



# Chapter 28

Indigenous  
Cultural Heritage

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## 28. INDIGENOUS CULTURAL HERITAGE

### 28.1 Introduction

This chapter investigates the indigenous cultural heritage values of the project area. It also describes the measures to be implemented to manage and protect heritage values that may be affected by the Project. This chapter is based on the indigenous cultural heritage reports for the Birriah and Jangga Native Title areas prepared by Elizabeth Hatte in consultation with the relevant Aboriginal Parties (refer **Appendix 28** and **Appendix 29**).

The proponent's preference for the management and protection of cultural heritage is avoidance in the first instance and collaboration with relevant Aboriginal Parties to ensure participation in the identification and protection of cultural heritage and to help specify impact mitigation measures.

Cultural Heritage Management Plans (CHMPs) with the relevant Aboriginal parties for the project area have been developed and approved. These CHMPs were developed for the project area to specifically include the project tenements and were approved under the *Aboriginal Cultural Heritage Act 2003* (Qld) by the chief executive of the Department of Environment and Resource Management (this function is now with the Department of Aboriginal and Torres Strait Islander and Multicultural Affairs (DATSIMA)) in 2011. As such, these CHMPs provide a process for the management of Aboriginal cultural heritage within the project area. The CHMPs are being implemented and will be used to manage indigenous cultural heritage for this project.

This chapter addresses section 3.11 of the Terms of Reference which refers to indigenous cultural heritage. Indigenous cultural heritage includes the physical traces left behind by past inhabitants. Indigenous cultural heritage in Australia is strongly tied to long occupation and connection to the land by the Aboriginal and Torres Strait Islander cultures. The project area excludes any cultural heritage associated with Torres Strait Islanders and for the purposes of this cultural heritage assessment, indigenous cultural heritage values will be referred to in terms of Aboriginal cultural heritage. It is important to note that a significant Aboriginal cultural heritage area does not necessarily comprise markings or other physical evidence indicating occupation or denoting its significance.

### 28.2 Legislative Context

#### 28.2.1 The Burra Charter

The *Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance* (1999; Burra Charter) establishes the definition of cultural significance as “aesthetic, historic, scientific or social value for past, present or future generations”, and sets the basic principles for cultural heritage conservation legislation for all Australian states and territories. It also establishes criteria for assessing the significance of heritage values, including value of the site to part or all of the community (social), scientific and historical value (Australia ICOMOS Burra Charter, 1999).

There are several pieces of Commonwealth and Queensland legislation relevant to cultural heritage within the project area. These have been briefly outlined below.

#### 28.2.2 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act) is the key piece of Commonwealth legislation for management of the environment and cultural heritage. The EPBC Act protects places with world heritage values – meaning places listed on the United Nations Educational,

Scientific and Cultural Organisation's (UNESCO) World Heritage List – or places of national significance – meaning places on the Australian Heritage List or the Commonwealth Heritage List (both of which incorporate places previously registered on the Register of the National Estate). In particular, the EPBC Act provides a legal framework, with 'triggers' which require approval for actions likely to have a significant impact on places of significance and cultural heritage aspects of the environment on Commonwealth land in order to protect and manage heritage values. There were no places registered on the World Heritage, National Heritage, or Commonwealth Heritage Lists for cultural heritage significance relevant to the project.

### 28.2.3 Aboriginal Cultural Heritage Act 2003

The *Aboriginal Cultural Heritage Act 2003* (Qld) (ACH Act) provides a system to protect, preserve and manage Aboriginal cultural heritage areas and objects. The object of the ACH Act is to provide recognition, protection and conservation of Aboriginal cultural heritage. The ACH Act:

- legislates (section 23) a 'duty of care' by which anyone conducting activities on land to take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage:
  - Duties of Care Guidelines were gazetted in 2004 that outline reasonable and practicable measures for ensuring activities are managed to avoid or minimize harm to cultural heritage values.
  - Penalties apply for causing unauthorised harm.
- requires (section 87) that a Cultural Heritage Management Plan (CHMP) be developed and approved wherever an EIS is required for the approval of any project
- establishes (section 39) a cultural heritage database maintained by DATSIMA<sup>1</sup>.

### 28.2.4 Nature Conservation Act 1992

The *Nature Conservation Act 1992* (Qld) (NC Act) dedicates and declares protected areas under 13 classes for the conservation of natural and cultural heritage within national parks, conservation parks or resource reserves. The NC Act sets out management principles for each class of protected area. The Act also requires the declaration of 'management intent' with specific reference to the area's significant cultural and/or natural resources and values for any proposed protected area. Under the NC Act, it is an offence to take, use, keep, or interfere with a cultural or natural resource in a protected area except in accordance with the interim or declared management intent, or under permit.

