for construction and operation of a 90 MW AC solar farm in West Wyalong. The solar farm will be constructed on two rural lots at 228-230 Blands Lane, West Wyalong comprising a total of 560 hectares (ha) the study area.

The proposal is a State Significant Development (SSD), application number SSD_18_9504. The NSW Department of Planning and Environment issued Secretary's Environmental Assessment Requirements (SEARs) for this project on 21 September 2018. Revised SEARs were issued on 8 November 2018, without change to heritage requirements.

It was found that:

- The study area was historically within the large Lake Cowal run, one of the first pastoral leases in the Lachlan district.
- In the early twentieth century the land was subdivided with the current study area containing two homestead farms.
- The study area has been predominantly used for grazing and broadacre cropping. Associated impacts including soil loss, ploughing and stock trampling are likely to have disturbed any shallow archaeological deposits.
- There are no listed or unlisted heritage items located within the study area.
- The study area has nil-low potential for significant non-Aboriginal archaeological remains (relics).

It is recommended:

- The current proposed works are not expected to impact archaeological relics and therefore no further archaeological investigation, or mitigation is required.
- An Unexpected Finds Procedure would be implemented throughout the duration of the proposed development. If potential archaeological relics are unexpectedly discovered during excavation, work must cease in the affected area and an archaeologist engaged to assess the find. Depending on the nature of the discovery, additional assessment and possibly an excavation permit may be required prior to the recommencement of excavation in the affected area. The Heritage Council would be notified in writing in accordance with Section 146 of the NSW Heritage Act 1977 if it was confirmed that relics had been identified.
- If human remains, or suspected human remains, are found during the works, all work in the vicinity must cease, the site should be secured, and the NSW Police Coroner must be notified. If the remains are found to be archaeological the NSW Heritage Division (as a delegate of the Heritage Council) must be notified.

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1.0 INTRODUCTION

1.1 Background

Lightsource Development Services Australia Pty Ltd (the proponent) are proposing to construct and operate a 90 megawatt (MW) AC solar farm in West Wyalong. The proposed solar farm will be constructed on two rural lots at 228-230 Blands Lane, West Wyalong (Figure 1).

On 21 September 2018, the project was assessed as being a State Significant Development (SSD) (SSD_18_9504) and requiring the preparation of an Environmental Impact Statement (EIS). The NSW Department of Planning and Environment issued Secretary's Environmental Assessment Requirements (SEARs) for the preparation of the EIS with the following requirements for heritage assessment:

Heritage – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, including consultation with the local Aboriginal community in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents (SSD_18_9504)

SEARs were updated on 8 November 2018, without changes to heritage requirements. Artefact Heritage Services Pty Ltd (Artefact Heritage) has undertaken the assessment of Aboriginal and non-Aboriginal cultural heritage values for the EIS through preparation for the proponent of an Aboriginal Survey Report (ASR) (Artefact Heritage 2018a) and an Aboriginal Cultural Heritage Assessment Report (ACHAR) (Artefact Heritage 2018b).

This report provides an assessment of non-Aboriginal heritage values.

1.2 Overview of the proposal

Figure 2 shows the current proposed layout of the solar farm. The proposed components of the solar farm would comprise:

- Installation of approximately 296,000 solar panels in the south part of the study area. These will be placed on a mounting structure with tracking capabilities. Each panel will be approximately 1.95 metres (m) x 0.992 m with a depth of 50 millimetres (mm). They will be dark blue in colour with an aluminium frame and will be coated with an anti-reflective coating in order to maximise daylight absorption.
- Substation and battery energy storage system.
- Internal access roads and access points.
- Perimeter security fencing.
- Powerline easement from substation to existing powerline.

Power generated by the facility will be transmitted to the local energy grid via a new substation to be installed on the site. Access to the facility will be from Blands Lane.

1.3 The study area

The study area consists of two rural lots (Lot 17 DP753081 and Lot 18 DP753081) at 228 - 230 Blands Lane, West Wyalong comprising a total of 560 hectares (ha) (Figure 2). The study area fronts Blands Lane to the north. It is located within the Bland Shire Local Government Area (Bland Shire LGA) within the Parish of Clear Ridge and County of Gipps. It is contained within the boundary of West Wyalong Local Aboriginal Land Council (West Wyalong LALC).

1.4 Report methodology

This report investigates the known and potential non-Aboriginal heritage of the study area. It provides an assessment of archaeological potential and outlines any management and mitigation measures that may be required to protect and preserve potential archaeological resources. This report contains a Statement of Heritage Impact. This assessment is being conducted to satisfy requirements outlined in the SEARs for the proposal under the *Environment Planning and Assessment Act 1979* (EPA Act) and prepared in accordance with the NSW Heritage Division's guidelines of *Assessing Significance for Historical Archaeological Sites and Relics* (2009) and *Statements of Heritage Impact* (2002).

1.5 Limitations

This report only provides an assessment of built heritage and non-Aboriginal archaeological resources.

1.6 Authorship

This report has been authored by Anna Darby (Heritage Consultant, Artefact Heritage) and Michael Lever (Senior Heritage Consultant, Artefact Heritage). Michael Lever (Senior Heritage Consultant, Artefact Heritage) provided management and reporting input. Vanessa Edmonds (Principal, Artefact Heritage) and Dr Sandra Wallace (Director, Artefact Heritage) provided project direction and review.

1.7 Report Structure

The remainder of this report is structured as follows:

- Section 2 reviews the legislative and regulatory framework for this investigation
- Section 3 presents the historical background pertinent to understanding the significance of the study area
- Section 4 presents the results of the site survey, including a description of the study area
- Section 5 contains the archaeological assessment of the study area, discussing relevant studies, potential for archaeology and archaeological significance
- Section 6 investigates the potential heritage impacts from the proposed works, presents design and construction considerations and discusses potential impacts and mitigation measures
- Section 7 draws conclusions and provides recommendations for the study area
- Section 8 lists references

Figure 1: Location of the study area.

