

# Historical Archaeological Assessment

WELLINGTON NORTH SOLAR PLANT - AGL

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## ACRONYMS AND ABBREVIATIONS

AHD	Australian Heritage Database
CHL	Commonwealth Heritage List
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
HHIMS	Historic Heritage Information Management System
ICOMOS	International Council on Monuments and Sites
Km	kilometres
LEP	Local Environmental Plan
LGA	Local Government Area
M	Metres
MW	Mega Watt
NEM	National Electricity Market
NHL	National Heritage List
NPW Act	<i>National Parks and Wildlife Act 1974 (NSW)</i>
NSW	New South Wales
OEH	(NSW) Office of Environment and Heritage, formerly Department of Environment, Climate Change and Water
PAD	Potential Archaeological Deposit
RNE	Register of the National Estate
SEARs	Secretary of the DPE Environmental Assessment Requirements
SHI	State Heritage Inventory
SHR	State Heritage Register
UNESCO	United Nations Education, Scientific and Cultural Organisation
WHL	World Heritage List

## EXECUTIVE SUMMARY

NGH Environmental has been contracted by AGL Energy (AGL) to prepare an Historic Archaeology Assessment report for the proposed Wellington North Solar Plant, located approximately 2 kilometres (km) north east of the town of Wellington in NSW.

The solar plant proposal would involve ground disturbance that has the potential to impact on historic archaeological sites and 'relics', which are protected under the NSW *Heritage Act 1975* (Heritage Act). The purpose of this historic archaeological assessment is to investigate the presence and potential of any historic archaeological sites; assess the heritage significance of any identified or potential historic archaeological sites; and to assess the impacts and management strategies that will avoid or may mitigate any impact.

The Secretary of the DPE Environmental Assessment Requirements (SEARs) relating to heritage were as follows:

*Include an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, including adequate consultation with the local Aboriginal community (SEARs for Wellington North Solar Plant 20/07/17).*

## HISTORIC ARCHAEOLOGICAL PREDICTIVE MODELLING

Background historical research was undertaken to identify any potential historic archaeology within the proposal area. This research involved primary sources such as historic parish maps as well as secondary sources including heritage databases and records. The history of the region, landowners, workers and land use can help to determine the type of historical archaeological features or deposits that may be encountered. Background research indicates that historical archaeological subsurface potential for the proposal area will be directly linked with any built features, in the form of; foundations, postholes or other construction remains; or deposits from cesspits, rubbish pits or wells. Records of the proposal area indicate no historical buildings or features with the exception of the Noonee Nyrang Homestead and the Soil Conservation Centre Facility have been constructed, whether temporary or permanent. Records indicate that landowners were free settlers, with no convict activity evident across the proposal area.

## FIELD ASSESSMENT

The survey strategy was to cover as much of the ground surface as possible within the proposal site. Transects were undertaken on foot and traversed all the proposal site. The proposed eastern powerline easement was unable to be surveyed during the initial fieldwork due to access issues, but was later surveyed over two days in November 2018.

Visibility within the proposal site was variable however as a whole the proposal site generally had good visibility averaging 35% overall. The effective visibility in the paddocks ranged from 90% in exposures to less than 5% in areas of dense grass. Between the survey participants, over the course of the two field surveys, approximately, 850km of transects were walked across the proposal site. Allowing for an effective view width of 5m for each person and given the variability in the ground visibility across the proposal site overall the survey effectively examined 13.1% of the proposal site. It is considered that the survey of Wellington North Solar Plant proposal site had sufficient and effective survey coverage.

There were no historical archaeological sites identified during the course of the survey, and no indication of potential subsurface historical archaeological deposits were encountered.

## IMPACT ASSESSMENT RESULTS

The proposal involves the construction of a solar plant and includes connection to the nearby substation with an above ground powerline to the east of the proposal area that will extend to the existing Wellington Substation on Lot 1/DP1226751. The development will result in disturbance of approximately 806 hectares (ha) of the 970ha property, plus 119ha for the 'worst case' (largest impact area) transmission line option to the east between the property and the existing substation; resulting in a total disturbance of up to 925ha. The potential impact is likely to be most extensive where earthworks occur and would involve the removal, breakage or displacement of artefacts.

The proposal area has a history of being largely used for cultivation and farming purposes and there is no evidence of permanent structures being built within the proposal area with the exception of the local heritage listed Noonee Nyrang Homestead and associated outbuildings. The potential for historical archaeology would be linked to remaining subsurface deposits like cesspits, buried rubbish deposits and possibly the postholes of temporary structures. However, the history of land clearing and subsequent farming land-use indicates significant ground disturbance across the proposal area. It is considered likely that larger, structural elements of any previous buildings and infrastructure would have been discovered through the process of ploughing. Any smaller artefacts, located within the plough zone, would likely no longer remain in situ.

The conclusion of this assessment is that the proposed work is unlikely to impact upon historical subsurface archaeological deposits.

## RECOMMENDATIONS

Covering the area occupied by the Noonee Nyrang Homestead, its outbuildings and gardens, is an exclusion zone that has been determined on the basis of avoiding impact to the locally listed property. The solar plant proposal is not considered likely to have a significant impact in accordance with the NSW *Heritage Act 1977*, the EP&A Act, or the EPBC Act, in terms of non-Aboriginal heritage and specifically upon the locally listed Noonee Nyrang Homestead.

The following safeguards and mitigation measures have been recommended;

Table 1. Safeguards and mitigation measures for Non-Aboriginal Heritage:

*PC: Pre Construction, C: Construction; O: Operation; D: Decommissioning*

Safeguards and mitigation measures	PC/C	O	D
<ul style="list-style-type: none"> <li>Should an item of historic heritage be identified, the Heritage Division (OEH) would be contacted prior to further work being carried out in the vicinity.</li> </ul>	C	O	D
<ul style="list-style-type: none"> <li>The Noonee Nyrang Homestead should not be altered whilst in use as an Office and Maintenance building for the solar plant.</li> </ul>	C	O	D
<ul style="list-style-type: none"> <li>The existing outbuildings and stone shed around the Noonee Nyrang Homestead should be maintained and not altered.</li> </ul>	C	O	D

# 1 INTRODUCTION

Wellington North Solar Farm Pty Limited (the proponent), a subsidiary of AGL Energy Limited proposes the development of a commercial scale solar plant approximately 7 kilometres north east of the town of Wellington, NSW (Figure 1 and 2). The 970 hectare site will be identified as the Wellington North Solar Plant (Figure 3). The proposed Wellington North Solar Plant would generate up to 300 Mega Watts (AC).

During the initial Environmental Impact Assessment (EIS) submission, it was noted by OEH that historical heritage was not specifically addressed in regards to the Wellington North Solar Farm proposal. In order to meet the conditions of the Secretary of the DPE Environmental Assessment Requirements (SEARS), NGH Environmental has been contracted by AGL to prepare an assessment of historic archaeological potential, to investigate and examine the presence, extent and nature of any historical heritage within the proposal area as part of an updated EIS.

Initial survey of the area of the Solar Plant was undertaken over nine days in February 2018. Due to changes in alignment with the transmission line, a subsequent survey of the new transmission line route was undertaken over two days in November 2018. The historic heritage and archaeological potential for both the Solar Plant area and the additional transmission line are addressed within this document (see Figures 1 and 2 for the proposal area subject to this assessment).

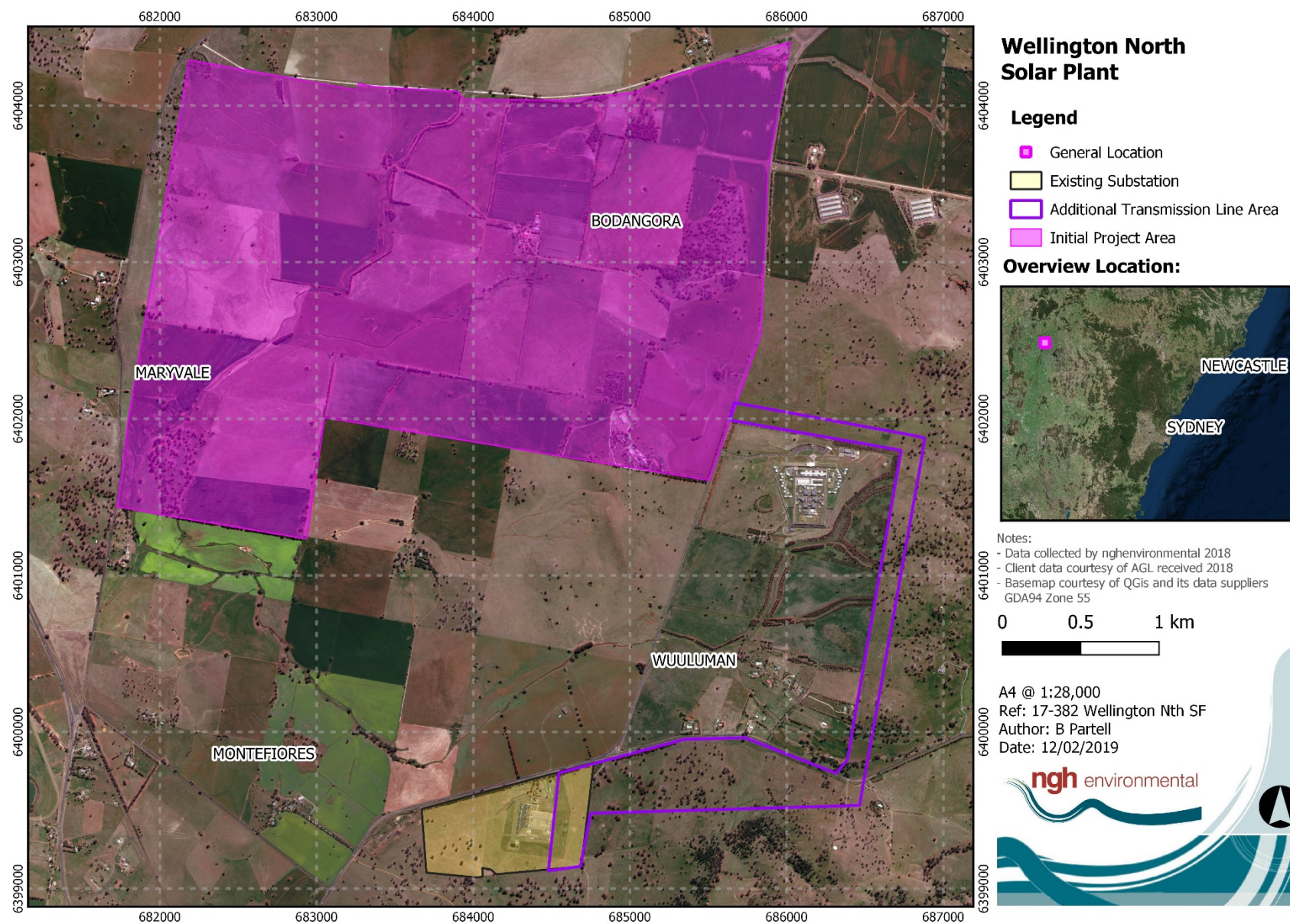
## 1.1 PROPOSAL AREA

The Wellington North Solar Plant proposal is located approximately 7km to the north-east of Wellington, NSW (see Figure 1). The assessment area is comprised of Lots 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 88, and 119, 120, 121/DP 2987, Lots 1 and 2 /DP 1104720, Lot 3/DP 976701, Lots 2-3 /DP 808748, Lot 100 /DP 750760, Lot 1/DP 664645, Lot 1/ DP 1206579, Lot 1 DP 664645, Lot 1 DP 807187, Lot 1 DP 100778, Lot 32 DP 622471, Lot 2 DP 1053234, Lot 106 DP2987 and Lot 12 DP 572344 and will connect to the national electricity network via the existing TransGrid substation located on Goolma Road within Lot 1/DP1226751 (see Figure 4). Connection to the existing substation will be via overhead powerlines through Lots 3 DP808748, Lot 106 DP2987, Lot 73 DP750760, Lot 2 DP1053234, Lot 2 DP1074098, Lot 32 DP622471 and Lot 1 DP1226751.

