

## Appendix L

### Non-Indigenous Cultural Heritage Assessment



# WINCHESTER SOUTH PROJECT

## Environmental Impact Statement



# EXTENT

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## Winchester South Project

### Non-Indigenous Cultural Heritage Assessment

Client: Whitehaven WS Pty Ltd

Version: FINAL

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# 1. Introduction

## 1.1 Preamble

Extent Heritage Pty Ltd ('Extent') has been engaged by Whitehaven WS Pty Ltd ('Whitehaven WS') to prepare a Non-Indigenous Cultural Heritage Assessment ('NICHHA') for non-Aboriginal cultural heritage places that may be impacted by works associated with the development of the mining operation referred to as the Winchester South Project (herein referred to as 'the Project'), in the vicinity of Moranbah, Queensland.

Whitehaven WS, a wholly owned subsidiary of Whitehaven Coal Limited ('Whitehaven'), proposes to develop the Project, an open cut coal mine and associated infrastructure within the Bowen Basin, located approximately 30 kilometres ('km') south-east of Moranbah.

This NICHHA forms part of an Environmental Impact Statement ('EIS') for the Project under section 26(1)(a) of the *State Development and Public Works Organisation Act 1971* ('SDPWO Act').

This assessment aimed to identify historic heritage values within the Winchester South Project Study Area (herein referred to as the 'Study Area'), if any, that might be impacted by the Project and consider measures that could be taken to manage and mitigate potential adverse heritage impacts.

This assessment has been informed by fieldwork carried out in August 2019, in which twenty-eight places of potential non-Indigenous cultural heritage significance within the Study Area were visited. In addition, this report considers the cultural landscape. This assessment has also been informed by desktop historical research and review of publicly available reports and assessments from the region and the immediate location.

No items of non-Indigenous cultural heritage significance have been identified within the Study Area. In heritage terms, it would be appropriate for the Project to proceed. Recommendations are provided in Part 5 that could be considered for the items of interest identified, although are not specifically required for non-Indigenous cultural heritage management.

This assessment has been prepared in accordance with the relevant guidelines issued and endorsed by the Department of Environment and Science ('DES'). It has also been prepared in accordance with the principles set out in *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013* ('Burra Charter') (Australia ICOMOS 2013a) and the Terms of Reference issued by the Queensland Government Department of State Development, Manufacturing, Infrastructure and Planning ('DSDMIP') for the Winchester South Project (see Part 2).

## 1.2 Project description

Whitehaven WS, a wholly owned subsidiary of Whitehaven, proposes to develop the Project, a coal mine and associated infrastructure within the Bowen Basin, located approximately 30 km south-east of Moranbah, within the Isaac Regional Council ('IRC') Local Government Area ('LGA') (Figure 1).

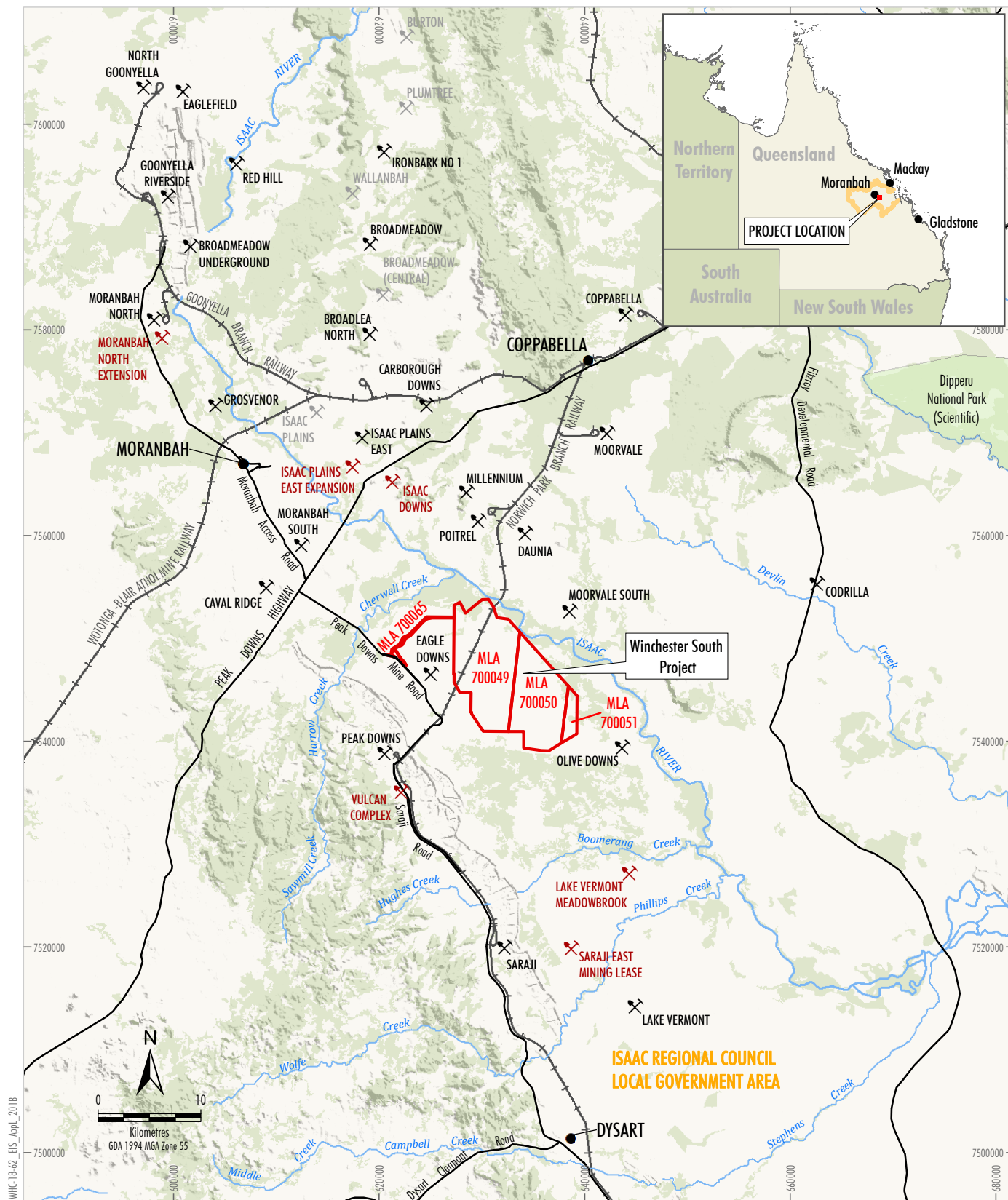
The Project would involve the development of an open cut coal mine in an existing mining precinct for export of coal products. The Project would include construction and operation of a mine infrastructure area, including a Coal Handling and Preparation Plant ('CHPP'), train load-out facility and rail spur, which would be used for the handling, processing and transport of coal. An infrastructure corridor would also form part of the Project, including a raw water supply pipeline connecting to the Eungella pipeline network, an electricity transmission line and a mine access road (Figure 2).

The Project is forecast to extract approximately 15 million tonnes per annum ('Mtpa') of run-of-mine ('ROM') coal, with a forecast peak extraction of up to 17 Mtpa, for approximately 30 years. The coal resource would be mined by open cut methods, with product coal to be transported by rail to port for export.

The indicative Project general arrangement, including key Project components, is shown on Figure 2. The Project area comprises the open cut extent, waste rock emplacement and associated infrastructure, including the infrastructure corridor (e.g. raw water supply pipeline, electricity transmission line and mine access road).

This NICHA forms part of an EIS which has been prepared in accordance with Part 4 of the SDPWO Act. This NICHA has been prepared to satisfy the requirements of the *Terms of reference for an environmental impact statement – Winchester South Project* ('ToR') issued by the Coordinator-General on 4 September 2019.