### 28.2.5 Legislation Regarding Human Remains

Section 236 of the *Criminal Code Act 1899* (Qld), it is an offence to improperly or indecently interfere with a human body or human remains, whether buried or not. An offence under this provision can result in imprisonment for up to two years.

The *Coroners Act 2003* (Qld) states that when human remains are located it is the duty of the person who found the remains to report the findings to the police or a coroner (s.7-8). Control of human remains by the coroner commences when coronial investigations into the deceased person's death begin (section 26(1)). If the coroner decides that it is not necessary to keep investigating the human remains, then the coroner will order the release of the body for burial (section 26(c)).

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<sup>1</sup> The Queensland Department of Environment and Resource Management was previously responsible for actions under the ACH Act. The Queensland Department of Aboriginal and Torres Strait Islander and Multicultural Affairs are now responsible for the ACH Act.

Additionally, exhumations are normally dealt with under local laws in terms of the *Local Government Act 1993* (Qld). Where these laws are not applicable, the *Land Act 1994* (Qld) permits exhumation. Approval to exhume human remains (section 83, to take out of a place of interment, whether above or below ground) may be granted by the Minister on receipt of a written application if a local government has not made a local law regarding exhumation of human remains from trust land for cemetery purposes.

## 28.3 Methodology of Assessment

The assessment of Aboriginal cultural heritage values within the project area was conducted in three stages, consisting of a desktop review, the execution of Cultural Heritage Management Plans with the relevant Aboriginal Parties, and the completion of field surveys by the relevant Aboriginal Parties with the assistance of an archaeologist.

### 28.3.1 Desktop Review

A desktop review of previous studies and registered sites was undertaken to identify known heritage values within the project area. This review included a search of the National Native Title Tribunal's (NNTT) database and DATSIMA's cultural heritage database and register to identify who the relevant Aboriginal parties for the project area are and whether there are any known Aboriginal cultural heritage values within the project area. It also included a review of heritage registers, previous studies, primary and secondary historical records.

Public notices were not required as there were current and previously registered Native Title Claims over the project area, as per section 35(1) and 35(2) of the ACH Act, respectively. The Aboriginal parties for the project area are the Birriah People<sup>2</sup> (QUD 6244/98; QC 98/12) and the Jangga People<sup>3</sup> (QUD 6230/98; QC 98/10; QCD2012/009).

**Table 28-1** details the sources consulted in the preparation of the review. The results of the desktop review are provided in more detail in **Sections 28.5** and **28.6**.

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<sup>2</sup> The Birriah People claim group was previously called the Birri People and was changed pursuant to a court order made under section 66B(2) of the NT Act.

<sup>3</sup> A recent (9 Oct 2012) Native Title Consent Determination by the Federal Court recognises the exclusive native title rights of the Jangga People over their determination area.

**Table 28-1 Cultural Heritage Registers and Sources Consulted**

Register	Established/maintained by:
World Heritage List	<ul style="list-style-type: none"> <li>• United Nations Educational, Scientific and Cultural Organisation (UNESCO).</li> </ul>
Commonwealth Heritage List	<ul style="list-style-type: none"> <li>• Established under the EPBC Act</li> <li>• Maintained by Department of Sustainability, Environment, Water, Population and Communities (Cwlth)</li> <li>• Lists places of heritage values owned by the Commonwealth.</li> </ul>
Australian Heritage List	<ul style="list-style-type: none"> <li>• Established under the EPBC Act</li> <li>• Maintained by Department of Sustainability, Environment, Water, Population and Communities (Cwlth)</li> <li>• Lists places of nationally important heritage values.</li> </ul>
Queensland Heritage Register (QHR)	<ul style="list-style-type: none"> <li>• Established by the <i>Queensland Heritage Act 1992</i> (QH Act)</li> <li>• Maintained by Department of Environment and Heritage Protection (Qld).</li> <li>• Primarily deals with historical cultural heritage but there may be some overlap between historical and indigenous cultural heritage sites</li> </ul>
Protected areas under the NC Act	<ul style="list-style-type: none"> <li>• Established by the NC Act</li> <li>• Primarily focussed on protection of natural features, flora and fauna, but many protected areas also have associated heritage values</li> <li>• Maintained by Department of National Parks, Recreation, Sport and Racing (Qld).</li> </ul>
Register of the National Estate (RNE)	<ul style="list-style-type: none"> <li>• Established by <i>Australian Heritage Commission Act 1975</i> (Cwlth; repealed)</li> <li>• Previously maintained by the Department of Sustainability, Environment, Water, Population and Communities (Cwlth)</li> <li>• No longer active, but entries are still useful indicators of cultural heritage values.</li> </ul>
Local government registers and planning schemes	<ul style="list-style-type: none"> <li>• Under Part 11 of the QH Act, local governments are required to maintain a local cultural heritage register of heritage values within their respective boundaries. It should be noted that not all local governments maintain a heritage register, particularly in light of the amalgamation of local government areas that took place in 2008.</li> <li>• The following local governments were contacted to identify if heritage records are maintained: <ul style="list-style-type: none"> <li>○ Whitsunday Regional Council</li> <li>○ Isaac Regional Council.</li> </ul> </li> <li>• Additionally, the following local government planning schemes were reviewed for documented heritage values: <ul style="list-style-type: none"> <li>○ Bowen Planning Scheme 2006</li> <li>○ Nebo Shire Planning Scheme 2008.</li> </ul> </li> </ul>
Primary and secondary historical records	<ul style="list-style-type: none"> <li>• Primary sources such as journals and diaries of early explorers and pastoralists (Leichhardt, 1964; Murray, 1864; Wills, 1896)</li> <li>• Local stakeholders in Collinsville and Mackay (Hatte, 2011a)</li> <li>• Regional and local histories and historical works (Brayshaw, 1977; Brayshaw, 1990; Curr, 1887; Evans, 2010; Loos, 1982; Terrill, 1993; Tindale, 1974)</li> <li>• Previous cultural heritage studies conducted in the region, including cultural heritage studies conducted for the following projects: <ul style="list-style-type: none"> <li>○ Newlands Coal Mine</li> </ul> </li> </ul>

