Appendix E – Historic Heritage Assessment



Springdale Solar Farm EIS Renew Estate Pty Ltd 09-Feb-2018

Springdale Solar Farm Historic (Non-Aboriginal) Heritage Assessment

Sutton, NSW

Springdale Solar Farm Historic (Non-Aboriginal) Heritage Assessment

Sutton, NSW

Client: Renew Estate Pty Ltd

ABN: N/A

Prepared by

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Executive Summary

AECOM Australia Pty Ltd (AECOM) was commissioned by Renew Estate Pty Ltd to undertake a Historic (non-Aboriginal) Heritage Impact Assessment (HHIA) for the proposed Springdale Solar Farm (the Project), located in Sutton, New South Wales (Figure 1). This assessment forms part of an Environmental Impact Statement (EIS) being prepared by AECOM to support an application for State Significant Development (SSD) Approval under Division 4.1 of Part 4 of *the Environmental Planning and Assessment Act 1979* (EP&A Act) for the Project. The assessment has been prepared in accordance with and in response to the Secretary's Environmental Assessment Requirements (SEARs) issued on 26 September 2017, with regard to historic heritage.

The proposal site for this assessment comprises an irregularly-shaped *c*.363 ha parcel of land located near the rural village of Sutton in NSW, approximately 3.5 km northeast of the NSW / ACT border. Registered as Lot 111 on DP754908, Lot 182 on DP754908, Lot 10 on DP754908, Lot 15 on DP754908, Lot 190 on DP754908, Lot 209 on DP754908 Lot 189 on DP754908, Lot 161 on DP754908, Lot 54 on DP754908, Lot 202 on DP754908, Lot 97 on DP754908 and Lot 1 on DP198933, land within the proposal site is currently, and was historically, used for cattle grazing and cropping. The proposal site falls wholly within the Yass Valley Local Government Area (LGA) and is situated in the Parish of Talagandra in the County of Murray.

There are no historic heritage items within the proposal site listed on relevant statutory and nonstatutory heritage lists, registers, and schedules. The closest previously identified historic heritage item is the LEP-listed Bywong Homestead, outbuildings and landscape, located approximately2.6 km east of the proposal site.

No historic heritage items or areas of archaeological sensitivity were identified during the field survey component of the current assessment.

On the basis of the above findings, the following recommendations are made:

- 1. No historic heritage constraints have been identified within the proposal site in relation to the Project. As such, no further heritage works or reporting are considered warranted; and
- 2. In the event that unexpected historic items, including possible human skeletal material (remains), are identified during the project, the procedure outlined in Section 8.0 of this report should be followed.

1.0 Introduction and Background

1.1 Introduction

AECOM Australia Pty Ltd (AECOM) was commissioned by Renew Estate Pty Ltd to undertake a Historic (non-Aboriginal) Heritage Impact Assessment (HHIA) for the proposed Springdale Solar Farm (the Project), located near Sutton, New South Wales (Figure 1). This assessment forms part of an Environmental Impact Statement (EIS) being prepared by AECOM to support an application for State Significant Development (SSD) Approval under Division 4.1 of Part 4 of *the Environmental Planning and Assessment Act 1979* (EP&A Act) for the Project.

1.2 The Proposal Site

The proposal site for this assessment, shown on Figure 2 comprises an irregularly shaped *c*.370 ha parcel of land located near the rural village of Sutton in NSW, approximately 3.5 km northeast of the NSW / ACT border. Registered as Lot 111 on DP754908, Lot 182 on DP754908, Lot 10 on DP754908, Lot 15 on DP754908, Lot 190 on DP754908, Lot 209 on DP754908 Lot 189 on DP754908, Lot 161 on DP754908, Lot 54 on DP754908, Lot 202 on DP754908, Lot 97 on DP754908 and Lot 1 on DP198933, land within the proposal site is currently, and was historically, used for cattle grazing and cropping. The proposal site falls wholly within the Yass Valley Local Government Area (LGA) and is situated in the Parish of Talagandra in the County of Murray.

1.3 The Proposal

Renew Estate Pty Ltd is proposing to develop a 100 megawatt (MW) solar farm, approximately 200 hectares in size. The proposal site is zoned Primary Production (RU1) under the Yass Valley Local Environmental Plan 2013 (LEP). Key elements of the proposed infrastructure include photovoltaic modules mounted on a tracking array structure, containerised power stations containing electrical switchgear and an electrical substation for connection to the National Electricity Market (NEM). The Project is classified as a SSD under State Environmental Planning Policy (State and Regional Development) 2011 and is subject to assessment and determination by the NSW.

1.4 Secretary's Environmental Assessment Requirements (SEARs)

The Secretary of the Director General of the NSW Department of Planning and Environment (DP&E) issued the Secretary's Environmental Assessment Requirements (SEARs) for the Project on 26 September 2017 (Appendix A). For heritage, the SEARs require:

- an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, including adequate consultation with the local Aboriginal community.

This HHIA, which documents the results of AECOM's historic heritage assessment, fulfils the historic heritage component of this requirement.

1.5 Assessment Objectives

The overarching objectives of this assessment were as follows:

- to identify, through background research and targeted archaeological investigations, the historical heritage values of the proposal site;
- to assess the significance of any identified historic heritage items in accordance with the New South Wales (NSW) Heritage Branch's guidelines: Assessing Heritage Significance (NSW Heritage Office, 2001) and Levels of Heritage Significance (NSW Heritage Office, 2008);
- to prepare Statements of Heritage Impact (SoHI) for any identified historic heritage items within the proposal site in accordance with the NSW Heritage Branch's guidelines: Statements of Heritage Impact (NSW Heritage Office, 2002); and

 to provide, on the basis of significance assessments and SoHIs, appropriate management and mitigation strategies for the identified historic heritage values of the proposal site.

1.6 Methodology

This assessment was undertaken in accordance with the *NSW Heritage Manual* (NSW Heritage Office & NSW Department of Urban Affairs and Planning, 1996a) and with reference to the Burra Charter (the Australia ICOMOS Charter for Places of Cultural Significance) (ICOMOS (Australia), 2013). Key tasks have been:

- To search relevant historic heritage registers and lists including the: Register of the National Estate (non-statutory); World Heritage List, National Heritage List; Commonwealth Heritage List; NSW State Heritage Register; National Trust of Australia and Schedule 5 of the Yass Valley Local Environmental Plan (LEP) 2013 (Yass Valley LEP 2013);
- To undertake background research of the proposal site to identify historic heritage items, including areas of archaeological sensitivity;
- To undertake a targeted archaeological survey of land within the proposal site and report on its findings; and
- To prepare and finalise a HHIA report for the Project (this report).

1.7 Project Team

Geordie Oakes (AECOM archaeologist) managed all aspects of the assessment and was the primary author of this HHIA. Archaeological survey of land within the proposal site was undertaken by Geordie Oakes and Dr Andrew McLaren. Dr Andrew McLaren (AECOM Archaeologist) reviewed this HHIA for Quality Assurance (QA) purposes.

1.8 HHIA Structure

This HHIA contains nine sections. This section - **Section 1.0** - has provided background information on the Project and the assessment undertaken. The remainder of the HHIA is structured as follows:

- Section 2.0 outlines the statutory framework within which this assessment has been undertaken.
- Section 3.0 provides the historical context of land within the proposal site.
- **Section 4.0** provides the results of the historic heritage register/list searches.
- Section 5.0 provides the results of the archaeological field survey.
- **Section 6.0** provides a cultural heritage landscape assessment for land within the Project Boundary.
- **Section 7.0** provides an assessment of the potential impacts of the Project on identified historic heritage values.
- Section 8.0 details a management and mitigation strategies for the Project; and
- Section 9.0 lists the references cited in-text.