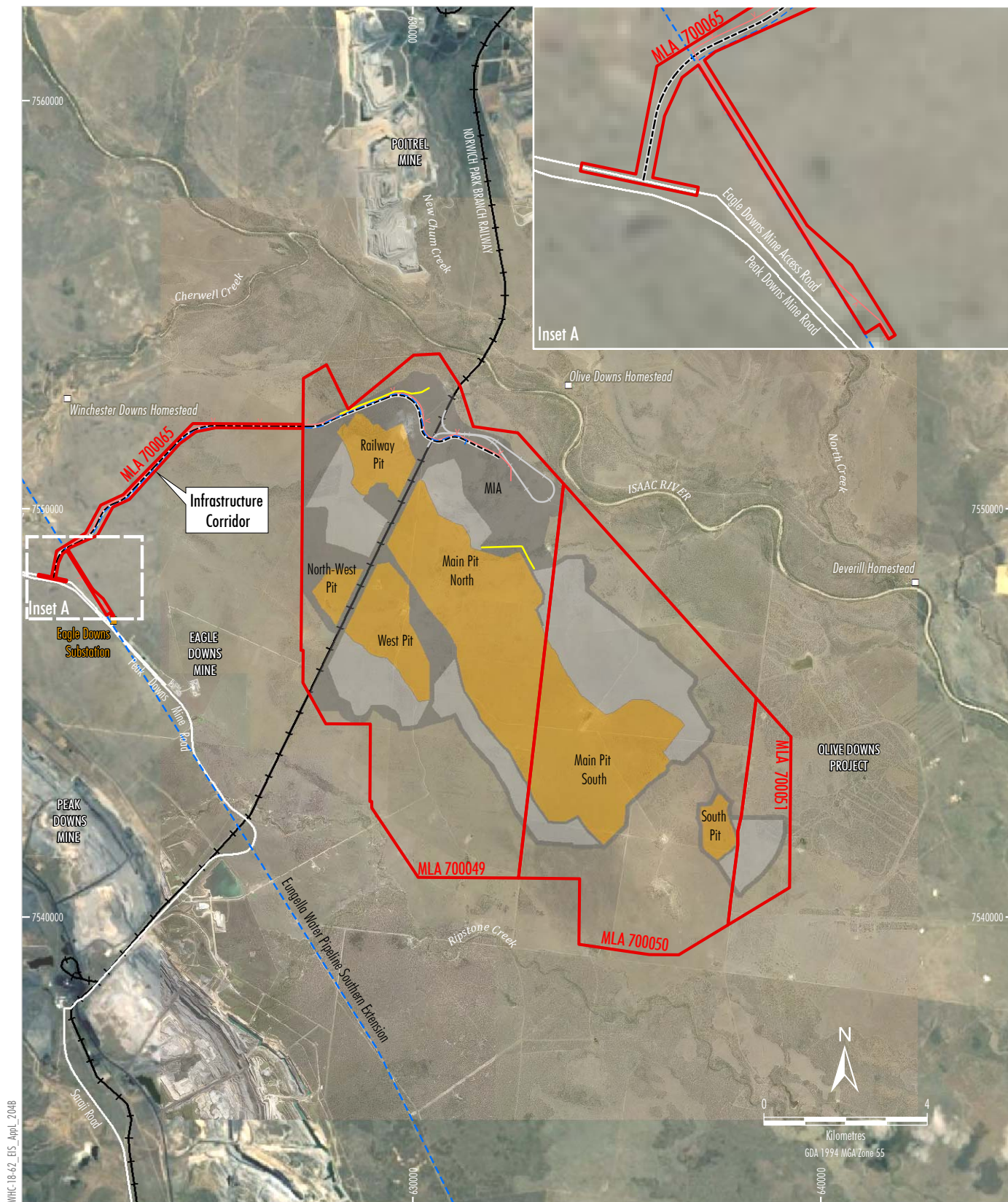
- LEGEND**
- Mining Lease Application Boundary
  - ✂ Approved/Operating
  - ✂ Proposed
  - ✂ Care and Maintenance
  - Local Government Area Boundary
  - +— Railway
  - Road

Source: The State of Queensland (2018 - 2020);  
Geoscience Australia (2018).



**WINCHESTER SOUTH PROJECT**  
Project Location

**Figure 1**



WHC-18-62\_EIS\_April\_2048

- LEGEND**
- Mining Lease Application Boundary
  - Eungella Water Pipeline Southern Extension
  - + + Railway
  - Substation

**Project Component\***

- Indicative Infrastructure Area
- Indicative Out-of-pit Waste Rock Emplacement
- Indicative Open Cut Pit Including In-pit Waste Rock Emplacement
- Indicative Mine Access Road
- Indicative Rail Spur and Loop
- Indicative Electricity Transmission Line
- Indicative Raw Water Supply Pipeline
- Indicative Flood Levee

*Note: \* Excludes some project components such as water management infrastructure, access tracks, topsoil stockpiles, explosives magazines, power reticulation, temporary offices, other ancillary works and construction disturbance.*

Source: The State of Queensland (2018 - 2020); Whitehaven (2020).  
Orthophoto: Google Image (2019); Whitehaven (2017).

  
**WINCHESTER SOUTH PROJECT**  
**Project General Arrangement**

**Figure 2**

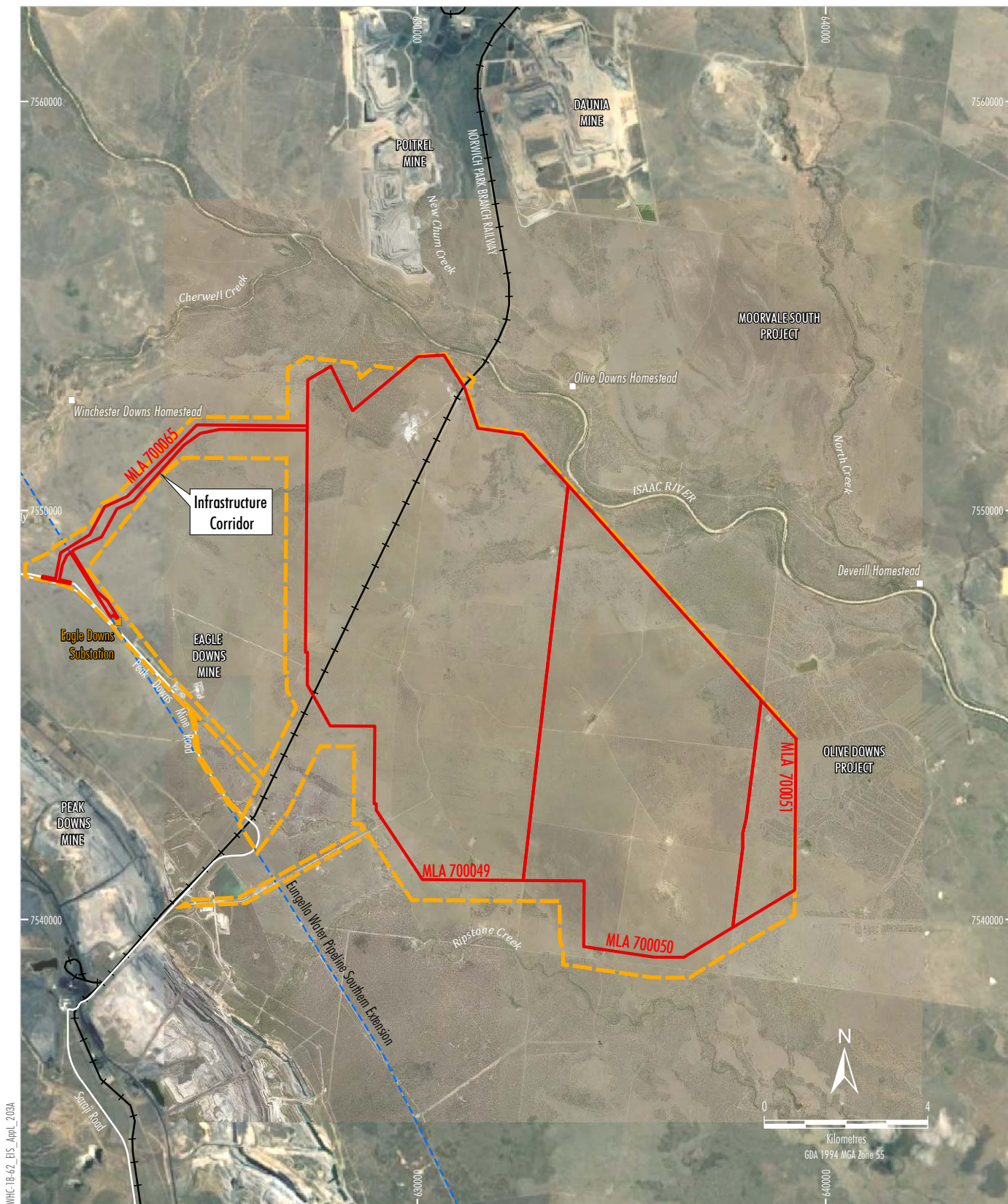


### 1.3 Study area

The Study Area includes the Project area and surrounds and is bounded by the Isaac River to the north and north-east, the Olive Downs Project to the east and south-east, the Peak Downs and Eagle Downs Mines to the west and south-west, and Ripstone Creek to the south (Figure 3).

The Study Area predominantly comprises cleared grazing land with patches of regrowth. The Isaac River runs along the northern boundary of the Study Area and this major waterway retains a narrow riparian corridor. Throughout the Study Area, there are sections of dense brigalow vegetation and melon holes (lumpy holes caused by the expansion and contraction of soil with changing water content). Ground surface visibility ranged from poor (1-25%) to moderate (26-50%) across the Study Area.

