

24. INDIGENOUS CULTURAL HERITAGE

This chapter describes the Indigenous cultural heritage values of the study area, the methods used to identify values, and the measures Arrow Energy will implement through project design, construction and operation to protect these values.

The Indigenous cultural heritage impact assessment was prepared by Central Queensland Cultural Heritage Management (Appendix 18, Indigenous Cultural Heritage Impact Assessment).

The objective for Indigenous cultural heritage has been developed based on the relevant legislative context; in this case, complying with the Aboriginal cultural heritage duty of care. The objective is set out in Box 24.1.

Box 24.1 Objective: Indigenous cultural heritage

- To comply with the Aboriginal cultural heritage duty of care through the development and implementation of an approved cultural heritage management plan or Indigenous land use agreement that addresses cultural heritage for the project in consultation with the endorsed Aboriginal parties or native title parties for the project area.

For impacts relating to non-Indigenous cultural heritage see Chapter 25, Non-Indigenous Cultural Heritage.

24.1 Legislative Context and Standards

The following legislation and guidelines are relevant to managing impacts on Indigenous cultural heritage through all project phases:

- *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act). This Commonwealth Government act protects natural, historic and Indigenous places on the World Heritage List, Commonwealth Heritage List and National Heritage List. Any action with the potential to significantly impact cultural heritage on these lists must be referred to the Commonwealth Minister for Sustainability, Environment, Water, Population and Communities and may require approval under this act. The project is a controlled action under the EPBC Act; however, the controlling provisions are not cultural heritage related.
- *Australian Heritage Council Act 2003* (Cwlth). The act appoints the Australian Heritage Council as the principal advisory body to the Commonwealth 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 keeps the Register of the National Estate. A number of places on these lists hold both non-Indigenous and Indigenous cultural heritage values.
- *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cwlth). This act provides Indigenous people with an avenue of recourse to the Commonwealth Minister for Sustainability, Environment, Water, Population and Communities to intervene should they believe significant Indigenous cultural heritage is at risk.
- *Queensland Heritage Act 1992* (Qld). This act principally provides protection for significant non-Indigenous cultural heritage sites. However, sites deemed significant for both non-Indigenous and Indigenous values are protected under this act.

- *Aboriginal Cultural Heritage Act 2003* (Qld). This act recognises and protects significant 'Aboriginal cultural heritage' in Queensland. The act places a duty of care on any person or company whose activities may harm or threaten Aboriginal cultural heritage. The act requires an approved cultural heritage management plan (CHMP) for any project that also requires completion of an EIS process. The CHMP must address the management of Aboriginal cultural heritage present in the project area. An Indigenous land use agreement (ILUA), registered in accordance with the *Native Title Act 1993* (Cwlth) that addresses cultural heritage management, also satisfies this requirement. The act provides a structured timeframe for the development of a CHMP in consultation with the correct Aboriginal parties. In the event that a CHMP cannot be agreed, the matter may be referred to the Queensland Land Court for determination. When a CHMP is approved (or an ILUA registered), compliance with the CHMP (or ILUA) ensures compliance with the Aboriginal cultural heritage duty of care.

24.2 Assessment Method

The study area adopted by Central Queensland Cultural Heritage Management for the Indigenous cultural heritage assessment is shown on Figure 1.2. The Indigenous cultural heritage impact assessment was conducted primarily by desktop assessment. Site-specific survey results were incorporated from Indigenous cultural heritage inspections associated with the Arrow LNG Plant geotechnical investigations. In summary, the assessment included:

- A search of the World Heritage List and lists and registers regulated by the Commonwealth Government Department of Sustainability, Environment, Water, Population and Communities, including the Commonwealth Heritage List, National Heritage List and Register of the National Estate.
- A search of the Queensland Government Department of Environment and Resource Management (DERM) Indigenous Cultural Heritage Register and Database, Queensland Heritage Register and Cultural Heritage Information Management System.
- Consultation with local government authorities to determine the presence and significance of Indigenous cultural heritage areas, objects and values in the study area. This included obtaining copies of the Indigenous and non-Indigenous cultural heritage overlay codes and registers maintained under the Calliope Shire and City of Gladstone local government planning schemes (CCC, 2007b; SKM, 2006).
- A review of material held in publicly available archives, collections and publications for Indigenous cultural heritage information relevant to the study area. Most of this material was collected in the course of undertaking cultural heritage investigations for other development projects. Several research reports also contained information relevant to the study area.
- Identification of features across the study area (and broader region) where Indigenous cultural heritage has the highest potential to exist. This was informed by two rounds of cultural heritage inspections associated with onsite geotechnical investigations undertaken by the proponent:
 - Aboriginal party representatives and their technical advisors, ARCHEO Cultural Heritage Services, conducted the first round of inspections in February 2009. Thirty geotechnical test pit sites, 10 borehole locations, and associated access tracks were inspected across the LNG plant site on Curtis Island. Locations visited included hill slopes, level areas, and areas adjacent to drainage channels (ARCHEO, 2009).
 - Aboriginal Party representatives accompanied by archaeologists from Central Queensland Cultural Heritage Management conducted the second round of inspections in May 2010. A

further 82 locations (comprising 31 boreholes, 34 test pits, 15 electrical resistivity test sites, and 2 vibracore locations) and associated access tracks were inspected. The majority of these tracks were located across the LNG plant site on Curtis Island. The remaining sites were associated with the feed gas pipeline corridor and tunnel launch shaft site located on the mainland.

Arrow Energy formally invited the Aboriginal parties for the study area to prepare a constraints statement that addressed any cultural heritage issues they consider noteworthy within the study area. The Aboriginal parties include registered native title claimants, the Port Curtis Coral Coast People (application QUD 6026/01). The intent of the constraints statement is to inform the impact assessment. This invitation had not been acted upon at the point of submitting the EIS and remains open to the Aboriginal parties.

Government database searches were undertaken over a larger geographic area stretching from the northern end of Curtis Island to the town of Iveragh, southeast of the city of Gladstone (see Appendix 18, Indigenous Cultural Heritage Impact Assessment). Research reports on Indigenous cultural heritage places along the Central Queensland coast were also considered.

Indigenous cultural heritage impact assessment undertaken for the EIS is a precursor to detailed onsite investigations that will be conducted in consultation with the Aboriginal parties for the area under an appropriate agreement dealing with cultural heritage (i.e., either an approved CHMP or ILUA). While the impact assessment draws conclusions about the types of cultural heritage likely to be found in the study area, these conclusions need to be confirmed via consultation with the Aboriginal parties and further onsite survey work.

24.2.1 Assessment of Significance

Section 8 of the Aboriginal Cultural Heritage Act defines aboriginal cultural heritage as anything that is:

- (a) a significant Aboriginal area in Queensland; or
- (b) a significant Aboriginal object; or
- (c) evidence, of archaeological or historic significance, of Aboriginal occupation of an area of Queensland.

An Aboriginal area or object may be deemed significant where it forms part of either Aboriginal tradition, or the history of an Aboriginal party for the area. In Queensland, primary determination of significance lies with the Aboriginal parties for the area, consistent with their tradition.

Sites may also hold 'scientific' significance due to their ability to provide insight into past cultural activities (social, technological and ecological) or past natural and environmental conditions (i.e., past climates and vegetation patterns). Section 12 of the Aboriginal Cultural Heritage Act states 'regard may be had to authoritative anthropological, bio-geographical, historical and archaeological information' when identifying significant Aboriginal areas. Generally, the more information about the past that can be sourced from an area, the higher its scientific significance.

Two factors are relevant when considering scientific significance. Firstly, current-day methods and academic theory influence the value that sites are thought to contain. The second factor is how 'representative' a sample of Indigenous cultural heritage is thought to be, given the possible site types and frequency of cultural heritage occurrence within a particular area.

Representativeness furthermore relates to maintaining the diversity of areas and objects for future generations and the research they may wish to undertake.

The significance of an Indigenous cultural heritage place or object may also derive from its links to major historical themes or cultural patterns, its educational or economic significance (including cultural tourism), or its aesthetic significance.

24.2.2 Project Geographic Information System

Where possible, data collected as part of the cultural heritage impact assessment was placed in a project-specific geographic information system (GIS) and analysed.