Springdale Solar Farm EIS Springdale Solar Farm Historic (Non-Aboriginal) Heritage Assessment

Figure 1 Regional Context

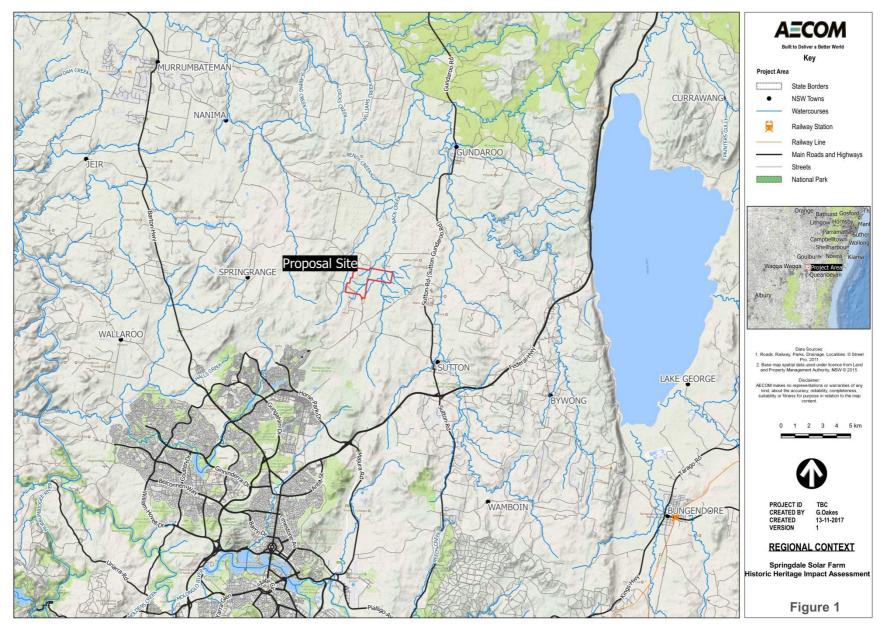
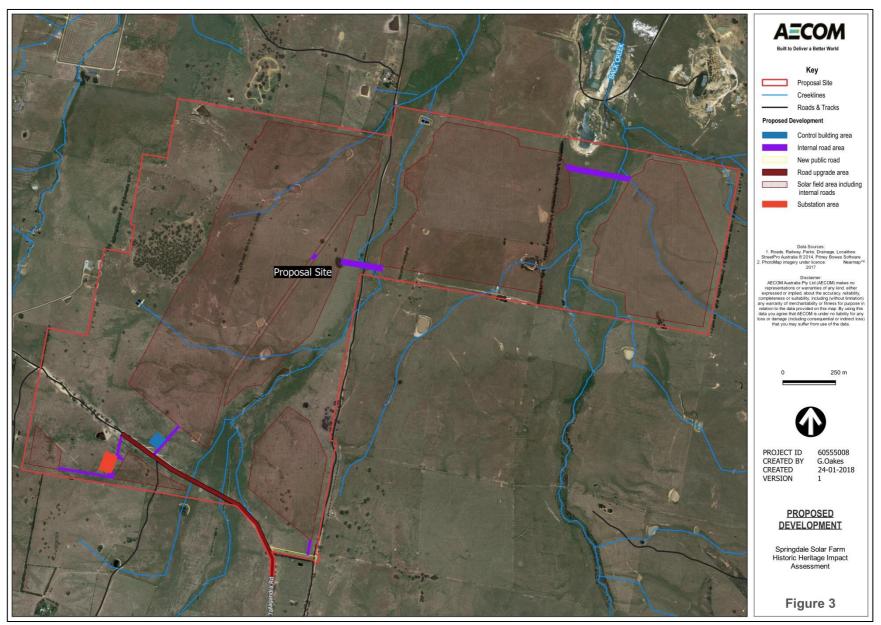


Figure 2 Proposal Site

Springdale Solar Farm EIS Springdale Solar Farm Historic (Non-Aboriginal) Heritage Assessment



Springdale Solar Farm EIS Springdale Solar Farm Historic (Non-Aboriginal) Heritage Assessment Figure 3 Proposed Development



2.0 Applicable Policy and Legislation

2.1 Introduction

A number of planning and legislative documents govern how historic heritage is managed in NSW and Australia. The following section provides an overview of the requirements under each as they apply to the Project.

2.2 Federal Legislation

2.2.1 Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) took effect on 16 July 2000. Under Part 9 of the EPBC Act, any action that is likely to have a significant impact on a matter of National Environmental Significance may only progress with approval of the Commonwealth Minister for Sustainability, Environment, Water, Population and Communities (SEWPAC). An action is defined as a project, development, undertaking, activity, series of activities, or alteration. An action will also require approval if:

- It is undertaken on Commonwealth land and will have or is likely to have a significant impact;
- It is undertaken outside Commonwealth land and will have or is likely to have a significant impact on the environment on Commonwealth land; and
- It is undertaken by the Commonwealth and will have or is likely to have a significant impact.

The EPBC Act defines 'environment' as incorporating both natural and cultural environments and therefore includes Aboriginal heritage. Under the Act, protected heritage items are listed on the National Heritage List (items of significance to the nation) or the Commonwealth Heritage List (items belonging to the Commonwealth or its agencies). These two lists replaced the Register of the National Estate (RNE), which was closed in 2007 and is no longer a statutory list. Statutory references to the RNE in the EPBC Act were removed on 19 February 2012. However, the RNE remains an archive of over 13,000 heritage places throughout Australia.

The heritage registers mandated by the EPBC Act have been consulted and there are no historic sites within the proposal site on these registers. Accordingly, the sections of the EPBC Act in relation to historic heritage are not relevant to the Project.

2.3 State Controls

2.3.1 Environmental Planning and Assessment Act 1979

The EP&A Act allows for the preparation of planning instruments to direct development within NSW. This includes Local Environment Plans (LEPs), which are administered by local government, and principally determine land use and the process for development applications. LEPs usually include clauses requiring that heritage be considered during development applications and a schedule of identified heritage sites be provided.

Upon repeal of Part 3A of the EP&A Act on 1 October 2011, the *Environmental Planning and Assessment Amendment (Part 3A Repeal) Act 2011* inserted a new Division 4.1 in Part 4 of the EP&A Act. Division 4.1 provides for a new planning assessment and determination regime for State Significant Development (SSD). Section 89C of the EP&A Act stipulates that a development will be considered SSD if it declared to be such by the new *State Environmental Planning Policy (State and Regional Development) 2011* (SEPP SRD).

Under Clause 8(1) of SEPP SRD, a development is declared to be SSD if:

- The development on the land concerned is, by the operation of an environmental planning instrument, is permissible only with development consent under Part 4 of the EP&A Act, and
- The development is specified in Schedule 1 or 2.

The Project has been declared a SSD as it meets both of these criteria.

2.3.2 The Heritage Act 1977

The *Heritage Act* 1977 (as amended) was enacted to conserve the environmental heritage of NSW. Under Section 32, places, buildings, works, relics, moveable objects or precincts of heritage significance are protected by means of either Interim Heritage Orders (IHO) or by listing on the NSW State Heritage Register (SHR). Sites that are assessed as having State heritage significance can be listed on the SHR by the Minister on the recommendation of the NSW Heritage Council.

Archaeological relics (any relics that are buried) are protected by the provisions of Section 139. Under this section it is illegal to disturb or excavate any land knowing or suspecting that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed. In such cases an excavation permit under Section 140 is required. Note that no formal listing is required for archaeological relics; they are automatically protected if they are of local significance or higher.