Figure 3, below, illustrates the boundary of the Study Area and the boundary of the Project Mining Lease Application Area ('MLA'). Figure 4, below, illustrates the approximate locations of the potential historic heritage places and viewpoints recorded during the survey of the Study Area and addressed in this assessment.



WHC-18-62\_EIS\_April\_2020A

- LEGEND**
- Mining Lease Application Boundary
  - Study Area
  - Eungella Water Pipeline Southern Extension
  - Railway
  - Substation

Source: The State of Queensland (2018 - 2020); Whitehaven (2020).  
Orthophoto: Google Image (2019); Whitehaven (2017).

**WHITEHAVEN COAL**  
**WINCHESTER SOUTH PROJECT**  
**Study Area**

**Figure 3**



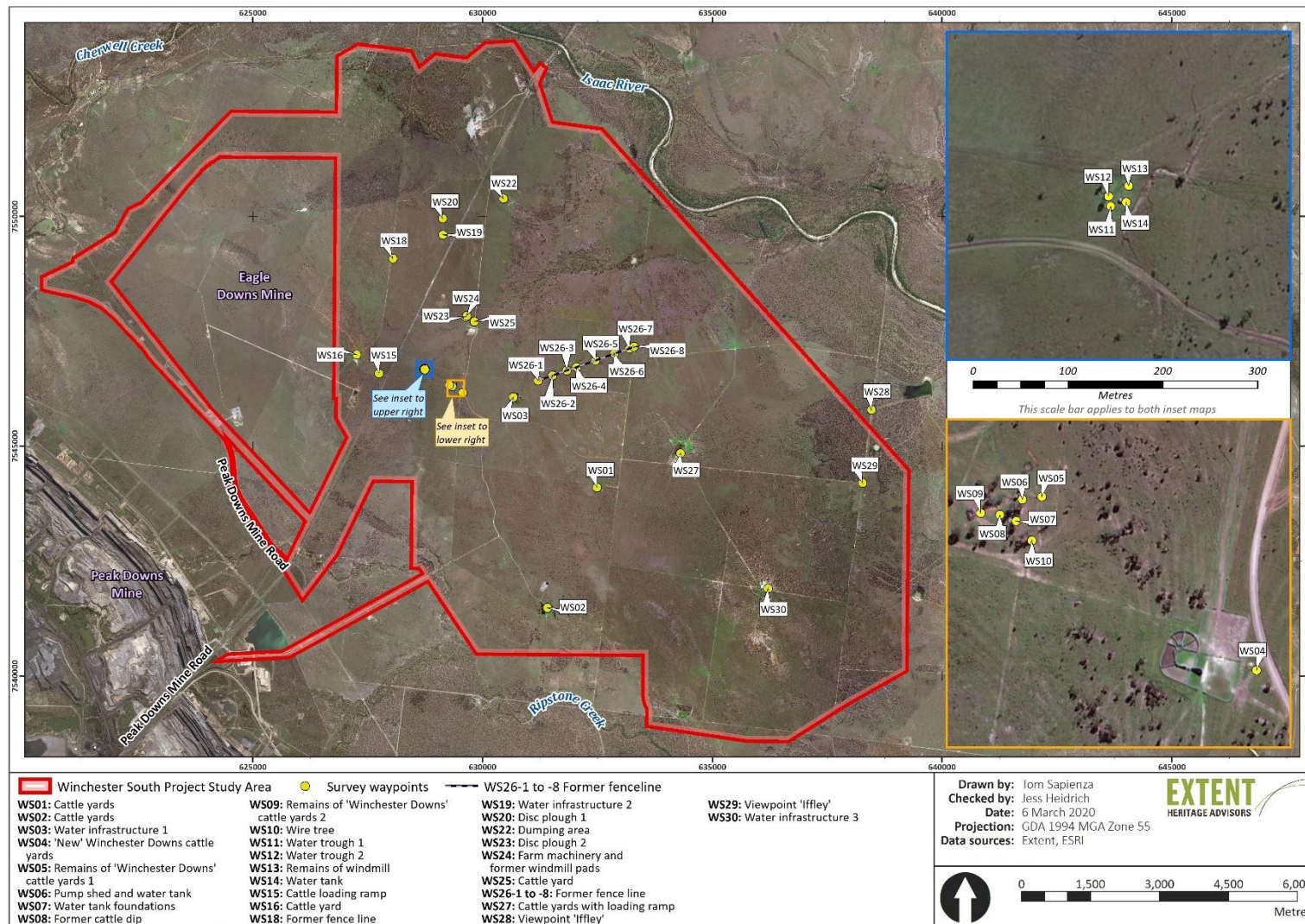


Figure 4. Map of the Study Area (hard red line) showing the locations recorded during the August field survey and assessed by this report.



## 1.4 Previous reports and investigations

The present report draws upon the historical research contained in various reference materials, including historic and contemporary (i.e. 2018) non-Indigenous cultural heritage assessments. A list of the reference material is provided in Part 6.

## 1.5 Statutory context

### 1.5.1 *Environment Protection and Biodiversity Conservation Act 1999*

The *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (the 'EPBC Act') establishes an environmental assessment process for nationally and internationally significant natural and cultural heritage places—defined in the EPBC Act as Matters of National Environmental Significance. Places on the World Heritage List, National Heritage List and Commonwealth Heritage List are protected by the EPBC Act.

The World, National and Commonwealth Heritage Lists were consulted in the preparation of this report. No cultural heritage places included on those heritage lists exist within the Study Area.

### 1.5.2 *State Development and Public Works Organisation Act 1971*

The SDPWO Act provides for State planning and development through a coordinated system of public works organisation, for environmental coordination, and for related purposes. On 17 April 2019 the Coordinator-General declared the Project to be a 'coordinated project' for which an EIS is required under section 26(1)(a) of the SDPWO Act. The draft Terms of Reference for the Project were subsequently issued by the Coordinator-General on 24 June 2019 and finalised on 4 September 2019. The ToR set out the matters to be addressed in the EIS for the Project.

This NICHA forms part of an EIS prepared to address the ToR, specifically those relating to non-Indigenous cultural heritage.

### 1.5.3 *Queensland Heritage Act 1992*

Section 2 of the *Queensland Heritage Act 1992* states (among other things) that it is an object of the Act to provide for the conservation of Queensland's cultural heritage for the benefit of the community and future generations. The *Queensland Heritage Act 1992* establishes the Queensland Heritage Council and the Queensland Heritage Register ('QHR') as important mechanisms for achieving these objectives.

The QHR comprises places of heritage significance at a state level. The register includes a range of places including sites of public recreation or commemoration, private or commercial buildings, industrial sites, transport infrastructure, rural homesteads, parks, gardens, community halls, theatres, government buildings, etc. Under the provisions of the *Queensland Heritage Act 1992*, any development of a place listed on the QHR must be carried out in accordance with the Act. A place may be entered in the QHR if it satisfies one or more of the assessment criteria under section 35 of the *Queensland Heritage Act 1992*.

Sections 89–91 of the Act provide protection for historical archaeological features and apply to potential archaeological places. Under section 89, a person is required to give notice to the Chief Executive if they become aware of an archaeological artefact or underwater cultural heritage artefact that is an important source of information about an aspect of Queensland's history during their activities. This notice must be given as soon as practicable after the person discovers the item. Under section 90 of the Act, it is not permitted to interfere with (including damage, destroy, disturb, expose or move) an archaeological artefact for which a person has, under section 89, given notice to the Chief Executive. Under section 91, it is an offence to interfere with an underwater cultural heritage artefact without the Chief Executive's written consent or unless a person has a reasonable excuse.

The QHR was consulted in the preparation of this report. No cultural heritage places included on the QHR exist within the Study Area, nor within the general vicinity of the Project. The closest significant site was located in Nebo, 65 km to the north-east of the Project boundary.

The statutory implications of the *Queensland Heritage Act 1992* in relation to the potential archaeological resource of the Study Area are addressed in Part 5.

#### 1.5.4 Local Government Planning Scheme

The *Planning Act 2016* establishes a framework for planning and development in Queensland. This includes Planning Schemes which are administered by local government and manage land use and set out integrated State, regional and local planning and development assessment policies for an LGA.

The Project is in the IRC LGA, which was formed from the Broomsound, Nebo and Belyando Shire Councils. The Project is located partly within the former Belyando Shire Council and the Broomsound Shire Council areas.

