

18.0 Cultural Heritage

18.1 Introduction

This chapter of the EIS provides the cultural heritage assessment (Aboriginal and historic) for the Project. Cultural heritage (Aboriginal and historic) values that are known or likely to occur within the Project Site are identified. Potential impacts of the Project are also described as well as actions for management to suitably avoid, minimise and/or mitigate such effects. These actions have been developed in accordance with the requirements of applicable legislation and recognised industry standards.

18.2 Scope of assessment

The cultural heritage assessment seeks to:

- Identify the Aboriginal Party(s) and/or the Cultural Heritage Body(s) for the area
- Consider relevant legislative requirements governing the management of Aboriginal and historical cultural heritage
- Conduct a brief historical review of the Study Area
- Identify known Aboriginal or historical cultural heritage in the Study Area
- Conduct preliminary Aboriginal and historical archaeological surveys of the Study Area
- Assess the potential for undiscovered Aboriginal or historical sites to be present within the Study Area
- Determine a strategy for future management of cultural heritage issues identified during the assessment to ensure compliance with relevant legislation.

The Study Area represents the land available for development and also includes the Project Site. Figure 18.1 in Volume 2 provides a map of the Study Area.

18.3 Legislation and policy

Cultural heritage, whether it be Aboriginal or historical, plays an important role in any community. This section provides a summary of the legislative instruments which apply to the Study Area, and under which the Aboriginal and historical cultural heritage assessments have been considered.

18.3.1 Environment Protection and Biodiversity Conservation Act 1999 (Cth)

The EPBC Act is the key national heritage legislation and is administered by the Commonwealth Department of the Environment and Energy. The EPBC Act describes and protects matters of national environmental significance (MNES), with 'environment' defined in terms of both natural and cultural environments.

The EPBC Act initially incorporated the Register of the National Estate (RNE), a nation-wide heritage register which was established under the now repealed *Australian Heritage Commission Act 1975* (Cth). In 2003, however, legislation was passed to create a new set of heritage registers and protections, and the RNE was subsequently closed in 2007, with all references to the RNE removed from the EPBC Act on 19 February 2012. Currently, the RNE exists only as a non-statutory archive and educational resource. Replacing the RNE are the National Heritage List and Commonwealth Heritage List, which respectively protect places of national heritage value and those owned or managed by the Commonwealth Government.

Australian Heritage Database

The Australian Heritage Database contains information on the more than 20,000 natural, historical (non-Indigenous) and Aboriginal places protected under the EPBC Act, including:

- Places in the World Heritage List
- Places in the National Heritage List
- Places in the Commonwealth Heritage List
- Places in the Register of the National Estate (non-statutory)

- Places in the List of Overseas Places of Historic Significance to Australia
- Places under consideration, or that may have been considered for, any one of these lists.

A search of the Australian Heritage Database has been undertaken for the study area and the results are reported in Section 18.5.3.

18.3.2 Aboriginal Cultural Heritage Act 2003 (Qld)

The ACH Act seeks to provide effective recognition, protection and conservation of Aboriginal cultural heritage. The ACH Act defines Aboriginal cultural heritage as anything that is:

1. a significant Aboriginal area in Queensland; or
2. a significant Aboriginal object; or
3. evidence of archaeological or historical significance of Aboriginal occupation of an area of Queensland.

Known Aboriginal cultural heritage places are protected through their inclusion on the Aboriginal and Torres Strait Islander Cultural Heritage Database and Register maintained by DATSIP.

Currently unknown or potential places of heritage importance are protected through the 'duty of care' provisions of the ACH Act (Section 28), which require that persons undertaking development activities are to take 'all reasonable and practicable' measures to ensure that their activities do not harm Aboriginal cultural heritage.

The Duty of Care Guidelines were introduced on 16 April 2004 under the ACH Act and require a land user to make an assessment of its particular land use activity and the likelihood of it causing harm to Aboriginal cultural heritage. In summary, the 'duty of care' categories are:

Category 1 activities involve **no** surface disturbance. Such activities are generally unlikely to harm Aboriginal cultural heritage meaning and may proceed without further cultural heritage assessment.

Category 2 activities cause **no additional** surface disturbance and as such will not result in additional harm to Aboriginal cultural heritage to that which has already occurred and may proceed without further cultural heritage assessment.

Category 3 activities are those that occur in **Developed Areas** (such as road and rail infrastructure). Activities that occur in these areas are generally unlikely to harm Aboriginal cultural heritage and may proceed without further cultural heritage assessment, provided they do not extend beyond current levels of ground disturbance.