Register	Established/maintained by:
	<ul style="list-style-type: none"> <li>○ North Queensland (Enertrade) Gas Pipeline Project</li> <li>○ Collinsville-Elphinstone Road</li> <li>○ GAPE Project (incorporating the Northern Missing Link)</li> <li>○ SunWater Burdekin River to Moranbah Pipeline</li> <li>○ Hancock Rail Link</li> <li>○ Ross-Strathmore Power Line</li> <li>○ Strathmore Substation</li> <li>○ Cockool Passing Loop</li> <li>○ Drake Mining Lease</li> <li>○ Sonoma Mine</li> <li>○ Sarum Mining Lease</li> <li>○ Jax and Cows Mining Leases</li> <li>○ Mt Carlton Mining Project</li> <li>○ Belmore Mine</li> <li>○ Gattonvale Offstream Storage</li> <li>○ Briaba Bank Deviation</li> <li>○ Collinsville/Scottville Coal Fields.</li> </ul>

### 28.3.2 Cultural Heritage Management Plans

CHMPs have been developed with the Birriah People and the Jangga People and these have been approved by DATSIMA (formerly DERM). These CHMPs provide the protocol for protecting and managing Aboriginal cultural heritage values within the project area and are described in **Section 28.9**.

### 28.3.3 Field Surveys

In accordance with both CHMPs, field surveys will be conducted prior to any ground disturbing activities. Two technical reports were prepared by an archaeologist (Elizabeth Hatte) in collaboration with the Birriah People and the Jangga People.

### 28.3.4 Assumptions and Limitations

The risks associated with project activities on known heritage values have been assessed based on the assumption that identified heritage values are extant and/or their value remains regardless of their current physical condition.

It is also assumed that the information provided in the sources reviewed is assumed to be accurate and complete. There is an abundance of information available concerning the general region around Glenden, field investigations concerning other projects in the region, and a wealth of traditional knowledge and oral history held by traditional owners and local stakeholders. Changes in ownership, the passing of previous generations, and potential gaps in the available historical record mean that some knowledge of places and items of significance may not be available. Consequently there is still the potential for previously unrecorded items to be identified in the field

## 28.4 Relevant Aboriginal Parties

The NNTT and DATSIMA cultural heritage database search results identified the Birriah People and the Jangga People as the relevant Aboriginal parties for the area of the project. As such, the Birriah People and the Jangga People are the relevant Aboriginal parties as defined under the ACH Act.

