

## 24. NON-INDIGENOUS CULTURAL HERITAGE

This chapter provides a description of the non-Indigenous cultural heritage values within the project development area and an assessment of the potential for these values to be affected by direct and indirect impacts associated with the construction, operation and decommissioning phases of the project. Proposed measures to mitigate and manage adverse impacts, as well as cultural heritage protection objectives are also presented.

‘Cultural heritage’ is a term commonly used to describe artefacts or intangible attributes (values, ideas, technologies) inherited from past generations.

Heritage Consulting Australia Pty Ltd conducted an assessment of non-Indigenous cultural heritage for the project, which is provided in Appendix R, Non-Indigenous Heritage Impact Assessment. The findings of this study are summarised in this section.

### 24.1 Legislative Context

The following legislation and charter are relevant to identifying values of, and mitigating and managing impacts to, non-Indigenous cultural heritage during construction, operation and decommissioning of the project.

***Environment Protection and Biodiversity Conservation Act 1999 (Cwlth) (EPBC Act)***. This act protects natural, historic and Indigenous places on the World Heritage List, Commonwealth Heritage List and National Heritage List.

***Australian Heritage Council Act 2003 (Cwlth)***. This act appoints the Australian Heritage Council as the principle advisory body to the Australian Government on heritage matters, particularly those listed under the EPBC Act. The Australian Heritage Council nominates places for inclusion on the National Heritage List and Commonwealth Heritage List, and maintains the Register for the National Estate.

***Queensland Heritage Act 1992 (Qld)***. This act principally provides protection for significant non-Indigenous cultural heritage sites. The Queensland Heritage Council, assisted by resources within the Department of Environment and Resource Management (DERM), is responsible for non-Indigenous cultural heritage protection under this act. The Queensland Heritage Register, established under this act is a record of state heritage places and protected areas. Development or disturbance of a place listed on this register can only proceed with approval of the chief executive. If artefacts are found during development activities, the chief executive must also be advised.

***National Trust Act 1963 (Qld)***. This act establishes the Queensland National Trust to protect non-Indigenous cultural heritage in Queensland. Listing on the Register of the Queensland National Trust represents a major indication of a community’s feeling about the value of buildings, precincts, places of natural environment and culturally significant artefacts. The aim of the trust is to promote the preservation, maintenance, access and enjoyment of places of non-Indigenous cultural heritage. However, listing on the Register of the Queensland National Trust provides no legal protection for places or buildings or obligations on owners to conserve these properties.

***Sustainable Planning Act 2009 (Qld)***. This act provides provisions for local government to develop an approved list of locally significant sites for protection. The sites form part of the heritage overlays, which are used during the approval process under the act. The regional

councils within the project development area (Western Downs, Toowoomba and Goondiwindi) have not yet fully developed lists or processes for accessing non-Indigenous cultural heritage information.

**The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance 1999** (Australia ICOMOS, 2000). Developed by the Australia International Council on Monuments and Sites (ICOMOS), the Burra Charter provides guidance on applicable criteria for assessment of the significance of cultural heritage areas, objects and values in terms of cultural and social, scientific, historical, educational, economic and aesthetic significance. The principles enshrined within the Burra Charter are generally accepted world-wide. The charter is endorsed by UNESCO for this purpose and is applied by cultural heritage practitioners and government agencies at both state and Commonwealth level.

**Queensland Heritage Strategy: a ten-year plan, 2009** (DERM & QHC, 2009). This is a framework for managing Queensland's heritage over the next 10 years, which allows for growth and development of the state while conserving its valuable heritage places. This strategy encompasses the acts that govern cultural heritage in Queensland and is written to reflect the Burra Charter approach for site identification and management.

## **24.2 Assessment Methods**

The non-Indigenous cultural heritage assessment comprised of a desktop study, consultation and a field survey. This baseline study method and impact assessment method is summarised below.