Category 4 activities are those that occur in an area that has already been subject to significant ground disturbance. In these circumstances, further activities are unlikely to harm Aboriginal cultural heritage and may proceed without further cultural heritage assessment. However, care should be taken lest residual Aboriginal cultural heritage values are impacted. The Aboriginal Party(s) should be contacted in the event that any feature of potential cultural significance is uncovered.

Category 5 activities are those that will create **additional** surface disturbance, and so have a high risk of harming Aboriginal cultural heritage if it exists. These activities cannot proceed without cultural heritage assessment, and it is generally necessary to notify the appropriate Aboriginal Party(s) to seek advice in relation to cultural heritage values of the area.

A duty of care assessment of the Study Area has been undertaken and is contained in Section 18.6.1.

Managing Aboriginal Cultural Heritage

The ACH Act provides two types of formal arrangements for managing Aboriginal cultural heritage as a part of the development process: Cultural Heritage Management Plans (CHMP) and Cultural Heritage Management Agreements (CHMA). It is intended that the development of the Project will seek to manage Aboriginal Cultural Heritage through the establishment of a CHMP for the Project Site.

Cultural Heritage Management Plans

Under Part 7 of the ACH Act, a CHMP is a State-approved agreement between a land user and the Cultural Heritage Body(s) and/or Aboriginal Party(s) of an area that outlines how project activities may be managed to avoid harm to Aboriginal cultural heritage, or to minimise harm where avoidance is not reasonably practicable. A formal CHMP establishes a statutory process for addressing Aboriginal cultural heritage with certainty. The CHMP

process involves a statutory notification period during which the land user must notify the Cultural Heritage Body(s) and/or Aboriginal Party(s) of their intention to develop a CHMP. Notification recipients are given 30 days in which to respond to the notification, which is followed by an 84-day consultation and negotiation period.

A CHMP is compulsory where an Environmental Impact Statement is required, or else may be entered into voluntarily by a land user regardless of the legal requirements. The advantage of an approved CHMP is that, provided the land user is compliant with the CHMP, the land user has certainty that they are acting lawfully under the legislation and that they are meeting their cultural heritage duty of care.

Cultural Heritage Management Agreements

A less formal alternative to the CHMP is the CHMA. Under Section 23, a CHMA is an agreement between the land user and the Cultural Heritage Body(s) and/or Aboriginal Party(s) of the area outlining how project activities may be managed in order to avoid or minimise harm to Aboriginal cultural heritage. A CHMA has no statutory guidelines or time limitations for notification or negotiation phases, and a CHMA will not provide legislative compliance should the Cultural Heritage Body(s) and/or Aboriginal party(s) for the area change.

Further discussion of CHMA and CHMP in the context of the Study Area is contained in Section 18.6.

DATSIP Cultural Heritage Database and Register

DATSIP maintains a database and register of all reported places of Aboriginal and Torres Strait Islander cultural significance. The information on this database is available only to Aboriginal Parties, cultural heritage professionals fulfilling duty of care requirements, and other researchers through a formal application.

The results of searches of the DATSIP database are reported in Section 18.5.3.

18.3.3 Queensland Heritage Act 1992 (Qld)

The QH Act provides the framework for assessing the significance of items and places of historical (non-Indigenous) cultural heritage value in Queensland.

Broadly, a place is considered to be of State cultural heritage significance if:

its heritage values contribute to our understanding of the wider pattern and evolution of Queensland's history and heritage. This includes places that contribute significantly to our understanding of the regional pattern and development of Queensland (Queensland Environmental Protection Agency, 2006).

Section 72 of the QH Act requires proponents to apply for an exemption certificate to carry out development on a Queensland Heritage Place if applicable. Development approval will also be required, as per Section 89 of the QH Act, if an activity has the potential to harm an archaeological artefact.

Queensland Heritage Register

The Queensland Heritage Register (QHR) contains all of the places protected under the QH Act. It is publically available for review, and contains more than 1600 places of State or archaeological significance. A search of the QHR has been undertaken for the Study Area and the results are reported in Section 18.5.3.

18.3.4 Local legislation and policy

Local heritage places are managed under Part 11 of the QH Act, local planning schemes and the *Sustainable Planning Act 2009* (Qld). The QH Act provides a process for establishing a Local Heritage Register and nominating places to be included on the register. Broadly a place is considered to be of local (rather than State) significance if:

its heritage values are of a purely localised nature and do not contribute significantly to our understanding of the wider pattern and evolution of Queensland's history and heritage (Queensland Environmental Protection Agency, 2006).