Adopted in April 2021, the *Isaac Regional Planning Scheme 2021* is most relevant to the Project. This Planning Scheme was developed for the IRC LGA and supersedes the *Broomsound Shire Planning Scheme 2005*, *Nebo Shire Planning Scheme 2008*, and the *Belyando Shire Planning Scheme 2009*.

Under the *Isaac Regional Planning Scheme 2021*, places of local cultural heritage are listed under Schedule 5 and in the supporting maps to the Planning Scheme. Schedule 5 and the heritage overlay mapping of the Planning Scheme were consulted. No places of cultural heritage exist within the Study Area.

The superseded Planning Schemes relevant to the Project have also been consulted, as discussed below.

#### *1.5.4.1 Broadsound Shire Planning Scheme 2005*

The *Broadsound Shire Planning Scheme 2005* maps were consulted. No cultural heritage features exist within the Study Area.

#### *1.5.4.2 Nebo Shire Planning Scheme 2008*

Under the *Nebo Shire Planning Scheme 2008*, places of local heritage significance are listed under Schedule 2.

In the preparation of this report, Schedule 2 was consulted. No cultural heritage features exist within the Study Area.

#### *1.5.4.3 Belyando Shire Planning Scheme 2009*

Under the *Belyando Shire Planning Scheme 2009*, places of local heritage significance are listed under Division 7 of Schedule 2 of the Scheme.

In the preparation of this report, Division 7 of Schedule 2 was consulted. No cultural heritage places listed under Division 7 of Schedule 2 exist within the Study Area.

## 1.6 Non-statutory listings

### 1.6.1 Former Register of the National Estate

In 1997, the Council of Australian Governments determined that heritage conservation should be the responsibility of the level of government best placed to offer the required level of protection. After the introduction of the EPBC Act, new heritage lists were created, which led to the Register of the National Estate ('RNE') being phased out. From 19 February 2012, all references to the RNE were removed from the EPBC Act. The RNE is now maintained on a non-statutory basis as an archive and educational resource. The existence of an entry for a place in the RNE does not in itself create a requirement to protect the place under Commonwealth law. Nevertheless, information in the register may be relevant to statutory decisions about protections.

No cultural heritage places on the former RNE exist within the Study Area.

### 1.6.2 Register of the National Trust of Australia

The National Trust is a not-for-profit organisation that maintains a register of landscapes, townscapes, buildings, industrial sites, cemeteries and other items or places, which the Trust determines to have cultural significance. The listing of a place on the Register of the National Trust of Australia carries with it no legal obligations; however, it is widely recognised as an authoritative statement of the cultural significance of a place.

No cultural heritage places on the Register of the National Trust of Australia exist within the Study Area.

### 1.6.3 Register of Significant Buildings (Australian Institute of Architects)

The Australian Institute of Architects ('AIA') maintains a Register of twentieth century buildings of significance. This Register carries with it no legal obligations; however, it is recognised as an authoritative statement of the significance of listed buildings.

No places on the Register of Significant Buildings exist within the Study Area or in the vicinity of the Project.

## 1.7 Heritage status

This section provides an overview of the statutory and non-statutory listings relevant to the Study Area. As shown in Table 1, no non-Indigenous cultural heritage places are identified within the Study Area.

Table 1. The statutory and non-statutory heritage listings within the Study Area.

Register / Listing	Item Listed (Y/N)	Item Name	Item Number
<i>Statutory Register / Listing</i>			
World Heritage List	N	-	-
National Heritage List	N	-	-
Commonwealth Heritage List	N	-	-
Queensland Heritage Register	N	-	-
<i>Isaac Regional Planning Scheme 2021</i>	N	-	-
<i>Broadsound Shire Planning Scheme 2005</i>	N	-	-
<i>Nebo Shire Planning Scheme 2008</i>	N	-	-
<i>Belyando Shire Planning Scheme 2009</i>	N	-	-
<i>Non-Statutory Register / Listing</i>			
Former Register of the National Estate	N	-	-
Register of the National Trust of Australia	N	-	-
Register of Significant Buildings	N	-	-

## 1.8 Authorship

This report was prepared by Jessica Heidrich (Heritage Advisor) and reviewed by Dr Andrew Sneddon (Associate Director) for quality assurance.

## 1.9 Limitations

This assessment relates only to historical (i.e. non-Aboriginal) heritage items, places, and/or impacts. It includes a consideration of the known and potential historical archaeological resource. This assessment of archaeological potential within the Study Area has relied on desktop research, as well as observations of visible evidence of potential sub-surface archaeological material made in the field.

The assessments presented in this report were prepared on the basis of desktop historical investigations undertaken by Jessica Heidrich and Andrew Sneddon of Extent, and fieldwork undertaken by Jessica Heidrich in August 2019. During the survey, the Study Area was traversed on foot and by four-wheel drive ('4WD'), typically relying on existing roads and tracks. At the time of the survey, in that it is relevant to assessments of archaeological potential, surface visibility was poor-to-fair. The assessment of archaeological potential in this report has therefore relied on desktop research, as well as observations made in the field.

No direct community consultation was carried out in the preparation of this report. However, comment is sometimes made on the potential 'social significance' (criterion [g] of heritage significance under section 35 of the *Queensland Heritage Act 1992*) of places, having regard to community views expressed in publicly accessible published material.

The sites identified in this assessment were inspected and photographed by the author of this report. This did not include a comprehensive assessment of the physical condition of structures at each site. Where possible, the site inspections included the interior of those structures (e.g. of abandoned structures). Where structures were occupied or inaccessible due to safety concerns, the inspection was generally confined to the accessible exterior.

At the time of the field survey, some discrete areas of the Study Area were located on private property and were not accessible. These areas are illustrated in Figure 5, below, and include:

- a portion of the Iffley lease; and
- a portion of mining lease (ML) 70389 for the Eagle Downs Mine.

The western boundary of the Iffley portion was traversed by 4WD and photographs were taken at two locations along its length to provide a record (WS28 and WS29). Notwithstanding, this portion of the Study Area has been previously assessed as part of the Non-Indigenous Cultural Heritage Technical Report prepared by Converge Heritage + Community (2018) as part of the Olive Downs Project EIS. The findings of this assessment are addressed in Part 4.27 of this report.

The portion of the Study Area within ML 70389 for the Eagle Downs Mine has been previously assessed as part of the Non-Indigenous Cultural Heritage Assessment prepared by Hansen Bailey Environmental Consultants (2009) as part of the Eagle Downs Project EIS. The findings of this assessment as they relate to the Study Area are addressed in Part 4.29.