As new information becomes available during the course of Arrow LNG Plant design, construction and operation, the GIS will be expanded to enable Arrow Energy to refine its understanding of the Aboriginal cultural heritage values within the study area.

24.3 Existing Environment and Social Values

Early Europeans, who visited the Gladstone region in the period 1770 to 1846, including Banks, Flinders, Oxley, MacGillivray and Barney, recorded their sightings of Indigenous people, material culture (occupation sites, bark canoes, scoop nets, shell and turtle remains) and smoke from camp fires (Ulm & Lilley, 1999). While little direct contact was recorded in this period, the subsequent arrival of settlers in the region post 1846 saw a rise in frontier violence and introduced diseases precipitated the demographic collapse of local Indigenous communities.

The Native Mounted Police were active in the region during the 1850s, and massacres of Indigenous people sparked by several murders of white settlers occurred at the “Mount Larcom” Station in 1855 and “Miriam Vale” Station in 1857. The remaining Indigenous population coalesced into fringe camps around European towns such as Gladstone and Miriam Vale. By the end of the nineteenth century, “the entire region was effectively depopulated by the removal of Aboriginal people to reserves and missions (particularly Barambah, Woorabinda and Bogimbah) under the provisions of the *Aborigines Protection and Restriction of the Sale of Opium Act 1897* (Ulm & Lilley, 1999).

A range of land use practices has substantially impacted the study area as the population of Gladstone has continued to grow. Industrial and residential development has seen the large pastoral runs, established following European settlement, subdivided into ever-smaller lots. These effects have been most keenly felt on the mainland in the east and southern portions of the study area, where intensive industrial development has occurred. Further detail about land use and occupation following European settlement is set out in Chapter 25, Non-Indigenous Cultural Heritage.

Professional archaeologists conducting studies in the Gladstone region have observed that the type and intensity of large-scale industrial and residential development has had an impact on the Aboriginal cultural heritage of the study area. Most sites recorded across the Gladstone region were identified through archaeological investigations commissioned as part of large development projects or during the course of government or university-funded studies.

The types of Aboriginal cultural heritage most likely to be present in the study area have been identified based on the results of a detailed cultural heritage assessment, comprising a detailed desktop assessment, and site-specific survey results. These include places commonly referred to as ‘archaeological sites’, containing stone artefacts, scarred trees, hearths and ovens, axe-grinding grooves, quarries, wells, shell middens, burials, rock art and stone arrangements.

Searches of Commonwealth and Queensland government cultural heritage registers and databases indicate the study area contains a number of stone artefact sites, some scarred trees and a shell midden. Further sites may be uncovered when a comprehensive examination is undertaken, with the Aboriginal parties, of the areas to be disturbed by the project.

Beyond the known and potential further sites within the study area, the following places in the Gladstone region are generally considered to contain Indigenous cultural heritage values:

- The marine 'spiritscape' within and around Port Curtis.
- The Great Barrier Reef marine area including The Narrows.
- Curtis, Balaclava and Kangaroo islands and the turtle and dugong feeding areas in the vicinity of these islands.
- Aboriginal and European contact and conflict sites, including "Mount Larcom" Station to the west of Gladstone and "Miriam Vale" Station to the southeast.
- Waterholes contained in a number of waterways.

24.3.1 Australian and Queensland Government Database and Register Searches

Table 24.1 presents the results of searches of the World Heritage List (UNESCO, 2011), National Heritage List (DSEWPC, 2011a), and the Register of the National Estate (DSEWPC, 2011e), maintained by the Commonwealth Government.

Table 24.1 Commonwealth Government list and register records

Place Name	Source *	Place ID	Listed Values	Listing Status	Identified Aboriginal Values	Within Project Area
Great Barrier Reef	WHL	105060	Natural	Declared	Yes	Yes
	NHL	105709	Natural	Listed	Yes	Yes
	RNE	8320	Natural	Registered	Yes	Yes
Garden Island Environmental Park	RNE	8820	Natural	Registered	No	No
Mount Larcom Range	RNE	14674	Natural	Indicative Place	N/A	No
Curtis Island (part)	RNE	14675	Natural	Registered	Yes	No
Balaclava Island	RNE	18811	Natural	Registered	No	No

* WHL: World Heritage List, NHL: National Heritage List, RNE: Register of the National Estate.