### **24.2.1 Desktop Study**

The desktop study involved a literature review and investigation of international, national and state heritage registers, including the following:

- Protected Matters Search Tool (EPBC Act database), including a 5-km additional search buffer. This search included the Register of the National Estate (Commonwealth government).
- Australian Heritage Places Inventory, including places listed on the National Heritage List and World Heritage List (Commonwealth government).
- The Queensland Heritage Register (Queensland government).
- Relevant planning scheme heritage overlays (local government).
- National Trust of Queensland Register (non-government).
- Local historical societies and archives, e.g., local historians, museum resources, libraries, family history societies and interested residents via consultation.
- Public information, accessed via community forums and public feedback as a result of direct mail-outs to landowners.

From this information, identified sites were mapped and recorded in a geographical information system (GIS) database. An assessment of how the identified sites are distributed across the project development area was then conducted to identify patterns of non-Indigenous site distribution.

### 24.2.2 Field Survey

Field surveys were conducted over the period from October through to December 2009 (focusing on the northern project development area), and again from January to March 2010 (centred in the southern part of the project development area). Surveys targeted areas and regions with a strong likelihood of comprising heritage sites, guided by the results of the desktop study and consultation. Each site identified was recorded with a global positioning system (GPS) and photographed.

The 2009 survey concentrated on the districts of Wandoan to Miles, Chinchilla and Warra to Dalby and Cecil Plains. The 2010 survey focused on the southern part of the project development area encompassing Dalby through to Tipton, Millmerran, Western Downs, Captains Mountain and Goondiwindi.

The field survey also involved a visit to three key private properties, which are important for their connection with the earliest period of settlement in the project development area (at Cecil Plains, Western Downs and the outstation of the original Jimbour Station at Darrington). The Juandah Historical Society also facilitated a private tour of the remains of Juandah Station (Wandoan).

### 24.2.3 Cultural Heritage Significance Assessment

The Burra Charter provides the framework for the evaluation of significance of heritage places. The Charter defines cultural significance as the 'aesthetic, historic, scientific or social value for past, present or future generations (Australia ICOMOS, 2000).' These values are integral in assessing the eligibility criteria of historic places for inclusion in state and national heritage registers.

The eligibility criteria and associated attributes are defined in the Queensland Heritage Act and include:

- **Evolution or Pattern of Queensland History.** Assessed in terms of their historical or scientific values (sites where the setting remains largely unaltered and intact display high levels of significance).
- **Rare, Uncommon or Endangered Aspects of Queensland's Cultural Heritage.** Sites and/or places that document customs, functions, processes, activities, life ways and designs that are no longer common or were never recognised.
- **Understanding of Queensland History.** Places that provide information on aspects of Queensland history that have not previously been investigated, need further investigation or can be used to provide further understanding of existing sites and places.
- **Demonstrating Characteristics of a Particular Class of Cultural Places.** Places with architectural or historical significance, which are important in documenting Queensland history.
- **Aesthetic Significance.** Places listed under this heritage criterion include those that are widely acknowledged for their elegance, beauty, visual merit or interest.
- **Degree of Creative or Technical Achievement at a Particular Period.** Sites and places that are recognised as having artistic, technological or architectural values.
- **Associations with a Particular Community or Cultural Group for Social, Cultural or Spiritual Reasons.** This criterion addresses the social significance of heritage places associated with their importance as a landmark, meeting or gathering place, connection with

events that have an influence on a particular community or ethnic group, importance in connection with ceremonial or ritual activities or through their place in meeting a community need.

- **Association with a Person, Group or Organisation Important in Queensland History.**  
These are places with historical significance that is demonstrated by connections to people, groups or organisations, which have contributed to the evolution or development of Queensland's physical environment or society.

Indicators are used to measure the degree to which each of these eligibility criteria are met and help to determine whether a site should be listed as having local, state or national significance.

In a rural setting such as the project development area, integrity and representativeness are the most relevant indicators of significance. Integrity refers to how a site or place has responded to disturbance and representativeness refers to how unique a site is in the local setting. Sites with integrity and representativeness can provide substantial heritage value.

#### **24.2.4 Impact Assessment**

Qualitative risk assessment was used to assess the likelihood of harm to cultural heritage sites from construction, operation and decommissioning activities, and the consequence of those impacts on the these values.

The assessment included in this chapter has been aligned to the generic risk matrix presented in Chapter 7, Impact Assessment Method. This assessment was carried out for plausible incident scenarios that could occur during all phases of the project.