The site is bounded by Campbells Lane to the north, Goolma Road to the east, private land and Cobbora Road to the west and private agricultural land to the south. Another solar farm, Wellington Solar Farm owned by First Solar, is proposed on private property immediately south of the site.

The proposal site would have one vehicular access point. The primary access point during construction for light and heavy vehicles would be off Campbells Lane, along the northern boundary of the site. Campbells Lane would be accessed via Cobbora Road and the Mitchell Highway.







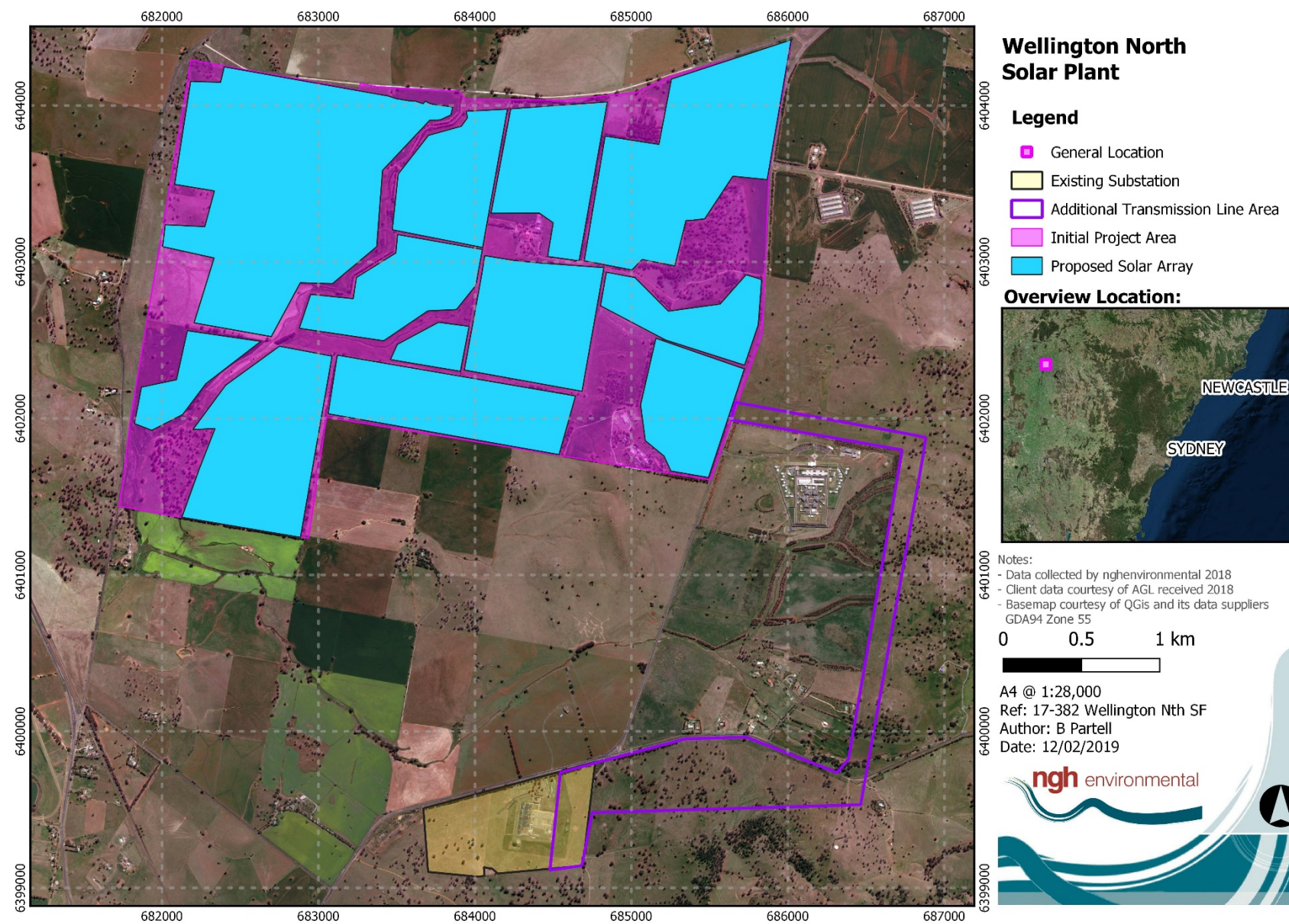


Figure 2. Proposal site with development design.

## 1.2 PROPOSED WORKS

The Wellington North Solar Plant proposal involves the construction, operation and decommissioning of a ground-mounted photovoltaic solar array which will generate up to 300 MW (AC) into the national electricity grid. The proposal site is approximately 970 hectares in size and consists of several large paddocks primarily used for grazing and cropping.

The construction phase of the proposal would take approximately 18 – 24 months in total with a shorter peak construction period of approximately 9 months, during which time the main construction works would take place.

The Wellington North Solar Plant would be expected to operate for approximately 30 years. After this initial operating period, the solar plant would either be decommissioned, removing all above ground infrastructure and returning the site to its existing land capability, or repowered with new PV equipment to continue operations as a solar plant.

The upper capacity of the proposed Wellington North Solar Plant would be up to 300 MW (AC). The power generated will be fed into the National Electricity Market (NEM) at the transmission level from existing Wellington substation located approximately 3km from the proposal site on Goolma Road. Wellington North Solar Farm Pty Limited proposes to develop approximately 925ha.

The key infrastructure for the proposal would include:

- PV modules mounted on a horizontal tracking structure;
- Power conversion stations (PCS) to allow conversion of DC module output to AC electricity;
- An onsite substation containing transformers and associated switchgear;
- Underground electrical conduits and cabling to connect the arrays on the array site;
- Internal access tracks and upgrades to existing access roads, where required;
- Internal access tracks to allow for site maintenance;
- Area for future battery storage facility;
- Site office and maintenance building with associated car park;
- Perimeter security fencing and CCTV;
- Native vegetation planting to provide visual screening from specific viewpoints, as required; and;
- High voltage powerline (overhead 330 kV).
- During the construction period some additional temporary facilities would also be located within the proposal site.

The areas assessed in this Historical Archaeological Assessment report are shown in the Figures 1 and 2, above.

### 1.3 METHODOLOGY

This report has been prepared according to the guidelines presented in the OEH publications *Assessing Significance for Historical Archaeological sites and Relics* 2009 and *Archaeological Assessments* 1996. We undertook historical research including investigating parish maps to identify the history of non-indigenous settlement and land-use of the proposal area and the broader region. This research was used to identify historical themes using the NSW Historic Themes.

This report has been prepared in response to the Office of Environment and Heritage letter reference DOC18/582199, dated 17 September 2018. The letter was prepared in response to the lodged EIS and has requested of NGH;

*“Prior to any ground disturbance works occurring on the site, a suitably qualified historical archaeologist should be engaged to undertake an historical archaeological assessment of the site. The assessment shall comply with the Heritage Council of NSW guidelines including Assessing Significance for Historical Archaeological sites and Relics 2009 and Archaeological Assessments 1996. This assessment should identify what relics, if any, are likely to be present, assess their significance and consider the impacts from the proposal on this potential resource. Where harm is likely to occur, it is recommended that the significance of the deposits or relics be considered in determining an appropriate Research Design and Excavation Methodology should also be prepared prior to any excavation occurring to guide any proposed excavations...”*

This report reflects changes to the transmission line options presented in the EIS; neither of these would now be developed. They have been replaced by a new eastern transmission line, shown on Figure 2 as the ‘additional transmission line area’. Only this transmission line route is now relevant to the assessment. An Amended Application has been prepared to fully assess all impacts of this change.

### 1.4 LIMITATIONS

Limitations were encountered during the process of this investigation that hampered the effectiveness of the results, which have been accounted for throughout the following assessment. During the visual inspection of the proposal area, as is often the case when attempting to assess subsurface archaeological potential, visibility proved a limitation to the investigation. While visibility provided this limitation, the field inspection was deemed sufficient due to the success in locating Aboriginal heritage sites.

The other limitation encountered during this investigation was in the form of limited availability of historical records and information. The majority of historical information was gathered from parish maps and early administrative records, which while available, were inconsistent and none have been located dating pre-1886. An example of the limitations this provides is found through the located survey marker tree, which bears the numeral ‘1’ but was unable to be located on any cadastral recordings.

While it is evident that there were limitations encountered during the investigation, we believe that this report provides an accurate assessment of the historical archaeological potential across the proposal area of the proposed Wellington North Solar Plant.



## 1.5 PROJECT PERSONNEL

The assessment was undertaken by archaeologists Kirsten Bradley, Emily Dillon, Jakob Ruhl and Bronwyn Partell of NGH Environmental, including research, field survey and report preparation.

## 2 LEGISLATIVE AND NON-STATUTORY CONSIDERATIONS

Places of heritage value can be subject to different levels of recognition and protection. This protection (at local, state and national levels) includes specific measures to ensure the protection of heritage items. The text below provides a summary of the legislative framework at each level of government and the results of heritage database searches.

### 2.1 ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999

The EPBC Act provides a legal framework for the protection and management of places of national environmental significance. The heritage lists addressed by the EPBC Act include the United Nations Educational, Scientific and Cultural Organisation (UNESCO) World Heritage List (WHL), National Heritage List (NHL) and the Commonwealth Heritage List (CHL).