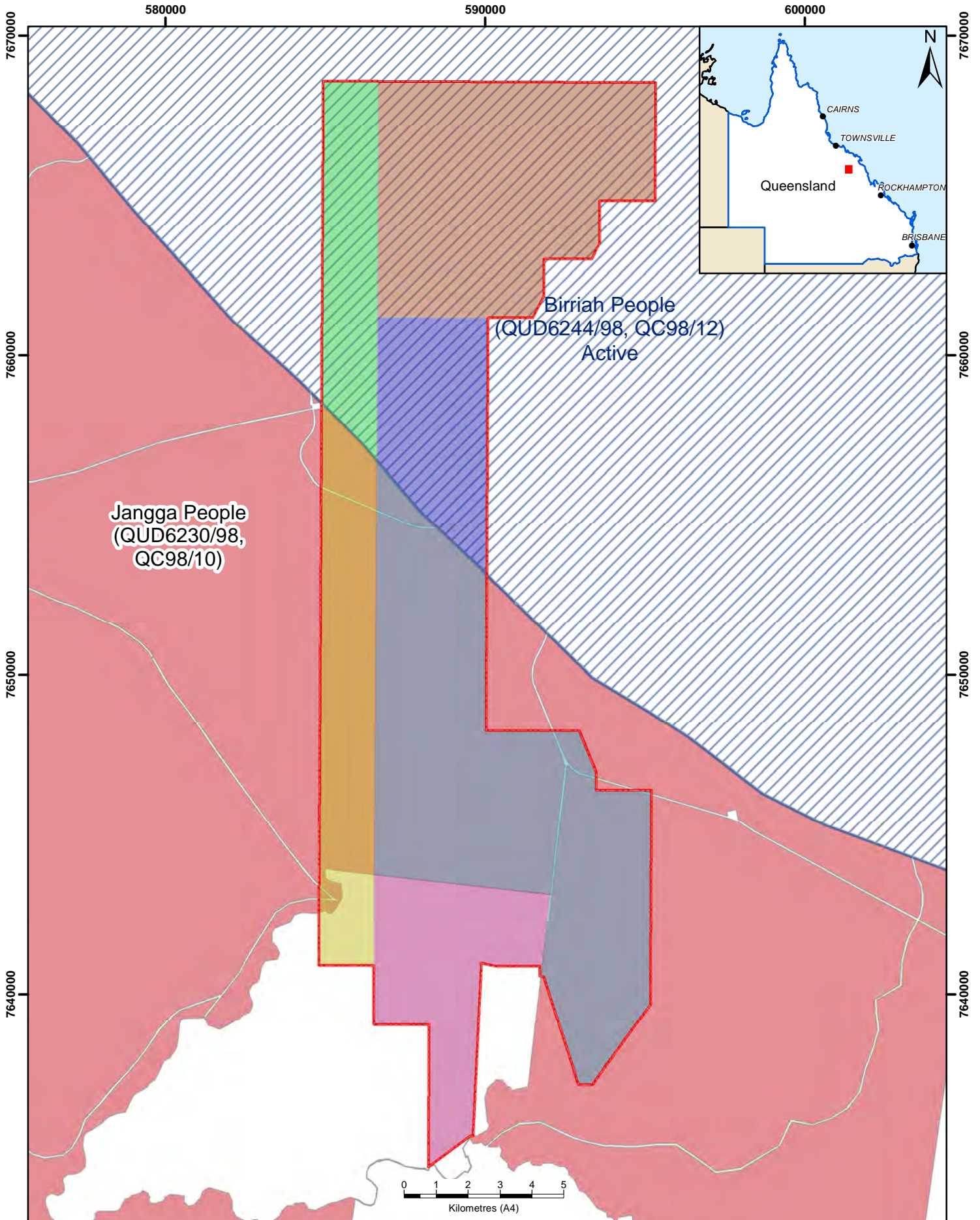
#### **28.4.1 Birriah People (QUD 6244/98; QC 98/12)**

The Birriah People currently have a registered Native Title Claim which overlaps part of the project area, being MLAs 10355, 10356, and 10357 (refer **Figure 28-1**). The rights and interests claimed by the Birriah People are as set out in the Form 1 filed in the Federal Court of Australia. Under the *Aboriginal Cultural Heritage Act 2003 (Qld)* (ACH Act), the Birriah People are also the relevant Aboriginal party for that part of the project area.

#### **28.4.2 Jangga People (QUD 6230/98; QC 98/10; QCD2012/009)**

The Federal Court made a Native Title Consent Determination recognising the Jangga People's largely non-exclusive native title rights over the Determination Area. This area also overlaps part of the project area, located in an area where non-exclusive rights and interests have been recognised. The Jangga People are also the relevant Aboriginal party for that part of the project area.





**Legend**

- Project Area
- Byerwen Mining Leases**
  - MLA 10355
  - MLA 10356
  - MLA 10357
  - MLA 70434
  - MLA 70435
  - MLA 70436
- NT Claim Determinations**
  - NT does not exist
  - NT exists in parts of the determination area
  - NT exists in the entire determination area
- Old Registered NT Claims**
  - Birriah People

<b>Aboriginal Parties</b>		
<b>Figure 28-1</b>	<b>Byerwen Coal Project</b>	
Date: 13/11/2012	Author: emma.lewis	
Revision: R1	Map Scale: 1:154,614	
Coordinate System: GDA 1994 MGA Zone 55		
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© State of Queensland (Department of Environment and Resource Management (DERM), Department of Natural Resources and Mines (DNRM)). ELP has produced this map for the purpose of presenting a summary of relevant spatial information based on or containing data provided by the State of Queensland (DERM, DNRM) [2012] and other sources at the time the map was prepared. In consideration of the State permitting use of this data you acknowledge and agree that both the State and ELP give no warranty in relation to the data (including accuracy, reliability, completeness or suitability) and accept no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of or reliance upon the data. Data must not be used for direct marketing or be used in breach of privacy laws. Imagery outside of project area accurate +/- 100m.