Proposals to alter, damage, move or destroy places, buildings, works, relics, moveable objects or precincts protected by an IHO or listed on the SHR require an approval under Section 60. Demolition of whole buildings will not normally be approved except under certain conditions (Section 63). Some of the sites listed on the SHR or on LEPs may either be 'relics' or have relics associated with them. In such cases, a Section 60 approval is also required for any disturbance to relics associated with a listed site.

2.3.3 Yass Valley Local Environmental Plan 2013

Clause 5.10 of the Yass Valley Local Environmental Plan 2013 (YLEP 2013) provides specific provisions for the protection of heritage items, heritage conservation areas, archaeological relics, Aboriginal objects and Aboriginal places of heritage significance within the Yass Valley LGA.

Under Section 2 of Clause 5.10 of the YLEP 2013, 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,
 - (ii) an Aboriginal object,
 - (iii) a building, work, relic or tree within a heritage conservation area,
- b. (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. (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,
- d. (d) disturbing or excavating an Aboriginal place of heritage significance,
- e. (e) erecting a building on land:
 - (i) on which a heritage item is located or that is within a heritage conservation area, or

(ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,

- f. (f) subdividing land:
 - (i) on which a heritage item is located or that is within a heritage conservation area, or

(ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.

Schedule 5 of the YLEP 2013 provides a list of heritage items, conservation areas and archaeological sites within the Yass Valley LGA. A review of the list indicates there are no heritage items within the proposal site.

Subject to development consent under Division 4.1 of Part 4 of the EP&A Act, the planning controls required by the YLEP 2013 will not apply to the current Project.

3.0 Historical Context

3.1 Aboriginal People

The proposal site falls within the traditional country of Ngunawal-speaking peoples. As highlighted by Flood (1996: 5), Ngunawal was first identified as the name of both the language and "tribe" of the Southern Tablelands by the anthropologist R.H. Matthews, who worked among Aboriginal people in southeastern Australia around the turn of the century. According to Matthews (1904 cited in Flood 1996: 5), the boundaries of the Ngunawal language group were from "Goulburn to Yass and Burrowa, extending southerly to Lake George and Goodradigbee", and "from Queanbeyan to Yass, Boorroowa and Goulburn".

Available ethnohistoric information for contact-period Aboriginal lifeways in the Canberra region combined with available archaeological data, the observations of explorers, surveyors, travellers, settlers and anthropologists provide a number of valuable insights into the nature of Aboriginal occupation in the area. Available documentation, for example, suggests that this region was significantly less densely populated than the coast and western riverine plains of southern New South Wales, with 70% of groups seen by early observers containing less than ten people (Flood, 1980: 160). The only occasions on which large gatherings were observed, Flood (1980:127) has noted, "were in summer for ceremonial purposes and to exploit seasonally abundant food resources such as Bogong moths". Flood (1980: 160-70), in particular, has used this information to hypothesise a 'settlement pattern' comprising "a few" large lowland camps, "some" very small high- level camps and a "large number" of medium to small size camps.

Information regarding the social organisation of named Aboriginal language groups in the Canberra region varies dramatically by group. We have, for example, no information on the social organisation of the Ngunawal at this time (Flood 1996: 7). Fortunately, however, this is not the case for the Ngarigo and Walgalu language groups and it seems reasonable, given reported cultural and linguistic similarities between these groups, to speculate that the Ngunawal shared a similar system. As highlighted by Howitt (1904), social organisation amongst the Ngarigo and Walgalu was based on a system of kinship involving two classes or moieties (Flood 1996: 7). Members belonged to either the Eaglehawk or Crow moiety. The same moiety, Flood (1996: 7) reports, was shared by all members of each group's clans (i.e. individual land owning units). Clan membership, meanwhile, was based on matrilineal descent groups, with each clan associated with a particular species of animal of totem (Flood 1996: 7). Howitt (1904) lists nine totems within both the Eaglehawk and Crow moieties of the Ngarigo and Walgalu. Examples include the lyre-bird (Ngarigo - Eaglehawk), red wallaby (Ngarigo - Eaglehawk), emu (Ngarigo - Crow), dingo (Walgalu - Eaglehawk) and bandicoot (Walgalu - Crow).

Flood (1980) has speculated, on the basis of available archaeological and ethnohistoric data, that the annual settlement and subsistence cycles of Aboriginal groups living in the Canberra region were based around the seasonal exploitation of animal and plant resources within three principal ecological zones: large rivers, montane valleys and 'high' bogong moth localities. The first two zones, she suggests "were visited by the whole group, but high-level moth hunting was an all-male activity, although some of the spoils would be carried back to the women, children and old people in their camp below" (Flood 1980: 175). The rich animal and plant resources of the montane valleys and rivers, Flood proposes, will have facilitated both winter and summer occupation. The bonging moth localities, in contrast, were visited only in summer and for relatively short periods of time (Flood 1980: 127).

Available ethnohistoric records attest to the exploitation, for food and other purposes (e.g. medicinal use, clothing, and building materials) of a wide range of animal and plant resources. The main food staples, Flood (1996: 9) has proposed, "were possums, kangaroos, wallabies, birds, fish and vegetable foods". In addition to "fruits and vegetables of all sorts" (Flood 1996: 12), food items typically collected by women included nectar and manna, birds' eggs, grubs, ants, lizards, native cats and shellfish. Men, in contrast, hunted fish, possums, koalas, wombats, kangaroos, wallabies, emus, brolgas, wild turkey, wild turkey, ducks, and bogong moths (Flood 1996: 12). Seasonally abundant, highly nutritious and easy to collect and cook, the Bogong moth was a highly prized food for Aboriginal groups living in the Southern Tablelands and Uplands and, as highlighted by Flood (1996: 14) "enabled large gatherings of many as 500 people from different friendly tribes for initiation ceremonies, arrangement of marriages, corroborees and exchange of goods". Food stuffs hunted/collected by both sexes included native honey, bandicoots, snakes, echidnas, crayfish, yabbies, platypus, and turtles.

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Compared with that of their coastal and western plains counterparts, the material equipment of Aboriginal groups occupying the Southern Tablelands and Uplands at contact was somewhat restricted in range, quantity and complexity (Flood 1980: 127). Flood (1996: 25) notes that a man would typically have two to six spears, a spear- thrower, stone hatchet, knobbed club, one or more boomerang, and two types of shield. 'Death spears', wooden spears barbed with a row of jagged stone chips set into a groove with the gum of a grass tree, were used in fights and for hunting large game such as emus. Other specialized hunting equipment included nets made from Pimelea fibre for collecting Bogong moths. Shell scrapers, bone points and stone knives were also employed. Spear shafts were made from the seed stalks of the grass tree, box tree or iron bark. The primary equipment of women included yam sticks (used as digging sticks, staffs, and weapons), carrying dishes and 'dilly-bags' (Flood 1996: 26). In terms of shelter, strong, weatherproof huts were built from large sheets of stringybark. Clothing comprised possum or kangaroo skin cloaks, with ornamental marks scratched on the underside. Substantial belts and headbands were also worn, the latter made from either plaited kurrajong fibre or possum skin.