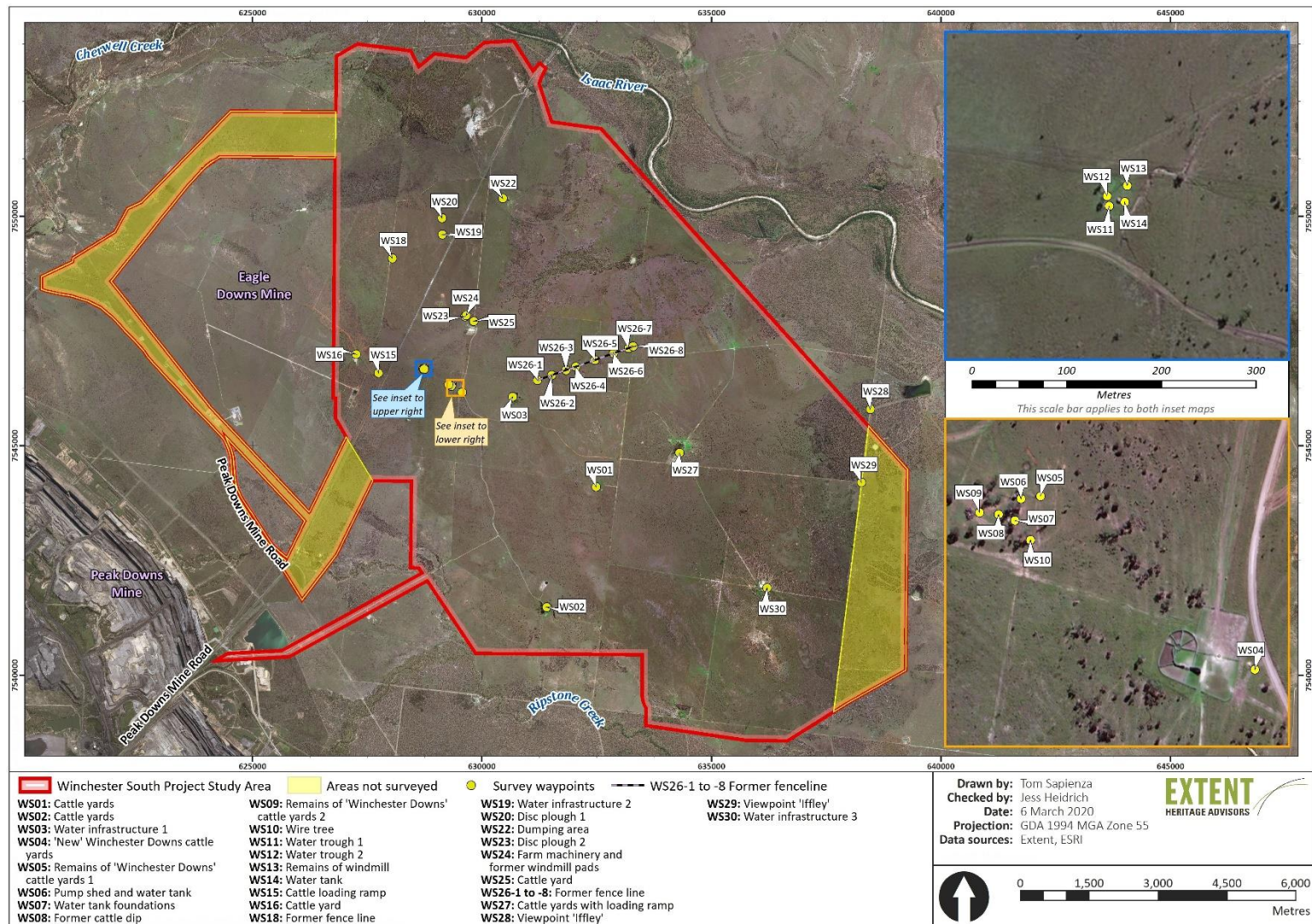


Figure 5. Map of the Study Area (hard red line) with yellow shading indicating areas not accessible during field survey.

## 1.10 Terminology

The terminology in this report follows definitions presented in the *Burra Charter* (Australia ICOMOS 2013a). Article 1 provides the following definitions:

**Adaptation** means changing a *place* to suit the existing *use* or a proposed use.

**Compatible use** means a *use* which respects the *cultural significance* of a *place*. Such a use involves no, or minimal, impact on cultural significance.

**Conservation** means all the processes of looking after a *place* so as to retain its *cultural significance*.

**Cultural significance** means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

Cultural significance is embodied in the *place* itself, its *fabric*, *setting*, *use*, *associations*, *meanings*, records, *related places* and *related objects*.

Places may have a range of values for different individuals or groups.

**Fabric** means all the physical material of the place including elements, fixtures, contents, and objects.

**Maintenance** means the continuous protective care of a *place* and its *setting*.

Maintenance is to be distinguished from repair which involves *restoration* or *reconstruction*.

**Place** means a geographically defined area. It may include elements, objects, spaces and views. Place may have tangible and intangible dimensions.

**Preservation** means maintaining a *place* in its existing state and retarding deterioration.

**Related place** means a *place* that contributes to the *cultural significance* of another place.

**Reconstruction** means returning a *place* to a known earlier state and is distinguished from *restoration* by the introduction of new material.

**Restoration** means returning a *place* to a known earlier state by removing accretions or by reassembling existing elements without the introduction of new material.

**Setting** means the immediate and extended environment of a *place* that is part of or contributes to its *cultural significance* and distinctive character.

**Use** means the functions of a *place*, including the activities and traditional and customary practices that may occur at the place or are dependent on the place.

## 2. Methodology

### 2.1 Approach

This assessment has been prepared in accordance with the ToR issued by DSDMIP (2019). These ToR set out the matters to be addressed in an EIS for the Project and are approved by the Coordinator-General under section 30 of the SDPWO Act.

Specifically, ‘Part C—Section 11 Cultural heritage’ of the ToR specifies that:

The construction and operation of the project should aim to ensure that the nature and scale of the project does not compromise the cultural heritage significance of a heritage place or heritage area.

In addition, ‘Part C—Section 11 Cultural heritage’ of the ToR specifies the requirements for non-Indigenous cultural heritage impact assessment, namely:

11.121 For non-Indigenous historical heritage, undertake a study of, and describe, the known and potential historical cultural and landscape heritage values of the area potentially affected by the project.

11.122 Any such study is to be conducted by an appropriately qualified cultural heritage practitioner.

11.123 If the *Queensland Heritage Act 1992* requirements are triggered, provide strategies to mitigate and manage any negative impacts on non-Indigenous cultural heritage values and enhance any positive impacts.

11.124 The non-Indigenous historical heritage impact assessment should also separately confirm if any known family grave sites would be impacted by the project works and provide strategies to mitigate and manage any negative impacts on the historical family grave sites and enhance any positive impacts. (DSDMIP 2019, 26–27)

In addition to the ToR, this assessment has been prepared in accordance with the principles and procedures established in the following guideline documents:

- *Assessing Cultural Heritage Significance: Using the Cultural Heritage Criteria* (Department of Environment and Heritage Protection [‘DEHP’] 2013a);
- *Defining Boundaries: An Illustrated Guide* (Queensland Heritage Council 2007);
- *Guideline: Archaeological Investigations* (DEHP 2013b);
- *Preparing an Environmental Impact Statement: Guidelines for Proponents* (DSDMIP 2015);
- the *Burra Charter* (Australia ICOMOS 2013a); and

- *The Burra Charter Practice Notes: Understanding and Assessing Cultural Significance, Developing Policy and Preparing Studies and Reports: Contractual and Ethical Issues* (Australia ICOMOS 2013b).

As described in Parts 1.5 to 1.7, above, searches of the following statutory and non-statutory heritage registers were also undertaken as a background to this report:

- World Heritage List;
- National Heritage List;
- Commonwealth Heritage List;
- QHR;
- *Isaac Regional Planning Scheme 2021*;
- *Broadsound Shire Planning Scheme 2005*;
- *Nebo Shire Planning Scheme 2008*;
- *Belyando Shire Planning Scheme 2009*;
- the former Register of the National Estate;
- the Register of the National Trust of Australia; and
- the Register of Significant Buildings.

## 2.2 Heritage assessment criteria and considerations

Assessing the cultural heritage values and significance of a place is crucial to assessing the nature and extent of the potential adverse impacts of a project, and to identifying the appropriate mitigation measures where adverse impacts are identified.

In this assessment, places and items of interest within, and in the vicinity of, the Study Area were assessed against the heritage assessment criteria contained within the Queensland guideline document entitled *Assessing Cultural Heritage Significance: Using the Cultural Heritage Criteria* (DEHP 2013a).

Specifically, places and items were assessed against the assessment criteria for heritage significance established in section 35 of the *Queensland Heritage Act 1992* (see Table 2). These criteria are a reflection of the more broadly expressed criteria in Article 1.2 of the *Burra Charter* (Australia ICOMOS 2013a).



Table 2. The assessment criteria for heritage significance in the *Queensland Heritage Act 1992*

Criterion	Description
Criterion (a)	The place is important in demonstrating the evolution or pattern of Queensland's history.
Criterion (b)	The place demonstrates rare, uncommon or endangered aspects of Queensland's cultural heritage.
Criterion (c)	The place has potential to yield information that will contribute to an understanding of Queensland's history.
Criterion (d)	The place is important in demonstrating the principal characteristics of a particular class of cultural places.
Criterion (e)	The place is important because of its aesthetic significance.
Criterion (f)	The place is important in demonstrating a high degree of creative or technical achievement at a particular period.
Criterion (g)	The place has a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.
Criterion (h)	The place has a special association with the life or work of a particular person, group or organisation of importance in Queensland's history.

The significance assessments in this report distinguish between places of State and local significance. Any places that failed to meet the criteria for either state or local significance were assessed in this report as being 'not a heritage place'.

The guideline document, *Assessing Cultural Heritage Significance: Using the Cultural Heritage Criteria*, states that 'state significance' means:

A place is of state cultural heritage significance if its heritage values contribute to our understanding of the wider pattern and evolution of Queensland's history and heritage. This includes places that contribute significantly to our understanding of the regional pattern and development of Queensland. (DEHP 2013a, 6)

In relation to local significance, the guideline document also states that:

A place is solely of local cultural heritage significance if its heritage values do not contribute significantly to our understanding of the wider pattern and evolution of Queensland's history and heritage. (DEHP 2013a, 5)

Some of the sites and/or structures assessed in this report were in a poor condition or poor state of repair. A Practice Note, prepared as an adjunct to the *Burra Charter* (Australia ICOMOS 2013b), entitled 'Understanding and Assessing Cultural Significance' states:

The physical condition of a place does not generally influence its significance, but will often be a factor in determining policy for the place.