### **24.3 Existing Environment and Cultural Values**

This section provides a description of non-Indigenous cultural heritage within the project development area. The existing environment and associated values are informed by the desktop study, consultation and field surveys.

The region in which the project development area is located has experienced non-Indigenous visitation dating from the mid nineteenth century with the arrival of the earliest explorers, soon followed by squatters venturing out of the settled districts. The landscape exhibits traces of a diverse range of settlement and historical land use activities ranging from altered vegetation communities to buildings and scattered archaeological sites.

Many of the known heritage sites within the project development area are associated with early settlement and include early pastoral stations, towns, railway camps, schools and churches. Additional sites are associated with transport routes, such as railways, and their associated camps. Pastoralism left its mark in the development area with fences, scattered pastoral stations and varied collections of farm machinery.

#### **24.3.1 International, National and State-Listed Sites**

No sites of national significance were identified; however, the Boonaraga Cactoblastis Memorial Hall (Plate 24.1) is said to have national listing qualities and the Dalby War Memorial and Memorial Park (Plate 24.2) was formerly recorded on the Register of National Estate (until being transferred to the Queensland Heritage Register). These sites are located in towns within the project development area (Dalby and Chinchilla, respectively). No sites of world heritage significance were identified as part of the assessment.





**Plate 24.1**  
Boonaraga cactoblastis memorial hall



**Plate 24.2**  
Dalby war memorial and memorial park

Nine sites with state heritage value have been recorded within the project development area. Of these, three are also registered with the National Trust of Queensland. There are seven sites within the project development area that are registered with the National Trust of Queensland. A summary of the database search results are presented in Table 24.1.

**Table 24.1 Summary of the results of non-Indigenous cultural heritage database searches**

Database, List or Register Name	Administering Body	Non-Indigenous Places Identified Within Project Development Area
World Heritage List	DSEWPC, Commonwealth	0
National Heritage List	DSEWPC, Commonwealth	0
Register of the National Estate	DSEWPC, Commonwealth	0
Queensland Heritage Register	DERM, Qld	9
National Trust of Queensland Register	Non-government	7

The distribution of sites listed on the Queensland Heritage Register is shown in Figure 24.1 and details of these sites (including any registers that they are listed with) are shown in Table 24.2. Only one site is located outside the project's town exclusion areas (Wyaga Homestead).

**Table 24.2 State listed heritage sites within the project development area**

Heritage Site	Description	Register
Dalby War Memorial and Memorial Park	A memorial to commemorate the contribution made by local residents to World War I. The soldier statue on the memorial is one of only two in Queensland that are cast in bronze.	<ul style="list-style-type: none"> <li>Queensland Heritage Register</li> <li>National Trust of Queensland</li> </ul>
Boonaraga Cactoblastis Memorial Hall	A hall built to commemorate the role of the Cactoblastis moth in controlling the prickly pear cactus during the 1920s and 1930s.	<ul style="list-style-type: none"> <li>Queensland Heritage Register</li> <li>National Trust of Queensland</li> </ul>
Dalby swimming pool complex	The earliest Olympic-sized pool in Queensland outside Brisbane. Built in 1936.	<ul style="list-style-type: none"> <li>Queensland Heritage Register</li> </ul>
Dalby town council chambers and offices (former)	The third council chambers to be built in the town. Built in 1936.	<ul style="list-style-type: none"> <li>Queensland Heritage Register</li> </ul>
St John's Anglican Church	A brick church built in 1922 to 1923.	<ul style="list-style-type: none"> <li>Queensland Heritage Register</li> </ul>
Chinchilla War Memorial and digger statue	A memorial to commemorate the contribution made by local residents to World War I. Unveiled in 1919.	<ul style="list-style-type: none"> <li>Queensland Heritage Register</li> </ul>
Dalby Fire Station	The central portion of the Dalby Fire Station dates from 1935 and includes extensions built in 1963 and 1957. It is the oldest and longest operating fire station in regional Queensland.	<ul style="list-style-type: none"> <li>Queensland Heritage Register</li> </ul>