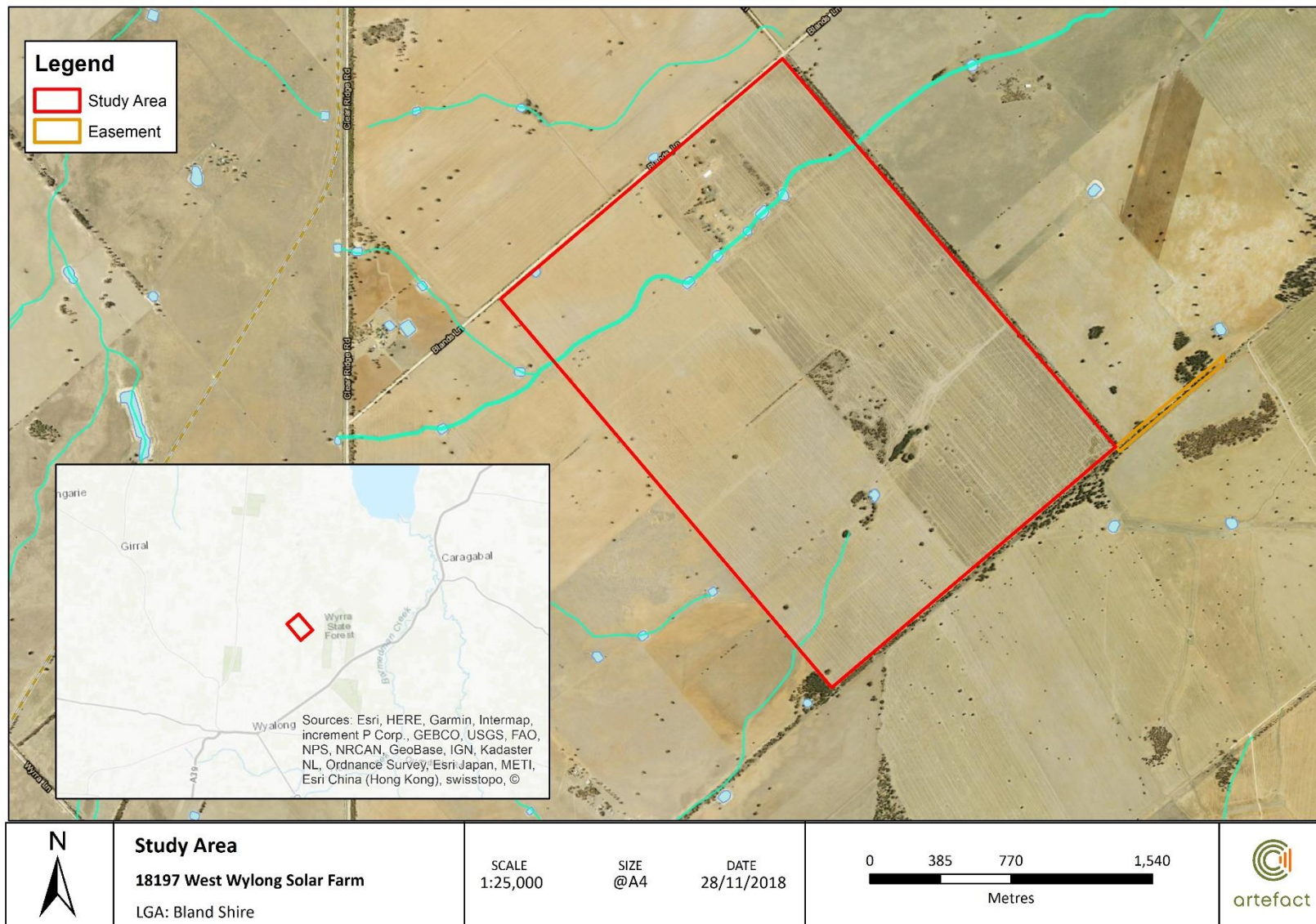
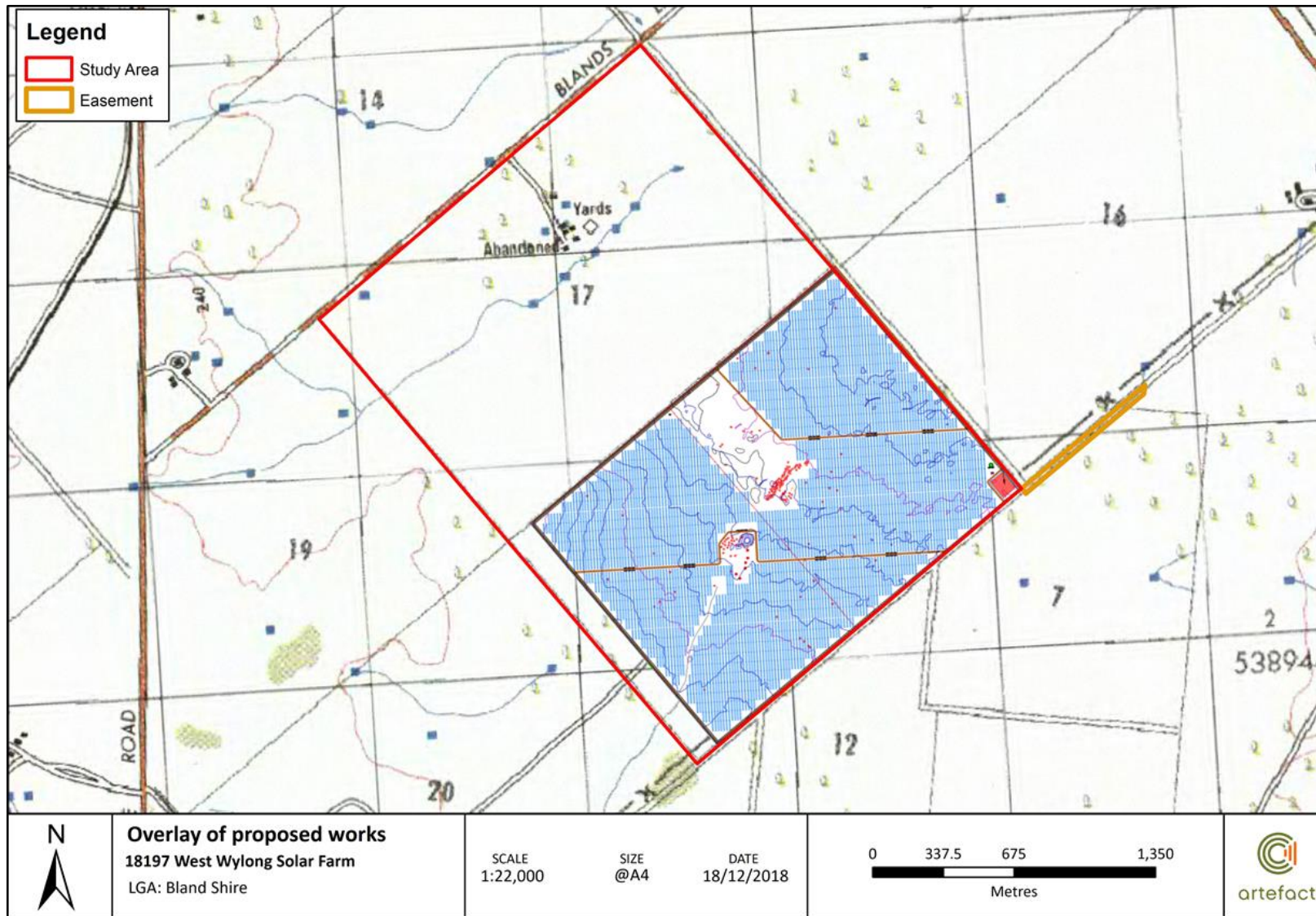


Figure 2: Proposed layout (client version REV15)



2.0 LEGISLATIVE CONTEXT

2.1 Relevant legislation

2.1.1 The World Heritage Convention

The Convention Concerning the Protection of World Cultural and National Heritage (the World Heritage Convention) was adopted by the General Conference of the United Nations Educational, Scientific and Cultural Organisation (UNESCO) on 16 November 1972, and came into force on 17 December 1975. The World Heritage Convention aims to promote international cooperation to protect heritage that is of such outstanding universal value that its conservation is important for current and future generations. It sets out the criteria that a site must meet to be inscribed on the World Heritage List (WHL) and the role of State Parties in the protection and preservation of world and their own national heritage.

The concept of a buffer zone was first included in the Operational Guidelines for the Implementation of the World Heritage Convention in 1977 and recognises the value of the environment that surrounds a site. The buffer zone acts as an additional layer of protection for World Heritage sites. It is a space that is itself not of outstanding universal value, but that influences the value of a World Heritage site.

- No heritage items in or within view of the study area are registered on the World Heritage List.

2.1.2 State and Commonwealth legislation

2.1.2.1 *Environmental Planning and Assessment Act 1979*

The *Environmental Planning and Assessment Act 1979* (EP&A Act) establishes the framework for cultural heritage values to be formally assessed in the land use planning and development consent process. The EP&A Act requires that environmental impacts are considered prior to land development; this includes impacts on cultural heritage items and places as well as archaeological sites and deposits.

The EP&A Act also requires that Local Governments prepare planning instruments (such as Local Environmental Plans [LEPs] and policies such as Development Control Plans [DCPs]) in accordance with the EP&A Act to provide guidance on the level of environmental assessment required.

2.1.2.2 *Environment Protection and Biodiversity Conservation Act 1999*

The *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places. These are defined in the EPBC Act as matters of national environmental significance. Under the EPBC Act, nationally significant heritage items are protected through listing on the Commonwealth Heritage List or the National Heritage List.

National Heritage List

The National Heritage List was established under the EPBC Act, which provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places. Under the EPBC Act, nationally significant heritage items are protected through listing on the National Heritage List or the Commonwealth Heritage List.

- No heritage items in or within view of the study area are registered on the National Heritage List.

Commonwealth Heritage List

The Commonwealth Heritage List has been established to list heritage places that are either entirely within a Commonwealth area, or outside the Australian jurisdiction and owned or leased by the Commonwealth or a Commonwealth Authority. The Commonwealth Heritage List includes natural, Indigenous and historic heritage places which the Minister for Sustainability, Environment, Water, Population and Communities is satisfied have one or more Commonwealth Heritage values.

- No heritage items in or within view of the study area are registered on the Commonwealth Heritage List.

2.1.3 State legislation

2.1.3.1 Heritage Act 1977

The NSW *Heritage Act 1977* (Heritage Act) is the primary piece of State legislation affording protection to heritage items (natural and cultural) in New South Wales. 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 can be listed on the NSW State Heritage Register (SHR) and are given automatic protection under the Heritage Act against any activities that may damage an item or affect its heritage significance. The Heritage Act also protects 'relics', which can include archaeological material, features and deposits.

The Heritage Act also provides protection for 'relics', which includes archaeological material or deposits. Section 4 (1) of the Heritage Act (as amended in 2009) defines a relic as:

...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 significance¹*

Sections 139 to 145 of the Heritage Act prevent the excavation or disturbance of land known or likely to contain relics, unless under an excavation permit. Section 139 (1) states:

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 is carried out in accordance with an excavation permit.²

Excavation permits are issued by the Heritage Council of NSW, or its Delegate, under Section 140 of the Heritage Act for relics not within State Heritage Register (SHR) curtilages, or under Section 60 for significant archaeological remains within SHR curtilages. In some circumstances, a Section 60 permit may not be required if works are undertaken in accordance with the Standard Exemptions for Works Requiring Heritage Council Approval or in accordance with agency specific exemptions.

The Heritage Act defines 'works' as being in a separate category to archaeological 'relics'. Works refer to past evidence of infrastructure. Works may be buried, and therefore archaeological in nature, however, exposure of works does not trigger reporting obligations under the Heritage Act. The following examples are commonly considered to be works: former road surfaces or pavement,

¹ NSW Government, 1997 [2016]. *Heritage Act 1977 No. 136*. <https://www.legislation.nsw.gov.au/#/view/act/1977/136> (09/08/2017).

² NSW Government, 1997 [2016]. *Heritage Act 1977 No. 136*. <https://www.legislation.nsw.gov.au/#/view/act/1977/136> (09/08/2017).

kerbing, evidence of former infrastructure (such as drains or drainage pits where there are no relics in association) and building foundations.