All WHL properties in Australia are protected and managed under the EPBC Act. The NHL protects places that have outstanding value to the nation. The CHL protects items and places owned or managed by Commonwealth Government agencies. The Commonwealth Department of Environment is responsible for the implementation of national policy, programs and legislation to protect and conserve Australia's environment and heritage and to promote Australian arts and culture. The Minister's approval is required for controlled actions which would have a significant impact on items and places included on the WHL, NHL or CHL.

#### 2.1.1 Australian Heritage Database

The Australian Heritage Database (AHD) includes the National Heritage List, which includes the natural, historic and indigenous places that are of outstanding national heritage value to the Australian nation. The AHD also contains the Commonwealth Heritage List that comprises those places on Commonwealth lands and waters, or under Australian Government control. Items on both of these lists are protected under the EPBC Act. The AHD also includes places listed as World Heritage by UNESCO.

References to the Register of the National Estate (RNE) were removed from the EPBC Act in 2012. The RNE is no longer a statutory list but remains an archive of information about more than 13,000 places throughout Australia.

***There are no sites listed on the NHL or CHL within the proposal area. Although several sites located in Wellington township were registered on the RNE, none are located within the proposal area.***

### 2.2 NSW HERITAGE ACT

#### 2.2.1 State Heritage Register

Natural, cultural and built heritage is protected in NSW under the *Heritage Act 1977*. The Act is administered by the Heritage Division, a State government agency within the Office of Environment and Heritage, Department of Planning and Environment.

The Act creates the State Heritage Register (SHR) which provides permanent protection for a heritage item or place. Items of State heritage significance are defined as a place, building, work, relic, moveable object or precinct which is of historical, scientific, cultural, social, archaeological or natural significance to the State (Section 4A (1) of the Act). The effect of SHR listing is that a person cannot damage, destroy, alter or move an item, building or land without approval from the Heritage Council.

The 2001 NSW Heritage Manual Update published by the NSW Heritage Office (now the 'Heritage Division') provides guidelines for 'Assessing Heritage Significance'. The Manual includes specific criteria for assessing heritage significance and the significance assessment within this report has been completed in accordance with these guidelines.

When items are listed on the State Heritage Register (SHR) applications to carry out works on those items need to be made to the Heritage Council under Section 60 of the Act.

***There are no SHR listed sites located within the proposal area.***

### **2.2.2 State Agency Heritage Registers**

State agencies and authorities in NSW are required to keep a register of heritage places under their management under Section 170 of the Act. The s.170 registers are also held in the NSW Heritage Division's (OEH) State Heritage Inventory (SHI), an electronic database of statutory listed heritage items in NSW.

***There is one s.170 register site located within the proposal area, the Noonie Nyrang Homestead SHI #2640142, outlined in section 5.2.***

### **Historic Heritage Information Management System (HHIMS)**

The Historic Heritage Information Management System (HHIMS) assists the Office of Environment and Heritage to manage information on over 11,000 heritage items on land managed by NSW National Parks and Wildlife Service. Information from heritage studies and related documents are also included in HHIMS' records about particular sites on NPWS Estate.

HHIMS aids in the protection and management of these sites by maintaining and providing information concerning the nature, current status and location of sites. HHIMS information facilitates inquiries, supports site protection, enables better management and research and provides the secure protection of sensitive cultural and historical information.

HHIMS replaced the previous National Parks and Wildlife Service Historic Places Register in August 2002 and enables the Office of Environment and Heritage to meet its obligations under Section 170 of the NSW Heritage Act 1977.

***There are no HHIMS listed sites within the proposal area.***

### **2.2.3 Historical Archaeology**

The Heritage Act gives statutory protection to relics that form part of historical archaeological deposits. Amendments to the Heritage Act made in 2009 defined an archaeological 'relic' under the Act. A relic is an archaeological deposit, resource or feature that has heritage significance at a local or State level. The definition is not based on age.

The practical application of this is that it is not necessary to apply for exemptions if an item has been assessed as having no heritage significance. Sections 139-145 of the Heritage Act prevents the excavation or

disturbance of land for the purpose of discovering, exposing or moving a relic, except in accordance with an excavation permit issued by the Heritage Council of NSW.

If any works require excavation to be undertaken, a Section 140 excavation permit under the Heritage Act 1977, or a Section 139 Exception will be required. Any works that require a Section 140 excavation permit will require an Archaeological Assessment, Research Design and Methodology that details the proposed archaeological work and an archaeologist present during any excavation works.

Section 139 prohibits the excavating or disturbing of land leading to a relic being discovered, exposed, moved, damaged or destroyed. To excavate and disturb land in the context of the NSW Heritage Act is associated with the activity of digging or unearthing. The new definition also indicates that the 'relic' being exposed or disturbed is considered significant (or has the potential to be significant) at the time of its excavation, removal or destruction.

A S139 (1B) exemption is for excavation or disturbance of land that will have a minor impact on archaeological relics including the testing of land to verify the existence of relics without destroying or removing them.

## 2.3 ENVIRONMENTAL PLANNING & ASSESSMENT ACT

The *Environmental Planning & Assessment Act 1979* (EP&A Act) controls land use planning in NSW. The planning system established by the EP&A Act includes development that is permitted with and without consent. In broad terms, development with consent is assessed and approved by a local council as the consent authority under Part 4 of the Act. Development without consent, in general terms, (i.e. development that does not require the consent of the local council) is works undertaken by a Minister or public authority. The environmental impacts of development without consent are assessed under Part 5 of the Act and determined by a determining authority, the relevant Minister or public authority. The proposed development of a solar plant within the proposal area at Wellington North will be assessed under Part 4 of the Act. Under Section 4.36 of the EP&A Act the proposal is declared to be SSD by a State Environmental Planning Policy (SEPP). The *State Environmental Planning Policy (State and Regional Development) 2011* (NSW) (SRD SEPP) declares the Wellington North Solar Plant to be SSD, as it is development for the purpose of electricity generating works with a capital investment value of greater than \$30 million (Clause 20, Schedule 1).

Under the EP&A Act, local councils must prepare Local Environment Plans (LEPs) and other provisions relating to development control. Heritage items are added to a heritage schedule of a LEP often following identification and assessment from a local council heritage study. The SHI also holds local heritage items listed by local councils in NSW. These items are then given protection by the heritage provisions within the relevant plan.

## 2.4 LOCAL ENVIRONMENTAL PLAN, 2012

The Wellington Council LEP (2012) identifies and protects heritage conservation areas and listed buildings/items, identifies environmentally sensitive land, and prescribes land use practices. Heritage items (if any) are listed and described in Schedule 5. Heritage conservation areas are shown on the Heritage Map (figure 5) as well as being described in Schedule 5.

***There are 62 items listed in the Wellington Council LEP (2012) that hold local heritage significance, one of which is within the proposal area. Further details are outlined in section 3.1.***

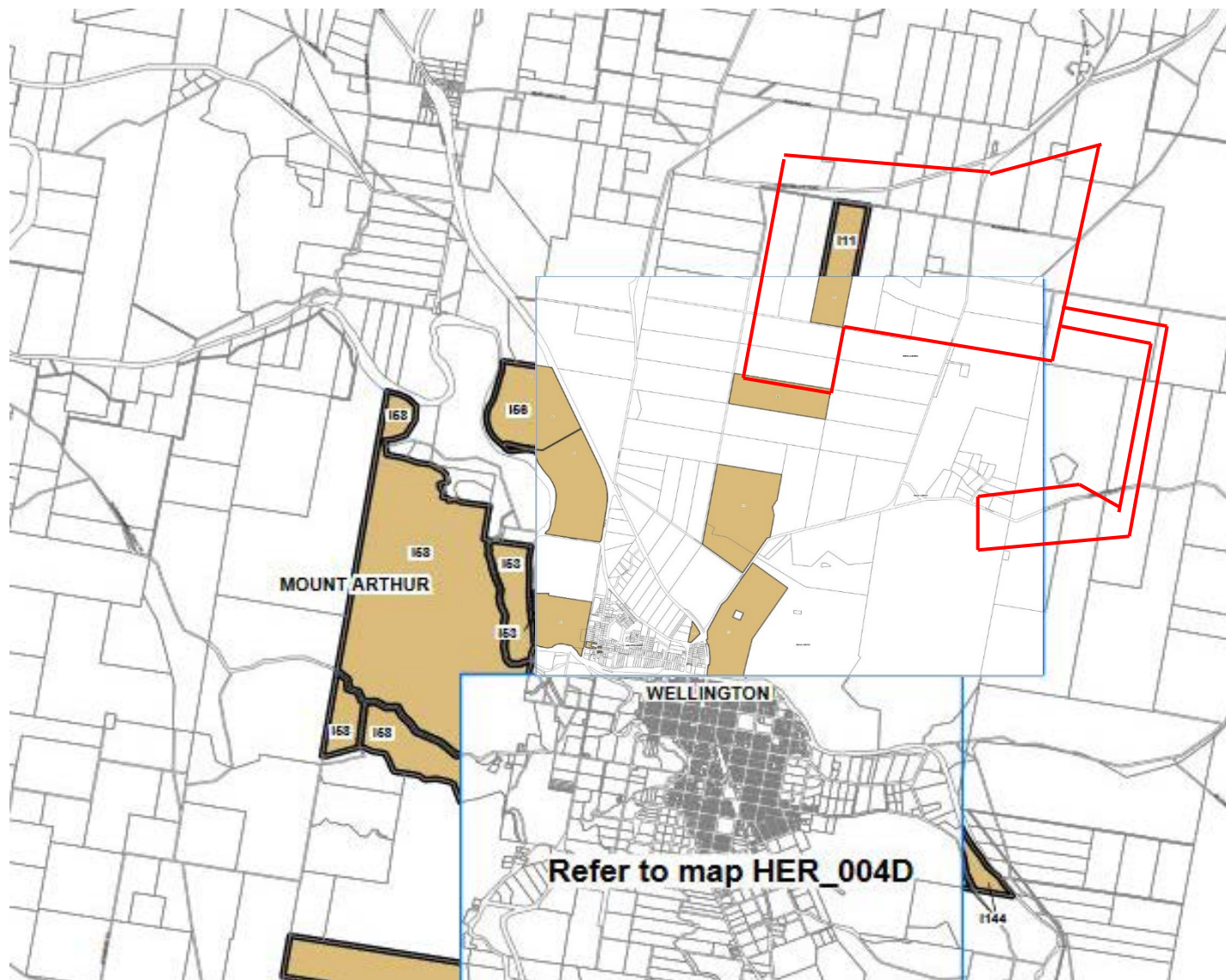


Figure 3. Wellington Council LEP 2012 – Heritage Map: Sheet HER\_004 & 004C. The red outline shows the approximate location of the proposal site (NOT TO SCALE).

## 2.5 NATIONAL PARKS AND WILDLIFE ACT

The *National Parks and Wildlife Act 1974* provides the legislative framework for the management of all national parks, karst conservation reserves, state conservation areas, historic sites, nature reserves, Aboriginal areas, regional parks and state game reserves within NSW.