The Study Area falls within the Western Downs Regional Council and the South Burnett Regional Council, and is respectively covered by the legacy Wambo Shire Planning Scheme (2005) and the Kingaroy Area Planning Scheme (2006). Both schemes list places of cultural heritage importance and aim to ensure that these places are protected and maintained during any development process.

A review of the local heritage schedules has been undertaken for the Project and the results are reported in Section 18.5.3.

18.4 Methodology

18.4.1 Aboriginal cultural heritage desktop assessment

The methodology for this Aboriginal cultural heritage assessment is based on relevant State and federal legislative requirements and accepted assessment practice. The key elements of this assessment are:

- A search of the DATSIP Aboriginal Cultural Heritage Database and Register to identify:
 - Recorded Aboriginal cultural heritage places in the Study Area
 - The Native Title or Aboriginal Party(s) and/or Cultural Heritage Bodies for the Study Area.
- A review of previous cultural heritage reports for the Project site and surrounding region to:
 - Identify any previously identified Aboriginal heritage sites that have not been registered on the DATSIP Aboriginal Cultural Heritage Database and Register
 - Assess the extent and nature of land use through time, including any land modifications, ground surface disturbance and prior land use
 - Evaluate the potential for previously unidentified Aboriginal cultural heritage sites to exist in the Study Area.
- Conduct a duty of care assessment as required under the ACH Act.

18.4.2 Historical cultural heritage desktop assessment

The method for this assessment of historical cultural heritage is based on the broader policy setting presented in 'Using the Criteria: A Methodology' (Environmental Protection Agency, 2006), which discusses the assessment criteria for historical cultural heritage outlined in the QH Act. The main aim of these guidelines is to provide a framework for the identification of historical significance and to provide a common methodology for analysing historical, cultural and archaeological values.

In keeping with these guidelines and the aims of the assessment, a desktop assessment of the known and potential historical cultural heritage values of the Study Area was undertaken. Its key elements included:

- Identification of any places of known cultural heritage significance in the Study Area by searching the relevant Commonwealth, State and local heritage registers, including:
 - World Heritage List
 - National Heritage List
 - Commonwealth Heritage List
 - Register of the National Estate List
 - Queensland Heritage Register
 - Western Downs and South Burnett Regional Council heritage schedules.
- A review of historical studies, historical documents and previous historical cultural heritage assessments of the Study Area and the surrounding regions to inform the identification and assessment of cultural heritage values.

18.4.3 Archaeological field survey

A preliminary archaeological field survey was undertaken to assess the potential for Aboriginal or historical archaeological sites within the Study Area and to identify the most likely site types and locations. As the size of the Study Area precluded a full site survey, a strategy was designed to target a representative sample of potentially impacted areas. This included pedestrian surveys of six locations within the Project Site and one potential laydown area in each of the two impacted Landscape Character Types (refer to Chapter 5 Landscape and Visual Assessment for a description of the Landscape character types), as well as a survey of one of the potential substation areas.

Survey constraints

The results of this field survey must be considered within the context of a number of constraints. Firstly, the survey did not cover the full extent of the Study Area, but rather focused on a sample of site locations and types. This sample represents the major landscape types impacted by the project, but there may be some variations at individual sites.

Secondly, the completeness of any survey is necessarily a feature of Ground Survey Visibility (GSV). GSV refers to the degree to which the ground surface is exposed and therefore to the likelihood of archaeological items being identified. The better the visibility, the more potential there is for locating historical/archaeological material. GSV is most commonly inhibited by vegetation but other inhibitors may include gravel and bitumen. Levels of ground surface visibility were determined using a percentage scale in that 0% represents zero visibility and 100% represents maximum visibility (bare ground). Therefore: Zero - 0%; Poor - 1-25%; Moderate - 26-50 %; Fair - 51-75 %; Good - 76-85%; Excellent - 86-100%.

Lastly, the survey only sought to identify Aboriginal and historical archaeological sites in the Study Area, and so does not provide any information on any Aboriginal cultural sites that may be present. The identification and assessments of any such sites will require consultation with the relevant Aboriginal Party(s). This will occur during the negotiations of the CHMP.