The State Heritage Register

The SHR was established under Section 22 of the Heritage Act and is a list of places and objects of particular importance to the people of NSW, including archaeological sites. The SHR is administered by the New South Wales (NSW) Heritage Division of the Office of Environment and Heritage (OEH) and includes a diverse range of over 1,500 items, in both private and public ownership. To be listed, an item must be deemed to be of heritage significance for the whole of NSW.

- No heritage items in or within view of the study area are registered on the SHR.

Section 170 Registers

The Heritage Act requires all government agencies to identify and manage heritage assets in their ownership and control. Under Section 170 of the Heritage Act, government instrumentalities must establish and keep a register which includes all items of environmental heritage listed on the SHR, an environmental planning instrument or which may be subject to an interim heritage order that are owned, occupied or managed by that government body.

- No heritage items in or within view of the study area are registered on Section 170 Registers.

2.1.4 Local legislation

Bland Local Environmental Plan 2011

The Bland LEP 2011 applies to those parts of the Bland Shire LGA.

The following clauses apply to heritage items, land within the vicinity of heritage items and historic archaeological relics or sites within land subject to the Bland LEP 2011, under Schedule 5.10 of the LEP:

(1) Objectives

The objectives of this clause are as follows:

- (a) to conserve the environmental heritage of Bland,*
- (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*

(2) Requirement for consent Development consent is required for any of the following:

(a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance):

- (i) a heritage item,*
- (iii) a building, work, relic or tree within a heritage conservation area,*

(b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item,

(c) *disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,*

(e) *erecting a building on land:*

(i) *on which a heritage item is located or that is within a heritage conservation area,*

(f) *subdividing land:*

(i) *on which a heritage item is located or that is within a heritage conservation area, or*

(4) Effect of proposed development on heritage significance

The consent authority must, before granting consent under this clause in respect of a heritage item or heritage conservation area, consider the effect of the proposed development on the heritage significance of the item or area concerned. This subclause applies regardless of whether a heritage management document is prepared under subclause (5) or a heritage conservation management plan is submitted under subclause (6).

(5) Heritage assessment

The consent authority may, before granting consent to any development:

(a) *on land on which a heritage item is located, or*

(b) *on land that is within a heritage conservation area, or*

(c) *on land that is within the vicinity of land referred to in paragraph (a) or (b), require a heritage management document to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage conservation area concerned.*

(7) Archaeological sites

The consent authority must, before granting consent under this clause to the carrying out of development on an archaeological site (other than land listed on the State Heritage Register or to which an interim heritage order under the Heritage Act 1977 applies):

(a) *notify the Heritage Council of its intention to grant consent, and*

(b) *take into consideration any response received from the Heritage Council within 28 days after the notice is sent.³*

- No heritage items in or within view of the study area are registered on the Bland LEP 2011.

2.1.5 Non-statutory considerations

Register of the National Estate

The Register of the National Estate (RNE) is no longer a statutory list; however, it remains available as an archive.

- No heritage items in or within view of the study area are registered on the RNE.

³ NSW Government, 2011. *Wollondilly Local Environmental Plan*. Schedule 5.10. Accessed online at: <https://www.legislation.nsw.gov.au/#/view/EPI/2011/85/sch5> on 02/05/2018.

National Trust of Australia (NSW)

Listing on the National Trust Heritage Register does not impose statutory obligations and is more an indication in which the item is held by the heritage community.

- No heritage items in or within view of the study area are listed on the National Trust register.

3.0 HISTORICAL BACKGROUND

3.1 Aboriginal occupation and European contact

Traditional Aboriginal tribal boundaries within Australia have been reconstructed, primarily, based on surviving linguistic evidence and are therefore only approximations. Social interaction, tribal boundaries and linguistic evidence may not always correlate, and it is likely boundaries and interaction levels varied and fluctuated over time. The study area is within the traditional boundaries of the Wiradjuri language group (Tindale 1974). Clusters of neighbouring clans which shared a common dialect and political and economic interests defined themselves from other clusters by a language name (Barwick 1984). The territories of these clans were often small, consisting of several kilometres of river frontage and some back country.

The Wiradjuri language group is described by Tindale (1974) as the largest tribal grouping in Australia. The territory extends from the Blue Mountains in the east, north to Nyngan and south to Albury. The Lachlan and Macquarie Rivers were a rich resource that provided food and transport. The food from the rivers was supplemented with kangaroos, wallabies, bandicoots, emus, turkeys, snakes and lizards, especially in those seasons when people moved from the rivers into the ranges or plains. Bulrush roots, grass seeds, daisy yams, along with roots and tubers also formed part of their subsistence (Tindale 1974). Trees in the area not only provided food and fuel but were also used for the manufacture of tools and implements. For example, spears, shields, and digging sticks. Bark was used to build houses, make canoes, coolamons and other containers.

The first recorded contact between the Wiradjuri people and Europeans occurred at Bathurst on the Macquarie River where Governor Lachlan Macquarie met a group of senior Wiradjuri men wearing possum skin cloaks. The gold rush of the 1850s in the eastern Wiradjuri lands saw the local European population around Orange and Bathurst boom, becoming one of the most densely populated areas in the state. Diseases brought by the Europeans were often fatal to Aboriginal people and would have spread well beyond these population centres. The effects of disease combined with pastoral settlement to displace many Wiradjuri people. This placed pressure on their ability to economically maintain their families and to continue traditional social and religious systems.

3.2 Early European settlement and land use (1817-1846)

The area surrounding West Wyalong was first visited by Europeans in 1817. John Oxley was the first known colonist to pass through what is now Bland Shire. In June 1817 he was in the vicinity of Ungarie, approximately 34 km to the west of the study area. Oxley was unimpressed by the location and stated that the area would remain uninhabited.

Early settlement in the Bland district was undertaken by squatters, called such as they had no legal rights to occupy Crown land as they were outside the 'limits of location' (Squatters and Graziers Index, 2015). Squatting was legalised in 1836 after years of struggle between squatters and the early Governors of New South Wales. Grazing rights were available for ten pounds a year. In 1847 the orders council divided land into settled, intermediate and unsettled areas, with pastoral leases of one, eight and 14 years for each category respectively. From this time onwards squatters were able to purchase parts of their land as opposed to just leasing it. In 1846 an Imperial Act 'An Act of regulating the waste lands ...in the Australian colonies' was passed and took effect from May 1847. This Act provided for continuity of pastoral land ownership. The Act removed much of the uncertainty that had previously constrained construction of the more permanent pastoral structures such which were required for efficient land management (English, 2014).

3.3 Pastoral leases and Gold Rush (1848 – 1913)

The pastoral lease within the study area was gazetted in 1848 and was called the Lake Cowal run. The run was listed as having frontages to the Billabong Creek, downstream from Billabong (another run), and extended along the Billabong run boundary to within seven miles of the future township of Wyalong. To the west and north west the run encompassed the areas that later became the townships of Clear Ridge and Blow Clear (English, 2014). The study area and surrounds are shown in Figure 3 on a parish map dated to May 1886. A detailed extract from this map is shown in Figure 4. This map documents that the study area had not been ringbarked, was surrounded by timber, brush and log fencing and contained (likely man made) water holes. This map is relatively detailed and includes description of water tanks and individual paddocks. No homesteads or any other buildings are marked in the surrounds of the study area, which is remote from the only marked homestead. The homestead is positioned near the Bland Creek and a Travelling Stock Route.

The *Land Act 1884*, also known as the Subdivision of Runs Act converted previously registered runs into pastoral holdings. The Lake Cowal run was converted into two pastoral holdings, numbers 701 and 162. The study area falls within Lake Cowal 701 (

Figure 5). In 1885 there were 44 lessees in the Bland Shire and surrounds. Lake Cowal 701, along with seven other local runs, was leased by the Australian Mortgage Land and Finance Company (AMLF) (Bland District Historical Society, 1993, pp. 5-6; NSW Government Gazette, 1893, p. 1052). This does not necessarily denote that the AMLF directly ran these properties, rather that it held a mortgage over them (Doolan, 1950, p. 40).

The Australian Mortgage Land and Finance Company was established in London 1863 and later traded as the Australian Mercantile Land and Finance Company. It has been described as one of the most prominent drivers behind the development of the wool industry in Australia. It financed squatters, but also owned and ran stations in addition to buying and selling wool. The company enjoyed continued success through various name and structural changes. Its former interests now are part of the Elders Pastoral Division (Queensland Historical Atlas, 2015). No mapped or other evidence has been obtained to indicate the presence of a homestead or other significant structure in the study area dating from the time of this lease-holding.

At some time between 1885 and 1892 the lease of Lake Cowal 701 passed to S. Wilson Sons and Co., who in 1893 won a prize for their Lake Cowal wool at the Chicago Exhibition Wool Awards (The Australasian Pastoralists Review, 1893, p. 492). The Wilson family appear to have had ongoing success and in 1907 and 1908 were noted as Cowal sheep farmers active in the Pastoralists' Union of New South Wales (The Pastoralists' Review, 1907). The Wilson family were apparently highly regarded. In 1928 a Mr S. Wilson was described as 'the well-known squire of Lake Cowal' in association with his donation to improvements to the local sheep pavillion (The West Wyalong Advocate, 1928, p. 4). By this time as described below, Wilson was no longer the leaseholder of the study area which had been resumed from Lake Cowal 710.