## 2.6 THE BURRA CHARTER

The Australia ICOMOS (International Council on Monuments and Site) Charter for the conservation of places of cultural significance (the Burra Charter) (current edition 2013) sets a standard of practice for those who provide advice, make decisions about, or undertake works to places of cultural significance including owners, managers and custodians. The Charter is not a statutory document but does provide specific guidance for physical and procedural actions that should occur in relation to significant places. A copy of the charter can be accessed at <http://icomos.org/australia>. This assessment of historical archaeological potential has been prepared in accordance with the Burra Charter.

An appreciation of landscape is highlighted in the 1999 revision of the Burra Charter of Australia ICOMOS, placing greater emphasis on 'setting'. Article 8 of the Burra Charter now reads:

*"Conservation requires the retention of an appropriate visual setting and other relationships that contribute to the cultural significance of the place. New construction, demolition, intrusions or other changes which would adversely affect the setting or relationships are not appropriate".*

### 3 HISTORICAL BACKGROUND

The following resources were used as part of this assessment:

- The NSW State Heritage Inventory (SHI), this includes items on the State Heritage Register and items listed by state agencies and local Government, to identify any items currently listed within or adjacent to the proposal site.
- The Australian Heritage Database, this includes items on the National and Commonwealth Heritage Lists, to identify any items that are currently listed within or adjacent to the proposal site.
- Heritage schedule of Wellington Local Environmental Plan (LEP) 2012, for locally listed heritage items, that are within or adjacent to the proposal site.
- The Dubbo Regional Council was consulted regarding the potential for heritage within proximity of the project area.

#### 3.1 DATABASE SEARCH RESULTS

The results of the heritage investigations listed above indicate that one (1) previously recorded heritage site is located within the proposal site: Noonee Nyrang Homestead. The Noonee Nyrang Homestead is a site of local significance listed on the Wellington LEP (2012). This site was inspected by NGH consultants. Further details regarding the property and its significance are provided in section 5.2.

During the site inspection, a European survey marker tree, a culvert, a stock watering trough and the NSW Soil Conservation Centre (SCS) facility at Wellington were also identified as having potential for historic heritage significance within the proposal area.

A summary of the results of the heritage searches are illustrated in Table 3 below.

Table 2. Summary of heritage listed items in the Wellington LGA.

Name of register	Number of listings
World Heritage List	0
National Heritage List	0
NSW State Heritage Register	6
NSW State Agency Heritage Register (section 170)	8
Wellington Local Environmental Plan (LEP) 2012	62

##### 3.1.1 Australian Heritage Database

The Australian Heritage Database search was undertaken on the 19 September 2017 using a search of the Wellington Local Government Area (LGA). The search resulted in one Commonwealth listed item; the Wellington Post Office, located approximately 7km south of the proposal area.

No known items listed under the World Heritage List were identified in relation to the proposal area.



### 3.1.2 NSW State Heritage Inventory

The NSW State Heritage Inventory database search was undertaken on the 12 September 2017 for the Wellington LGA, there were 6 items listed under the NSW State Heritage Register, eight items listed under the NSW State Agency Heritage Register (Section 170). None of the items listed are within or adjacent to the proposal area.

A total of 62 items were also listed by Local Government and State Agencies on the NSW State Heritage Inventory database. None of the items listed are within the proposal area. The closest item, *Keston aka Bella Vista* Homestead (database ID: 2640031), is located approximately 1.6 km from the southernmost extent of the proposed solar plant project area. *Nanima* Homestead (database ID: 2640104) is located approximately 2.5 km south-east from the southernmost extent of the proposed solar plant site. *Keston* and *Nanima* Homesteads are both also listed on the Wellington LEP and further details are provided below.

### 3.1.3 Wellington Local Environmental Plan 2012

The Wellington LEP database search was conducted on the 12 September 2017. One item of local heritage has been identified onsite within the solar plant proposal site, the *Noonee Nyrang* Homestead. Three additional sites were identified between 750 and 2,500m from the solar plant proposal site.

Table 3. Locally listed heritage items within and in close proximity of the proposal area

Name	Address	LEP listing ID	Approximate distance from the proposal area
Noonee Nyrang Homestead	6444 Goolma Road Lot 84, DP 2987	I11	Surrounded by the proposal area.
Narrawa Homestead	6916 Goolma Road Lot 90, DP 588075	I49	750m to the east and south of the southern boundary of the proposal area.
Keston homestead	6938 Goolma Road Lots 1 and 2, DP 588075	I50	1.6km south of the southernmost boundary of the proposal area.
Nanima homestead	7009 Goolma Road Lot 2, DP 806578	I51	2.5km to the south-east of the southernmost boundary of the proposal area.

#### Noonee Nyrang

Noonee Nyrang is a locally listed property consisting of a Federation style house and outhouse of importance that includes a drop log buggy shed, stables, stallion yard and a large stone barn which predates the house. The property is historically important as the home was built for Mr W.G Smith who was prominent in the advancement and development of agriculture during the 19th and early 20th Century. The house has been modified with the addition of a timber wall at the rear of the house to enclose a courtyard to form an extra room which is now a renovated kitchen. Nyrang was held by the



Smith family until purchased by Mr and Mrs Keith Holmes in 1975 and renamed Noonee Nyrang. It is currently owned by Tony and Penny Inder.



Noonee Nyrang Homestead – Main house



Noonee Nyrang Homestead - large stone barn

### Narrawa

Narrawa Homestead is a locally listed property built in 1908. It is a typical large country home with Federation features in its ceilings, joinery and detail. The brick homestead is a large house with strong elements of the Federation Queen Anne style and with a sympathetic addition and complementary garden setting in keeping with the ambience of the house. Historically important as an example of a type of residence erected on prosperous country properties pre World War I. The current owners have extended the original house using sandstone bricks sourced from an old building in Dubbo to match the original. Narrawa was once a part of a group of properties comprising of “Kelvin”, “Keston” and Narrawa”. The Cameron family bought Narrawa, then called Kelvin, from the Egelabra Stud. Keston was owned by Mr Joe Quirk and his daughter, Lois Quirk, married to Colin Cameron with their children, Ron and Jennifer, growing up on the property. Jon and Margy White bought Kelvin from the Cameron’s in 1990 and changed the name back to Narrawa.



Narrawa Homestead -Main house



Narrawa Homestead -View of extension

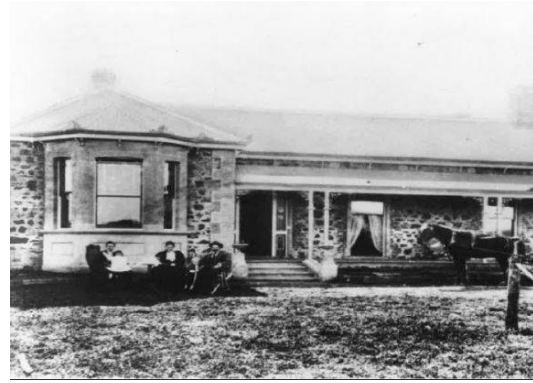
### Keston

Keston is a locally listed property consisting of a Victorian Italianate style house with a decorative façade, bracketed eaves and asymmetrical form. The front veranda has a cast iron balustrade in the lilies and daisies pattern. The exterior of the house has at some point been stuccoed and painted. Internally, the

house still retains many of its original features with high ceilings, large double hung windows, three marble fireplaces, ornate cornice and plaster work and a cellar. Historically it was built by Nancarrow, prominent in the development of the town and district of Wellington. Significant restoration of the house has taken place over the years. In the late 1970s an extension was added to the house. Extensive renovations also occurred at this time to the interior, the stone out buildings, the garden and a swimming pool was built. To date Keston has been the home to nine different families and is currently owned by Ross and Kate Plasto. For a period of time the property was also known as “Bella Vista”.



Keston Homestead – Main house. Photo Credits to the Wellington Times September 18, 2017.



Keston Homestead – historic photo. Photo Credits to the Wellington Times September 18, 2017.

## Nanima

Nanima is a locally listed property consisting of a large, single storey with verandah, Bungalow homestead in the Queen Anne style; prominently situated on a hill overlooking the town of Wellington. Planned around a large central living hall the rooms contain the majority of the original decoration and furniture with noted Edwardian interiors. There is a detached stable coach house and two good underground tanks.



Nanima Homestead – Main house. Photo Credits to <http://www.websternolan.com.au>



Nanima Homestead – Main house. Photo Credits to <http://www.websternolan.com.au>

### 3.2 HISTORICAL BACKGROUND RELEVANT TO THE PROJECT AREA AND NOONEE NYRANG HOMESTEAD

Five years after the crossing of the Blue Mountains, explorers ventured down the lower reaches of the Macquarie River. Surveyor General John Oxley was the first European to describe the Dubbo region, with his first expedition to the Macquarie River Valley in 1817, and a second in 1818. Four years earlier George Evans had ventured along the river as far as present day Wellington but it was Oxley who named the valley, Wellington Valley, after the Duke of Wellington who had defeated Napoleon at Waterloo in 1812.

A Colonial government outpost was established in Wellington in 1819. In 1823, Governor Brisbane sent Lieutenant Percy Simpson to establish a camp with convicts and soldiers. It was situated about 3km south of the present townsite of Wellington on the high ground above the Bell River (on the eastern side of the Mitchell Highway).

Although wheat was successfully grown, the settlement was abandoned in 1831, becoming a government stock station. The abandoned government buildings were given to the Church Missionary Society for the opening of a mission for the local Aborigines. When a town was later proposed, the society objected on the grounds that this would interfere with its work and its mission. It was not until after the mission closed in the 1842 that a township developed on the site and was proclaimed as the town of Wellington in 1846.

The first recorded colonial owner of the land, Joseph Barrow Montefiore was the first free Jewish settler in NSW. However, while he is a significant figure for NSW history, no archaeological deposits would provide any research or scientific potential regarding him as a significant figure as this property was not his primary residence.

In 1893 a pamphlet was published for the sale of individual lots from the initial subdivision of the land encompassing the proposal area, *A Descriptive Catalogue for the Sale of the Nanima Estate including Maryvale, Wellington, N. S. W.* (Hardie and Gorman, 1893). This pamphlet provided the catalogue for sale of the land, including a brief description of the prior use of the property and also the landscape of each listed allotment. The document reports the high agricultural value of the land;

*“The wheat crops on Nanima Estate have yielded as high as thirty bushels to the acre, and land which has been under crop every year for 16 years has yielded at the rate of two tons of wheaten hay to the acre. Potatoes have been grown of the Estate, yielding as high as twelve tons to the acre.”* (Hardie and Gorman, 1883).