The World Heritage and National Heritage listings pertaining to the Great Barrier Reef acknowledge the presence, generally, of Indigenous cultural heritage values within these areas (specific details are not always available on the public record due to confidentiality and cultural sensitivities). These areas extend over the LNG plant site on Curtis Island, Port Curtis itself, and the mainland launch site 4N on reclaimed land north of Fishermans Landing. The Register of the National Estate listing extends over Port Curtis, including the reclaimed land north of Fishermans Landing.

Table 24.2 presents search results from the Indigenous Cultural Heritage Register and Database (DERM, 2011k) that are recorded within the study area. Indigenous places are concentrated in the coastal development strip to the north of Gladstone and, given the extent of industrial development in the study area, are relatively low in number. Approximate locations of sites within

the study area relative to the project area are shown in Figure 24.1. None of these sites lie within the project area.

Table 24.2 DERM Indigenous Cultural Heritage Register and Database records

Place Survey Name/ID	Place ID	Recorded	Place Type	Project Area
Stuart Oil Shale Project 3	JF: A93	Jul 1989	Scarred tree	No
Boat Creek 1	JF: C65	Feb 1999	Stone artefact/s	No
Boat Creek 2	JF: C66	Feb 1999	Stone artefact/s	No
Bashford's Sand Ridge	JF: C67	Nov 1995	Stone artefact/s	No
Coolamon scarred tree	JF: C68	Feb 1999	Scarred tree	No
QCL clinker plant	JF: D17	Sep 1995	Shell midden	No
Unnamed	JF: D72	May 2009	Stone artefact/s	No
Unnamed	JF: D73	May 2009	Stone artefact/s	No

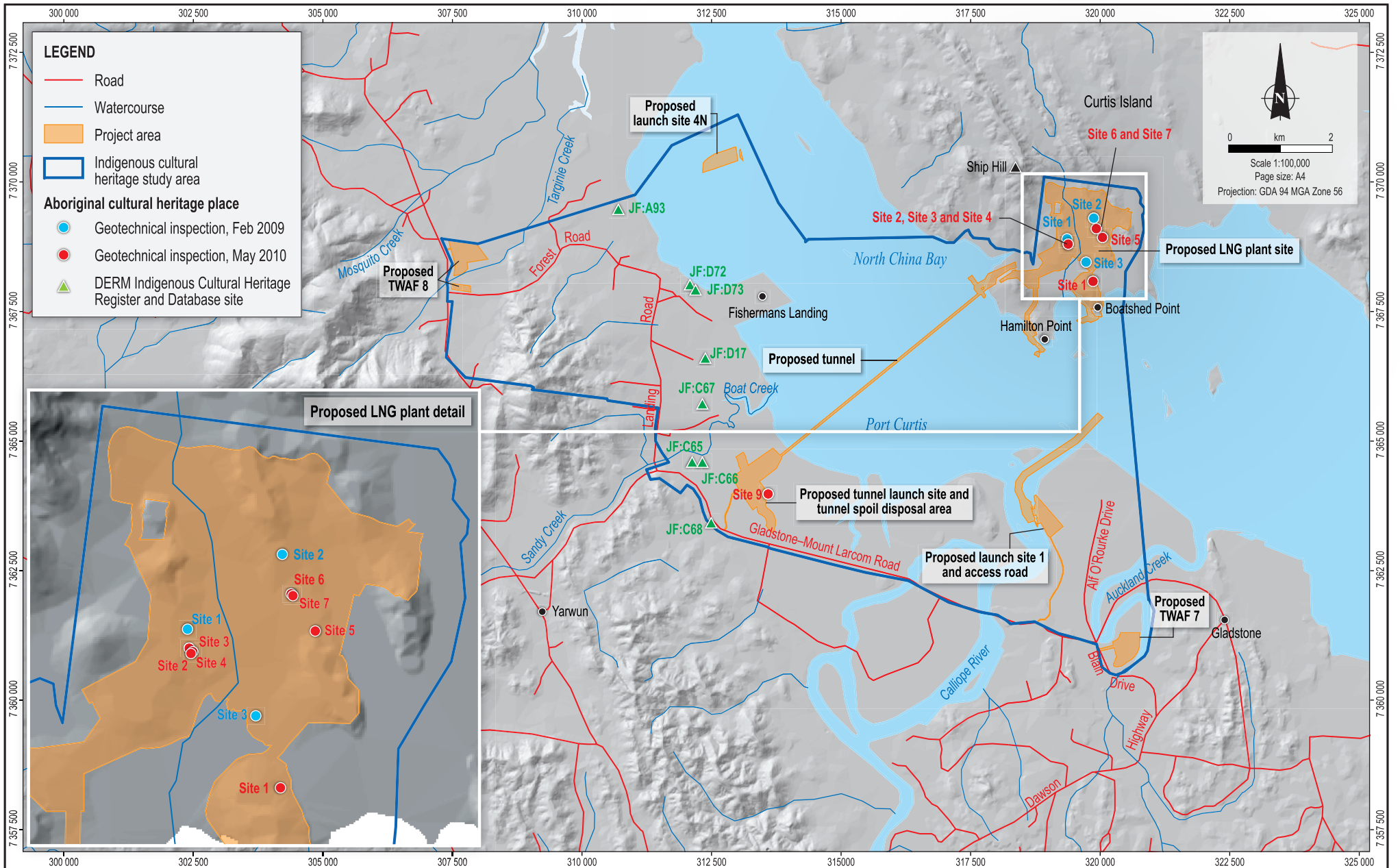
The Calliope Planning Scheme (CCC, 2007b) contains a list of 12 identified Aboriginal areas and objects. All appear to have been included within the DERM (2011k) Indigenous Cultural Heritage Register and Database and lie outside the study area. Similarly, the Gladstone City Cultural Heritage Planning Overlay (SKM, 2006) identifies a further 11 localities, none of which lie in the study area.