The towns of Wyalong and West Wyalong were established after gold was discovered in 1893 by Joseph Neeld whose family registered claims on prime local locations. In 1895, after the first load of stone was sent to Barmedman producing a high yield, thousands of people descended into the area (Bland District Historical Society 1993). The gold rush extended through much of the Bland Shire. Lake Cowal 701 is shown in Figure 6 as having been within the boundaries of the Bourke Cooper Dowling and Gipps Gold Field. No information has been retrieved on the specific nature of gold mining activities in the study area, or interactions between mine and pastoral activities. A variety of mining techniques were used locally, ranging from small shaft mines to deep-lead mines with poppet heads. Activities associated with mining may have included establishment of stamping plants and

excavation of settling ponds. Gold yields in the Wyalong area declined from 1900 with a corresponding rise in release of Homestead Selection blocks, generally between 400 acres to 700 acres in size (Bland District Historical Society, 1993, p. 36).

Significant parts of the Lake Cowal 701 lease were resumed by the government in 1908 for eventual subdivision into small homesteads (Government Gazette of NSW, 1908, p. 6846). The history of such small homestead farming in the study area is taken up in the following section.

Figure 3: Lake Cowal Run, red arrow indicates the approximate location of the study area. Green arrow indicates the only marked local homestead. Source: HRLV Viewer

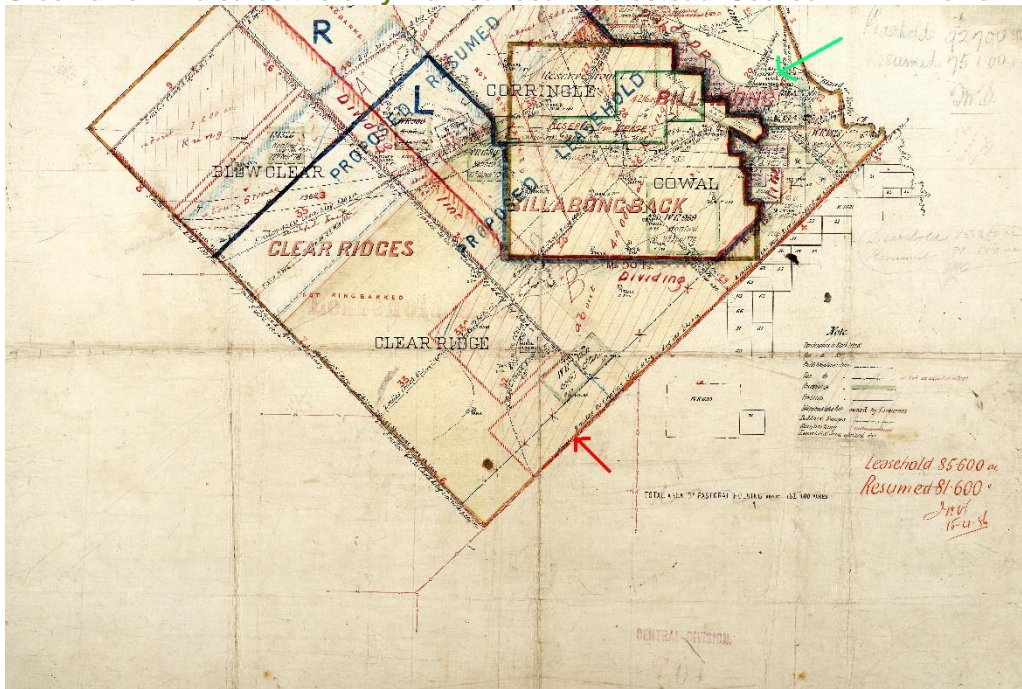


Figure 4: Close up of the Lake Cowal Run, red arrow indicates the approximate location of the study area. Source: HRLV Viewer

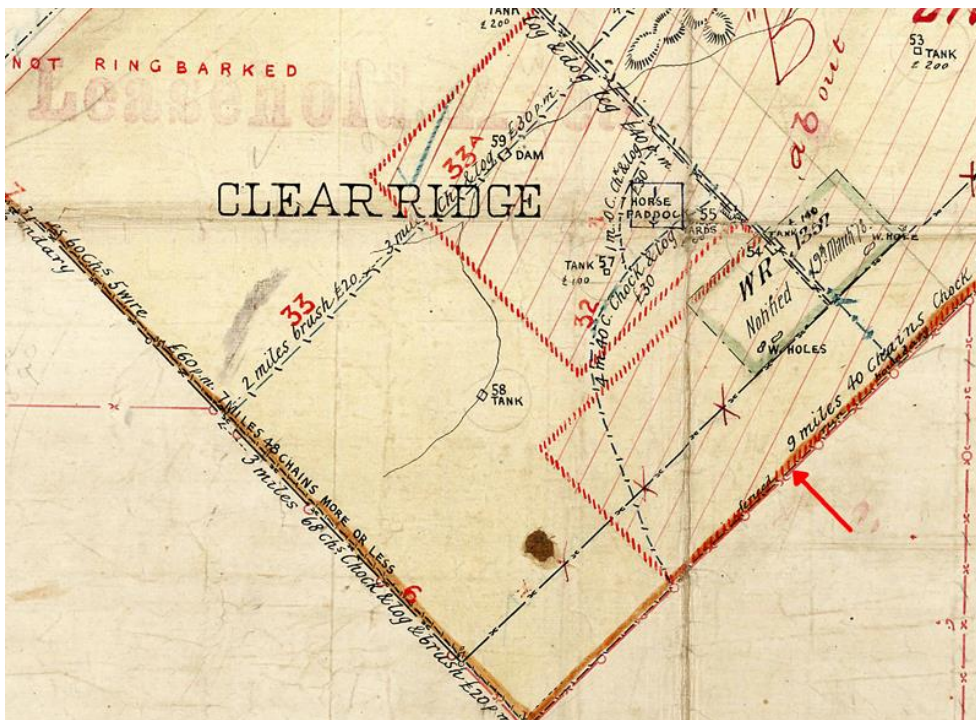


Figure 5: 1887 Parish map, approximate location of study area in red. Source: HRLV Viewer

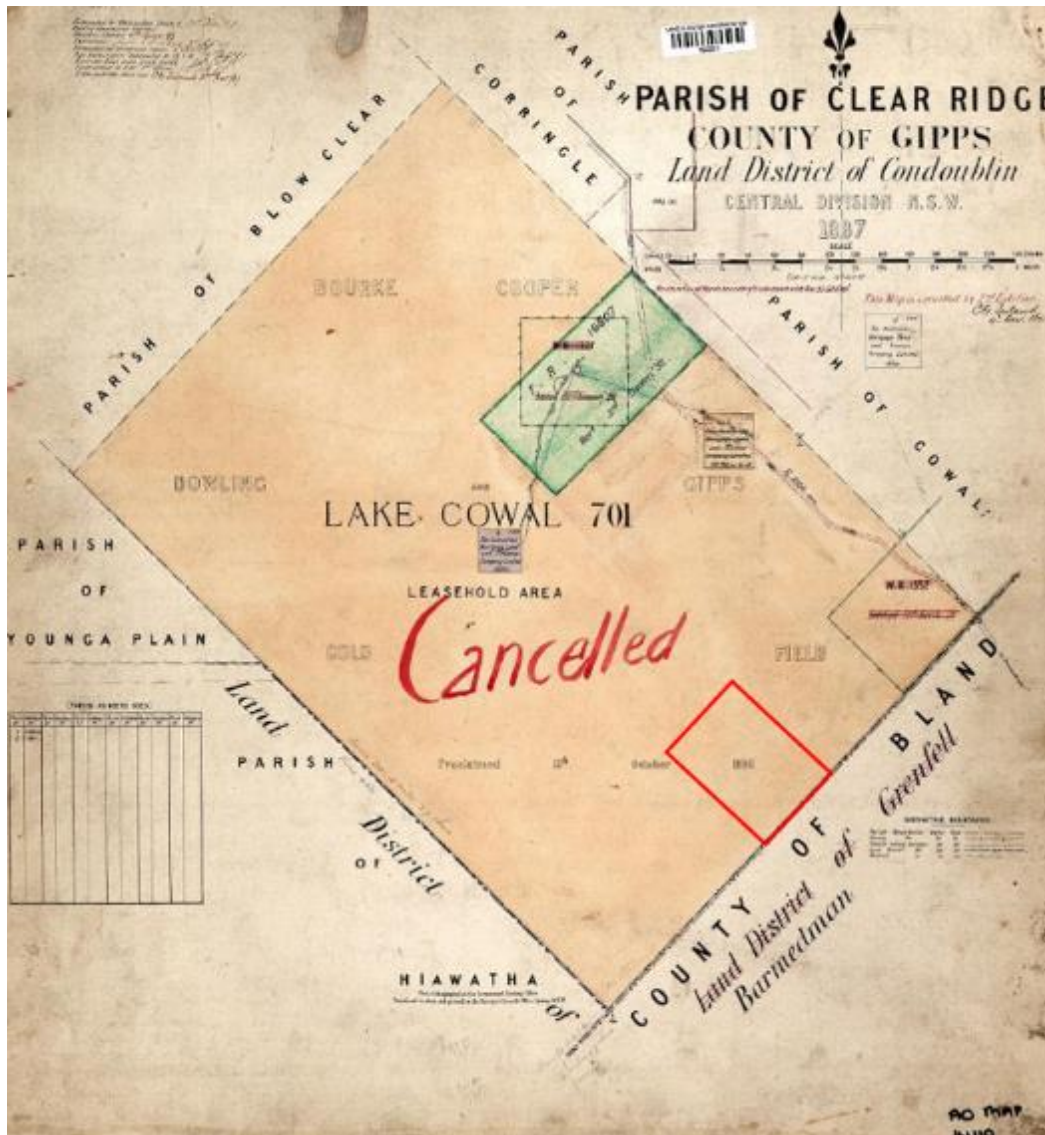
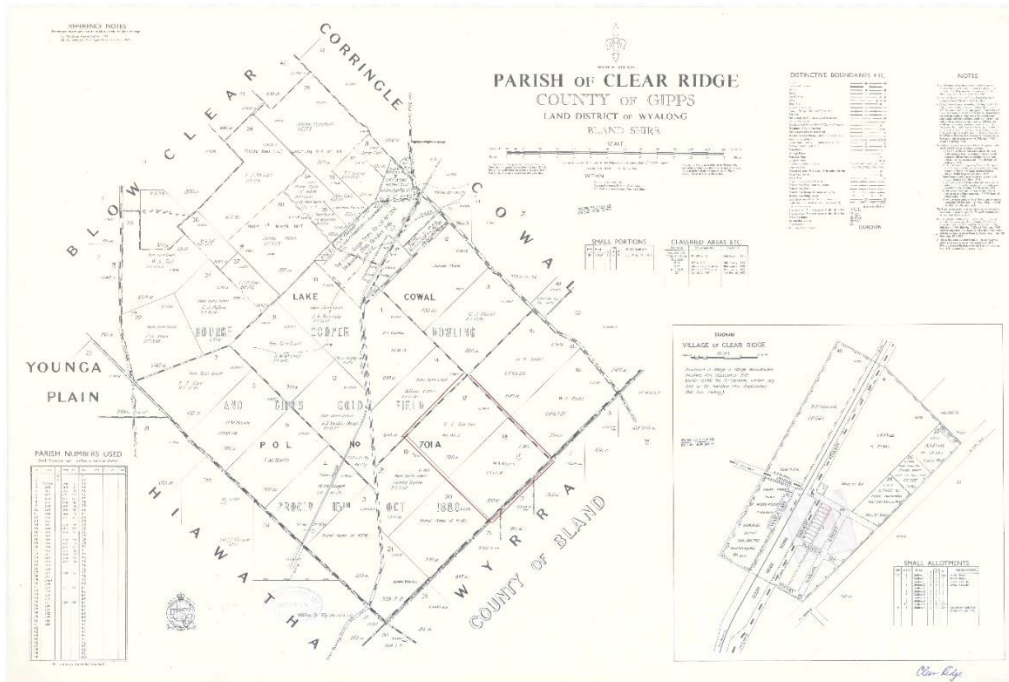