The Estate was documented as having supported crops of “wheat, maize, oats, barley and potatoes ... apples, pears, peaches, plums, apricots, grapes, walnuts, figs, quinces, almonds, cherries, oranges, and other fruits” (Hardie and Gorman, 1883). Not only does this highlight the prior use of the land for agricultural purposes, but also highlights the intended future continued usage as farming land. Also noted in the pamphlet for sale of lands, and in line with the agricultural value of the land, is the presence of or easy access to water across most allotment of the Estate, “underground water can be tapped on almost any part of the property at a moderate depth” (Hardie and Gorman, 1883).

The 1886 County of Bligh, Parish of Nanima map shows a proposed railway route running north-east through the proposal area from Wellington town towards Werris Creek, however the route was only a trial railway with no records indicating it was ever constructed. Instead the Great Western Railway was constructed from Wellington to head towards Orange and now runs along the route of the Mitchell Highway.

Towards the end of the 19<sup>th</sup> century, wheat farming was widespread in the Dubbo districts, fuelled by population growth and the opening up of export markets at the time of world-wide wheat shortages during



1896-7. The Central Western Slopes wheat area trebled from 1897-1906 with the greatest expansion occurring in the Wellington, Dubbo and Narromine areas.

The Noonee Nyrang Homestead was built in 1894 and is a reflection of the prosperity of this period. The Noonee Nyrang land was initially part of the Nanima Estate known as "Towri Great Farm" purchased by Charles Hampen Barton in 1880. Charles Barton was the bank manager in Wellington from 1874 until 1900. Robert Mannacan Smith was the manager of Towri Estate and he purchased the holding from Charles Barton in 1895 which he called Nyrang. The Nyrang holding was a single paddock that was approximately 1500 acres. The property had a number of major changes with the house built in about 1894 followed by the wall around the back yard. The stone shed was also constructed as a grain shed which is noted to pre date the house. Various other buildings were built later as time permitted. The property was held by the Smith family until it was purchased in 1975 by the Holmes' and renamed Noonee Nyrang. Just after World War 2 the NSW government resumed part of the property to establish the Soil Conservation Centre. The current owners of the Noonee Nyrang property are the Inders.



Figure 4. View of Wellington looking east, with Nanima Lucerne paddocks on the left of the road. Mount Nanima in the background approximately centred in image. (Hardie and Gorman, 1883).



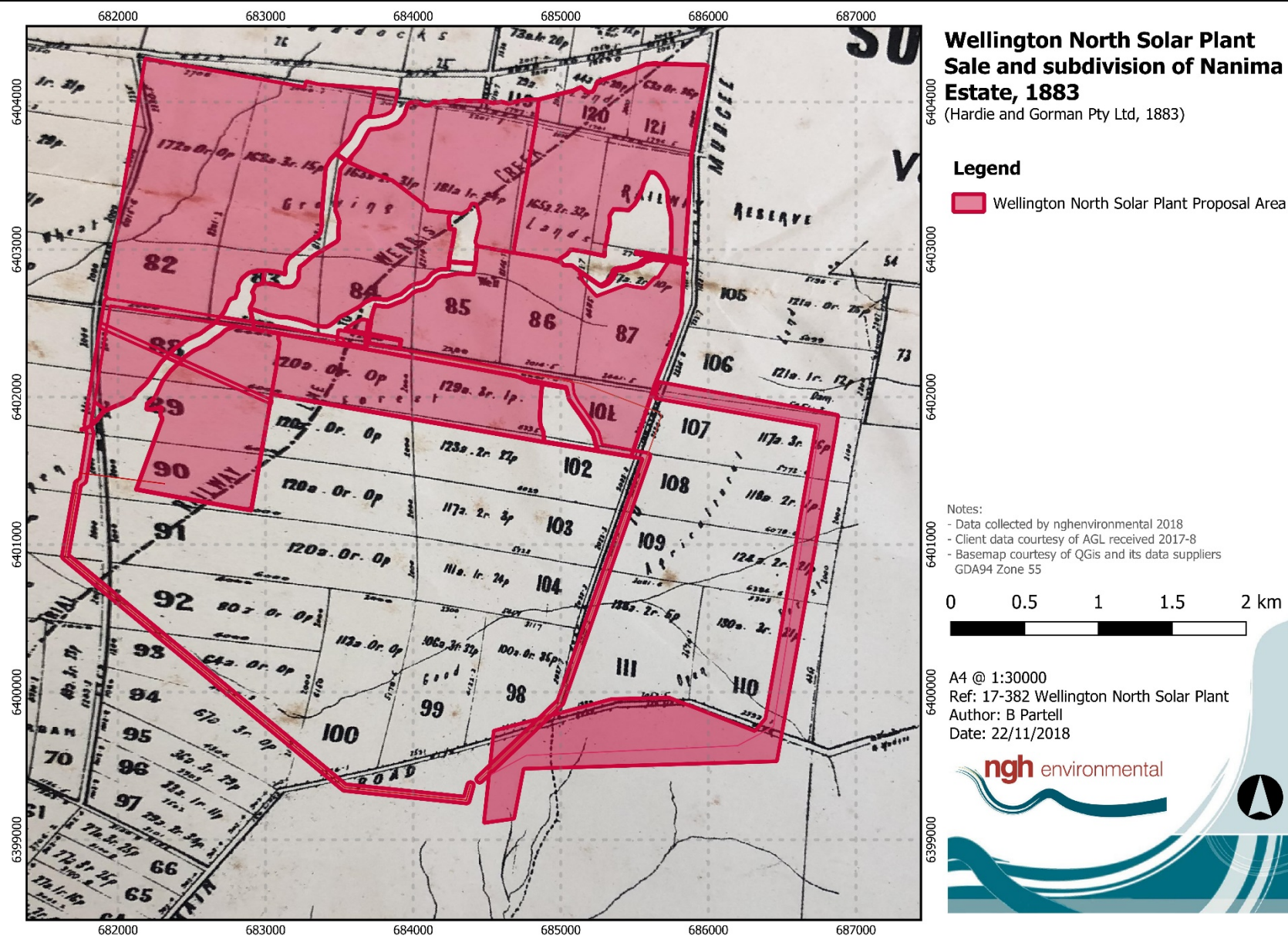


Figure 5. Subdivision for the sale of land map 1883, showing the proposal area in red. (Hardie & Gorman, 1883).



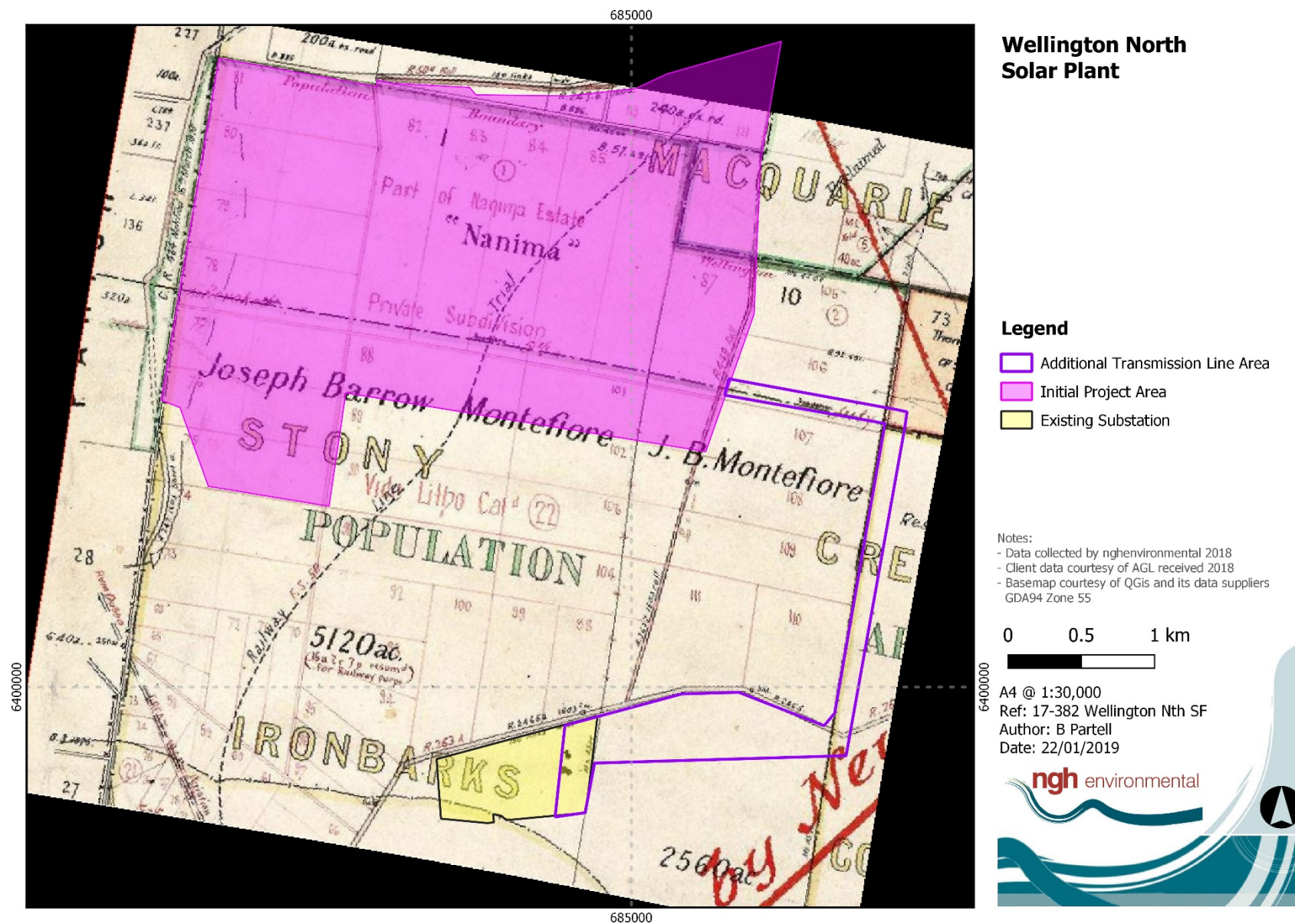


Figure 6. Parish of Nanima, County of Bligh 1886 Parish Map.