24.3.2 Other Investigations Relevant to the Study Area

The Curtis Coast Baseline Study, commissioned by the Queensland Department of Environment and Heritage in 1993, involved selective, systematic archaeological surveys in the Gladstone region, as part of a broader study between Agnes Water in the south and Raglan Creek in the north (QDEH, 1994). Extensive middens and artefacts were recorded on offshore islands, including Curtis, Facing, South Trees and Hummock Hill islands, together with a quarry for making stone tools at Monte Christo Creek on Curtis Island. Further middens were located to the north of Gladstone in The Narrows. While none of the sites identified lie within the study area, they nevertheless demonstrate the importance that marine resources played in the subsistence lives of Indigenous people in the Gladstone area.

The Gooreng Gooreng Cultural Heritage Project, conducted between 1993 and 1997 by researchers at the University of Queensland, investigated areas of the coast between the north of Curtis Island and the city of Bundaberg to the south (Lilley & Ulm, 1999). The major focus of the study was Cania Gorge, approximately 100 km south of the study area. Following consultation with Aboriginal party members and a review of known sites in the Gladstone vicinity (identified during previous research and EIS studies), researchers selected two stratified shell-midden sites for further investigation. This was due to their high scientific potential. The sites lie outside the study area.

Archaeological reports associated with the other development projects were also reviewed (see Appendix 18, Indigenous Cultural Heritage Impact Assessment). A number of places identified during these surveys lie outside the study area and are thought to have since been destroyed (e.g., by bushfire). Other places correlate with sites already listed on the DERM (2011k) Indigenous Cultural Heritage Register and Database. One place that is not listed but which relates to the marine 'spiritscape' of Port Curtis is an intertidal stone arrangement located during the Stuart Oil Shale EIS investigations (Wallin, 1999). The stone arrangement, which potentially represents a crocodile and measures approximately 10 m in length, is thought to lie outside the



Source:
 Aboriginal cultural heritage places from CQCHM and DERM.
 Indigenous cultural heritage study area from CQCHM.
 Place names, roads and watercourses from DME.
 Project area and digital elevation model from Coffey Environments.