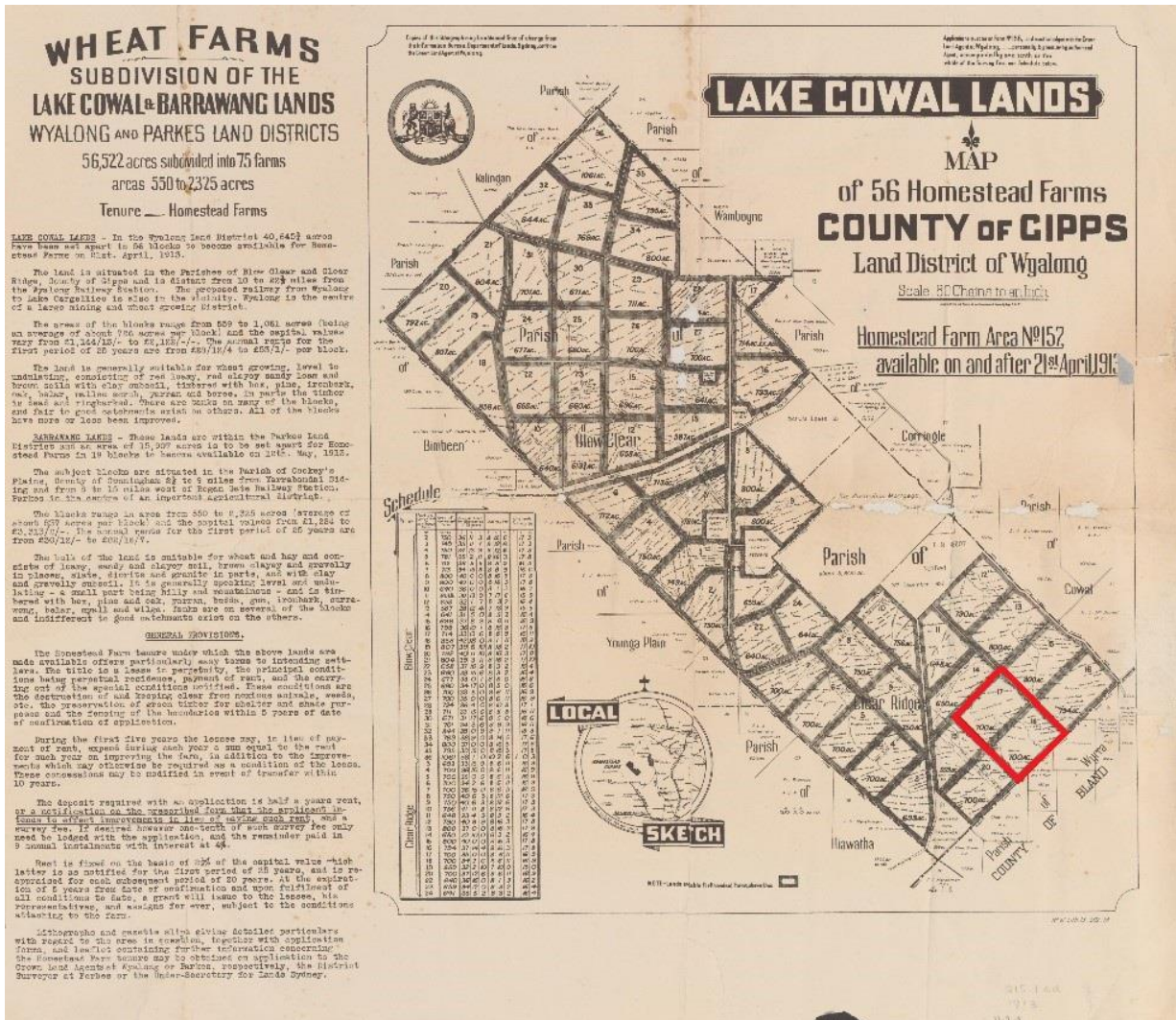
Figure 6: Parish map (1931) showing the study area in red and documenting previous gold leases (NLA Trove)



3.4 Homestead farms (1913 – onwards)

In 1913, the Lake Cowal and Barrawang Lands were subdivided for homestead farms, advertised as suitable for wheat (Figure 7). Homestead farms were designed to maintain a settler, his family and home under reasonable conditions (English 2014). The study area is lots 17 and 18 of the subdivided Lake Cowal lands which correspond to the current lot subdivision numbers Lot 17 DP753081 and Lot 18 DP753081. Both lots measure 700 acres (283.28 ha). The easement element of the study area is situated in a road reserve that does not appear to have been developed, but which is recorded as having been in use as a track and subject to council maintenance (The Wyalong Advocate, 1919, p. 3).

Figure 7: Subdivision of Lake Cowal Lands in 1913 (NLA Trove). Study area outlined in red



3.4.1 Lot 17 DP753081

Lot 17 comprises the north section of the study area. The first settler to take up this land was Leslie Butler in 1913. The Butler family were among the pioneer European settlers of Barmedman and Wyalong. Leslie's father William Butler moved to Wyalong shortly after the discovery of gold there in 1894 (West Wyalong Advocate, 1945). Born near Mudgee, William Butler had followed gold discoveries in New Zealand and on return to Australia he married and took up agriculture in the Barmedman region. With the discovery of gold at Wyalong he invested in a number of unsuccessful mining ventures. He eventually opened a butchery in Wyalong which proved successful and which was run for many years as a family concern (Wyalong Advocate, 1913).

William Butler's son Leslie Butler had married a local, Annie Donovan, in Wyalong in 1911 (Wyalong Advocate, 1911). Leslie Butler applied to the local land board for one of 56 small farm holdings that were to be distributed to suitable candidates. A total of 1,324 applications were made for these properties, of which only 1001 applications were accepted. The successful applicants were drawn by ballot in May 1913 (Grenfell Record, 1913). Leslie and Annie Butler paid an annual rent of £35 for the property at Lot 17. Although no information has been located on the details of the couple's farm, their venture into agriculture does not appear to have been successful. A 'clearing sale' of 'Horse, Furniture, Piano and Sundries' from their farm was advertised for 1 May 1918, and was apparently held at the property of one of Annie Butler's relatives (Wyalong Advocate, 1918).