**Table 24.2 State listed heritage sites within the project development area (cont'd)**

Heritage Site	Description	Register
St Columba's Convent (former)	The convent is a substantial brick-and-timber building erected in 1913 from donations made by parishioners. The convent was designed by local architect George Bernard Roskell. It illustrates the spread of the Catholic Church in regional Queensland, and the contribution made by the Sisters of Mercy in its establishment of convents, schools and boarding accommodation. The order occupied St Columba's until 1990.	<ul style="list-style-type: none"> <li>• Queensland Heritage Register</li> </ul>
Wyaga homestead	One of the oldest cattle runs in the district. Built around 1862.	<ul style="list-style-type: none"> <li>• Queensland Heritage Register</li> <li>• National Trust of Queensland</li> </ul>

### 24.3.2 Regionally Known Sites

An additional 93 regional sites have been identified through fieldwork and consultation (60 sites) and review of heritage reports (33 sites). Western Downs Regional Councillor and Chinchilla resident Bill McCutcheon also collected information from the local community and provided the results of 49 sites, marked on a series of maps.

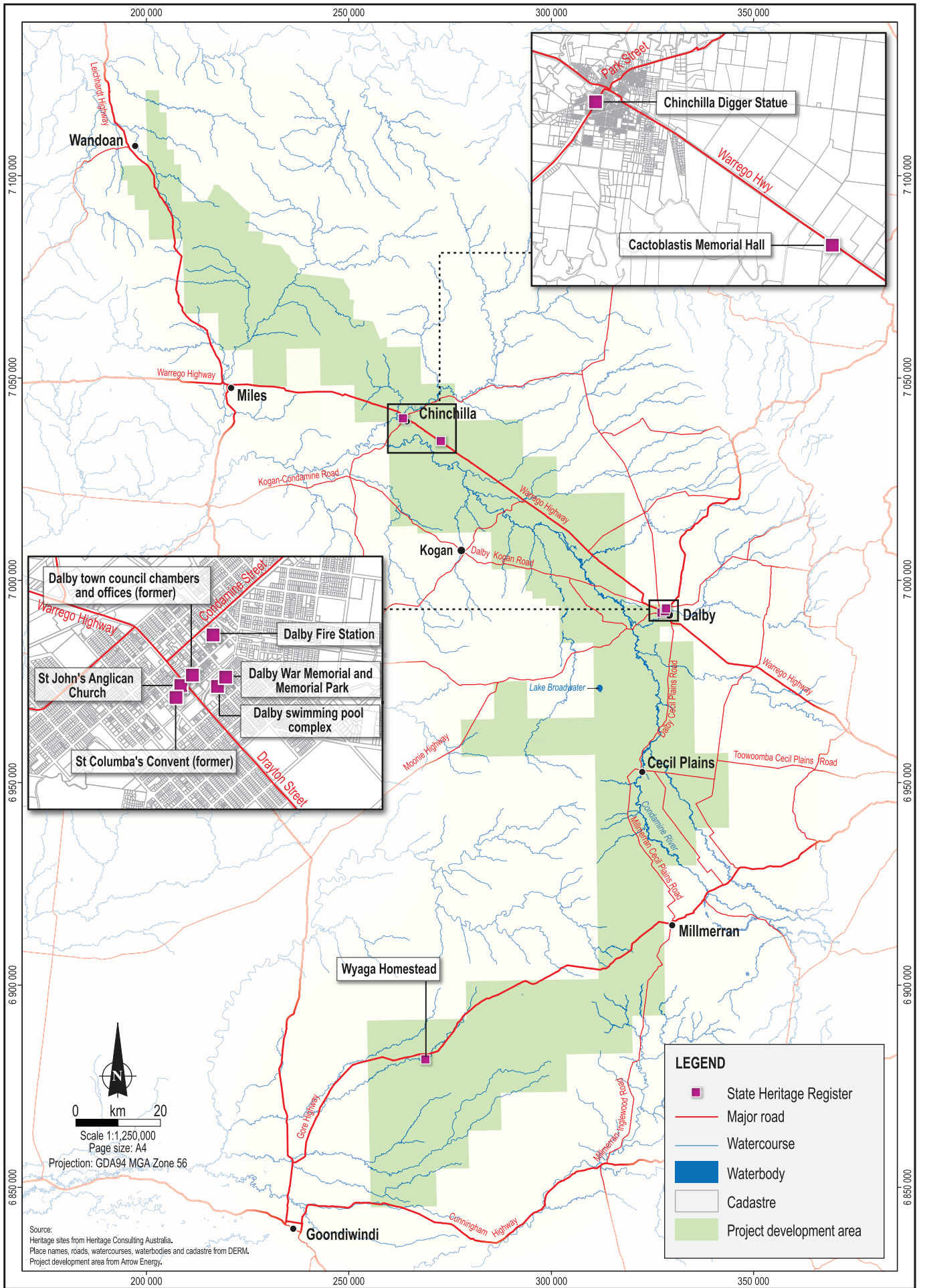
These sites are not currently listed on any registers but hold historical interest to the local community. Some of the sites identified possess attributes that are of state significance and would warrant their inclusion on the Queensland Heritage Register. The 142 regionally known sites are categorised in Table 24.3, as part of five main groups.