Date:
 10.11.2011
 IWO:
 7033CA_07_GIS100_v1_2
 File Name:
 7033_07_F24.01_GIS_FT

Arrow Energy

Arrow LNG Plant



Recorded Aboriginal cultural heritage

Figure No:
24.1

project area. This will be confirmed during consultation with Aboriginal parties and the implementation of the appropriate cultural heritage agreement.

24.3.3 Site Surveys for Arrow LNG Plant Geotechnical Investigations

Two cultural heritage inspections were undertaken within the study area. The observations arising from each are presented in Appendix 18, Indigenous Cultural Heritage Impact Assessment, and are summarised below:

- Geotechnical Investigation – February 2009. Three cultural heritage places were identified in the southern portion of the study area in areas of level terrain. Places included a low-density artefact scatter comprising approximately 30 stone artefacts (Site 1), a single unmodified siltstone flake (Site 2), and an axe blank (Site 3) (see Figure 24.1).
- Geotechnical Investigation – May 2010. Nineteen additional Aboriginal cultural heritage sites were recorded. Eight sites in total were located within the project area (identified on Figure 24.1 as Sites 1 to 7 on Curtis Island and Site 9 on the mainland), with results generally consistent with the February 2009 fieldwork in that sites predominately comprised single or scattered stone artefacts. The remaining 11 places were identified as being outside the project area but within the study area along access tracks leading to geotechnical sampling locations. Again, single stone artefacts were the most prevalent site-type found. An extensive, low-density scatter of stone artefacts was also recorded, as was a questionable shell midden site. Geotechnical activities were able to avoid all identified places.

Appendix 18, Indigenous Cultural Heritage Impact Assessment, prepared by Central Queensland Cultural Heritage Management noted that the sites currently identified within the study area, when measured against registered sites and those recorded in other literature, are neither unrepresented elsewhere, nor of such order to be described as outstanding examples of site-types – the loss of which would be scientifically unacceptable. Central Queensland Cultural Heritage Management also noted that this observation does not diminish the significance of the identified sites to the Aboriginal parties. Arrow Energy is sensitive to the fact that contemporary Aboriginal people take seriously the responsibilities they have to their ancestors, spiritual entities and hero figures, and to the management and protection of Aboriginal cultural heritage places and objects inherited from them.

24.3.4 Potential Presence of Further Aboriginal Cultural Heritage Places

ARCHEO Cultural Heritage Services was involved in the February 2009 geotechnical investigation of the LNG plant site (ARCHEO, 2009) and provided observations on the overall potential to uncover further Aboriginal cultural heritage material. To describe this potential, the LNG plant site on Curtis Island was divided into three main land units:

- Elevated, gravely ridges and steep gullies with skeletal soils featuring lemon-scented gum- and iron bark-dominated woodland, located primarily in the northeast of the study area.
- Low-lying, relatively flat wetlands and coastal lowlands intersected by ephemeral creeks and drainage lines and featuring fine sedimentary, alluvial soils and a variety of vegetation, including melaleuca, swamp mahogany and cabbage tree palms, and remnant riparian vegetation on creeks incorporating occasional areas of elevated land and hillocks, including elevated banks of creeks.
- Coastal flats incorporating melaleuca forest, mangroves and marine couch on the fringe of the intertidal zone.

The latter two areas were considered by ARCHEO (2009) to possess greater potential for further cultural heritage material. Within these areas, elevated areas in the vicinity of major creek lines and those close to tidal flats, creeks and swamps would have provided easy access to essential resources for Indigenous people. Isolated and scattered artefacts are expected to be the most likely site-type remaining due to historic land clearing, with only a small likelihood that shell middens will be located on the coastal fringe. Regardless of their scientific significance, as yet unidentified cultural heritage areas and objects may be of particular significance to the Aboriginal parties.

24.4 Issues and Potential Impacts

Indigenous cultural heritage places and objects are situated within, or in close proximity to, areas that will be disturbed by the project. Further Indigenous cultural heritage material may be identified during future detailed investigations of the project area and again during construction. While no sites of 'national significance' have been identified within the study area, places or objects may hold significance to local Aboriginal parties.

Avoidance of Indigenous cultural heritage places and objects is the preferred management measure. The ability to relocate specific elements of the project is limited and some impacts will be unavoidable. Until such time that a detailed survey of the project area can be undertaken, it is impossible to state how many places in total may be disturbed.