Figure 9: Henry Lynch at centre of photo (holding hat)



Henry and Maggie had named their property at Lot 18 'Loch-kenny' (The Wyalong Advocate 1918). For five years Henry and Maggie apparently made a success of their block of land together. However, Maggie passed away in 1918 (The Wyalong Advocate, 1918, p. 4) leaving Henry to raise a young family of at least eight children. Henry appeared genuinely heartbroken. His 1918 memorial notice in The Wyalong Advocate contained a poem dedicated to his late wife and Henry republished this poem at least once on the anniversary of Maggie's death (The Wyalong Advocate, 1922, p. 6).

Henry Lynch placed Loch-kenny for sale (likely in 1924) however he withdrew the property from the market in 1925 (The Wyalong Advocate, 1925, p. 3). Henry's desire to sell may have been connected with severe droughts in the region from 1918 to 1920, and the ongoing intermittent local drought that only broke in 1924 (Australian Bureau of Statistics, 2018). Henry suffered further trauma with the loss of one of his sons in service during the Second World War (The West Wyalong Advocate 1950). In 1935 Henry wrote to the editor of a local newspaper complaining among other things of weeds infesting his property from a watercourse entering his farm from an adjoining property, and of Mallee growth into his farm along fence lines (The West Wyalong Advocate, 1935, p. 2). Henry remained on Lot 18 until ill health forced him to retire, selling in 1948 and moving to Wollongong where he died only two years later in 1950. Henry was buried in the Catholic section of the Wyalong cemetery (The West Wyalong Advocate, 1950, p. 2).

The property was purchased by Waverly August Myers in 1948, who in that same year advertised locally for a disc plough, which would indicate he intended ploughed agriculture (West Wyalong Advocate, 1948, p. 3). Myers did not advertise his address as Loch-kenny, and the name appears to have gone out of use with the departure of the Lynch family. Myers was apparently experienced in sheep farming too, as in 1951 he was one of the stewards of the merino sheep section at the West Wyalong Show (West Wyalong Advocate, 1951, p. 2).

From searches of local periodicals available online (NLA Trove) the Lynch and Myers families appear to have had ongoing connection with the Wyalong region. No evidence has been obtained to indicate that members of these families were of local prominence or historical significance.

Figure 10: 1912 parish map, study area in blue. Source: HRLV Viewer

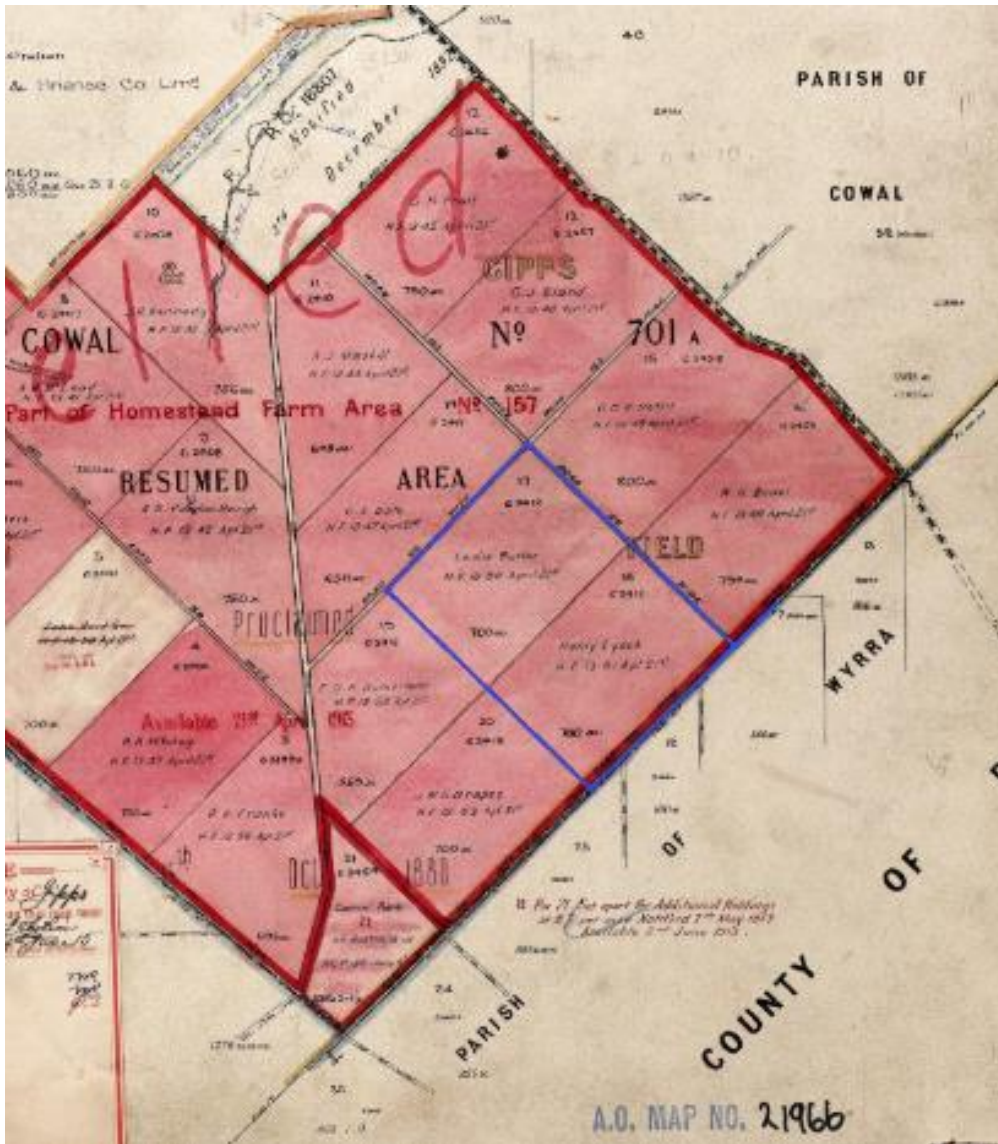
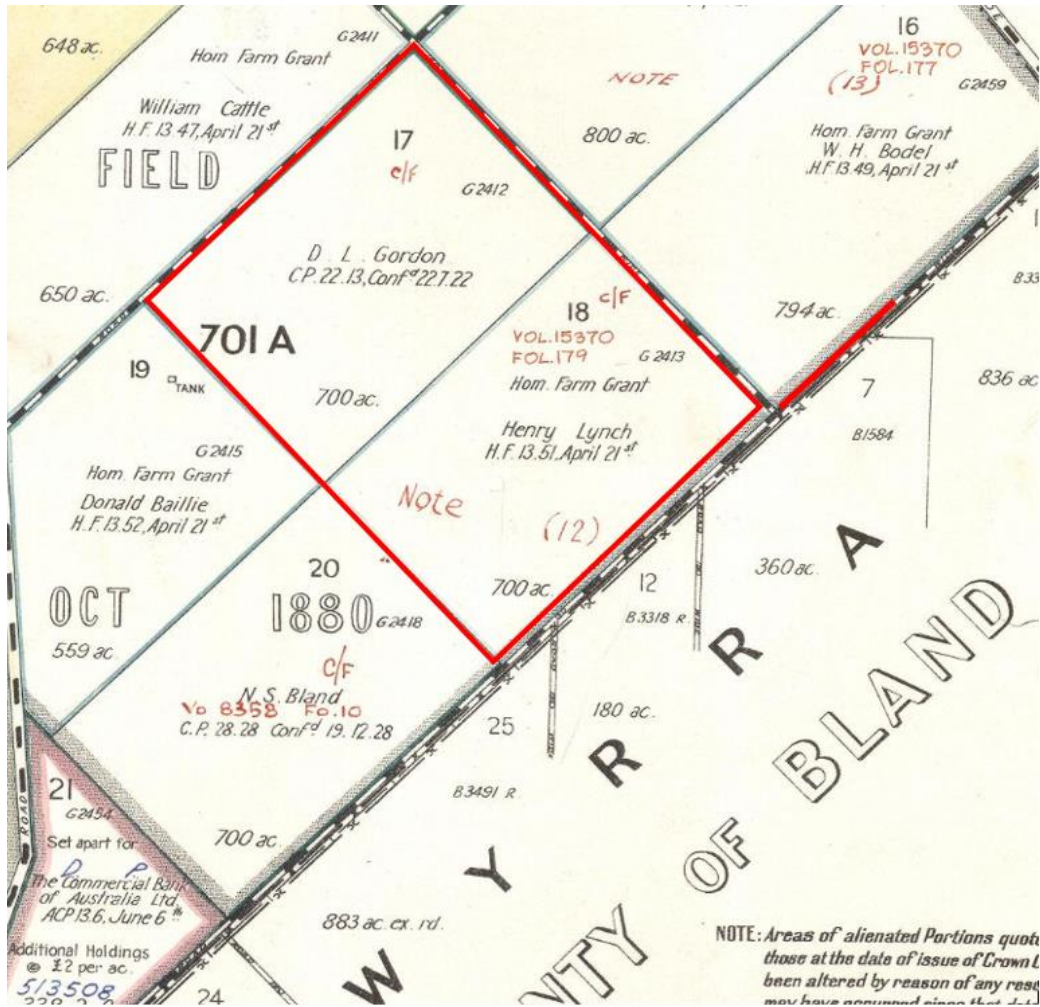


Figure 11: 1929 Parish map, study area in red. Source: HRLV Viewer



3.5 Evidence from aerial photography

The earliest aerial photograph to hand dates to 1973. This confirms the majority of the study area as being mostly cleared of vegetation and containing characteristic rural infrastructure. As described in the previous section, the study area was historically divided into two properties. Both Lot 17 DP753081 and Lot 18 DP753081 appear to contain remnant homesteads and other rural structures.