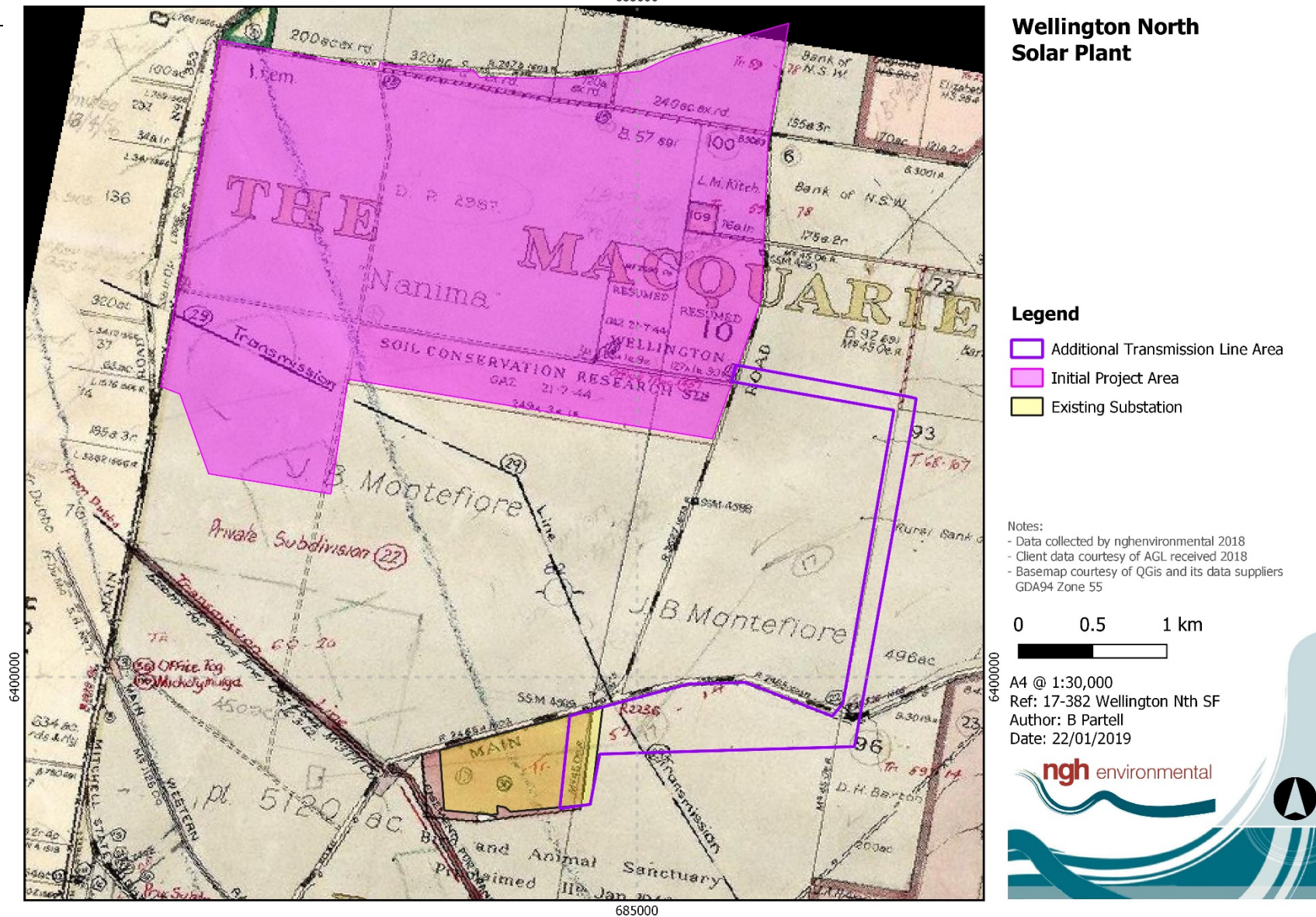


Figure 7. Parish of Nanima, County of Bligh 1969 Parish Map.

### 3.3 NSW HISTORICAL THEMES

An historical theme is a way of describing a major force or process which has contributed to history. Historical themes provide a context within which the heritage significance of an item can be understood, assessed and compared. In using themes to assess individual items it is useful to identify both local or regional themes applying to the item and the broader state theme to which the local or regional theme relates.

Table 4. Descriptions of locally listed heritage items in proximity of the proposal area

Australian Theme	NSW Theme	Description	Relevance to Noonee Nyrang Homestead and the proposal area
<b>3. Developing local, regional and national economies</b>	Agriculture	Activities relating to the cultivation and rearing of plant and animal species, usually for commercial purposes, can include aquaculture.	The land within the proposal area has been historical utilised for commercial agriculture, both cultivation and the rearing of plant and animal species.
<b>3. Developing local, regional and national economies</b>	Pastoralism	Activities associated with the breeding, raising, processing and distribution of livestock for human use.	The majority of the proposal area has been historically utilised for agricultural purposes, with a large portion of this being in association with the breeding, raising, processing and distribution of livestock for human use. There is also evidence of stock yards and a possible 'separation' shed for dairying associated with the Noonee Nyrang Homestead.
<b>4. Building settlements, towns and cities</b>	Towns, suburbs and villages	Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	Noonee Nyrang Homestead is one of several surviving early 20 <sup>th</sup> century homes that were built during a period of prosperity within the region. The parish maps identify the original owner of the entire parcel of land covered by this development proposal as Joseph Barrow Montefiores, a London born broker who owned a total of 5,059 hectares of land including the Nanima homestead by 1838.
<b>4. Building settlements, towns and cities</b>	Land Tenure	Activities and processes for identifying forms of ownership and occupancy of land and water, both Aboriginal and non-Aboriginal.	A survey marker bearing the number one '1' has been located within the proposal area. While there have been no maps located bearing evidence of this marker, it could be associated with a proposed railway line (that was never constructed), to run through the proposal area in a north-easterly direction travelling from Wellington towards Werris Creek.



## 4 VISUAL INSPECTION

### 4.1 NGH SITE INSPECTION, FEBRUARY 2018

The survey strategy was to cover as much of the ground surface as possible within the proposal site. Although the actual ground impact from the construction method for the proposed solar plant was likely to be low, the placement of solar arrays across the landscape has the potential to cover any cultural heritage sites. The strategy therefore was to walk a series of transects across the landscape to achieve maximum coverage.

Because the proposal site was generally cleared paddocks used for grazing livestock or recently ploughed fields, transects were spaced evenly with the survey team spread apart at 25m intervals, walking in parallel lines. The cleared nature of the paddocks made this an ideal survey strategy. The team were able to walk in parallel lines, at a similar pace, allowing for maximum survey coverage and maximum opportunity to identify any heritage features. The survey team consisted of a minimum of 6 people and a maximum of 8 people which allowed a 150m to 200m wide tract of the proposal site to be surveyed with each transect pending on the number of people present. At the end of each transect, the team would reposition along a new transect line at the same spacing and walk back on the same compass bearing.

NGH believes that the survey strategy was comprehensive and the most effective way to identify the presence of historic heritage sites. The proposal site was divided into seven landform divisions based on landscape maps of the proposal site and visual inspection during field survey as listed below:

- Creek/drainage lines and associated raised flats;
- Low hill crests;
- Spurs;
- Raised outcrops;
- Swamp/depression;
- Flats; and
- Slopes.

The initial survey of the Solar Plant was undertaken by the team over eight days from the 19 to 26 February 2018. Notes were made about visibility, photos taken, and any possible historic heritage features identified were inspected, assessed and recorded. Survey transects were undertaken on foot and traversed all the proposal site.

The solar plant area comprised primarily of cleared paddocks with low hills sloping down to creeks and drainage lines. The hills generally had low quality outcropping rocks and shallow soil deposits on the crests and associated slopes. The slopes within the proposal site were generally low gradient and some had been subject to contour banking. The entire proposal site had been subject to clearing and ploughing activities with a number of rocks placed in piles across the project area. These piles were inspected for any evidence of construction material for the trial railway line marked in both the 1886 Parish of Nanima, County of Bligh map and the subdivision and sale catalogue published in 1893 (Hardie and Gorman, 1893). There was, however, no evidence to indicate any association to a trial railway line.

Visibility within the proposal site was variable however as a whole the proposal site generally had good visibility averaging 35% overall. The effective visibility in the paddocks ranged from 90% in exposures to less than 5% in areas of dense grass. Between the survey participants, over the course of the field survey, approximately, 800km of transects were walked across the proposal site.

Allowing for an effective view width of 5m for each person and given the variability in the ground visibility across the proposal site overall the survey effectively examined 13.1% of the proposal site. It is considered that the survey of the proposal site had sufficient and effective survey coverage. The discovery of a number of Aboriginal sites indicates that the survey technique was effective enough to identify the presence of Aboriginal occupation in the area. Therefore, the results identified are considered a true reflection of the nature of the historic significance and potential present within the proposal site.

A site inspection of the Noonee Nyrang Homestead property was undertaken on the 27 February 2018 by NGH Heritage Consultants, Kirsten Bradley and Emily Dillon.

The inspection of the Noonee Nyrang Homestead included the following elements:

- Main house;
- Shed; and
- Outbuildings and equipment.

The main house has been restored and a timber wall added at the rear of the house to enclose a courtyard forming an extra room that is now a functioning kitchen.



View south towards the northern elevation of the house and surrounding stone wall.



View south towards the northern elevation of the house with stone tank in foreground.



View east towards the south-western elevation of the house and verandah.



View north-west towards the south-eastern elevation of the main house and verandah.



Close up of decorative federation style finial on the southern elevation of the main house.



View east towards the north-western elevation of the house extension- a timber wall at the rear of the house.

The property includes a stone shed, out buildings and old farming equipment adjacent to the main house.



View west towards the eastern elevation of the stone shed



View east from inside stone shed towards the doors on the eastern elevation of the shed.



View north-west towards the south-eastern elevation of the stone shed.



View south-west with farming equipment and mile post marker to nearby towns with main house in the background.





View south towards the northern elevation of the shed with a wagon/ cart in it.



View west from inside shed of the wagon/ cart.



View east towards the western elevation of the Caretakers cottage.



View north towards the southern elevation of an associated shed.

### Additional potential heritage items

A stone trough and culvert within the property boundary were also investigated, although they are not included on the LEP listing for the Noonee Nyrang Homestead. They are constructed of local stone with the style and construction technique similar to the house, fence and stone barn, however with the addition of cemented mortar (as opposed to the lime-based mortar that was evident in the Noonee Nyrang Homestead). Dubbo Regional Council was provided with the information and given the opportunity to decide whether the trough and culvert should be included in the LEP listing. NGH has been advised by Council that these items hold no heritage significance at a local level and will not be included in the listing for the Noonee Nyrang Homestead.



View west of the stone trough.



View south of the stone culvert at creek crossing.

A single European survey marker tree was also identified within the property boundary near the boundary with the Soil Conservation Service property. The tree is a mature living Black Box tree approximately 15m in height in good condition that has a single oval shaped scar facing north. The scar has had significant regrowth with evidence of the regrowth being cut away left at the base of the tree. The letter and /or number 1 can be noted as engraved however any other engraved writings are covered by regrowth and unable to be seen. A metal nail and metal axe marks were also noted. Local Nanima Parish maps were inspected however the survey marker does not appear on any of the historic Parish maps inspected. NGH has been advised by Council that the survey marker tree holds no heritage significance at a local level and will not be included in the LEP as an item of significance.