18.5 Description of cultural heritage values

18.5.1 Historical overview

The following discussion is not intended to be an exhaustive historical treatment of the Study Area, but rather aims to provide an introduction to the major historical themes relevant to this region. This thematic study is based on the Queensland Thematic Framework (Environmental Protection Agency, 2006) developed for DEHP (then the EPA) by Queensland historian, Dr Thom Blake, and is derived from the model developed for the Australian Heritage Commission (2001). This thematic approach provides a broad framework through which to interpret the heritage values of the Study Area and assist the interpretation of specific places of heritage significance.

The first inhabitants

While there has been no detailed exploration of pre-colonial Aboriginal life in the Study Area itself, research at Maidenwell Rockshelter, approximately 15 km to the south east provides some insights. Excavations by Morwood in the 1980s indicate that low intensity use of the site began around 4300 years Before Present (BP), intensifying around 2800 BP, and then decreasing again in the last 1000 years. The small stone artefact assemblage at the site suggests transient usage by male hunting parties, with the small flakes and backed blades associated with hunting tool repair dominating the collection (Morwood 1983:96). The majority of these tools were made from quartz nodules, with a smaller number based on siltstone, basalt, chert, silcrete and mudstone, all of which are readily available in the local area (Morwood 1983:95).

In addition to the artefact assemblages, Maidenwell Rockshelter features several panels of painted rock art, with much of the back wall decorated with ochre figures. Morwood suggests that at least two major painting episodes are represented in the art – the earliest represented by orange ochre, the newest by red ochre – although it is not clear how this art articulates with the other evidence at the site (Morwood 1983:91).

More broadly, Morwood situates the use of Maidenwell Rockshelter within the changing and intensifying socio-economic system that developed in south-east Queensland in the last 6000 years. This system was based around the seasonal exploitation of certain 'glut' foods – fish in Moreton Bay and bunya nuts (Plate 18.1) in the mountain ranges around Maidenwell – and the development of a new form of inter-group relationships to facilitate mobility across territorial boundaries (Morwood 1983:90-1). Morwood sees the art at Maidenwell as a part of the regional symbolic system that was used to convey information across the region (Morwood 1983:91).



Plate 18.1 Bunya Nuts (State Library of Queensland 7868).

The seasonal bunya harvest continued to play an important role in inter-group relations well into the colonial period. Thomas Petrie, one of the earliest colonists in the Bunya Mountains area, described these gatherings as 'like huge picnics, the Aborigines belonging to the districts sending messengers out to invite members from other tribes to come and have a feast' (Petrie 1904:11). As such, the gatherings were vital to trade and exchange networks, to the carrying out of ceremony, and to the negotiation of marriages and other alliances (Feary 2005: 9). The Bunya Mountains, the bunya nut food and the associated cultural meanings remain important to contemporary Aboriginal people (McKay, 2005: 59).

18.5.2 Exploring, surveying and mapping the land

The region in and around the Study Area – now part of the Darling Downs and the South Burnett regions of southern central Queensland – was first explored by botanist and surveyor Allan Cunningham and Charles Fraser in 1827. Cunningham returned in 1828 to seek a better route from the western inland regions to the coast (French, 1997). By the 1840s, colonial settlement in the Darling Downs had reached as far as Jimbour Station, approximately 25 km south west of the Study Area, and it was from here that Ludwig Leichhardt set out on his year long journey to find an overland route to Port Essington (near Darwin). Leichhardt's journey served not only to map heretofore unknown reaches of the New South Wales colony, but also to open up new areas to colonial occupation, with settlers gradually pushing further and further north.

Pastoral activities

The Study Area was initially opened for selection as a part of the New England pastoral district in 1839. In 1841 the run of Jimba (later Jimbour) – encompassing all of the land between the Bunya Mountains and the Condamine River – was taken up, followed by the runs of Jingi Jingi and Cooranga, on which the Study Area is located. Along with much of the land through the expanding pastoral districts, these runs were used primarily for sheep grazing, supplying the demand for wool created by 'British industrialisation nearly 14,000 miles away' (French, 1990: 92). However, with the spread of the sheep diseases, scab and catarrh, in northern New South Wales by 1856, combined with the spread of footrot in 1861, many pastoralists in the Darling Downs began to reconsider their activities (Elphinstone & DPI, 1973: 1-4). By 1860 pastoralists were turning to cattle, primarily dairy, as there was less chance of disease and they were generally 'more suitable to the area' (Nutting, 1974: 3).

From the 1880s, the colonial government began to actively encourage this shift, seeing dairying as promoting closer settlement and increased population, as well as boosting economic production (French, 1990). Subsequently, portions of the large pastoral runs were resumed and broken into smaller lots which could be leased to families as small dairy farms.