Figure 12: 1973 aerial photograph (Trove NLA)



3.6 Conclusions of documentary investigation

The study area was first documented as subject to European land use in 1848 with the founding of the Lake Cowal Run. Mining leases were present in the study area between 1880 and 1913. Through the period of 1848-1913 the study area has been mapped as open paddock situated in the outer reaches of a large grazing property (Lake Cowal Run). No structures are evident in the study area in maps dating from this period, and there is little reason to propose that significant structures would have been constructed within it during this time. In 1913 the study area was subdivided into its current cadastral lots and homestead farming activity is documented as having taken place there. Agricultural activity on both lots appears to have included pastoral and wheat farming. Lot 18 DP753081 appears to have been more successfully managed through time, with the Lynch family retaining its lease for 35 years. Aerial imaging indicates the presence of structures in both lots of the study area, and site survey of these is required to assess their potential heritage value and to assess the potential presence of archaeological deposits.

4.0 SITE SURVEY

4.1 Introduction

A site survey of the study area was carried out between 9 October and 12 October 2018 by Anna Darby (Heritage Consultant, Artefact Heritage) and Michael Lever (Senior Heritage Consultant, Artefact Heritage). The survey was carried out concurrent with a survey for Aboriginal cultural values. The entire study area was traversed on foot at closely spaced transects with participants covering approximately 70 km over three days. No evidence of historical structures or features were detected in the study area during this survey, other than the two homestead structures identified from aerial photography and described below.

A targeted survey was carried out to briefly record the two identified historical buildings and visible archaeological remains, to assess the natural setting of any identified heritage items and to identify the extent of disturbance to them. The site inspection was conducted on foot and a photographic record was made.

4.2 Survey results

4.2.1 Lot 17 DP753081

At the time of survey Lot 17 DP753081 had been sown with a wheat crop. Most built structures in the property were of late 20th-century to 21st-century construction, including agricultural infrastructure such as zinc-plated steel-framed and corrugated steel barns, and corrugated steel water tanks, sheep yards and drenching run. No current permanent residential structures were observed.

The remains of a brick chimney were observed among overgrown grass and young tree regrowth. This chimney almost certainly relates to a structure seen standing in a 1973 aerial image of the location. This appears as a small cottage with a single-hipped roof, surrounded by tree plantings (Figure 13). Additions to the cottage in the form of a roofed verandah and attached outbuildings are apparent in aerial imaging dating from 2011 (Figure 14). This structure is last visible standing on 8 February 2015 (Figure 15). Imaging dating to 10 December 2015 shows the structure in ruins with damage to nearby planted trees (Figure 16).

The observed remains of this structure consist of a single ruinous north-facing chimney built from a mixture of sandstock bricks and containing remains of an iron wood-fired stove (Figure 17). The chimney is surrounded by a tumble of mixed sandstock and machine made bricks, corrugated iron and likely asbestos containing material (Figure 18). Given the potential asbestos hazard, no closer inspection of the chimney or immediate surrounds was carried out. No remains of brick footings were evident, and it is likely that the structure that once stood here was largely timber. Large derelict corrugated steel water tanks are in close proximity to the chimney and may have once serviced the previous residence (Figure 19).

4.2.1.1 Conclusions

Given the history of the property provided in the sections above, it is fairly certain that this chimney does not date from earlier than 1913, at which time Lot 17 DP753081 was first recorded as having been used for agricultural residential purposes. It is likely that the cottage visible in imaging from 1973 represents the only non-Aboriginal residence to have been constructed in Lot 17 DP753081, and that this structure was destroyed at some time between February and December 2015. The structure does not meet criteria to be of historical significance.

Figure 13: Structure in 1973



Figure 14: Structure on 20 January 2011 (Google Earth)



Figure 15: Structure on 8 February 2015 (Google Earth)



Figure 16: Structure on 10 January 2015 (Google Earth)



Figure 17: Remains of chimney view north (Photographed by M Lever, 12 October 2018)



Figure 18: Closer view of chimney, view north complex (Photographed by M Lever, 12 October 2018)



Figure 19: Context of chimney, view south (Photographed by M Lever, 12 October 2018)



4.2.2 Lot 18 DP753081

In Lot 18, at an approximate central point of the property and immediately south of a substantial stand of mature Belah trees stands the ruinous remains of a homestead (Figure 20). This is visible in aerial imaging from 1973 as a structure with a single-hipped metal roof and a verandah to the north, facing the Belah stand. Aerial imaging from 2007 shows the structure as in ruins (Google Earth). The internal configuration of the homestead is visible in Figure 22 which dates to 2011.

The homestead currently comprises cement block walls surrounding a sandstock brick chimney, a free standing sandstock brick chimney and a variety of small ancillary items including a garden bed, water tanks and remnant laundry including concrete troughs (Figure 23, Figure 24, Figure 25). The construction of the cement block walls and brick chimneys are likely related to the 1913 occupation of the land as a homestead farm by the Lynch family between 1913 and 1948, as the cement blocks used in construction of this homestead predominantly date from a corresponding period.

The cement blocks used in the majority of the structure are distinctive and datable. They have been identified as made on a portable cement block press (Miles Lewis pers. com. 28 December 2018). This was either a 'Midget Giant' press or an 'Emu' press (Lewis, 2017). Blocks made on these two presses are identifiable by the oval profile of their internal hollow cores such as observed in blocks of the Lot 18 homestead (Figure 26). The Midget Giant press was sold by the Durable Cement Block Machine Co. of Melbourne who advertised that it allowed unskilled operators to use locally available material to make professional standard cement blocks at the site where they were to be used (

Figure 27). Such a method would likely have been attractive in the construction of remotely located homesteads. In 1907 the Midget Giant was one of many such available machines, it cost £12.10s and similar items were apparently already in use by many farmers around Australia (Lewis, 2017, p 30). The Emu press commenced manufacture in 1909 and was named after its manufacturing plant – the Emu Engineering Works in Fitzroy, Melbourne (Lewis, 2017,

p 38). Both the Midget Giant and Emu press could be purchased with a range of mould plates permitting a variety of surface finishes to each block (

Figure 28). Use of such presses remained popular in Australia through the first half of the twentieth century, with increases in their popularity associated with material shortages and financial hardship notably during and immediately after both world wars (Lewis, 2017, p46). Handmade cement blocks were largely replaced by mass produced 'Besser' blocks from the mid 1950's onwards (Lewis, 2017, p 61).

The homestead consists of five rooms. Four equally sized rooms open to a larger central common room. The common room contains a single fireplace. The walls of the common room are decorated with a red pigment wash to which a white decal has been applied (

Figure 29). No other walls in the homestead displayed any visible decoration. Each of the four rooms attached to the common room also has a window and external door.

Approximately three meters east of the homestead is a sandstock chimney containing a Metters Sydney 'Beacon Light' stove (

Figure 30). Metters' Sydney operations commenced in 1902 (Gibberd, 2005, p. 1). This second chimney would likely have constituted part of an external kitchen. External kitchens were desirable for a variety of reasons. They functioned to keep temperatures down in the main residence during the summer, they kept butchery waste and other detritus out of living spaces and they were preferable in homes with no internal plumbing (Connah, 1988).

Other datable material includes quantities of pressed metal ceiling panels some of which is visible at the foot of the Metters stove in

Figure 30. These ceilings became common in Australia from the 1890's and reached peak popularity between 1900 and 1925 (Lewis, 2013).

4.2.2.1 Conclusions

Given the history of the property provided in the sections above, it is fairly certain that the earliest phases of construction in Lot 18 do not date from earlier than 1913, at which time Lot 18 DP753081 was taken up by the Lynch family. It is most likely that the current ruinous structure represents a homestead built by Henry Lynch, using construction methods that were common at the time. It is likely the only non-Aboriginal residence to have been constructed in Lot 18 DP753081. The structure was destroyed at some time between 1973 and 2007. The structure does not meet criteria to be of historical significance.

Figure 20: Domestic structure in 1973 indicated with red arrow



Figure 21: Detail of residential structure 1973



Figure 22: Structure on 11 January 2011
(Google Earth)



Figure 23: Structure in Lot 18 showing brick chimney and cement brick addition. View north east



Figure 24: Structure in Lot 18 showing brick chimneys. View west



Figure 25: Brick chimney and hearth



Figure 26: Concrete blocks showing distinctive oval core. Interior view



Figure 27: Midget Giant advertisement (Lewis 2017)



Figure 28: Concrete blocks showing surface finish and window treatment. Exterior view



Figure 29: Wash paint and decal to interior wall of common room



Figure 30: Brick chimney containing Metters Sydney stove. Pressed metal ceiling material at foot of chimney



4.3 Previous impacts to Lot 17 DP753081 and Lot 18 DP753081

Based on previous studies in the locality, historical records and survey observations, the study area as a whole outside the immediate surrounds of the homesteads has most likely been subject to

significant subsurface disturbance. The majority of the study area has been impacted by extensive land clearing and farming practices including uprooting of the locally endemic Mallee tree species. Inspection of soil levels along previous fence lines indicates that at least 400mm of topsoil has been lost from across the property. Surface survey carried out for Aboriginal heritage in this property was extensive and noted an often high level of fractured shale in furrows (Artefact Heritage, 2018a). This likely represents underlying natural bedrock that has been impacted by ploughing due to the loss of natural topsoils. It is considered that the soils of the study area have been disturbed and largely removed. It is highly unlikely that any unidentified heritage or archaeological material is present in the study area.