Information regarding the religious beliefs and burials customs of Aboriginal people occupying the Southern Tablelands and Uplands at contact is available for Ngarigo and Walgalu-speaking peoples. According to Flood (1996; 23), spiritual authority in Ngarigo society was vested principally in Daramulan, son of Bajame and his emu- wife Birrahonooloo. Daramulan once lived on earth and taught the Ngarigo elders tribal religion, the 'Kuringal' initiation ceremony and what foods they were allowed eat. Upon his death, Daramulan entered the sky and, from there, was able to keep watch over his people. Like Daramulan, the spirit of dead person, known as a 'bulabong', was believed to enter the sky (kulumbi) and, beyond it, another country complete with rivers, trees and abundant game. At the same time, Bulbongs, the Ngarigo believed, could camp, kill game and make fires in the bush for a time after death. Accordingly, the Ngarigo tied a corpse up tightly, with knees drawn up to the head and hands placed open on each side of the face. Bodies were buried either naked or fully clothed and painted, with graves sometimes made like a well with a side chamber and others simple cavities in a bank. Personal weapons and implements were buried with the body. Flood (1996: 23) notes that, like the Ngarigo, Walgalu-speaking peoples were careful to bury their dead with all of their personal belongings. Other forms of burial practised included burial in cave, burial in a tree or secondary burial (i.e. corpse placed initially in tree and bones buried a year later).

3.2 European Exploration

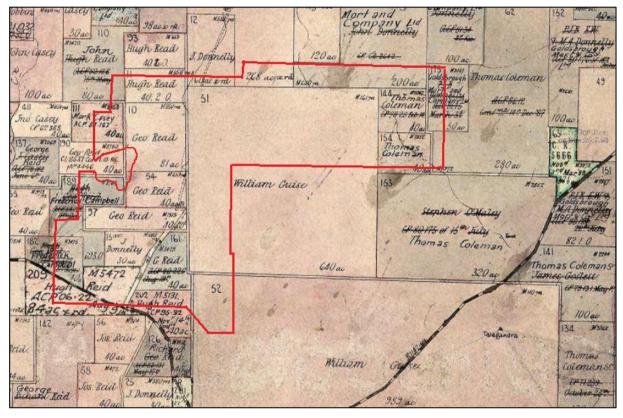
The Lake George region was initially explored by Charles Throsby, who arrived in the NSW colony in 1802 as a navy surgeon and became a pastoralist and explorer. Having explored the Bathurst region in 1819, the following year he sent his servant Joseph Wild to investigate the Lake George area having heard rumours from local Aboriginal people of a large salt water lake in the area. Wild found the eastern shore of Lake George in August 1820 and sent word back to Throsby, who notified Governor Macquarie. That same year, Throsby and his party pushed further west through Bywong, Gundaroo and Sutton in search of the Murrumbidgee River. In 1821, he crossed the Molonglo and Queanbeyan Rivers into the region mapped as Canberra today (Lord, 1996). He described the area enthusiastically as "the finest country as ever was seen, admirably water and a fine rich black soil to fit for any purpose either grazing or agriculture" (NSW Heritage Office & NSW Department of Urban Affairs and Planning, 1996b). Throsby's explorations, and his subsequent reports back to the colony of suitable pasture lands, saw the opening up of the region to land grants for cattle and sheep grazing.

3.3 Settlement

As early as 1825, squatters and scattered settlements were appearing in the Gundaroo Valley and surrounding areas, including the regions of Sutton and Gundaroo. In fact, in one account there was such a rush to claim land in the region that numerous conflicts were occurring between squatters and holders of land grants (Lea-Scarlett, 1972). During this period, the only access to the area was by road, which was essentially little more than a bush track. Nonetheless, by the end of the 1830s most of the prime land in the district, particularly lands fronting the Yass River, were occupied. With increasing land grants and squatting, the area saw a population increase, including large numbers of convicts and ex-convict servants. Accordingly, police courts, with resident magistrates, were established at Yass and Queanbeyan to service the region's increasing population. A general census of the Colony completed in 1841 records a population of 388 at Gundaroo region with 37 houses, two of stone

(Barnsdale and the Travellers Home inn (near Lake George)), four of brick (Nanima, Jerrabiggery, Bywong and the Harrow Inn), and the rest of timber (Lea-Scarlett, 1972). Early Twentieth Century parish maps for the Parish of Tallagandra indicate that the landowners within the proposal site were John Brown, the Guise family, Thomas Coleman, John Donnelly, the Read family and Goldsbrough Mort & Company (Figure 4). A brief history of each landowner is provided below.

Figure 4 Talagandra Parish map (proposal site in red) (source: Department of Lands)



John Brown was thought to be earliest official settler in the Sutton area. Brown was formerly a Methodist minister who moved from Devonshire in 1827 and occupied land north of the present site of the town on a property known as 'Jerrabiggery'. He built a cottage and dairy, and purchased sheep and cattle to graze on the property. However, after a severe drought caused his crops to fail and disease killed off his sheep and cattle, he was forced to sell him land to William Guise (Lord, 1996).

The largest landholder in the area was the Guise family, whose holdings in 1911 account for a large portion of the proposal site. The Guise family (Elizabeth and Richard) arrived in the colony in 1792, with Richard Guise enlisted in the NSW Corps as a Sergeant. Soon after arriving the couple gave birth to their first son Richard (Jnr) in 1794 followed by William in 1796. In 1811, the Guise family purchased land in Minto, building a homestead (Casula) which adjoined another property belonging to Charles Throsby (Haiblen, 2006). Reference to the General Muster of 1822 indicates that the Guise brothers, Richard and William, then aged 28 and 26, had been granted 100 acres at Jerribiggery (north of Sutton) as payment for carting wheat and provisions to the men working on new roads to the interior. In 1826, after the death of Richard Guise (Senior) who passed away in 1821, the family moved from Casula to Gundaroo and three years later to their property at Bywong, having built a homestead there which they named 'Bywong Station' (Blackmore-Lee, 2006). The 1828 census indicates that they had 700 cattle and 20 horses at Bywong, as well as a dairy farm (Lea-Scarlett, 1972). The next two decades saw Richard and William significantly expand their holdings to include properties at Gunning, Gundaroo, Yass, Benenborough, Walwa, Bong Bong, Burra, Twofold Bay, Williamsdale, Groongal Station, Buluko (Beloco) as well as properties around the proposal site. In 1845 the Guise family is recorded as owning over one hundred and eighty thousand acres in Bywong and Gundaroo alone, making them the largest landowner is the region at the time (Blackmore-Lee, 2006).

Figure 4 indicates that Thomas Coleman owned several small to medium sized properties in the eastern portion of the proposal site. Coleman arrived in Sydney from Warwickshire, England with his wife in 1856 and worked with a bullock team that frequently travelled to and from Sydney. He selected a property near Back Creek to settle with his seven sons in the early 1860s. His family built a brick homestead and named the combined estate Glenrock (Lea-Scarlett, 1972). According to the Canberra Times (1926), the property was sold by the Coleman family in 1911, passing through the hands of several owners before being purchased by the Allen Brothers who put the property up for sale in 1926. The property is listed in Canberra Times in 1926 as 1,617 acres of well grassed sheep grazing land with 10 acres planted with lucerne.

John Donnelly is shown as owning a number of properties in the area ranging in size from 60 acres to 640 acres, with a small portion of several properties located within the northern part of the proposal site. Donnelly was an early pioneer in the area obtaining property in the 1840s and was known for his success in agricultural and pursuits. He bred high quality sheep for which it is said that he obtained high prices in London due to their quality (Queanbeyan Age, 1913b). Donnelly was grandfather of Jack (John) Donnelly, a soldier, grazier and auctioneer who was born in 1885 at Bywong Station. He served as part of the Australian Imperial Force in World War I where he was wounded at Gallipoli. After recovering from his wounds he embarked for France attaining the rank of lieutenant-colonel for his outstanding service. Returning to Bungendore in 1923, he became an auctioneer (White, 1981).