## 28.5 Description of Heritage Values

Searches of statutory and non-statutory heritage registers, previous studies and historical records were conducted to identify heritage values within the project area. The assessment of Aboriginal cultural heritage values within the project area also draws heavily on primary and secondary historical records.

**Table 28-2 Statutory and Non-Statutory Registers and Sources**

Register	Existing values identified
World Heritage List	<ul style="list-style-type: none"> <li>No heritage values were identified.</li> </ul>
Commonwealth Heritage List	<ul style="list-style-type: none"> <li>No heritage values were identified.</li> </ul>
Australian Heritage List	<ul style="list-style-type: none"> <li>No heritage values were identified.</li> </ul>
Queensland Heritage Register (QHR)	<ul style="list-style-type: none"> <li>No heritage values were identified.</li> </ul>
Protected areas under the NC Act	<ul style="list-style-type: none"> <li>No heritage values were identified.</li> </ul>
Register of the National Estate (RNE)	<ul style="list-style-type: none"> <li>No heritage values were identified.</li> </ul>
Records of the National Trust of Queensland (NTQ)	<ul style="list-style-type: none"> <li>No heritage values were identified.</li> </ul>
Local government registers and planning schemes	<ul style="list-style-type: none"> <li>No heritage values were identified.</li> </ul>
DATSIMA cultural heritage database and register	<ul style="list-style-type: none"> <li>90 registered sites identified.</li> </ul>
Primary and secondary historical records (see <b>Table 28-1</b> )	<ul style="list-style-type: none"> <li>Several heritage values identified in the project area and surrounding region.</li> </ul>

A search<sup>4</sup> of the DATSIMA's cultural heritage database and register indicates a number of registered sites within the project area (see **Table 28-3**). Due to the sensitivity of information about known Aboriginal cultural heritage values information relating to specific locations has been omitted from this document.

**Table 28-3 Registered Heritage Values from DATSIMA CH Database and Register**

Artefact types	Tenement					
	MLA 10355	MLA 10356	MLA 10357	MLA 70434	MLA 70435	MLA 70436
Artefact scatter	-	18	-	6	7	25
Artefact scatter, cultural site	-	-	-	1	-	-
Artefact scatter, hearth oven	-	-	-	-	-	5
Artefact scatter, landscape feature	-	1	-	-	-	-
Artefact scatter, resource area	-	-	-	-	5	-
Cultural site	-	-	-	-	-	1
Hearth oven	-	-	-	1	-	2
Landscape feature	-	6	-	-	-	2

<sup>4</sup> This search included the project area and a buffer of 100 m around the project area.

Artefact types	Tenement					
	MLA 10355	MLA 10356	MLA 10357	MLA 70434	MLA 70435	MLA 70436
Resource area	-	-	-	-	-	1
Scarred/carved tree	-	3	1	-	2	1
Scarred/carved tree, artefact scatter	-	1	-	-	-	-
Type unavailable	-	-	-	-	-	1

Cultural landscapes as referred to in this chapter consist of a geographic area including both cultural and natural resources associated with a historical event, activity, person or place. There are generally four types of cultural landscapes (not mutually exclusive):

- sites
- designed landscapes<sup>5</sup>
- vernacular landscapes<sup>6</sup>
- ethnographic landscapes<sup>7</sup>.

The assessment of Aboriginal cultural heritage values for the project identified 8 landscape features (refer **Table 28-3**) connected to either ethnographic or vernacular landscapes and a high likelihood of additional cultural landscapes being identified in future site surveys.

## 28.6 Site Types and Predictive Modelling

The following descriptions and predictive modelling are extracted and summarised from the technical reports prepared following the desktop review and field surveys for this project.

### 28.6.1 Artefact Scatters

Open stone artefact scatter and isolated artefacts as the most common types of Aboriginal cultural site recorded in the region. Typically such sites are found on the alluvial terraces of streams and eroding gullies where they may extend for several kilometres (e.g. Suttor and Boundary Creeks) and a range of distinct activity areas. However, they are not limited to such areas.

Artefact scatters are also frequently found in association with scarred trees, hearths or fireplaces, artefact knapping areas, outcrops of stone and ceremonial areas. Other locations where artefact scatters are commonly identified are around the gilgai in cleared or remnant Brigalow forests and in other *Acacia spp.* forests (e.g. Bendee, Lancewood, Rosewood and Mulga).

<sup>5</sup> A designed landscape is a landscape that was consciously designed or laid out by a landscape architect, master gardener, architect or horticulturist according to design principles or an amateur gardener working in a recognised style or tradition.