**Table 24.3 Heritage sites previously identified within the project development area and surrounds**

Heritage Site Type	Description	Number of Sites
Infrastructure (settlements and homesteads)	Campsites, monuments, homesteads, scarred trees, settler's huts and recreation grounds	50
Infrastructure (industry and places of worship)	General industry, railways, prickly-pear infrastructure, aquaculture, cheese and butter factories, hotels, churches, quarries and mines	50
Schools and former school sites	Schools and former school sites	26
Cemeteries	Cemeteries and isolated graves	9
War-related sites and memorials	War memorials and locations of deaths	7
<b>Total</b>		<b>142</b>

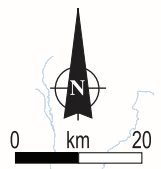
The heritage sites with high and moderate value that were documented during the desktop study, consultation and field surveys, and for which the location is known and is not subject to confidentiality, are provided in Figure 24.2.



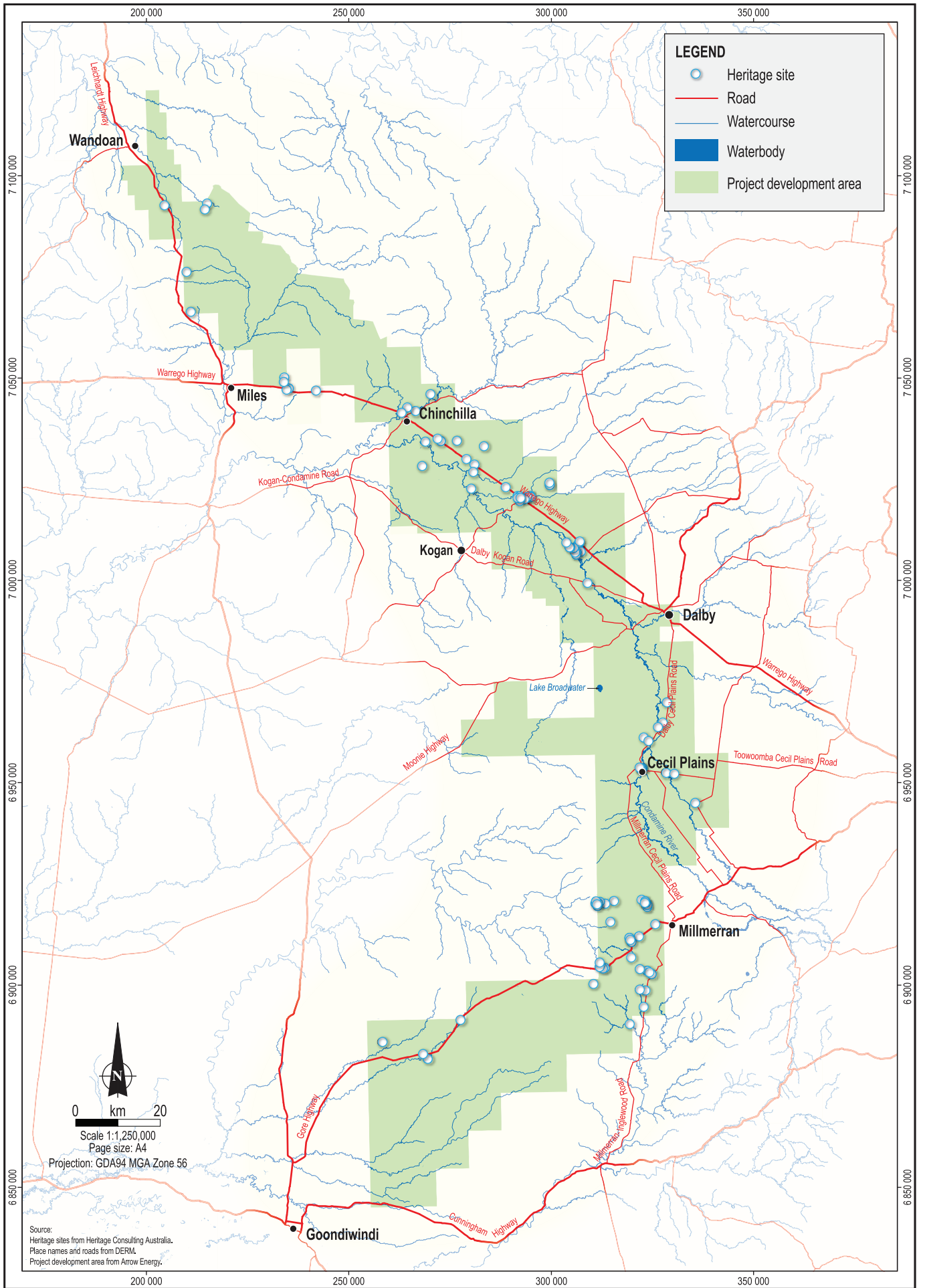


**LEGEND**

- State Heritage Register
- Major road
- Watercourse
- Waterbody
- Cadastre
- Project development area



Source:  
Heritage sites from Heritage Consulting Australia.  
Place names, roads, watercourses, waterbodies and cadastral from DERM.  
Project development area from Arrow Energy.



### 24.3.3 Unknown Potential Sites

Evidence of heritage places and historical themes has been used to identify zones within the project development area with a high potential to contain further historic sites and places. Following site modelling, targeted field investigations were undertaken in these sensitive zones leading to the recording and documentation of additional historical places and sites.

Zones with moderate to high potential for potential sites are often associated with major transport routes (particularly the railway lines), along stock routes and old stagecoach routes, as well as river corridors and vermin fences. Areas on disturbed land used for agricultural activities have a very low likelihood of containing intact non-Indigenous cultural heritage sites or artefacts. Non-Indigenous cultural heritage sites that are as yet to be discovered within the project development area are likely to include artefact sites from grazing and agricultural industries of local heritage value.

## 24.4 Issues and Potential Impacts

Project development will potentially impact upon non-Indigenous cultural heritage sites through direct ground disturbance activities and indirect disturbance through encroachment on sites during construction, operations and decommissioning.

### 24.4.1 Known Non-Indigenous Sites

Of the highly significant state-listed sites identified within the project development area, all but one (Wyaga Homestead) are located within towns and are therefore excluded from potential impacts associated with project activities. Potential impacts to heritage values could result from damage or disturbance to sites or artefacts, or through encroachment upon places of non-Indigenous cultural heritage. Accidental disturbance may occur if construction crews are not aware of a site's or artefact's location. Disturbance to or encroachment upon sites of state and local significance without the implementation of avoidance, mitigation and known management measures is therefore **possible** (it could happen). For those listed as being of state significance, the consequence of this disturbance would be **major**. The significance of the impact to these state significant heritage sites prior to mitigation would be **high**. For sites of local significance, the consequence of disturbance to the cultural values would be **serious**. The overall significance of the potential impact to these locally significant cultural heritage sites prior to mitigation would then be **medium**.

### 24.4.2 Unknown Non-Indigenous Sites

Potential impacts to non-Indigenous sites could occur through chance-find discoveries of previously unknown sites that are uncovered during construction activities.