Exploiting natural resources

The primary natural resource to be exploited in and around the Study Area was timber, particularly the bunya pine (*Araucaria bidwillii*). Initially, the then Governor of New South Wales, George Gipps, declared a 'protectorate over the bunya lands north of Moreton Bay', possibly in recognition of the importance of these trees in Aboriginal life (Powell 1998:9), but this protection was revoked later the same year. Extensive clearing began almost immediately, at first to support the opening up of the land for pastoral purposes (Powell 1998:18), but later as a large scale timber industry was focused on the extraction of the highly valuable bunya pine (Powell 1998:19) (Plate 18.2). This industry continued until the early part of the 20th century, ceasing when the Bunya Mountains was proclaimed a National Park in 1908 (Powell 1998:45), and the timber-getting areas were subsequently turned into recreation spaces.



Plate 18.2 Record bunya pine log. Bunya Mountains, 1927 (State Library of Queensland 394417).

Establishing settlements

During the second half of the 19th century, increasing numbers of settlers were arriving in the areas around the runs of Jingi Jingi and Cooranga, a trend that intensified with the expansion of the dairy industry and closer settlement in the 1880s. In response to this population growth, a number of small townships developed in the region, including Cooranga North, which is located just outside of the Study Area. Named for the pastoral run on which it is located, Cooranga North was founded in the early years of the 20th century and by mid-century boasted the Cooranga North State School (1914), Mahan Hall (1922), Mt Mahen School 1922, Queensland Country Women's Association (1923), Catholic Church (1932), Presbyterian Church (1952), and the New Cooranga North Community Memorial Hall (1952) (Adair 1989).

Supported primarily by the surrounding dairy industry, the town established its own cheese factory, Cooranga North Co-operative Cheese Factory Company Limited in the 1930s (Hooper 1984), saving farmers from having to transport their produce by road to the railhead, and from there to the Dalby Butter Factory some 50 km to the south. The cheese factory remained in operation until the 1960s, when the expansion and deregulation of dairying saw the industry become uneconomical in the area around Cooranga North (Hooper, 1974).

The waning of the dairy industry also brought about a noticeable decline in the population of Cooranga North as families moved out of the area, eventually seeing the closure of the Cooranga North State School (Adair 1989). The town, however, survived these changes, and remains a small, vibrant rural community.

18.5.3 Register and database search results

DATSIP Cultural Heritage Database and Register

A search of the DATSIP Cultural Heritage Database and Register in March 2016 returned the following Aboriginal Parties for the Study Area:

- Barunggam People - Western portion of the Study Area
- Western Wakka Wakka People (Team McLeod) - North-western portion of Study Area
- Western Wakka Wakka People (Team Beattie) - North-western portion of Study Area
- Wulli Wulli People #2 - Eastern portion of Study Area.

In addition, four cultural heritage sites – a stone artefact scatter and three isolated finds – are recorded in the Study Area. A further nine recorded places, including grinding grooves and artefact scatters, are located within one kilometre of the Study Area.

Native title

The Study Area is currently subject to two active Native Title Claims (Table 18.1).

Table 18.1 Active Native Title Claims in the Study Area (National Native Title Tribunal).

Claimant	Date	Status	Tribunal Number	Federal Court Number
Wulli Wulli and Wakka Wakka Peoples	23/09/2011	Active	QC2011/005	QUD311/2011
Wakka Wakka People #3	12/12/2011	Active	QC2011/010	QUD621/2011

Spanning a number of allotments, the Study Area includes freehold, easement and reserve land. Land tenure and native title assessments will need to be conducted for each allotment, reserve or waterway. Any activities on allotments where native title has not been extinguished will need to be assessed as potential 'future acts' (that is, acts which may impact on native title holders' rights to land or water) and appropriate measures implemented if required.

Historical heritage

A search of Commonwealth, State and local heritage registers did not identify any recorded historical sites within the Study Area. The closest historical heritage site is the State and locally listed (South Burnett Regional Council) Wylarah Homestead, which is located approximately 10 km to the north of the Study Area.

18.5.4 Site survey and results

Survey overview

A preliminary site survey was undertaken on Tuesday 24 November 2010 and Wednesday 25 November 2010 to identify the potential for Aboriginal and historical archaeological places across the Study Area. In attendance were two cultural heritage consultants and owners of the properties whose land was surveyed.