View south of European Survey Marker Tree



Close-up of European Survey Marker Tree

A site inspection of the Soil Conservation Service property was also undertaken on the 27 February 2018 by NGH Heritage Consultants, Kirsten Bradley and Emily Dillon although it is not included on the LEP as having heritage value. The inspection of the Soil Conservation Service property included the research centre buildings and sheds.



This site is a type of local heritage that is often protected on LEPs. A Soil Conservation Service facility similar to the Wellington Soil Conservation Service facility is listed in the Orange LEP.

The NSW Parliament passed the Soil Conservation Act 1938 (NSW) and this established the Soil Conservation Service (SCS) as an agency to conserve soil resources, mitigate erosion and land degradation, and conserve water resources in NSW. Towards the end of World War II the SCS established a series of research stations to conduct research on soil conservation and erosion mitigation in NSW. The Wellington Soil Conservation Service facility was one of these research centres. This site was opened on the 28th of April 1944 and the major focus of the centre was studying gully erosion. The Wellington centre was the second Soil Conservation Service facility to open in NSW following the station at Cowra which is still operational today. Experts from the Wellington facility were accessible to all graziers and farmers in the area. Field Days were held for the benefit of the local community and primary producers were offered specialist advice. A plant nursery site was also operational at the Wellington Centre. The Wellington Soil Conservation Service was a valuable public service provided to assist farmers in the area to improve management practices and reduce erosion.

NGH has been advised by Council that the Soil Conservation Service property does not hold heritage significance at a local level and will not be included in the LEP as an item of significance.



Main building



Small irrigation bays, glass house and sheds



Farm workshop Sheds



Cottage building



Buildings to store chemicals



Sheds

## 4.2 NGH SITE INSPECTION, NOVEMBER 2018

Due to the change in alignment of the eastern transmission line, the route was not surveyed during the initial period of fieldwork. NGH consultants Jakob Ruhl and Ingrid Cook completed the additional field survey for the transmission line route on the 28<sup>th</sup> and 29<sup>th</sup> of November 2018. Notes were made about visibility, photos taken, and any possible historic heritage features identified were inspected, assessed and recorded.

In line with the original methodology, the survey strategy was to cover as much of the ground surface as possible within the proposal site by walking a series of transects across the landscape to achieve maximum coverage. As the transmission line area consisted of cleared paddocks used for grazing and cropping, transects were spaced evenly with the survey team spread apart at 25m intervals, walking in parallel lines. The survey team consisted of a 5 people which allowed a 125m wide tract of the proposal site to be surveyed with each transect. At the end of each transect, the team repositioned along a new transect line at the same spacing to walk back on the same compass bearing.

The transmission line area comprised primarily of cleared paddocks with low hills sloping down to creeks and drainage lines. The entire proposal site had been subject to clearing and ploughing activities. Visibility within the transmission line area was variable however as a whole the proposal site generally had visibility averaging 20% overall. The effective visibility in the paddocks ranged from 90% in exposures to less than 5% in areas of dense grass.

No items of historic heritage or historic archaeological potential within the additional transmission line area during the site survey.

## 4.3 ASSESSMENT OF THE SUBSURFACE ARCHAEOLOGICAL POTENTIAL

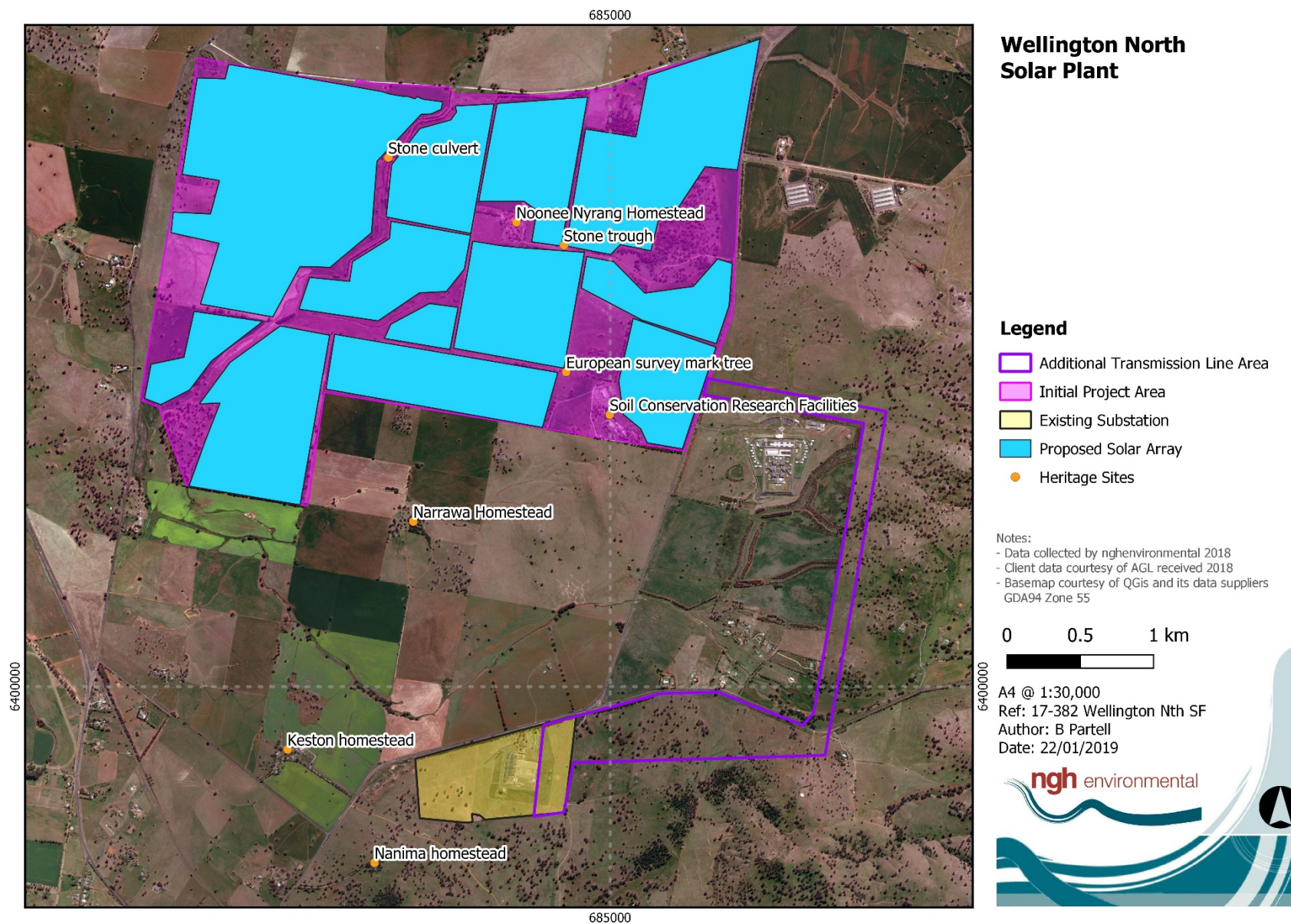
The visual assessment of the proposal area determined that the only archaeological relic surviving is the locally listed Noonee Nyrang Homestead. Dubbo Regional Council was contacted regarding the stone trough and culvert prior to the completion of this analysis to determine if they held any information regarding its history and significance. Council undertook an assessment of the identified features concluding that they were modern in nature and that they held no particular heritage significance on either a local or state level.

The archaeological character of the study area is summarised as an area of minimal change since early establishment, with the earliest cartographic record being the Parish of Nanima map dated 1886. This map details the entire proposal area as being owned by a single landowner, Joseph Barrow Montefiore. With

the use of the land being largely attributed to agricultural activities since, there is no evidence of any other structures or permanent features being constructed within the bounds of the proposal area with the exception of the documented Noone Nyrang Homestead and Soil Conservation Centre Facility. This absence of known features or construction sites occurring during the ensuing time between the original land grant and current owners highlights a low potential for subsurface historic archaeological deposits to occur.

The potential for historical archaeology within the proposal area would be in the format of subsurface deposits. Subsurface potential across the proposal area is directly linked to built or constructed features and could be in the form of built feature remains (e.g. Foundations, postholes or other construction evidence), and associated subsurface deposits (eg. Cesspits, rubbish pits and wells) which are commonly located within the immediate vicinity of built features. The archaeological character of the proposal area appears to be disturbed, with a longstanding history of agricultural activities creating ground disturbance and that would impact upon any subsurface deposits or features. There is no evidence to suggest the existence of subsurface archaeological deposits, except within the immediate vicinity of the known archaeological relic Noonee Nyrang Homestead. The Noonee Nyrang Homestead and its surrounding outbuildings (encompassing the courtyard, sheds, stock yard and gardens) present a high potential for historic archaeological subsurface deposits to occur, however, an exclusion zone has been worked into the development proposal to prevent any harm or impact from occurring to the homestead or any associated deposit. The history of farming land-use indicates ground disturbance across the project area, making a very low likelihood for any archaeological remains to be preserved in situ. Therefore, there is no assessed heritage impact to historical subsurface archaeological deposits.





## 5 HERITAGE SIGNIFICANCE

Noonee Nyrang Homestead is a locally listed heritage item located within the solar plant proposal area. The local listing for the property has identified that it has historical and aesthetic heritage significance at a local level.

The OEH guidelines for *Assessing Heritage Significance* (Heritage Office (former), 2001) states that an item will be considered to be of state and/or local heritage significance if it meets one or more of the NSW Heritage Assessment Criteria, below:

Table 5. NSW Heritage Assessment Criteria

Criteria	Description
Criterion (a)	An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area);
Criterion (b)	An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area);
Criterion (c)	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area);
Criterion (d)	An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons;
Criterion (e)	An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area);
Criterion (f)	An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area);
Criterion (g)	<p>An item is important in demonstrating the principal characteristics of a class of NSW's</p> <ul style="list-style-type: none"> <li>• cultural or natural places; or</li> <li>• cultural or natural environments.</li> </ul> <p>(or a class of the local area's</p> <ul style="list-style-type: none"> <li>• cultural or natural places; or</li> <li>• cultural or natural environments.)</li> </ul>

In order to undertake an assessment of an item against the NSW heritage assessment criteria, the OEH guidelines recommend that the following steps be undertaken:

- Investigate the historical context of the item or study area;
- Investigate the community's understanding of the item;
- Establish local historical themes and relate them to the State themes;
- Investigate the history of the item; and
- Investigate the fabric of the item.

## 5.1 NOONEE NYRANG HOMESTEAD STATE HERITAGE INVENTORY (SHI) LISTING

The Noonee Nyrang Homestead is listed as item I11 on the LEP, located as 6444 Goolma Road, Bodangora (Lot 84, Deposited Plan 2987).