Prior to implementing mitigation measures, it is **possible** that the proposed construction activities would result in disturbance to unknown sites of high or moderate significance (either on the surface or beneath the surface). Potential impacts are likely to be long term, with disturbance or degradation to sites being difficult to restore or return to the original condition. For those listed as displaying national and state significance, the consequence of this to the cultural values would be **major**. Subsequently, the overall potential impact to the cultural heritage sites prior to mitigation is **high**. For those listed as having local significance, the consequence of a disturbance to the cultural values would be **serious** with the overall significance of the potential impact to non-Indigenous cultural heritage sites prior to mitigation being **medium**.



## 24.5 Cultural Heritage Protection Objectives

The cultural protection objective for non-Indigenous cultural heritage is to avoid or minimise disturbance from project related activities to non-Indigenous cultural heritage sites and artefacts.

## 24.6 Avoidance, Mitigation and Management Measures

Avoidance, mitigation and management measures will reduce the potential for adverse impacts on non-Indigenous cultural heritage sites (both known and unknown). The following measures will be implemented:

- Avoid known cultural heritage sites, where practicable, through site selection. [C403]
- Develop a 'chance finds' procedure for the discovery of unknown sites during construction as part of the cultural heritage management plan. This should include a stop work requirement on initial discovery, appropriate reporting and recording, and such management measures as avoidance, salvage or destruction. [C404]
- Develop a cultural heritage management plan in consultation with the Queensland Heritage Office prior to commencement of ground disturbance works that will mitigate and manage potential impacts on non-Indigenous cultural heritage sites. [C405]
- Conduct preconstruction clearance surveys of sites to identify the presence of heritage sites. [C406]
- Develop site-specific cultural heritage management plans in consultation with the Queensland Heritage Office should construction be planned within 100 m of listed heritage sites. [C407]
- Consult with the local community regarding the management of threatened historic sites and places. [C408]
- Incorporate cultural heritage awareness into site induction procedures, including information on heritage values of the region, legal obligations and implementation of the 'chance finds' procedure. [C409]
- Record and report unknown sites identified during construction as chance finds. The cultural heritage management plan will include all measures for managing the discovery of chance finds. [C410]
- Take particular care when working in areas where significant heritage places are located within 500 m of proposed wells, pipelines or other infrastructure. [C415]
- Notify the Queensland Heritage Office if any cultural heritage sites or items of significance are uncovered during construction. [C412]
- Undertake archaeological assessment by a qualified heritage practitioner if cultural heritage sites or artefacts are uncovered during construction. [C413]
- Maintain a database of all sites where non-Indigenous cultural heritage is known or found during the course of investigations and works. [C414]

## 24.7 Residual Impacts

The avoidance, mitigation and management measures outlined above will avoid adverse impacts to, or reduce the severity of, impacts on non-indigenous cultural heritage values. The residual impacts associated with project activities are described below.

### 24.7.1 Known Non-Indigenous Sites

Where location details are available, these will be stored for planning purposes in Arrow's GIS database. Known non-Indigenous sites will be avoided, where practicable, through the application of site-selection procedures. Where development occurs in the vicinity of known cultural heritage sites, mitigation measures, such as flagging of agreed buffer zones around sites, will be implemented to ensure that accidental destruction, damage or disturbance of sites or artefacts does not occur. Similarly, agreement of the buffer zones around sites of known non-Indigenous cultural value will ensure that encroachment upon these places will be avoided. Where it is not physically possible to avoid sites or artefacts of cultural heritage, it is intended that any disturbance that is necessary will be conducted in accordance with the relevant legislation. Given the application of mitigation measures, it is **unlikely** that project activities will adversely affect the value of the state listed sites. If sites are disturbed or destroyed (in an uncontrolled manner), the consequence would be **serious**. This produces a **medium** residual impact. For those sites of local significance, it is **unlikely** that the project activities will adversely affect the value of the sites through the application of the proposed mitigation and management measures. If sites are disturbed or destroyed (in an uncontrolled manner), the consequence would be **minor**. This produces a **low** residual impact.

### 24.7.2 Unknown Non-Indigenous Sites

Due to the levels of disturbance within the project development area, with agricultural practices having cleared a large portion of the land, it is unlikely that sites of national or state significance will be uncovered.