When viewed exclusively from the scientific perspective, the impact of the Arrow LNG Plant on Indigenous cultural heritage is considered low. Many of the archaeological sites identified in the disturbance footprint can be found elsewhere in the region, and include numerous, directly comparable examples with scientifically low-order sites, many of which offer far more opportunity for detailed investigation and analysis than those currently known to exist within the study area. If avoidance is not possible, the loss of sites in the study area would be offset by a suitable program of mitigation. This would ensure that data that the sites may hold is collected and preserved in accordance with management measures agreed with the appropriate Aboriginal parties.

24.5 Avoidance, Mitigation and Management Measures

The following section describes Arrow Energy's approach to complying with the Aboriginal Cultural Heritage Act duty of care, and the general form of cultural heritage arrangements presently under negotiation with the endorsed Aboriginal parties or native title parties for the project area.

24.5.1 Compliance with the Aboriginal Cultural Heritage Duty of Care

Arrow Energy recognises the Aboriginal parties' strong interest in ensuring that the cultural heritage areas, objects and values identified throughout the project area are protected or managed in a culturally appropriate fashion, and with their direct input. It is anticipated that the Aboriginal parties will require the implementation of a management process that embodies culturally appropriate mechanisms for the protection or management of their cultural heritage.

The Aboriginal Cultural Heritage Act duty of care for the project can be met through either a suitable native title agreement that does not expressly exclude cultural heritage, such as an ILUA, or an approved CHMP under Part 7 of the Aboriginal Cultural Heritage Act.

Arrow Energy's preferred approach is by settlement of agreements with native title parties. Arrow Energy will agree to situate Aboriginal cultural heritage agreements within the framework of ILUAs

to be negotiated with the native title parties, but only where this is the formally expressed wish of the relevant native title party. Where this is not the case, Arrow Energy will develop a CHMP.

If an ILUA cannot be completed in accordance with the project timetable, or is not registered, Arrow Energy will be required to comply with Part 7 of the Aboriginal Cultural Heritage Act in another manner (i.e., development of a CHMP for approval by the Chief Executive of DERM).

With this in mind, it is proposed to develop a CHMP in parallel with the negotiation of an ILUA to ensure that the project is compliant with the duty of care irrespective of outcomes in the sphere of native title. Arrow Energy has issued two notices to develop CHMPs for the project in accordance with Part 7 of the Aboriginal Cultural Heritage Act.

For cultural heritage management purposes, the project area has been divided into two parts – the land-based project components and the water-based components.

A CHMP notice has been issued for the land-based areas. As the registered native title claimants, the Port Curtis Coral Coast People (application QUD 6026/01) are the exclusive Aboriginal party for the LNG plant site on Curtis Island as well as the mainland project sites.

A second CHMP notice was issued for the marine components of the project. The Port Curtis Coral Coast native title claim extends to the mean high water mark and not to the waters of Port Curtis. Eleven of the named applicants on the Port Curtis Coral Coast claim applied for endorsement as Aboriginal parties under s. 35(7) of the Aboriginal Cultural Heritage Act, along with five additional individuals. All applicants have been endorsed and have chosen to act collectively to negotiate for both the area within the bounds of the native title claim, as well as the area outside the bounds of the claim but within the project area.

Arrow Energy and the Aboriginal parties are in the process of negotiating the CHMPs. Should the Aboriginal parties advise they will no longer engage with Arrow Energy in the negotiation of the CHMPs, or should the process of developing CHMPs be unreasonably delayed, Arrow Energy will seek approval of the CHMPs in accordance with the Aboriginal Cultural Heritage Act provisions.

The process and timeframes for finalising the CHMP or native title agreement are being agreed with the relevant Aboriginal parties and native title applicants. Arrow Energy intends to have these agreements finalised prior to the financial investment decision for the project.