As previously noted, the survey targeted a representative sample of the Study Area, focusing on 12 locations within the Project Site, two potential laydown areas and the substation area across the two main Landscape Character Types within the Project Study Area (refer to Section 18.4.3). A pedestrian survey was conducted at each of these locations, with participants walking closely spaced, north-south transects across all accessible areas. Additionally, vehicular surveys were conducted along a number of the proposed access roads. The extent of field surveys is shown in Figure 18.1 in Volume 2.

18.5.5 Survey results

The following sections discuss survey findings for specific locations within the Study Area (refer to Figure 18.1, Volume 2). These are grouped according to Landscape Character Type - Undulating Foothill Plains and Valleys or Rolling Hills and Ridges with Open Forest - in which they are located.

Undulating foothill plains and valleys

Survey locations SL1, SL2, SL3 and SL4 are located in the foothills at the north-west corner of the Study Area on small ridgeline plateaus. The area has been extensively cleared, and has been used for grazing purposes for an extended period (refer to Plates 18.3 to 18.6).

The general area has a thick covering of grass and weeds with some small trees, shrubs, and areas with basalt outcrops protruding from the topsoil. The GSV ranged from 10% (poor) to 50% (average) across the entire survey area. The areas of poor GSV had knee-high grass and little to no visible surface. The areas around the basalt outcrops were less heavily vegetated and had a 50-60% (medium) level of GSV.

No cultural heritage places were identified at these locations.



Plate 18.3 Ground Cover SL1



Plate 18.4 Ground Cover SL2



Plate 18.5 Ground Cover SL3



Plate 18.6 Ground Cover SL4

Survey locations SL5 and SL6 are also located on the foothills in the north-western section of the Study Area, but this area has deeper soil deposits with little to no basalt in the topsoil. These survey locations sit atop a raised section of land that has a large flat plateau (see Plate 18.7). The area has been previously cleared for grazing and has thick vegetation.

The area has 0% GSV due to the coverage of weeds, grass, and trees.

No cultural heritage places were identified during this survey.



Plate 18.7 Ground Visibility SL5 and SL6

The proposed laydown area at Sarum Road has been designated as a potential site for storing wind turbine components during the construction phase, and is also located in the foothills on the north side of the Study Area. There is currently a dirt road on the eastern boundary of the proposed laydown area that may need to be upgraded as part of the Project. As with the other locations in this part of the Study Area, this site area has been extensively cleared and used for grazing purposes (refer to Plates 18.8 and 18.9).

The area is currently overgrown with waist-high grass and tree regrowth, and GSV consequently ranges from 0% to 10%.

No cultural heritage places were identified during this survey.



Plate 18.8 Sarum Road Laydown Area.

Rolling hills and ridges with open forest

Survey locations SL7, SL8, SL9, SL10, SL11 and SL12 are located on ridgelines in the eastern section of the Study Area. The area has been extensively cleared for grazing purposes, and there are numerous scattered cattle bones.

The area was heavily vegetated, with a GSV ranging from 0% to 20% (refer to Plates 18.9 to 18.13).

No cultural heritage places were identified at any of these locations.



Plate 18.9 SL7 Ground Coverage



Plate 18.10 SL8 and SL9 Ground Visibility



Plate 18.11 SL10 Ground Visibility



Plate 18.12 SL11 Ground Visibility



Plate 18.13. SL12 Ground Visibility

The proposed substation site area sits in a flat section of land that is surrounded by ridges and rolling hills. This field has been used previously for agriculture and has been ploughed multiple times. The current level of regrowth limited GSV to between 30% and 50% (refer to Plate 18.14).

No cultural heritage places were identified at this location.



Plate 18.14 Substation Site Ground Surface Visibility.

The potential laydown area on Jarail Road has been designated as a potential site for a construction area. The site is on the eastern side of Jarail Road in the northern section of the Study Area and runs parallel to Niagara Road. This area consists of two paddocks. The first paddock facing Niagara Road (refer to Plate 18.15) has been extensively cleared and used for grazing purposes. The paddock was thickly covered with grass and scattered trees, with a GSV of 0-10% (low). The second paddock (refer to Plate 18.16) is a field that had been regularly and recently ploughed, making GSV good across the area.

No cultural heritage places were identified at either location.



Plate 18.15 Paddock facing Niagara Road



Plate 18.16 Second Paddock on Jarail Road Laydown Area

18.6 Potential impacts

18.6.1 Aboriginal cultural heritage

Past land use

Prior to colonial settlement, the entirety of Australia was occupied by Aboriginal people and existed as part of a continent-wide cultural landscape. Today, the preservation of physical evidence of this cultural landscape is largely a feature of post-contact land use practices. Areas where disturbance to the ground surface and vegetation have been minimal are likely to retain traces of Aboriginal occupation, while this evidence is likely to be less obvious in areas that have undergone large-scale landscape modification.