<sup>6</sup> A vernacular landscape is a cultural landscape that evolved through use by the people whose activities or occupancy shaped that landscape. Through social or cultural attitudes of an individual, family or a community, the landscape reflects the physical, biological, and cultural character of those everyday lives (e.g. relationship between old homesteads and the pastoral landscape).

<sup>7</sup> An ethnographic landscape is a cultural landscape containing a variety of natural and cultural resources that the associated people define as heritage resources (e.g. relationship between the old drovers and ringers camps and nearby creeks).



The range of raw stone materials identified in artefact scatters is often a reflection of the availability of local stone. Though the most frequently occurring stone material in the archaeological record is silcrete, other materials commonly include, petrified wood, chert, sandstone, basalt and other fine volcanics such as rhyolite, mudstone, siltstone and ashstone, crystalline and milky quartz. Occasionally an exotic stone type will be found in an artefact scatter; these stones may provide evidence of trade with a more distant area.

### 28.6.2 Scarred Trees

Generally, the classic shape of a cultural scar on an old tree is oval and symmetrical. The ends are rounded and the base of the scar lies above the ground. They may show tool marks or other evidence of human activity. It is also likely to be one of the tree species that is suitable for bark removal, where the bark can be levered off in sufficiently large quantities to be useful for the intended purpose (e.g. container, shield, canoe, shelter, or for carrying or wrapping the deceased in burial ceremonies). It is often difficult to establish whether a scar on an old tree is of natural or of cultural origin because the tree has continued to grow after the original scarring event. This may have the effect of closing a scar or altering its shape. The traditional owners have a wealth of cultural knowledge about other reasons to account for why Aboriginal people utilised bark in the past and this requires a broadening of expectations of what a cultural scar should look like, rather than the stereotypical shape (e.g. people may have cut around three sides of the required bark shape then ripped it to the ground for use as a sleeping mat or a shelter).

An important feature of very old *Eucalyptus populnea* (poplar box) (and possibly hollow coolabah) trees was their traditional use as burial places. Traditional tree burial is still common knowledge among contemporary traditional owners. The bones of the deceased, or the entire body, were placed into holes that were either natural or cut into the tree for this specific purpose. On occasion, an entire body was sometimes placed upright in the hollow tree after being wrapped tightly.

### 28.6.3 Fireplaces/Hearths

Fireplaces/hearths were used traditionally for cooking, heating and working of materials such as resin, wood, ochre and stone. They are often buried over time, or features that were originally buried but have become visible with erosion of the ground surface.

Two general types of Aboriginal fireplaces have been noted in the course of fieldwork in the region:

- Heating and working fireplaces that are generally fairly small (<50cm diameter).
- Cooking fireplaces that were originally in holes dug in the ground. They consisted of a bed of heat stones, or other heating material, on which food was placed and then covered over to make an oven. Murray described the small cooking fire in his journal as ‘a small fire in a trench about six inches wide, four or five inches deep and fifteen inches long, a sort of oven he was heating to cook the crabs...’.

Fireplaces are often difficult to recognise as they have disintegrated over time.

### 28.6.4 Trails, Ceremonial Places and Rock Art Sites

There are a number of ceremonial places (sometimes taking the form of complex stone arrangements) and a network of traditional travelling trails throughout the country covered by the project area. The trails are discrete, sometimes overgrown or rendered almost indistinguishable by land clearing, but they are an important testimony of a range of past activities (travelling, hunting, gathering, attending ceremonies, etc.). The Jangga traditional owners know many of the traditional tracks through their country and five ceremonial grounds (‘playgrounds’) on Cerito, Conway, Bungobyne, Terang and

Whynot stations which they occasionally visit to inspect their condition. These ceremonial places tend to be located on flat stone platforms in large bare places above small watercourses. An additional ceremonial place was found during the Hancock (Alpha Coal Project) rail link field survey.

A number of rock art sites were identified in the Birriah claim area. Rock art sites may have been used for ceremonial purposes, and may be associated with or located in small rock shelters or overhangs. Other rock art sites may hold records in pictorial form (e.g. hand stencils of group members, maps of the area or routes to other places). Rock art sites are located only where there are suitable rock surfaces to hold the painted image.

One set of axe grinding grooves has been recorded in the Birriah area in the Mt Carlton area. Axe grinding grooves are extremely rare in the region. As such, both rock art sites and grinding grooves are of extremely high cultural and archaeological significance.

### **28.6.5 Organic Material and Native Wells**

Although ethno-historic records make note of wooden and fibre artefacts, stone tools, marked trees, native wells, possum skin cloaks etc., it is unlikely that organic materials (fibre, wood, skin, fur and feathers) would survive after prolonged exposure in open situations. They would survive only in protected environments such as sandstone and limestone caves and deep rock shelters or buried in floor deposits in such places.

Untended native wells in river and creek beds are unlikely to have survived the impact of floods and erosion. If they are natural holes and depressions in rock they do survive, on rare occasions still with their stone covers intact.