George Reid arrived in the Colony in 1849 from Somerset, England as a free settler with his brother Hugh arriving seven years later. Both George and Hugh purchased small plots of land in the western portion of the proposal site in the late 1850s. Parish maps show several different spellings of Reid including Reed and Read with this apparently related to differences in religion between the brothers but the correct spelling is Reid. George was a farm labourer and had eleven children, several of which also purchased land within and surrounding the proposal site including Joseph and Richard. The Reids ran cattle and sheep on their properties. In 1903, George Reid purchased the Sutton Hotel which he ran for six years before transferring the licence. Hugh Reid, then opened a store at the site (Lea-Scarlett, 1972).

Goldsbrough Mort & Company owned a small parcel of land in the northeastern portion of the proposal site, as well as a number of other small properties in the region which they began buying from landowners in the late 1800s. The company was originally formed in 1843 by Thomas Sutcliffe Mort as Mort & Co in Sydney, focussed on selling wool. In 1888 it merged with R Goldsbrough and Co to form Goldsbrough Mort & Company and was one of the largest, if not largest, wool traders in NSW with huge wool stores in Circular Quay, Sydney (Wotherspoon, 2008).

3.4 Development

The proposal site is located between the historic villages of Sutton and Gundaroo, with Sutton located 6.5 km to the southeast and Gundaroo 8.9 km to the northeast. The village of Gundaroo was established in the early 1830s and Sutton in 1867. A brief history of each village is provided below.

While settlement of the region was in full force in the 1820s, it wasn't until 1829 that a survey of the site of Gundaroo village, a name taken from local Aboriginal people who named the area Candariro, was undertaken. The first commercial building in the district was the Harrow Inn which was located in within the village of Gundaroo, opposite the Yass River. Built in 1833 by William Jackson, a well-known publican, it initially comprised a two storey brick structure with twelve rooms and associated outbuildings (Figure 5) (Lea-Scarlett, 1972). With a reputation for late night revelry, the inn operated until the 1850s before being transformed into the Caledonian Store (Queanbeyan Age, 1913a). In 1841, the population of the area was 388, the majority being (260) males indicating a steady increase in settlement in the area.

Figure 5 Harrow Inn (source: Lea-Scarlett, 1972)



By 1850, Gundaroo still largely consisted of bushland with the only built structures being the Caledonian Store run by J.J. Wishart, an old disused horse-drawn flour mill and a shepard's dwelling known as the Shingle Hut. The village sat at the end of a single road that branched out from the Goulburn to Ginninderra Road (Ginninderra a historical name for the area in the northern part of the ACT) (Queanbeyan Age, 1913a). Over the next decade, several more buildings were constructed including a weatherboard lockup cell and slab cell for the local police (previously housed at Bywong Station), which was later disbanded when the population of the area decreased, and a post office.

Originally church services were run out of one of the Caledonian store's outbuildings, until a site and the funds became available to build a dedicated church. A bazaar was held in 1864 which successfully raised enough money to build a Presbyterian Church, which still stands today as the Uniting Church (Queanbeyan Age, 1913a). St Joseph's Catholic Church was also built in the town in 1881

The Royal Hotel was built in 1865 on the corner of Cork and Harp Streets by the same mason who constructed the Presbyterian Church. Comprising a single story rectangular stone building with hipped roof, it featured a meeting room and additional accommodation in the attics. It was funded by William Affleck who also rebuilt the Caledonia Store in 1880 and the Gundaroo library in 1888. (Lea-Scarlett, 1972).

The Gundaroo Public School was opened 1865, initially operating out of the Presbyterian Church. After receiving Government assistance at the request of local residents, in 1869 works commenced on the construction of a new school that was completed the same year. By 1897, the community had outgrown the building, which was replaced by a larger building that is still in use today as the current school's library (Lord, 1996).

The first half of the Twentieth Century saw little change to Gundaroo village. During the Great Depression of the 1930s multiple businesses in Gundaroo area closed and the population declined steeply as people sought work in cities. Gundaroo was placed on the electricity grid quite late with Canberra having access to electricity in 1915, Queanbeyan in 1920 and Gunning in 1940. It wasn't until 1954, after dogged persistence from locals, that Gundaroo was hooked up to the grid. The phone line was first established in Gundaroo in 1915 (Lea-Scarlett, 1972).

Between 1943 and 1963, there was a 20 per cent drop in the population of the Gundaroo valley as a result of an increase in property values. With wool prices rising, owners sold their properties in order to move to Canberra and other cities, seeking education and employment there. A renaissance of sorts occurred in the 1960s with city residents procuring small lots around 40 acres in size as hobby farms in the area, breathing new, but sometimes unwanted life into the region (Lea-Scarlett, 1972). Today, the town still retains its rural village quality with a population of just over 300.

Compared with Gundaroo, establishment of Sutton village occurred relatively late. The site of the village, surveyed by Robert Hoddle in 1835, was originally set aside as a land reservation (village reservation). It wasn't until 1867 that the village was officially gazetted with this largely driven by the discovery of gold in the region in 1865 and the subsequent influx of miners (Lord, 1996). The village was named after Joseph Sutton, William Guise's son in law, who was selected on the basis that he just happened to be the first person walking along the road during the survey.

Similar with Gundaroo, the population of Sutton rose sharply following the free selection in 1862. This was encouraged further by the discovery of gold in the area. However, this was short-lived as little gold was found.

The Methodist chapel was the first building in Sutton, it being transferred there from Mac's Reef in 1867, an exhausted gold rush site. Sale of land began in Sutton began in 1868, however the first block wasn't sold until 1874 when Francis James Williams, who became Sutton's first blacksmith (opening a blacksmith shop in 1875), purchased a block. A year later he also opened a post office (Lea-Scarlett, 1972).

By the 1870s, with the population of the area steadily rising, the need for a school to cater for the growing number of children became clear. Locals applied for Government assistance to construct a half-time school in the village in 1871. However, the Government reconsidered the application and granted approval for a provisional school. Classes were first held in the Methodist Chapel over the next 12 years until a new school was erected in 1883. The new school, located northeast of the chapel was a weatherboard building, with a large classroom with tiered seating and a residence for the teacher (Lord 1996).

The Sutton Hotel was established in 1889 by Thomas Darmody and his family, and became the centre of village social life. In the same year, Darmody also opened a store across the road from the hotel. He sold the struggling hotel in 1896, with it eventually losing its licence due to the Queanbeyan Local Option Court's decision to reduce the number of hotels in the area. Hugh Reid opened a store in the building in 1908. In 1907, St Peter's Anglican church was opened in Sutton and in 1919 the Sutton hall.

By 1909, some of the larger estates such as Glenrock, Bywong and Jerrabiggery were being subdivided into smaller lots which brought about significant changes in land tenure and the region's demographics. Like Gundaroo, Sutton retains its small rural village character today.

3.5 Gold

A major driver of population in the region from the middle to late Nineteenth Century was the discovery of gold in the district. In 1852, a government geological survey, inspected the region and concluded that gold would likely be found at Bywong, Brooks Creek, Gundaroo Creek and along the Yass River. Several 'rushes' occurred over the next half century, beginning in the late 1850s when gold was discovered in good quantities on Brooks Creek in Bywong (Lea-Scarlett, 1972). According to an account in the Queanbeyan Age (1913a), a population of over 500 prospectors descended on the creek in 1958-59 alongside a large quantity of machinery that very quickly exhausted the find. About five years later, in 1865, John McEnally, discovered gold on a hill about 8 km from Gundaroo which sparked a gold rush in the area. The goldfield was given the name "Mac's Reef" and was located near Newington Road in Bywong, 15 km east of the proposal site. A town named Newington sprung up with three stores, a butcher and a hotel, before that source ran out (Lord, 1996).