Historical documents indicate that the Study Area is located on land opened for selection in the 1840s, and formed part of the Jingi Jingi and Cooranga Pastoral Runs. The land has subsequently been used largely for pastoral purposes – initially sheep grazing followed by dairying and then cattle grazing – with some cultivation and associated ploughing in lower-lying areas. Modern aerial photographs show that the Study Area has been extensively cleared. Pockets of vegetation appear on some ridge-slopes, although it is unclear whether this is original vegetation or regrowth.

Duty of care assessment

Survey and historical information suggests that the Study Area has been used primarily for pastoral purposes. These grazing areas have been cleared, but there is no evidence of more extensive ground disturbance. Consequently, any ground breaking activities (including grading for roads, earth works for turbine bases or excavation of trenches for underground electrical reticulation) in these areas are assessed as Category 5 under the Duty of Care Guidelines. That is, activities that are likely to cause additional surface disturbance and, consequently, have a high risk of harming any extant Aboriginal cultural heritage. Areas which are least disturbed, such as those with remnant vegetation, are particularly high risk areas as are locations associated with cultural, living or resource extraction sites. This includes:

- Ridgelines – potential pathways, ceremonial or story places
- Waterways – potential resource extraction and living sites
- Basalt outcroppings (such as those at SL1, SL2, SL3 and SL4) – potential quarries for stone tool manufacture.

In Category 5 areas, development activities cannot proceed without further cultural heritage assessment and consultation with the Aboriginal Party(s) for the area. This assessment and consultation will be undertaken after approval from the Coordinator General but prior to finalisation of the detailed design and construction of the Project.

In addition to grazing runs, some low-lying parts of the Study Area have been used for agricultural purposes. Such areas have been extensively cleared and repeatedly ploughed. Ground-breaking activities in these areas are assessed as Category 4 under the Duty of Care Guidelines. That is, as activities in areas that have previously been subject to significant ground disturbance. Where an activity is proposed in a Category 4 area, it is generally unlikely that Aboriginal cultural heritage will be harmed, but there is a chance that remnant cultural heritage will be impacted. In particular, it should be noted that while the ground surface in these areas has been highly disturbed, it is likely that Aboriginal artefacts such as stone tools have been displaced rather than destroyed. Any such displaced artefacts are likely to be of low scientific value, but may be of significance to the Aboriginal Party(s). If stone tools or other objects of potential Aboriginal cultural heritage significance are discovered, the Aboriginal Party(s) will be consulted and further cultural heritage assessment undertaken.

The Study Area also contains a number of different types of existing infrastructure, including roads and electrical easements, which are considered Category 3 or *Developed Areas* under the Duty of Care Guidelines. Activities that occur in such locations are considered unlikely to harm Aboriginal cultural heritage providing that these activities do not proceed beyond or below existing levels of ground disturbance. In this case, further cultural heritage assessment will not be required.

18.6.2 Historical heritage

There are currently no listed heritage sites, nor known sites of potential heritage significance within the Study Area. As such, it is unlikely that Project activities will impact on any places of historical heritage significance. However, given the history of the area as a part of the Jingi Jingi and Cooranga runs, there is a chance that historical archaeological deposits exist in the area. Places containing potentially important archaeological deposits

are protected under the QH Act, and there are penalties for interfering with (damaging, destroying, disturbing, exposing or moving) such discoveries (Sections 88-90).

In this region, archaeological places are most likely to relate to the pastoral industry, are most likely to be found close to waterways (or other water sources), and will be typified by:

- Yards and pens
- Work buildings (sheds, dairies, creameries)
- Living sites:
 - Stone or brick firebases
 - Building stumps
 - Middens (rubbish heaps) of bottles, cans and crockery (most likely found in nearby gullies).

18.7 Mitigation measures

18.7.1 Aboriginal cultural heritage

The most efficient way to manage Aboriginal cultural heritage as part of a development is to engage in a formalised arrangement with the relevant Aboriginal Party(s). A CHMP provides a statutory framework that will facilitate consultation with the multiple Aboriginal Parties.

Given the extent of the Project, and the involvement of multiple Aboriginal Parties, a CHMP under Section 7 of the ACH Act will be developed and negotiated for the Project.