### **28.6.6 Natural Features**

Together with the material culture there are several aspects of the natural environment which are also protected under the provisions of the ACH Act. For both the Birriah People and the Jangga People many trees are important for both secular and spiritual reasons. The bark of poplar box, coolabah and other trees was removed for dishes, canoes, sleeping mats, possum and honey holes etc. There are also groves of hollow poplar box trees which are effectively cemeteries as the remains of Jangga ancestors were traditionally placed through holes in the hollow trunks. Many of these trees have been destroyed by clearing but some remain in the old forests and the locations of some of these are known to Birriah and Jangga Elders.

Ochre sources are particularly important to Aboriginal people. Many rocky hill slopes contain large outcrops of ochre. In particular, a large outcrop of bright yellow ochre was found eroding and powdering out of the side of a mesa within the project area. Red/brown and purple ochre outcrops have also been recorded.

Other natural features in the landscape may have a high degree of significance as story places. These types of features may include small hills, cliff lines, or particular outcrops of soil or stone. Some senior Birriah and Jangga people have some knowledge of these places but they may not wish to share the details. They will, however, assert that particular places are highly significant and may be off limits to development subject to the conditions of the CHMPs. These places may not have any associated archaeological material or sites. The place may have been so important that people went there only at very specific times for specific purposes.

### **28.6.7 Predictive Modelling of Cultural Heritage Site Type**

It is possible to develop a predictive model landscape types with potential cultural heritage sites, places, and/or objects together with potential archaeological or cultural significance. However, it is important

to note that this information is not prescriptive or definitive. It cannot be used as a reason to avoid complying with the Duty of Care under the ACH Act.

**Table 28-4** indicates the types of landscape features around which there may be a higher likelihood of identifying potential heritage values. When working in and around these types of features, there is a higher potential for discovering heritage values that have been previously unrecorded, even after site surveys have occurred.

**Table 28-4 Prediction of Archaeological and Cultural Heritage Potential in Different Landscape Types**

ID no.	Landscape type or feature	Potential site types	Potential archaeological significance	Potential cultural significance
1	Blade ploughed or cultivated land	Very disturbed context, may be <i>in situ</i> artefacts below plough depth	Low	Low
2	Cleared <i>Acacia</i> spp. forest (brigalow, bende, rosewood, lancewood)	Artefacts or artefact scatters (camp sites)	Low to medium, especially near gilgai or sandy clay flats (depending on number, preservation, dimensions, and site integrity)	Low to medium
3	Cleared Eucalypt forest	Artefacts or artefact scatters (grindstones may indicate seed grinding places)	Low to medium (depending on number, preservation, dimensions, and site integrity)	Low to medium
4	Uncleared brigalow	Artefacts or artefact scatters (camp sites)	Medium to high, especially near gilgai or sandy clay flats (depending on number, preservation, dimensions, and site integrity)	High
5	Uncleared Eucalypt forest	Scarred trees, burial trees, old fruit trees, old tracks, artefacts and artefact scatters (mainly near watercourses and lagoons)	Medium to high	High
6	Volcanic stone outcrops, fossil wood and silcrete cobble exposures	Extraction site for artefactual stone, artefact scatter, fireplaces, possible story places	Medium to high (depending on number, preservation, dimensions, and site integrity)	High

ID no.	Landscape type or feature	Potential site types	Potential archaeological significance	Potential cultural significance
7	Mesas and old land surfaces	Extensive complex camp sites, (artefacts, knapping floors, fireplaces, ochre deposits, other working areas), ceremonial sites, scarred trees, story places, art sites, old tracks	High	High
8	Watercourse banks and terraces, slopes, alluvial flats	Artefact scatters/old camping and working sites (artefacts, knapping floors, fireplaces, ochre deposits, other working areas), scarred trees, old tracks, fresh water shell middens	High	High
9*	Boulders, rock shelters, stone platforms on creek beds	Rock art sites, grinding grooves	Very high	Very high

\* – the prediction of potential site types around “Boulders, rock shelters, stone platforms on creek beds” was included only in the assessment of heritage values within the Birriah People claim area. However, it is likely that the same predictive model can apply for sites within the Jangga People determination area.

The significance of known and potential Aboriginal artefacts, items, places of conservation or cultural heritage values (as identified above) cannot be established at a local, regional or national level as significance depends on the heritage value recognised by the relevant Aboriginal party.

## 28.7 Impacts to Heritage Values

Project activities including groundcover clearing, excavation activities and the construction of mining and transport infrastructure will significantly modify the existing local landscape. The potential impacts to Aboriginal cultural heritage values will primarily be associated with the disturbance of the ground surface. The impacts to known and potential heritage values, without mitigation and management strategies, will include the destruction of these heritage values. Mitigation measures and management strategies are discussed in **Section 28.9**.