**Guidance:** A place may be in ruinous condition, yet still be significant if its values can be clearly understood. In this case the condition does not influence significance, but will have a bearing on the development of policy for the place. (Australia ICOMOS 2013b, 7)

Some of the structures identified were in such poor condition that substantive refurbishment and repair would be required to make them safe for use or occupation, including replacement of large quantities of failed original fabric. Where this would result in a significant loss of the structure's 'authenticity' or 'integrity', and difficulty in appreciating its heritage values, a lower assessment was favoured in this report (see Pearson and Sullivan 1995).

The assessments in this report also appreciate that the fabric of a heritage place may be only part of its significance. Article 1.2 of the *Burra Charter* (Australia ICOMOS 2013a, 2) states:

Cultural significance is embodied in the *place* itself, its *fabric*, *setting*, *use*, *associations*, *meanings*, records, *related places* and *related objects*.

Conservation of the heritage values embodied in some of the places discussed in this report is thus also dependent on an understanding of, assessment of, and response to, the 'setting'.

This is consistent with the principles outlined in *The Burra Charter Practice Note: Understanding and Assessing Cultural Significance, Developing Policy and Preparing Studies and Reports: Contractual and Ethical Issues* (Australia ICOMOS 2013b), which states:

*'Place' in the Burra Charter has a broad meaning, and includes its elements, objects, spaces and views. Place may have tangible and intangible aspects.*

**Guidance:** A place should be considered in its wider physical, social or spiritual context. It should not be assessed in isolation.

A group of individual places with shared histories, common social associations, or complementary aesthetic characteristics may form a larger 'place' or a serial place.

Care is needed in defining the extent of the place and the tangible and intangible elements of the place. Its setting may include views to and from the place, its cultural context and relationships, and links between this place and other places. (Australia ICOMOS 2013b, 8)

## 2.3 Assessing the potential archaeological resource

This report assesses the potential for 'artefacts' to exist within the Study Area, in relation to non-Indigenous cultural heritage. Archaeological 'artefacts' are protected by the *Queensland Heritage Act 1992*. Section 91A of the Act defines 'artefact' as:

**artefact** means an archaeological artefact or underwater cultural heritage artefact.

In addition to the considerations contained in the ‘artefact’ provisions of the *Queensland Heritage Act 1992*, where the potential archaeological resource has been assessed in this report, regard has been had to the following three fundamental questions:

- Might the site yield data that cannot be obtained from any other source?
- Might the site yield data that cannot be obtained from any other site?
- Might the site yield data that would contribute to addressing substantive research questions?

These questions are commonly utilised by Australian archaeologists as a guide for assessing the potential significance of an archaeological resource or site within a relative framework (see Bickford and Sullivan 1984; see also NSW Heritage Office 2009).

The intactness of the potential archaeological resource was also central to the assessments of archaeological significance provided in this report, on the grounds that disturbed sites generally have lower potential to yield meaningful data than intact sites.

## 2.4 Assessing potential impacts to cultural landscapes

As noted in Part 2.1, the ToR for the Project outline a number of recommendations concerning the appropriate content of any EIS for the Project. These recommendations included the requirement that the EIS should:

For non-Indigenous historical heritage, undertake a study of, and describe, the known and potential historical cultural and **landscape heritage values** of the area potentially affected by the project. (DSDMIP 2019, 26, author’s emphasis)

‘Landscape heritage values’ are not defined by the EPBC Act, nor by the *Queensland Heritage Act 1992*. Cultural landscapes are defined by the United Nations Educational, Scientific and Cultural Organisation (‘UNESCO’) (2019) as cultural properties that represent the ‘the combined works of nature and man’. The NSW historical themes define cultural landscapes as places that embody ‘activities associated with the interactions between humans, human societies and the shaping of their physical surroundings’ (NSW Heritage Council 2001).

In preparing this NICHA, regard has been had to the concept of a ‘cultural landscape’, particularly within the context of possible impacts. With regards to the Bowen Basin region, especially within the vicinity of Moranbah and the Project, there is a distinct cultural landscape that evolved through the nineteenth and twentieth centuries in response to two main social and economic factors: rural activities and mining. These two factors both responded to and modified the natural environment to shape a mixed mining and rural pastoral cultural landscape. This mixed landscape has existed in, and come to define, the Moranbah area and wider Bowen Basin region.

Importantly, the evolution of the cultural landscape at the Project area and the heavily mined areas in its vicinity, has long involved both rural activities and mining activities. The result has been that farming infrastructure and rural activities (e.g. cropping, grazing, etc.) have co-existed with mining activities for generations. As a result, it has become common for mining sites to form part of the visual setting of 'rural' historic heritage places and the Project is not considered to be remarkable in regard to its potential impact to the existing landscape.

These have been relevant considerations to the impact assessments contained in this report.

## 2.5 Historical themes

In making the assessments in this report, particular regard was given to the historical themes produced by the former Australian Heritage Commission (2001) and the Queensland thematic framework (see Blake 1996) to guide heritage practitioners in the assessment of historical heritage places. The Queensland thematic framework (Blake 1996; DEHP 2013a) identifies ten principal historical themes to assist heritage practitioners to identify and assess the significance of a heritage item, site and/or area by placing them within the broader patterns of the historical development of Queensland.

Several of these historical themes are relevant to the Project area (see Table 3 and Table 4, below), parts of which reflect the historical forces that shaped the early settlement of the Bowen Basin in the late nineteenth century and early twentieth century. These themes have informed the assessment of heritage significance in Part 4, below.

Table 3. The relevant Queensland historical themes applicable to the potential sites of non-Indigenous cultural heritage significance identified within the Study Area

Queensland Historical Theme	Sub-themes
2. Exploiting, utilising and transforming the land	2.1 Exploring, surveying and mapping the land 2.2 Exploiting natural resources 2.3 Pastoral activities 2.4 Agricultural activities

Source: Blake (1996); DEHP (2013a).

Table 4. The relevant Australian historical themes applicable to the potential sites of non-Indigenous cultural heritage significance identified within the Study Area

Australian Historical Theme	Sub-themes
2. Peopling Australia	2.4 Migrating 2.5 Promoting settlement

Australian Historical Theme	Sub-themes
3. Developing local, regional and national economies	3.3 Surveying the continent 3.3.4 Looking for land with agricultural potential 3.4 Utilising natural resources 3.4.3 Mining 3.5 Developing primary production 3.5.1 Grazing stock 3.5.2 Breeding animals
4. Building settlements, towns and cities	4.1 Planning urban settlements 4.5 Making settlements to serve rural Australia
5. Working	5.8 Working on the land

Source: Australian Heritage Commission (2001).

## 2.6 Heritage impact assessments

This report assesses the potential direct heritage impacts of the Project (e.g. ground disturbance impacting archaeological sites), as well as the potential indirect heritage impacts of the Project (e.g. on the setting of heritage places).

No heritage items have been identified in this report and no direct heritage impacts have been identified.

In relation to potential indirect impacts, the assessments in this report have been guided by the following questions:

- *How is the impact of the new development on the heritage significance of the item or area to be minimised?*
- *Why is the new development required to be adjacent to a heritage item?*
- *How does the curtilage allowed around the heritage item contribute to the retention of its heritage significance?*
- *How does the new development affect views to, and from, the heritage item? What has been done to minimise negative effects?*
- *Is the development sited on any known, or potentially significant archaeological deposits? If so, have alternative sites been considered? Why were they rejected?*
- *Is the new development sympathetic to the heritage item? In what way (e.g. form, siting, proportions, design)?*
- *Will the additions visually dominate the heritage item? How has this been minimised?*
- *Will the public, and users of the item, still be able to view and appreciate its significance?*

## 2.7 Fieldwork methodology

The present report was prepared based on the following methodology:

- a desktop investigation of the existing historic heritage sites and values within the Study Area; and
- a single period of fieldwork undertaken by Jessica Heidrich in August 2019.

The desktop investigation was undertaken to determine the existence, extent and probable levels of significance of any non-Indigenous cultural heritage places likely to be located within the Project area. This assessment comprised searches of statutory and non-statutory registers and databases, and a review of existing published and unpublished reports, surveys and assessments of the Project area and its immediate surroundings. The results of this desktop assessment were used to develop a targeted field survey of the Study Area, and informed the assessment provided in this report.

The sites visited as part of this fieldwork were identified using:

- desktop reviews of previous heritage reports, including *Olive Downs Coking Coal Project. Non-Indigenous Cultural Heritage Technical Report* (Converge Heritage + Community 2018) and *Environmental Impact Statement Eagle Downs Project* (Hansen Bailey Environmental Consultants 2009);
- historical and archival research, including aerial imagery and photographic records; and
- local knowledge provided by Whitehaven employees.