18.7.2 Non-Indigenous cultural heritage

The following mitigation measures are considered suitable to address non-Indigenous heritage located in the Project Site. The purpose of these measures is to provide a process for protecting identified cultural heritage values throughout the various phases of the Project. As with the previous section, this discussion deals only with non-Indigenous cultural heritage as Indigenous cultural heritage will be managed under an approved CHMP.

Potential historically identified places

Should archaeological deposits be uncovered during construction, a 'Stop Works' process as outlined below will be followed:

- Relevant work will cease in the immediate area and the local site will be secured
- The identified material on site will not be removed or disturbed further (barriers or temporary fences may be erected as a buffer around the find if required)
- In accordance with the QH Act (Sections 88-90), DEHP will be informed using the form Reporting a Discovery that can be found at the following link. <http://www.ehp.qld.gov.au/heritage/archaeology/making-a-discovery.html>
- The find will be reported directly by the site supervisor (or other appropriate manager) or through an onsite cultural heritage specialist
- DEHP will determine the significance and future management of the find. This may involve the clearance of the site for development, recording and excavation, or protection.

Avoidance of sites

The preferred mitigation measure for known heritage places is to avoid impact wherever possible. At present, all known heritage places and places of high archaeological potential lie outside of the areas affected by Project activities and so are considered unlikely to be impacted.

Unexpected finds

Although historical and archival research has identified a number of places of heritage value or potential heritage value in the Study Area, there is still the possibility that further, currently unidentified places exist. This is particularly the case with archaeological places, which may relate to activities not recorded in written documents and which may no longer be easily discernible in the landscape.

In this area, historical archaeological places are likely to relate to the pastoral industry and as noted previously, are likely to be represented by items such as:

- Stumps from houses, outbuildings, yards and other structures
- Brick or stone fire bases from houses and other structures
- Refuse heaps; typified by broken bottles and crockery and most likely to occur in gullies around living sites.

If such remains are found, the same 'Stop Works' process outlined above will be implemented.

Cultural heritage induction

To facilitate the identification of historical cultural heritage, information on non-Indigenous cultural heritage would be incorporated into the general site induction. This document would be prepared by a qualified heritage specialist and include the following:

- Familiarisation material for work crews so that they are aware of what constitutes a cultural heritage find
- Clear instructions on what to do should such material be found.

This component would be integrated with the Indigenous cultural heritage inductions developed under the CHMP to provide a holistic overview of the heritage and archaeological resources which may exist within the Project Site.

Identified, practical mitigation and management measures will be negotiated with DEHP and form part of the CEMP for the Project.

18.8 Residual impacts

Residual impacts are impacts that are considered likely to occur following the application of suitable mitigation measures. As with previous sections, this discussion deals only with non-Indigenous cultural heritage as residual impacts on Indigenous cultural heritage will be managed under an approved CHMP.

With the application of the proposed mitigation (training/induction in finds), it is considered that potential impacts on currently unidentified archaeological deposits is low. Based on professional judgement, some disturbance may still occur before archaeological deposits have been detected. However, the risk of a potential impact with mitigation is still considered to be low and not significant.

18.9 Cumulative impacts

No existing projects or proposals are considered likely to have an adverse cumulative effect on the identified historical cultural heritage sites discussed in this chapter.

18.10 Summary and conclusions

This chapter of the EIS has discussed the Aboriginal and historic cultural heritage values that are known or likely to occur within the Study Area.

While there has been no detailed exploration of pre-colonial Aboriginal life in the Study Area itself, research has indicated that low intensity use of the site began around 4300 years ago. The small stone artefact assemblage within the Study Area suggests transient usage by male hunting parties, with the small flakes and backed blades associated with hunting tool repair dominating the collection. Given the extent of the Project, and the involvement of multiple Aboriginal Parties, a CHMP under Section 7 of the ACH Act will be developed and negotiated for the Project.

In terms of historic (non-Indigenous) heritage, the region in and around the Study Area was first explored in 1827. The Study Area was initially opened for selection as a part of the New England pastoral district in 1839 and by the 1840s, colonial settlement had occurred approximately 25 km south west of the Study Area. By 1860, pastoralists were turning to cattle, primarily dairy, as there was less chance of disease and they were generally 'more suitable to the area'.

A search of Commonwealth, State and local heritage registers did not identify any recorded historical sites within the Study Area. The closest historical heritage site is the State and locally listed Wylarah Homestead, which is located approximately 10 km to the north of the Study Area.

A process has been identified to stop work and recover material should it be found. Based on the above, the Project is considered unlikely to cause a significant impact on known cultural heritage.

18.11 References

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