### 28.7.1 Impacts to Known and Potential Cultural Heritage Values

There were approximately 100 known sites with Aboriginal cultural heritage values within the project area identified either on the DATSIMA register or in previous studies. Of these sites, approximately 40 fall within the project footprint, and these will be managed in accordance with the relevant CHMP. However, these recorded sites only represent sites identified in areas where cultural heritage surveys have been undertaken to date and there are likely to be other heritage values within the project area.

The project is expected to have an impact on Aboriginal cultural heritage values within the project area due to the direct impact of ground disturbance. However, this impact will be managed in accordance with the approved CHMPs, resulting in minor to moderate impacts. Additionally, the project will impact the cultural landscape through the creation of waste rock dumps and final voids. This impact on the

cultural landscape will be partially mitigated by the staged and final rehabilitation, resulting in minor to moderate impacts.

### 28.7.2 Cumulative Impacts

It is expected that the Aboriginal cultural heritage landscape of the region will be affected by the cumulative impact of the large number of projects as described in **Chapter 34** of this EIS. Impacts to Aboriginal cultural heritage will be considered as part of assessment and management processes specific to each project's CHMP, and will also be considered as part of inspection and assessment processes conducted at each project site where ground disturbance is contemplated.

## 28.8 Heritage Protection Objectives

The primary protection objectives for the identified and potential heritage values within the project area are:

- to protect identified and potential heritage values within the project area from adverse impacts caused by project activities
- to ensure full compliance with the requirements of the ACH Act.

In order to measure the extent to which these objectives are met, the following performance indicators will be applied:

- compliance with the ACH Act is achieved throughout all three phases of the project (construction, operation and decommissioning)
- avoid disturbance of known cultural heritage values caused by project activities, or, where this is not possible, manage disturbances in accordance with the relevant CHMP
- procedures for identifying and managing identified and potential heritage values are implemented successfully.

## 28.9 Management Strategies

The CHMPs executed between the proponent and both the Birriah People and the Jangga People provide a protocol for conducting inspections and for management by way of recommended management strategies agreed on by all parties.

A management strategy has been developed in the CHMP that provides an inspection regime and discovery process that complies with the ACH Act and the legislation described in **Section 28.2** above.

In accordance with section 3.11.2 of the project's Terms of Reference, both CHMPs allow for:

- ongoing communication and involvement with both aboriginal parties over their respective areas
- a process for including Aboriginal people, associated with the development areas, in protecting and managing Aboriginal cultural heritage
- processes for mitigating, managing and protecting identified cultural heritage sites and objects in the project areas, including associated infrastructure developments, during both the construction and operational phases of the project
- provisions for managing the accidental discovery of cultural material, including burials
- a clear recording process to assist initial management and recording of accidental discoveries
- a cultural heritage induction for project staff



- developing a cultural heritage awareness program to be incorporated into the contractor/employee manual and induction manual that is in the form of a plain language, short document that is easy for contractors and staff ‘on the ground’ to understand
- a conflict resolution process.

### 28.9.1 Monitoring and Auditing

Augmenting the process and procedures established in the CHMPs, audits of the management of any discoveries of cultural heritage significance will be conducted by the proponent after any discovery and at regular intervals during the development and implementation of a management plan to assess whether:

- the discovery was reported and managed in accordance with the ACH Act
- records of all relevant correspondence and forms were maintained
- the discovery was protected during the preparation of a management plan
- all management options were considered in consultation with relevant stakeholders, including DATSIMA and an appropriate management plan developed
- procedures implemented under the relevant CHMP sufficiently managed the item, place or area to prevent negatively impacting cultural heritage values
- the item, place or area has not been negatively impacted by project activities.

Indicators to demonstrate the successful management of cultural heritage values may include but are not limited to:

- the item, place or area receiving no significant damage due to project activities or management activities
- the item, place or area being successfully relocated (where applicable) to a temporary or permanent location
- the item, place or area being successfully rehabilitated (where applicable) to levels established in the management plan
- the item, place or area being successfully excluded from development activities (where applicable) and has not been negatively impacted by project activities.

## 28.10 Conclusion

The Birriah People and the Jangga People are the relevant Aboriginal parties within the project area. Cultural Heritage Management Plans were developed between the proponent and each Aboriginal party to provide a process by which known heritage values and other potential heritage values within the project area can be managed. Both CHMPs have been approved by DATSIMA and lodged with DATSIMA’s Cultural Heritage Coordination Unit.

Aboriginal cultural heritage values were identified through a desktop review and separate field surveys conducted with the Birriah People and the Jangga People. Approximately 100 known heritage values were identified within the project area, of which approximately 40 are within the project footprint. It is likely that other Aboriginal cultural heritage values exist within the project area and project footprint and these will be managed in accordance with the CHMPs, resulting in minor to moderate impacts.