In 1894, Thomas Alchin discovered a rich vein of gold near Millyman Road, also in Bywong. Within a year there were 300 prospectors on the site and Bywong village was established with four streets laid out by a surveyor. Stores, a post office and a public school were opened in 1895 but by the following year the gold was exhausted and the village went into decline (Lea-Scarlett, 1972). As well as these finds, gold was discovered at Barnsdale, Fairfield, Woodbury, Nanima and Jerribiggery but never in huge quantities (Lea-Scarlett, 1972).

3.6 Agriculture

Historic land-use during the region's early settlement was dominated by pastoral activities, with grazing of cattle and sheep undertaken in the early 1820s. The alluvial flats of the Yass River were

particularly sought after for their rich grassland. However, over time, land use in the region diversified as pioneers adapted to the local conditions. A review of farms in the region undertaken in 1899 found that in Gundaroo and the surrounding area, slightly less than 50 per cent of farms were utilised for crop growing and/or orcharding with the remainder dedicated to grazing. In Sutton, the number was much higher, with 80 per cent dedicated to cropping and orcharding. The difference in land use was likely tied to the quality of the land, with grazing preferred on creek flats and cropping on higher country. Popular crops at the time included wheat, maze and oats (Lea-Scarlett, 1972). Today, farms in the area are still dedicated to a mix of grazing and cropping.

3.7 Horse Breeding

In the latter part of the Nineteenth Century and early Twentieth Century, Gundaroo achieved some success in horse breeding through locals Gerald Massy and W.R. Clemenger. Massy owned a stallion named Epinicion that had achieved success at regional races wining prizes at Yass, Gunning, Goulburn, and Queanbeyan, and was described as a "fine, upstanding, dark chesnut....to be one of the handsomest horses that ever stripped on a racecourse" (Australian Town and Country Journal, 1901). Epinicion was mated with mare Elvira producing another regionally successful horse - The Palmist who won at Warwick Farm in 1903. Massy owned another horse that reached even greater fame "War God", son of The Carbine. War God, at the ripe old age of six, came third in the Sydney Cup and placed fourth two times in the Melbourne Cup (The Sydney Stock and Station Journal, 1911).

3.8 Bushrangers

Bushranging was active throughout the region during the 1840s and 1850s, mostly by escaped convicts and petty in nature. Geary's Gap, near Lake George, became a popular ambush site, with travellers and mail carts often intercepted there. The Yass Valley has links to several well-known bushrangers including Ben Hall and the Clarke Brothers. Ben Hall was active in the Gundaroo area towards the latter part of his career. In 1865, Hall's gang positioned themselves outside Collector, northeast of Gundaroo, and robbed up to 30 people, including residents of Gundaroo (Lea-Scarlett, 1972). A short time later they were active at Geary's Gap. Later that year, Hall was shot and killed at Goobang Creek, north of Forbes.

The Clarke Brother were active in the Braidwood district, southeast of Gundaroo, in the mid 1860s. It is suggested that the brothers were responsible for a hold-up at Fraser's store in Upper Gundaroo in 1866 (and again in 1867). This was followed by robbing the Caledonia store in Gundaroo (Lea-Scarlett, 1972). The Clarkes were captured in 1867, after a shootout with police, and hanged.

3.9 Convicts

Convict labourers were common in the Gundaroo area during the early settlement of the region. Lea-Scarlett (1972:17) puts the number of convicts at Gundaroo in 1841 at 90, of a total population of 388, representing roughly a quarter of the population. Most were assigned as farm labourers, but some were indoor servants or craftsmen, such a shoemakers or butchers. Subjected to a harsh life and often mistreated, disobedience was common, as was escape. Queanbeyan court records for 1838-1839 indicated that 19 of 42 convict cases were the result of absconding with the remainder due to other misdemeanours including drunkenness. On gaining their freedom, they often become workers or farmers in the region (Lea-Scarlett, 1972).

3.10 Gundaroo & Sutton Today

Over the past almost two centuries population in the region has seen multiple peaks and reductions linked to droughts, wars, and The Depression. While beginning as small remote villages, Gundaroo and Sutton have retained their rural quality and maintain populations today similar with those of a century ago. Land use has changed over time from an early dependence on cattle and sheep farming to adoption of cropping and orcharding.

3.11 Project Area Historical Landuse

As discussed above, land use within the proposal site from the early settlement period until today has focussed on cattle/sheep grazing and cropping. Historical aerials provide a framework for assessing

the nature and extent of previous land use across the proposal site. Examination of aerials from 1959 (Figure 6), 1967 (**Error! Reference source not found.**), 1976 (Figure 8), 1985 (Figure 9), 1992 (Figure 10), 1998(Figure 11), 2005 (Figure 12) and 2011 (Figure 13), provided below, attest to a range of land use activities and associated ground surface impacts across the site including:

- Extensive native vegetation clearance prior to 1959;
- Pastoral activities, including livestock grazing, fencing and the construction of a farm dams and access tracks prior to 1959;
- Construction of Tallagandra Road prior to 1959;
- Construction of additional dams across the area post 1959 to 1992;
- Construction of a transmission line across the southern portion of the proposal site (c. 1992);
- Construction of a fibre optic cable through the centre of the proposal site (c. 2000);
- Construction of a residential dwelling, farm buildings and associated infrastructure (i.e., driveways and access tracks) (*c.* 1965, 1970 and 1982);
- Planting of trees, primarily She oak, along various fence lines;
- Construction of a stockyard in the central portion of the proposal site (c. 2005); and
- Cropping in the eastern portion of the proposal site (c. 2011); and
- Erosion (sheet and creek bank).

Figure 6 1959 aerial photograph of the proposal site (Source: Land & Property Information NSW)

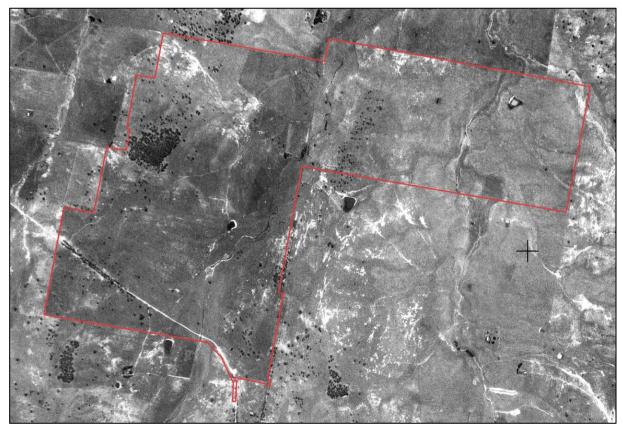


Figure 7 1967 aerial photograph of the proposal site (Source: Land & Property Information NSW)



Figure 8 1976 aerial photograph of the proposal site (Source: Land & Property Information NSW).



Figure 9 1985 aerial photograph of the proposal site (Source: Land & Property Information NSW)



Figure 10 1992 aerial photograph of the proposal site (Source: Land & Property Information NSW)





Figure 11 1998 aerial photograph of the proposal site (Source: Land & Property Information NSW)

Figure 12 2005 aerial photograph of the proposal site (Source: Land & Property Information NSW)





Figure 13 2011 aerial photograph of the proposal site (Source: Land & Property Information NSW)

4.0 Heritage Register/Lists

4.1 Heritage Register/List Searches

A search of relevant historic heritage registers/lists, both statutory and non-statutory, was undertaken on 5 November 2017 to identify previously recorded historic heritage items within or directly adjacent to the proposal site. Table 1 presents the results of historic register searches for the proposal site. As indicated, there are <u>**no**</u> previously identified historic heritage items located within or directly adjacent to the proposal site.