Dubbo Regional Council manage a heritage inventory (State Heritage Inventory) database for heritage items listed on the Wellington LEP. The Noonee Nyrang Homestead State Heritage Inventory (SHI) listing number is 2640142. The SHI inventory sheet for the property includes the following information:

SHI #2640142.	Noonee Nyrang Homestead State Heritage Inventory (SHI) listing
<b>Physical Description</b>	<p>The house was built about 1894 of locally quarried bluestone, random cut and rough hewn, tuckpointed with coloured mortar to give the appearance of even blocks. The high pitched roof is hipped with timber detailing and finials and five tall chimneys. The bull-nosed verandah roof is supported by timber posts with wrought iron brackets and panels.</p> <p>All interior joinery is cypress pine with white box doorsteps 7 panelled cedar doors. Ceilings are pressed metal and all the light fittings are original. Servant's call bells operated by battery are in place in the kitchen. The stone fence surrounding the house and native garden was built with stone from the underground tank excavation.</p> <p>The unusual garden sheds are circular corrugated iron. The buggy shed, stables and stallion yards are dropped log construction. The large and imposing stone barn possibly predates the house. The rafters in the barn are unmilled timber logs.</p>
<b>Historical Notes of Provenance</b>	<p>When Nanima Estate (known as "Towri Great Farm") was subdivided and auctioned in 1893 by Mrs C.H.R. Barton after the death of Mr C.H.R. Barton, Robert M. Smith the manager of "Towri" bought a portion which he called Nyrang.</p> <p>Nyrang was held by the Smith family until purchased by Mr and Mrs Keith Holmes in 1975 and renamed Noonee Nyrang.</p> <p>Noonee Nyrang is a historic part of the Wellington district being built in a period of development and expansion.</p>
<b>Assessment of significance</b>	<p>Criteria a): Historically of importance as the home built for Mr W.G Smith who was prominent in the advances and development of agriculture during the 19th and early 20th Century</p> <p>Criteria c): Built of locally quarried bluestone, random cut and rough hewn, Noonee Nyrang is an excellent example of a home built with Federation influence.</p> <p>The outhouses are of especial importance: the drop log buggy shed, stables and stallion yard and the large and imposing stone barn which predates the house</p>
<b>Statement of Significance</b>	<p>Historically of importance as the home built for Mr W.G Smith who was prominent in the advances and development of agriculture during the 19th and early 20th Century the residence is built of locally quarried bluestone, random cut and rough hewn and therefore Noonee Nyrang is an excellent example of a home built with Federation influence with local heritage significance.</p> <p>The outhouses are of especial importance: the drop log buggy shed, stables and stallion yard and the large and imposing stone barn which predates the house.</p>

## 5.2 SUBSURFACE ARCHAEOLOGICAL SIGNIFICANCE

The historical land use and background of the proposal area as identified in section 3 has highlighted the longstanding use of the project area for agricultural purposes, both cultivation and grazing. While the wider area can be associated with the historical figure (and initial land owner) Joseph Barrow Montefiores, there is no evidence of any permanent or significant structures or features being constructed within the proposal area during the time he held ownership of the land. The three identified local listings situated to the south of the proposal area, Narrawa Homestead, Nanima Homestead and Kelson Homestead were also in association with the larger Nanima Estate that covered the proposal area and surrounds. The guidelines for *Assessing Heritage Significance* (2001) provides the following table to grade the value of individual heritage elements as outlined in the following table:

Table 6. Grading for the value of individual heritage elements (NSW Heritage Office, 2001:11):

Grading	Justification	Status
<b>Exceptional</b>	Rare or outstanding item of local or State significance. High degree of intactness. Item can be interpreted relatively easily.	Fulfil criteria for local or State listing
<b>High</b>	High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.	Fulfil criteria for local or State listing.
<b>Moderate</b>	Altered or modified elements. Elements with little heritage value but which contribute to the overall significance of the item.	Fulfil criteria for local or State listing.
<b>Little</b>	Alterations detract from significance. Difficult to interpret.	Does not fulfill criteria for local or State listing.
<b>Intrusive</b>	Damaging to the item's heritage significance,	Does not fulfill criteria for local or State listing

The proposal area, with the exception of the excluded zones that encompasses the Noonee Nyrang Homestead property and grounds and also the Soil Conservation Centre Facility, hold a grading of little heritage significance as alterations to the land (from consistent agricultural use) have deemed the subsurface potential to be disturbed and detracted upon, and difficult to interpret. The absence of information indicating any historical buildings or features, whether temporary or permanent, within the proposal area is indicative of a low potential for any subsurface archaeological deposits to occur.



## 6 HERITAGE IMPACT ASSESSMENT

There are a number of historic heritage items that will potentially be impacted upon by the proposed development. The potential for impacting subsurface historic archaeological deposits is directly correlated with the identified heritage items below.

### **Noonee Nyrang Homestead (LEP Listed items)**

Four heritage items listed on the Wellington LEP were identified during the desktop study as outlined above within and/or in close proximity to the proposed Wellington North Solar Plant and transmission lines. However, none of the listed items will be directly impacted upon by the proposed solar plant. The Noonee Nyrang Homestead, located within the proposal area, will not be impacted physically, as shown in the Figure 1 below. The principal impact will therefore be upon the aesthetic and historical values of the property.

The property, and the region, has historically been the site of agricultural activities and the solar plant will introduce solar panel structures into what has been agricultural farmland. The solar plant will therefore alter the historical context into which the Noonee Nyrang Homestead was built and has been associated with since the late 19<sup>th</sup> Century. Whilst this is an impact, the Noonee Nyrang Homestead will remain and the solar plant will eventually be decommissioned with the opportunity of returning the land to agricultural use.

The solar plant proposal is not considered likely to have a significant impact in accordance with the NSW *Heritage Act 1977*, the EP&A Act, or the EPBC Act, in terms of non-Aboriginal heritage and specifically upon the locally listed Noonee Nyrang Homestead.

### **Narrawa, Keston and Nanima Homesteads (LEP Listed items)**

The remaining three heritage items listed on the Wellington LEP (Narrawa, Keston and Nanima homesteads) will not be impacted physically, as shown in the Figure 2 below. The principal impact will be visual and therefore will be upon the aesthetic and historical values of the three properties.

Given their distance from the proposal area, the impact to the aesthetic and historical values to the Keston and Nanima homesteads is considered to be low. Narrawa homestead will itself be surrounded by the proposed First Solar Wellington Solar Plant Farm and the visual impact from the Wellington North Solar Plant is consequently considered to be low.

The solar plant proposal is not considered likely to have a significant impact in accordance with the NSW *Heritage Act 1977*, the EP&A Act, or the EPBC Act, in terms of non-Aboriginal heritage and specifically upon the locally listed Narrawa, Keston and Nanima homesteads.

### **Stone Culvert and Trough (Non- listed items)**

The stone culvert and trough are not listed on the Wellington Heritage Inventory site card for the Noonee Nyrang Homestead however they appeared to be made of local stone with the style similar to the house, fence and stone barn. NGH consulted Dubbo Regional Council regarding these items of potential and it was determined that they do not hold any local heritage significance and thus would not be added to the local listing for the Noonee Nyrang Homestead.

The proposed development will include unavoidable impact to both the stone trough and culvert, during which the unexpected finds protocol outlined in Appendix A should be followed in the instance of discovery of any potential heritage items.

#### **Survey marker tree (non- listed item)**

The European survey marker tree is not listed on any heritage database including the Wellington LEP. However, it is recommended that this survey marker tree is heritage significant and should not be impacted upon by development. The Council should be notified about the tree and further research may be needed to determine the history and heritage significance of the tree. The proponent has committed to avoiding the survey marker tree and to ensure it is not impacted by the proposed development.

#### **Soil Conservation Centre Facility (Non- listed item)**

While the Wellington Soil Conversation Service facility is not listed on the Wellington LEP as having local heritage significance, the Wellington Soil Conversation Service contributed to significant developments in the research of soil conservation and land management practices in NSW and is considered likely to be of local significance. While the buildings connected to the Soil Conversation Centre will not be impacted physically by the development the principal impact will be visual and therefore will be upon any aesthetic values of the centre. It is recommended that should the buildings be unable to be avoided by the proposed development that further research is undertaken to consider the historical significance of the center. Archival recording and subsurface testing may be required if the Wellington Soil Conversation Centre and its associated buildings will be impacted. Council should be provided with the information and given the opportunity to decide whether the Wellington Soil Conversation Service facility should be included on the LEP.

#### **Potential Subsurface Impacts**

The project area has a history of being largely used for cultivation and farming purposes and there is no evidence of permanent structures being built within the proposal area bar the existing Noonee Nyrang Homestead and associated outbuildings. The potential for historical archaeology would be linked to remaining subsurface deposits like cesspits, buried rubbish deposits and possibly foundations or postholes of built structures. The history of farming land-use indicates widespread ground disturbance across the project area, making a very low likelihood for any archaeological remains to be preserved in situ and there is therefore no assessed heritage impact to historical subsurface archaeological deposits.

## **6.1 MITIGATION MEASURES**

Covering the area occupied by the Noonee Nyrang Homestead its outbuildings and gardens, is an exclusion zone that has been determined on the basis of avoiding impact to the locally listed property. The solar plant proposal is not considered likely to have a significant impact in accordance with the NSW *Heritage Act 1977*, the EP&A Act, or the EPBC Act, in terms of non-Aboriginal heritage and specifically upon the locally listed Noonee Nyrang Homestead.

An unexpected finds protocol (see Appendix 1) will be followed at all stages of development to ensure that any unexpected historical finds, features or subsurface deposits are correctly managed and assessed.

Table 7. Safeguards and mitigation measures for Non-Aboriginal Heritage

*PC: Pre Construction, C: Construction; O: Operation; D: Decommissioning*

Safeguards and mitigation measures	PC/C	O	D
<ul style="list-style-type: none"> <li>Should an item of historic heritage be identified, the Heritage Division (OEH) would be contacted prior to further work being carried out in the vicinity.</li> </ul>	C	O	D
<ul style="list-style-type: none"> <li>The Noonee Nyrang Homestead should not be altered whilst in use as an Office and Maintenance building for the solar plant.</li> </ul>	C	O	D
<ul style="list-style-type: none"> <li>The existing outbuildings and stone shed around the Noonee Nyrang Homestead should be maintained and not altered.</li> </ul>	C	O	D

## 7 CONCLUSION

This assessment has determined that there is no assessed potential for archaeological subsurface deposits of an historical nature to occur within the proposal area (except for the excluded Noonee Nyrang Homestead property), and thus no impact to any identified historic heritage has been determined. Evidence of the settlement patterns and land use across the proposal area is indicative that, in the event of unexpected subsurface discovery, it would likely not remain in situ and present little scientific value. Our recommendation is for work to continue as planned, maintaining the exclusion zone around the locally listed Noonee Nyrang Homestead and its surrounding outbuildings and gardens.



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