Therefore, Arrow Energy's commitments to Aboriginal cultural heritage include:

- Develop an approved CHMP or a native title agreement that addresses Aboriginal cultural heritage in consultation with the endorsed Aboriginal parties for the project. [C24.01]
- Comply with the approved CHMP or native title agreement that addresses Aboriginal cultural heritage. [C24.02]

24.5.2 General Form of Cultural Heritage Arrangements

Arrow Energy is committed to adopting a range of principles to apply to cultural heritage management. Ultimately, the ILUA or approved CHMP will form the governing document for project compliance with the Aboriginal Cultural Heritage Act.

The general form of the cultural heritage arrangements under either the ILUA or approved CHMP will contain:

- A set of overarching principles. Provisions relating to the ownership of Aboriginal cultural heritage, management of cultural heritage information, dispute resolution and general administrative arrangements.
- Conduct of an initial cultural heritage assessment. To date, only targeted, onsite inspections related to the geotechnical investigations have been conducted. The CHMP will provide for additional detailed field surveys to identify Indigenous cultural heritage places or objects located within the project area. Surveys will be carried out prior to construction proceeding.
- Development of cultural heritage management strategies. Provisions for establishing agreed strategies that detail how significant areas and objects identified during the initial cultural heritage assessment will be managed during project construction. Avoidance of Indigenous cultural heritage places will be the preferred strategy should this be technically feasible. Where there is no flexibility to avoid a site, the loss will be offset by a suitable program of mitigation that collects and preserves the data that a site may hold for future research purposes. Provisions will be made for cultural induction processes, the development of a cultural awareness program, procedures for accidental discovery of cultural material and accidental discovery of human remains, and management of cultural heritage material, conflict resolution and other contingencies.
- Establishment of a post-construction heritage agreement. Provisions related to developing, if necessary, formal agreements detailing ongoing management arrangements for cultural places during the operational phase of the project.

Section 7.2.3 of Appendix 18, Indigenous Cultural Heritage Impact Assessment, provides further information on Arrow Energy's cultural heritage management principles. Arrow Energy will consider these management principles when developing a CHMP or native title agreement that addresses Aboriginal cultural heritage. Arrow Energy will agree final principles with the relevant Aboriginal parties or native title parties. [C24.03]

Arrow Energy proposes to adopt to the greatest extent possible an agreement-based process with the Aboriginal parties for authorisation of all project activities that may harm cultural heritage. An internal permit process is envisaged, requiring the issue of a formal permit to undertake ground-disturbing activities. The primary authority for the permit will be the cultural heritage management strategy negotiated after the initial cultural heritage assessment is completed. The permit process will be linked to the project GIS to better facilitate auditing.

Cultural heritage arrangements under negotiation seek to involve the Aboriginal parties in all aspects of management through the establishment of a coordinating committee that has a membership of representatives of the Aboriginal parties. Decisions on the management of cultural heritage will be made by consensus between Arrow Energy and the coordinating committee.

24.6 Residual Impacts

Residual impacts are likely in instances where it is not possible to avoid Aboriginal places or objects. Development and implementation of cultural heritage management strategies for sites will allow Aboriginal party representatives to determine a culturally sensitive approach to the management of residual impacts.

24.7 Inspection and Monitoring

As part of CHMP development, Arrow Energy will work with the Aboriginal parties to develop key performance indicators to promote the implementation of best practice cultural heritage

management. Methods for measuring performance against key performance indicators will also be detailed in the CHMP.

The cultural heritage arrangements will provide a formal mechanism for investigating alleged substantive breaches, plus appropriately graded sanctions in the event that a breach occurs.

24.8 Commitments

The measures (commitments) that Arrow Energy will implement to manage impacts on Indigenous cultural heritage are set out in Table 24.3.

Table 24.3 Commitments: Indigenous cultural heritage

No.	Commitment
C24.01	Develop an approved CHMP or a native title agreement that addresses Aboriginal cultural heritage in consultation with the endorsed Aboriginal parties for the project.
C24.02	Comply with the approved CHMP or native title agreement that addresses Aboriginal cultural heritage.
C24.03	Consider the cultural heritage management principles set out in Section 7.2.3 of Appendix 18, Indigenous Cultural Heritage Impact Assessment, completed for the project when developing a CHMP or native title agreement that addresses Aboriginal cultural heritage. Agree final principles with the relevant Aboriginal parties or native title parties.