Table 1: Historic Register Searches

Listing	Results	Location
Schedule 5 – Yass Valley Local Environment Plan 2013 ¹	There are no items within the proposal site listed on Schedule 5 of the Yass Valley LEP.	N/A
World Heritage List (WHL) ¹	There are no items within the proposal site listed on the WHL.	N/A
Register of National Estate (RNE) ²	There are no items within the proposal site listed on the RNE.	N/A
National Heritage List (NHL) ¹	There are no items within the proposal site listed on the NHL.	N/A
Commonwealth Heritage List (CHL) ¹	There are no items within the proposal site listed on the CHL.	N/A
EPBC Protected Matters Search Tool (EPMST)	There are no items within the proposal site shown on the EPMST.	N/A
NSW State Heritage Register (SHR) ¹	There are no items within the proposal site listed on the SHR.	N/A
National Trust of Australia (NTA) ²	There are no items within the proposal site listed on the NTA.	N/A

1 Statutory Heritage Registers 2 Non-Statutory Heritage Registers

5.0 Field Survey

5.1 Aim and Objectives

The aim of the field survey was to identify, record and map the historic heritage values of the proposal site. These values include the tangible remains of past land use including built structures, moveable items and natural landscapes. To achieve these aims, the following specific survey objectives were developed:

- to comprehensively survey, by pedestrian transects, land within the proposal site;
- to identify and record historic heritage items within the proposal site;
- to record natural and landscape features relevant to determining the cultural significance of the proposal site; and
- to obtain sufficient data to facilitate the development of appropriate management and mitigation measures for the identified historic heritage values of the proposal site.

5.2 Methodology

A field team of two AECOM archaeologists (Geordie Oakes and Andrew McLaren) completed the field survey of the proposal site over three days between 25 to 29 November 2017. All survey was conducted on foot, with full coverage of the proposal site completed.

5.3 Results

Survey across the proposal site identified a largely undisturbed rural landscape generally characterised as flat to undulating, with level to very gently inclined creek flats associated with Back Creek and an unnamed 3rd order tributary giving way to the gently to moderately-inclined side slopes of elevated crests and associated spur crests (Plate 1 and Plate 2). Observations of land within the proposal site during the field survey noted it as primarily grazing land with no significant built structures and little farm-related infrastructure. It comprised large, heavily grassed, fenced paddocks of variable size. Identified built structures included:

- a contemporary stockyard and sheep dip roughly in the centre of the proposal site with remnants of an earlier stockyard dated to the 1950s present in scattered timber sleepers (Plate 3);
- the remains of a burnt hayshed in the northern portion of the proposal site, dating to the 1950s (Bruce Hall pers. comm. 7 December 2017) (Plate 4); and
- Contemporary shearing and storage sheds in the centre portion of the proposal site (constructed *c*.1985, as indicated by historic aerials) (Plate 5).

Notwithstanding the above, <u>**no**</u> items of historic heritage significance were identified during the field survey.



Plate 1 View north of general landscape showing elevated crests (source: AECOM 2017)



Plate 2 View north of general landscape showing flats associated with the central tributary in foreground and crest in right of image (source: AECOM 2017)



Plate 3 View southeast of stockyard



Plate 4 View west of burnt hay shed



Plate 5 View southing showing shearing and storage sheds

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6.0 Project Area Cultural Landscape Assessment

A cultural landscape is a natural landscape that has been modified through human presence or activity. Accordingly, a cultural landscape assessment requires a review of geographical information, historical textual information, heritage items and an understanding of the interaction of these features. In completing the assessment, reference was made to the following guidelines: *NSW Heritage Manual* (Heritage Office, 1996); *World Heritage Centre guidelines* (UNESCO 2008) and *Landscapes of Cultural Significance: Assessment Guidelines* (Heritage Council Victoria, 2015).

6.1.1 Cultural Landscape Values

In order to identify the cultural values of a landscape, a review of the natural landscape, historical themes and heritage items must be undertaken. Table 2 lists the historic themes and associated cultural values of land within the proposal site.

Historic Theme	Landscape	Feature	Values
Natural features	Landscape associated with natural features occurring independent of human intervention	Undulating landscape and creek flats, views and vistas	Aesthetic
Aboriginal culture	Landscape associated with Aboriginal occupation	Evidence of Aboriginal use of the area has been demonstrated through the identification of open artefact sites and scarred trees	Archaeological
Early settlement: exploration	Landscape associated with early exploration and settlement activities	N/A	N/A
Living on the land: homesteads and settlements	Landscapes associated with homesteads and farm living	N/A	N/A
Working the land: grazing, and cropping	Landscape associated with farming plant and animals for commercial purposes	Historic farmland – evidence of grazing and cropping	Historic

Table 2 Cultural Landscape Values

6.1.2 Significance Assessment

A significance assessment for identified cultural values with the proposal site is provided below. The assessment was undertaken in accordance with the NSW Heritage Division guidelines *Assessing Heritage Significance* (NSW Heritage Office, 2001). Within the guidelines, an item is considered of State or local heritage significance if it meets one of more of the six criteria that have been developed for completing significance assessments in NSW. The criteria encompass the four heritage values identified in the *Burra Charter* – historic, aesthetic, scientific and social. The 'Inclusion' and 'Exclusion' guidelines for each criterion provide the measures for assessing significance at the State or local level.

APPLICATION OF SIGNIFICANCE CRITERIA	
Criterion A – Historic Value 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 proposal site's landscape does not meet this criterion at a state or local level
Criterion B – Associated with a NSW identity an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area)	The proposal site's landscape does not meet this criterion at a state or local level

APPLICATION OF SIGNIFICANCE CRITERIA	
Criterion C – Technical Achievement an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)	The proposal site's landscape does not meet this criterion at a state or local level
Criterion D – Social Value an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons	The proposal site's landscape does not meet this criterion at a state or local level
Criterion E – Contributory Value an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history(or the cultural or natural history of the local area)	The proposal site's landscape does not meet this criterion at a state or local level
Criterion 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 proposal site's landscape does not meet this criterion at a state or local level
Criterion G - Representativeness an item is important in demonstrating the principal characteristics of a class of NSW's - cultural or natural places; or - cultural or natural environments (or a class of the local area's • cultural or natural places; or • cultural or natural environments.)	The proposal site's landscape does not meet this criterion at a state or local level

6.2 Statement of Cultural Values

The proposal site's cultural landscape contains aesthetic, natural and archaeological values associated with its occupation by Aboriginal people and historical values associated with its use as farm land from the early Nineteenth Century. An assessment of significance of these values finds that they do <u>**not**</u> meet significance criteria at a State or local level. As such, the proposal site's cultural landscape is not considered to have heritage significance.

7.0 Impact Assessment

7.1 Summary of Proposed Impacts

The proposed Project would consist of up to 100 megawatts of alternating current (MWac) solar generation equipment and associated infrastructure. The proposed project would consist of the following components:

- Photovoltaic solar modules fixed on a single-axis tracking framing system mounted on steel piles with underground DC and AC cabling for electrical reticulation
- Approximately 24 containerised power conversion stations, containing the electrical switchgear, inverters and MW transformers
- Electrical switchyard and substation that will be connected to the existing 132 kilovolt (kV) TransGrid transmission line that traverses the site.
- Control building including office, SCADA systems, meteorological stations and operation and maintenance (O&M) facilities
- Upgrading of site access roads and establishment of internal all weather access tracks together with security perimeter fencing

The single-axis tracking system will orient the solar modules to follow the sun from east to west each day. The tracking structures will be mounted on piles, which will be screwed or pile driven depending on final geotechnical analysis. This eliminates the need for concrete and foundations which significantly reduces the impact of construction. In turn, this enables the retention of native grasslands and habitats under the array. This construction methodology keeps ground disturbance to a minimum and allows the final site design to follow the existing lie of the land. The intention of the Project is to maintain the existing vegetation on site and future vegetation management, in collaboration with the final bushfire management and environmental management plans. Vegetation will be maintained by grazing sheep as much as possible.