Consultation was undertaken with the current Project Site Manager in July 2019, prior to the commencement of the fieldwork. The primary aim of this consultation was to gather as much information as possible regarding the probable location of any potential non-Indigenous historical heritage sites within the Study Area on the basis of observations made on the ground as part the Project's current exploration program. This consultation process enabled the fieldwork to be targeted to maximise the possibility of identifying sites. The Project Site Manager was aware of six potential sites of historical interest, as illustrated in Figure 14.

Based on the information gathered during this consultation process and the desktop inputs described above, a targeted one-day field survey of the Study Area was carried out. The field survey methodology adopted for this assessment incorporated a targeted vehicle and pedestrian survey of the Study Area, undertaken by the Extent consultant on 8 August 2019.

The field survey did not capture the entire Project area, but rather targeted locations and areas comprising a representative sample of it. The survey involved relying on existing tracks and roads to traverse the Project area, as well as going off-road in a 4WD vehicle as required.

Any potential non-Indigenous cultural heritage items, sites, places, and/or areas were recorded with regards to site location, site integrity, ground surface visibility, condition and relevant comments including type of site and type of artefacts located at the site.



All assessment data were recorded in field notebooks, and locations of any items or places of potential non-Indigenous cultural heritage significance were captured via a hand-held global positioning system (GPS) receiver, using a GDA94/MGA 56 GPS. This spatial information was then used to create maps identifying the location of potential historical sites and features noted during the field survey. Where access was not possible, the general location of the site in relation to the nearest road access was identified by GPS. All items or places of non-Indigenous cultural heritage significance, as well as areas of interest, were photographed using a digital camera.

### 2.7.1 Site observations

The Study Area predominantly comprises cleared grazing land with patches of regrowth dominated by dense brigalow or eucalypt dry woodlands (see Figure 6–Figure 7).

The Isaac River runs outside but parallel to the northern boundary of the Study Area. In addition, Ripstone Creek runs outside but parallel to the southern boundary of the Study Area and Cherwell Creek is located outside of the Study Area to the north-west.

Given that the Study Area is still a working cattle property and is also accessed by both Whitehaven employees and employees of the quarry located within the Study Area (Winchester Quarry), there are numerous dirt vehicle access tracks and cattle grids maintained and utilised across the Study Area (see Figure 8–Figure 9).

Part of the Norwich Park Branch Railway (and associated rail corridor) runs approximately north–south through the Study Area; access was not possible on the day of the field survey (see Figure 12–Figure 13). Winchester Quarry, a contemporary gravel quarry is also located in the north-west of the Study Area.

In general terms, the landscape of the Study Area has been subject to extensive agricultural and pastoral activities. Ground surface visibility across the Study Area was generally moderate (e.g. 26–50%) (Figure 10). The Study Area demonstrated evidence of previous significant ground disturbance, including ploughing, tree clearing, the construction of contour banks (i.e. for dams or water management strategies), buildings and related infrastructure, and rubbish dumping. It is considered that these activities greatly reduce the potential for (and the integrity of) surface historical archaeological material to survive, as well as lower the potential for sub-surface archaeological material.

In some areas, the land has not been maintained by the property owner (e.g. through cattle grazing) and, as such, the ground is obscured by regrowth vegetation (e.g. brigalow) or thick grass cover (see Figure 6). In other areas, such as the cleared and maintained access tracks that traversed the Study Area, ground surface visibility was improved, but still generally moderate (Figure 11).



Figure 6. View from the field survey vehicle showing the dense grass ground cover and regrowth vegetation, in this case brigalow, that characterised much of the Study Area.



Figure 7. View facing west near WS18 showing the cleared grazing land with patches of eucalypt and brigalow regrowth typical of the Study Area.



Figure 8. An example of the dirt vehicle access tracks typical of the Study Area. Note the sparse regrowth vegetation.





Figure 9. An example of the cattle grids and dirt access tracks typical of the Study Area.



Figure 10. An example of the ground surface visibility typical of the Study Area: cleared grazing land with dense grass and sparse regrowth.



Figure 11. An example of the improved ground surface visibility observed in the vicinity of the cleared and maintained vehicle access tracks, which traverse the Study Area.





Figure 12. View east showing the rail corridor crossing.



Figure 13. View south along the existing railway track and rail corridor, which runs north–south through the Study Area.



Sites of Interest.

**DRAFT**

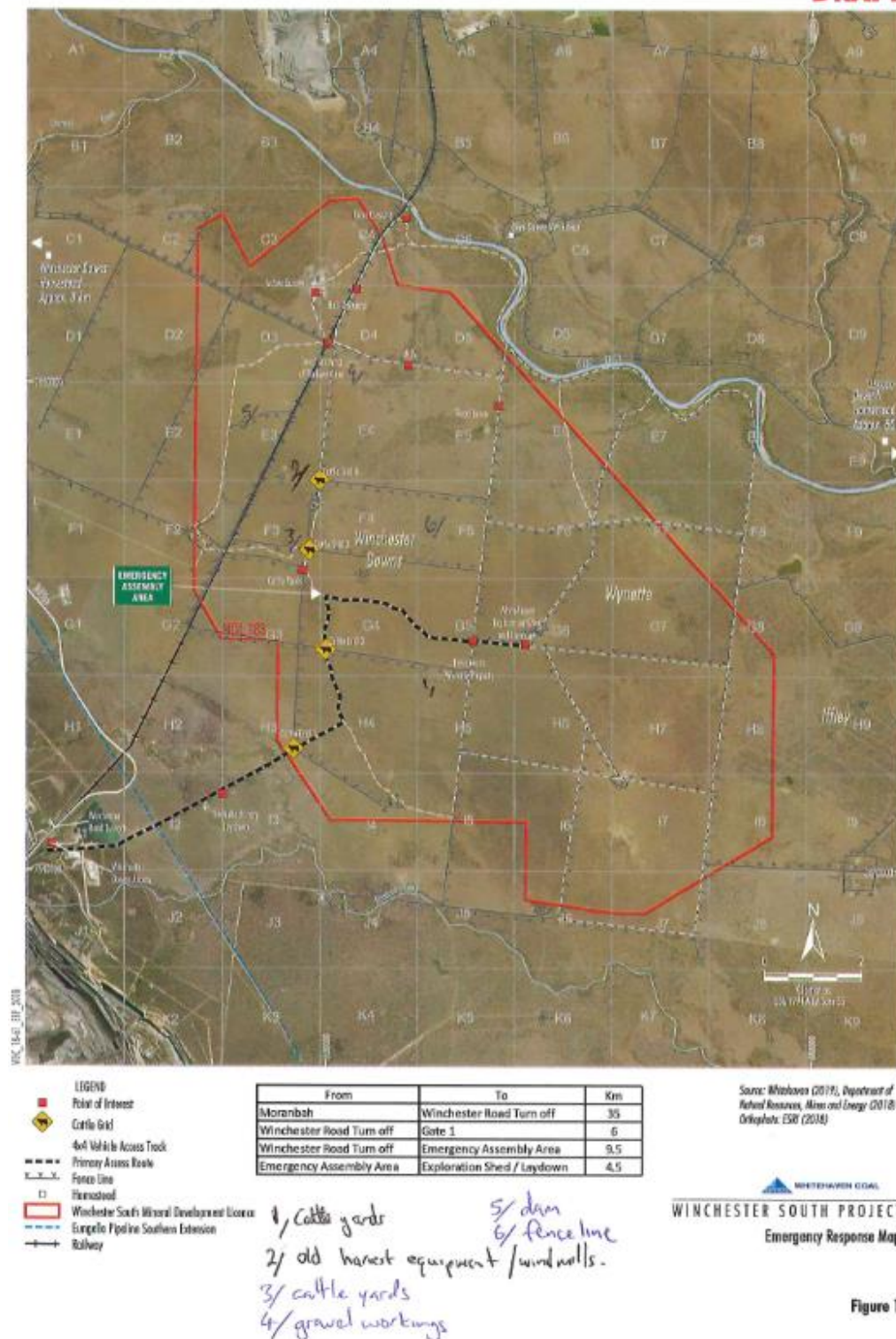


Figure 14. A facsimile of a map of the Project Mineral Development Licence (MDL) boundary (hard red line), showing hand-drawn annotations of potential sites of historical interest identified during consultation with the Project Site Manager prior to the commencement of fieldwork.

### 3. Historic context

This history draws on historical information presented in the *Olive Downs Coking Coal Project Non-Indigenous Cultural Heritage Technical Report* (Converge Heritage + Community 2018), augmented by historical research by Extent.