4.4 Conclusions of historical investigation

Structural development within the study area post dates its subdivision as homestead farms in 1913. Research has not identified any persons or events of historical significance associated with the study area. Intensive site survey indicates that the only remnant structures of any age in the study area are two ruinous homesteads. These are of material and construction typical of homestead farms from the early twentieth century. They do not meet criteria for local historical significance. The heritage significance assessment criteria and their application to the study area are outlined in Table 6.1 below.

Table 1: Heritage assessment criteria and ranking of study area

Criterion ID	Criterion Name	Description	Application to Study Area	Ranking
A	Historical significance	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)	The study area is not of importance in the course of local or state history. The study area and its physical remains are characteristic of post-war homestead farming across Australia.	Nil
B	Associative significance	An item has a 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)	No persons of local or state importance have been identified with the study area.	Nil
C	Aesthetic significance	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or in the local area)	The homestead remains in the study area are ruinous. Their built form does not demonstrate aesthetic characteristics or creative technical achievement.	Nil
D	Social significance	An item has a strong or special association with a particular community or cultural group in NSW (or the local area), for social, cultural or spiritual reasons	No strong or special cultural associations have been identified for the study area	Nil
E	Research Potential	An item has the potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or cultural or natural history of the local area)	The study area does not contain items of high research value	Nil
F	Rarity	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)	The study area does not contain rare or endangered aspects of local or state cultural or natural history	Nil

5.0 ARCHAEOLOGICAL ASSESSMENT

Historical archaeological potential is assessed by identifying former land uses and associated features through historical research and evaluating whether subsequent actions (either natural or human) may have impacted on evidence for these former land uses. This chapter will assess these factors to determine the potential for intact archaeological remains to be located in the study area.

5.1 Land use summary

There are three major phases of land use associated with the study area:

- Phase 1 (to current): Aboriginal occupation of the area
- Phase 2 (1817-1846) Early European settlement and land use. Vegetation clearance for European farming, and pastoral and grazing practises associated with Lake Cowal Run.
- Phase 3 (1848-1913): Pastoral leases and gold rush. Further vegetation clearance for European farming, and pastoral and grazing practises associated with Lake Cowal 701.
- Phase 3 (1913 – current): small scale homestead and leased farming and pastoral practises

5.2 Relevant archaeological studies

Previous heritage studies within the vicinity of the study area are limited with the focus centred on Lake Cowal 15km to the north of the study area.

Heritage Management Consultants 2003 – Cowal Gold Project European Heritage and Assessment and Recording of Homestead Complex

Heritage Management Consultants (HMC) were engaged by Barrick (now Evolution) to provide a heritage assessment of the building at the Cowal West Homestead area. Several buildings, structures and items in the vicinity of the Project that contained a level of local heritage significance were identified. These included the Lake Cowal Homestead Complex, Lake Cowal Woolshed, Lake Cowal Shearer's Quarters, Rattey's house, and three Survey Markers.

The above structures, buildings and items are listed on the LEP or NSW State register. HMC (2003) identified that the Lake Cowal Woolshed and Lake Cowal Shearer's Quarters possessed a reasonable degree of significance, further assessment was recommended.

5.3 Potential archaeology

This section is informed by analysis of documentary evidence, site survey and by information gathered during extensive survey of both properties. Documentary evidence does not indicate or give reason to expect that historical structures were present in the study area other than the ruinous homesteads identified above. The study area was walked at closely spaced transects over three days on soils that were bare, or thinly covered with poor crops. This survey demonstrated that the study area has been subject to considerable soil deflation through low intensity agricultural uses. Remnant soils display frequent inclusions of shale bedrock brought to the surface through ploughing and it is fairly certain that soils across the study area are insufficiently deep to retain intact historical archaeological deposits if they were to be present. The study area has nil to very low potential to contain archaeological deposits and features associated with early colonial habitation and subsequent development of the area apart from those remains identified above associated with the post- 1913 homesteads which would not reach the threshold of local significance.

5.4 Archaeological significance

The Heritage Division of the Office of Environment and Heritage (OEH) issued a new set of guidelines in 2009: Assessing Significance for Historical Archaeological Sites and 'Relics'. In accordance with the 2009 guidelines, the following section presents a discussion of the potential archaeological resource's research potential and an assessment against the NSW heritage significance criteria.

The Heritage Council of NSW has adopted specific criteria for significance assessment, which have been gazette pertinent to the Heritage Act. If an item meets one of the seven heritage criteria, and retains the integrity of its key attributes, it can be considered to have significance. The significance of an item or potential archaeological site can then be assessed as being of local or state significance, based on a series of criteria that have been developed for assessing significance relating to archaeological sites and their associated 'relics'. The criteria identify a series of questions that could be asked in relation to the item to assist in the identification of the appropriate level of significance to be applied.

- **'State heritage significance'**, in relation to a place, building, work, relic, moveable object or precinct, means significance to the state in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item.
- **'Local heritage significance'**, in relation to a place, building, work, relic, moveable object or precinct, means significance to an area in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item.

The overall aim of assessing archaeological significance is to identify whether an archaeological resource, deposit, site or feature is of cultural value. The assessment will result in a statement of heritage significance that summarises the values of the place, site, resource, deposit or feature. It is important to note that the significance of an archaeological deposit cannot necessarily be assessed from desktop analysis alone. The study area contains nil potential for state or local heritage

5.5 Archaeological Research Potential

Consideration of archaeological research potential is required when undertaking a significance assessment of an historical archaeological site. The principles of estimating archaeological research potential are expressed here in three questions:

1. Can the site contribute knowledge that no other site can?

No, the site is typical of homestead farm lots throughout NSW and contains no outstanding features or information.

2. Can the site contribute knowledge that no other resource can?

No, the site contains no outstanding features or information.

3. Is this knowledge relevant to general questions about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?

No, the site does not contain new information or knowledge relevant to general historical themes or research questions.

5.6 Statement of historical archaeological significance

There is nil to very low potential that significant archaeological remains are present within the study area. The potential archaeological resource is unlikely to contribute to our understanding or appreciation of the past and does not meet any of the significance assessment criteria.

6.0 IMPACT ASSESSMENT

6.1 Proposed development

The proposed development of 228-230 Blands Lane, West Wyalong would comprise of:

- Installation of approximately 296,000 solar panels in the south part of the study area. These will be placed on a mounting structure with tracking capabilities. Each panel will be approximately 1.95 metres (m) x 0.992 m with a depth of 50 millimetres (mm). They will be dark blue in colour with an aluminium frame and will be coated with an anti-reflective coating in order to maximise daylight absorption.
- Substation and battery energy storage system.
- Internal access roads and access points.
- Perimeter security fencing.
- Powerline easement from substation to existing powerline.

Power generated by the facility will be transmitted to the local energy grid via a new substation to be installed on the site. Access to the facility will be from Blands Lane.

6.2 Impacts to potential archaeological resources

The study area has nil to low potential to contain significant archaeological remains. Any remains are unlikely to meet the threshold of local significance. It is therefore unlikely archaeological relics would be impacted by the proposal.

6.3 Impacts to heritage items

There are no listed heritage items located within the study area. The ruinous homestead complexes have both been identified as not meeting local heritage significance levels. Therefore, there are no likely potential impacts.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

- The study area was historically within the large Lake Cowal run, one of the first pastoral leases in the Lachlan district.
- In the early twentieth century the land was subdivided with the current study area containing two homestead farms.
- The study area has been predominantly used for grazing and broadacre cropping. Associated impacts including soil loss, ploughing and stock trampling are likely to have disturbed any shallow archaeological deposits.
- There are no listed or unlisted heritage items located within the study area.
- The study area has nil-low potential for significant non-Aboriginal archaeological remains (relics).

7.2 Recommendations

- The current proposed works are not expected to impact archaeological relics and therefore no further archaeological investigation, or mitigation is required.
- An Unexpected Finds Procedure would be implemented throughout the duration of the proposed development. If potential archaeological relics are unexpectedly discovered during excavation, work must cease in the affected area and an archaeologist engaged to assess the find. Depending on the nature of the discovery, additional assessment and possibly an excavation permit may be required prior to the recommencement of excavation in the affected area. The Heritage Council would be notified in writing in accordance with Section 146 of the NSW Heritage Act 1977 if it was confirmed that relics had been identified.
- If human remains, or suspected human remains, are found during the works, all work in the vicinity must cease, the site should be secured, and the NSW Police Coroner must be notified. If the remains are found to be archaeological the NSW Heritage Division (as a delegate of the Heritage Council) must be notified.

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