The onsite switchyard and substation will lie adjacent to the existing 132kV TransGrid Easement. Final design was carried out in collaboration with TransGrid and the Australian Energy Market Operator (AEMO). Civil and earthworks will be carried out to meet the transmission substation design guidelines.

The operational lifetime of the solar farm is 30 years, at which time the site will either be decommissioned or continue to operate subject to further approval and commercial agreements. Decommissioning will return the site to the predevelopment condition.

Key impacts resulting from the Project will include:

- Targeted tree removal;
- Construction of access tracks; and
- Ground surface levelling for constriction of power conversion stations, electrical switchyard and substation
- Piles for solar modules
- Trenching for underground cabling.

7.2 Impacts to Identified Historic Heritage Values

No impacts to historic heritage items, places or values are anticipated, including views and vistas from the historic villages of Gundaroo and Sutton.

8.0 Management Recommendations

The following management recommendations are made on the basis of:

- a review of the historical context of the proposal site and surrounds;
- the results of the field survey described in Section 5.0; and
- the impact assessment detailed in Section 7.0.

8.1 Statutory Requirements

As indicated in Section 1.1, this HHIA report forms part of an EIS being prepared by AECOM to support an application for SSD Consent under Division 4.1, Part 4 of the EP&A Act.

As an SSD Project, impacts to historic heritage items are managed under Section 89C of the EP&A Act. For these developments, Section 89J of the Act specifies an approval to interfere with places or buildings protected by a heritage protection order or excavation permit under Section 139 of the *Heritage Act 1977* is not required.

8.2 Recommendations

- 1. No historic heritage constraints have been identified within the proposal site in relation to the Project. As such, no further heritage works or reporting are considered warranted; and
- 2. In the event that unexpected historic items, including possible human skeletal material (remains), are identified during the project implementation the procedure outlined below should be followed.

8.2.1 Unexpected Historic Finds

In the event that unexpected historic finds are identified during construction, all works should immediately cease. The following procedure guides the management of unexpected and previously unidentified finds during the course of operations. Finds includes artefact scatters (glass, animal bone, ceramic, brick, metal, etc.), building foundations and earthworks of unknown origin. The procedures are:

- All work in the area is to cease immediately;
- Alert the Project Manager to the find;
- If necessary, protect the area with fencing;
- Engage a suitably qualified archaeologist to undertake an assessment of the find/s;
- The assessment should be undertaken using the guidelines Assessing Significance for Historical Archaeological Sites and 'Relics' (NSW Heritage Branch, 2009);
- On the advice of the archaeologist, if necessary, prepare an Impact Assessment and Research design and methodology to submit to the Heritage Branch;
- Undertake the archaeological mitigation in accordance with the prepared documents and the permit/exception issued by the Heritage Branch; and

Once the site has been mitigated to the satisfaction of the archaeologist and the Heritage Branch, works may resume in the area.

8.2.2 Discovery of Human Remains

- 1. All work in the vicinity of the remains should cease immediately;
- 2. The location should be cordoned off and the NSW Police notified;
- 3. If the Police suspect the remains are Aboriginal, they will contact the Office of Environment and Heritage and arrange for a forensic anthropologist or archaeological expert to examine the site.

Subsequent management actions will be dependent on the findings of the inspection undertaken under Point 3.

- If the remains are identified as modern and human, the area will become a crime scene under the jurisdiction of the NSW Police;
- If the remains are identified as pre-contact or historic Aboriginal, OEH and all Registered Aboriginal Parties (RAPs) for the Project are to be formally notified in writing. Where impacts to exposed Aboriginal skeletal remains cannot be avoided an appropriate management mitigation strategy will be developed in consultation with OEH and RAPs;
- If the remains are identified as historic non-Aboriginal, the site is to be secured and the NSW Heritage Division contacted; and
- If the remains are identified as non-human, work can recommence immediately.

8.3 Conclusion

Based on background historical research and field survey of the proposal site, it is concluded that the Project would not impact any historical heritage values.

9.0 References Cited

Attenbrow, V. (2010). Sydney's Aboriginal Past: Investigating the Archaeological and Historical Records. Sydney: University of New South Wales Press.

Australian Town and Country Journal. (1901, March 9). Gunning. Australian Town and Country Journal, p. 16.

- Blackmore-Lee, T. (2006). Guise Family of Jerribiggery. Retrieved November 17, 2017, from http://www.monaropioneers.com/guise-r&w.htm
- Flood, J. (1980). The Moth Hunters: Aboriginal Prehistory of the Australian Alps. Canberra: Australian Institute of Aboriginal Studies.
- Flood, J. (1996). *Moth Hunters of the Australian Capital Territory: Aboriginal life in the Canberra Region*. Canberra: Self published.

Haiblen, S. (2006). Elizabeth Guise - A Canberra Pioneer. Unpublished report.

Heritage Council Victoria. (2015). Landscapes of Cultural Heritage Significance: Assessment Guidelines. Heritage Council of Victoria.

Howitt, A. W. (1904). The native tribes of south-east Australia. London: Macmillan.

- ICOMOS (Australia). (2013). *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*. Burwood, Victoria: Australia ICOMOS. Retrieved from http://australia.icomos.org/wp-content/uploads/The-Burra-Charter-2013-Adopted-31.10.2013.pdf
- Lea-Scarlett, E. (1972). Gundaroo. Canberra: Roebuck Society.

Lord, R. (1996). Sutton Public School 125 Years of Education 1871 - 1996. Sutton Public School.

- NSW Heritage Office. (2001). Assessing Heritage Significance. Parramatta. Retrieved from http://www.heritage.nsw.gov.au/docs/assessingheritagesignificance.pdf
- NSW Heritage Office. (2002). *Statements of Heritage Impact*. Parramatta: Heritage Office. Retrieved from http://www.heritage.nsw.gov.au/03_index.htm#S-U
- NSW Heritage Office. (2008). *Levels of Heritage Significance*. Parramatta: Heritage Office. Retrieved from http://www.heritage.nsw.gov.au/docs/levels_of_heritage_significance_2008.pdf
- NSW Heritage Office, & NSW Department of Urban Affairs and Planning. (1996a). *NSW Heritage Manual.* Parramatta: Heritage Office & Department of Urban Affairs & Planning. Retrieved from http://www.heritage.nsw.gov.au/03_index.htm#M-O
- NSW Heritage Office, & NSW Department of Urban Affairs and Planning. (1996b). Regional Histories of New South Wales.

Queanbeyan Age. (1913a, August 19). The History of Gundaroo. Queanbeyan Age, p. 2. Queanbeyan.

Queanbeyan Age. (1913b, October 14). The Late Mr. P. J. B. Donnelly. Queanbeyan Age, p. 2. Queanbeyan.

The Canberra Times. (1926, November 25). Glenrock. The Canberra Times, p. 9. Canberra, ACT.

The Sydney Stock and Station Journal. (1911, September 22). War God. The Sydney Stock and Station Journal.

- White, K. R. (1981). Donnelly, John Francis (1885–1962). Retrieved December 12, 2017, from http://adb.anu.edu.au/biography/donnelly-john-francis-5996/text10237
- Wotherspoon, G. (2008). Goldsbrough Mort & Co. Retrieved December 12, 2017, from https://dictionaryofsydney.org/entry/goldsbrough_mort_co