As initial cultural heritage assessments will only be undertaken on the surface, there is potential for project activities to impact upon artefacts buried beneath the surface. However, due to the extensive land clearing and agricultural enterprises within the project development area, these finds are expected to be **unlikely**. The extent of impact will depend on whether the cultural heritage site is identified before coming into contact with machinery. In the event that this does occur, Arrow's actions will be in accordance with the cultural heritage arrangements under the relevant legislation. Based on compliance with these arrangements, the consequence of discovering a site or artefact of national or state significance and implementing the chance finds strategy to manage the find the consequence of the impact would be **serious** due to a reduction in the value of the artefact, resulting in the overall residual impact being **medium**.

For those sites of local significance, it is **unlikely** that the project activities will adversely affect the value of the sites through the application of the proposed mitigation and management measures. If sites are disturbed or destroyed (in an uncontrolled manner), the consequence would be **minor**. This produces a **low** residual impact.

Table 24.4 summarises the potential impacts prior to mitigation, along with proposed mitigation and management measures and the subsequent residual impacts, assuming the implementation of the proposed mitigation and measurement measures.

**Table 24.4 Summary of non-Indigenous cultural heritage impact assessment**

Cause of Potential Impacts	Existing Environment	Premitigated Impact			Summary of Mitigation Measures	Residual Impact		
		Likelihood	Consequence	Risk of Impact		Likelihood	Consequence	Risk of Impact
<b><i>Accidental Disturbance of Known non-Indigenous Cultural Heritage Artefacts and Sites</i></b>								
<b>Construction:</b> <ul style="list-style-type: none"> <li>Clearing and earthworks for development of project facilities cause accidental destruction, damage or disturbance of objects or sites of cultural heritage.</li> <li>Project infrastructure and facilities are located so that they encroach upon or disturb places of cultural significance.</li> </ul> <b>Operations:</b> <ul style="list-style-type: none"> <li>Project workforce encroaches on locations of cultural significance during the course of routine operations and decommissioning.</li> </ul>	Artefacts and sites included in state registers and databases.	Possible	Major	High	Arrow will implement a cultural heritage management plan that will address all aspects of avoidance, mitigation and management of potential impacts to non-Indigenous cultural heritage values in the project development area.	Unlikely	Serious	Medium
	Artefacts and sites of local significance.	Possible	Serious	Medium		Unlikely	Minor	Low
<b><i>Accidental Disturbance of Unknown non-Indigenous Cultural Heritage Artefacts and Sites</i></b>								
<b>Construction:</b> <ul style="list-style-type: none"> <li>Clearing and earthworks for development of project facilities cause accidental destruction, damage or disturbance of objects or sites of cultural heritage.</li> <li>Project infrastructure and facilities are located so that they encroach upon or disturb places of cultural significance.</li> </ul>	Artefacts and sites of national or state significance (likely only to exist in areas that have not been disturbed by industrial or agricultural activity).	Possible	Major	High	Arrow will implement a 'chance finds' procedure for the discovery of unknown sites during construction as part of the cultural heritage management plan.	Unlikely	Serious	Medium

Environmental Impact Statement  
Surat Gas Project

**Table 24.4 Summary of non-Indigenous cultural heritage impact assessment (cont'd)**

Cause of Potential Impacts	Existing Environment	Premitigated Impact			Summary of Mitigation Measures	Residual Impact		
		Likelihood	Consequence	Risk of Impact		Likelihood	Consequence	Risk of Impact
<b><i>Accidental Disturbance of Unknown non-Indigenous Cultural Heritage Artefacts and Sites (cont'd)</i></b>								
	Locally significant artefacts and sites.	Possible	Serious	Medium	This will include a stop work requirement on initial discovery, appropriate reporting and recording, and management measures such as avoidance, salvage or destruction.	Unlikely	Minor	Low

## **24.8 Inspection and Monitoring**

Inspect known non-Indigenous sites identified as having the potential for being impacted by the project and subsequently acknowledged for avoidance, in accordance with the relevant approval and permit conditions including the cultural heritage management plan. [C325]

Environmental Impact Statement  
Surat Gas Project