#### 3.1 European exploration and occupation

The first European to enter the northern Bowen Basin was the German explorer Ludwig Leichhardt (Killin 1984, 1). Leichhardt spent two months in early 1845 camped in and exploring the region later named Peak Downs, which he described as characterised by well-grassed plains and scrubby sandstone ridges (Leichhardt [1847] 1964, 134). While passing through the present-day Moranbah area in February 1845, Leichhardt also encountered the Isaac River, which he named in recognition of his friend and supporter F. Isaacs from the Darling Downs (Leichhardt [1847] 1964, 149). While Leichhardt noted the presence of coal during his exploration of the present-day Moranbah area, he was focused on the identification of potential areas for pastoral use (Murray 1996, 13).

In subsequent decades, various pastoral leases were progressively taken up in the Moranbah area on the basis of encouraging reports by Leichhardt and other explorers. Throughout the 1850s, the acquisition of land in inland central Queensland had been ‘a free-for-all’ (Murray 1996, 15). For example, Leichhardt’s friend Jeremiah Rolfe squatted on a run without authorisation in 1854 and named ‘Belyando Waters’ until it later became a part of a legal pastoral division (Killin 1984, 3).

By 1856, the so-called ‘Leichhardt District’ was officially opened for pastoral settlement. Some of the region’s early European settlers included John Muirhead, who established a sheep run at ‘Banchory’ in 1860 and the Archer brothers, who took up numerous runs including ‘Capella’, ‘Boree’, ‘Upper Crinum’, ‘Lower Crinum’, and ‘Laguna’ (O’Donnell c. 1989, 9–10). These pastoral holdings formed part of a pattern of private pastoral leases that typified the region for the first hundred years of European settlement. This encroachment of European settlement caused significant disruption to the existing Aboriginal inhabitants of the area, with records of European brutality toward Aboriginal people and massacres of pastoralists by Aboriginal groups (Killin 1984; Lack and Stafford 1965, 132–136; O’Donnell c. 1989, 11).

To curb the practice of claiming land with no intention to utilise it for pastoral purposes, the Queensland colonial government introduced legislation forcing early settlers to ‘occupy and work their properties’ (Murray 1996, 15). As a result, by the 1870s, much of the area around Moranbah was dedicated to pastoral activity; however, the establishment of sustainable forms of agriculture continued to prove difficult.

## 3.2 Early mining

Alongside the development of the pastoral industry, mining has had a major influence on the economy and nature of the Bowen Basin. Although the existence of coal had been known since Leichhardt's first explorations in the mid-1800s (Whitmore 1991, 318), the lack of reliable means for transporting coal to the coastal markets combined with limited local demand prevented the early development of this resource. Consequently, gold and copper were the first minerals to be extracted from the Bowen Basin mineral field in large quantities.

Following the first discovery of gold in 1861 (Killin 1984, 11), the area experienced its first gold rush centred on the town of Clermont in 1863. However, gold deposits were soon exhausted and by 1887, Queensland Mining Warden Edmund Morey concluded that the area was no more than a 'poor man's field' (Morey 1888, 185). With the exhaustion of the goldfields, copper became a major industry in the Bowen Basin area, resulting in the formation of the Peak Downs Copper Mining Company in 1862 (Killin 1984, 28). Small towns situated at, or close to, the gold and copper fields in the Bowen Basin followed a 'boom or bust' cycle; such townships relied on the development of mineral resources and often were deserted when mineral deposits were exhausted (O'Donnell c. 1989).

Before the end of the nineteenth century, the extension of the railways into central Queensland provided the 'impetus for extending coal mining' in the area (Whitmore 1985, 281). From 1884, a small market for local coal evolved with the extension of the Northern (later Central) railway line to Clermont. Early attempts in the 1920s to experiment with open-cut mining methods in the region were unsuccessful due to a variety of technological, transportation and weather-related issues. Therefore, underground mining remained the dominant technique in the Bowen Basin until the successful application of open-cut mining methods in 1937 by Blair Athol Opencut Collieries Limited (Killin 1984, 56).

The late 1960s was an era marked by the mining activities of multinational companies in the Bowen Basin, who brought necessary capital to ensure key infrastructure developments and access to domestic and international markets. In particular, the US multinational Utah Development Corporation opened their first open cut coal mine in Blackwater in 1968, approximately 290 km south-east of present-day Moranbah (Martin and Hargraves 1993, 158). With the forecast for approximately four hundred employees, the 'Moranbah' lease was purchased and became crown land (Belyando Shire Council 2006). By 1997, two-thirds of Queensland's \$10 billion production of coal came from the Bowen Basin (Department of Mines and Energy 1997, 16).

## 3.3 Moranbah

Prior to 1880, Mr Andrew Scott took up a pastoral lease known as 'Moranbah', and subsequently combined with other local leases to form 'Grosvenor Downs' station (Murray 1996, 16). Despite this amalgamation, 'Moranbah Holding' was identified in official records in 1920 as the grazing homestead for Mr H.R. Hart and again in 1929, when Mr C.H. Clements acquired the station and renamed it 'Moranbah' (Belyando Shire Council 2006). The origin of the namesake of the present-day Moranbah township has, therefore, remained somewhat unclear, but the earliest use of the term has been attributed to Scott's pastoral station.



On 4 October 1969, the Queensland Government Gazette announced the 'notification of intention to assign a place name, Moranbah, in the Parish of Moranbah, County of Grosvenor, in the shire of Belyando' (Murray 1996, 16). The town was purpose-built as a 'supportive town' for the Goonyella and Peak Downs mines by the Utah Development Company and in January 1970, land for both Moranbah and Goonyella transferred from the Nebo Shire Council to the Belyando Shire Council (Kingston 1986; Murray 1996, 3; Nebo Shire Council 2005).

Although the town was planned with a 'community focus' (Bertoldi 1978, 57), Moranbah faced early difficulties. For many residents, the town initially resembled a 'construction site' and two short-term caravan parks were established as temporary housing (Murray 1996, 42). However, infrastructure and service improvements were progressively made to the town and a number of essential and recreational services were added. By the mid-1970s, Moranbah had a shopping centre, a hospital, a golf course, an air charter service, and an AFL club (Murray 1996, 82). Today, Moranbah has grown into one of the hubs of the Isaac Region with an array of amenities including a major supermarket, restaurants and cafes, public swimming pool and sporting facilities.

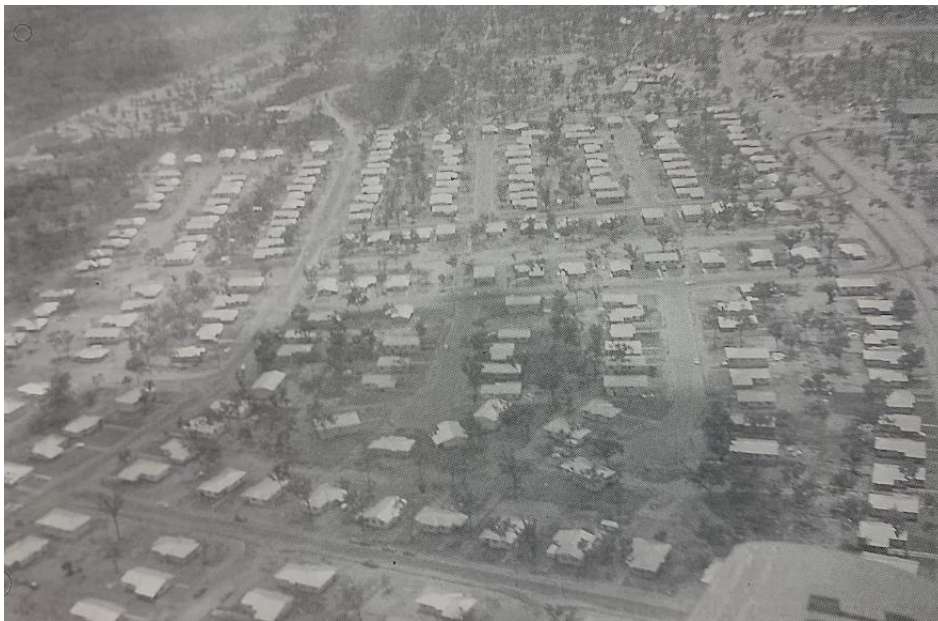


Figure 15. Aerial view of Moranbah in the early 1970s. Source: Murray (1996, 56).

### 3.4 The Project area

The Project area is positioned on one of the original pastoral runs taken up in the local Moranbah area known as 'Grosvenor Downs', which appeared on the Queensland Surveyor Office's Run Map for the Leichhardt District (QSA Series ID 1882).



On 13 September 1872, the brand '2GD', incorporating the initial letters of the run, was registered to William Furlong of 'Grosvenor Downs' and transferred to Alexander Boner McDonald on 26 May 1873 (O'Donnell c. 1989, 19). By 29 April 1885, McDonald was the registered lessee of Grosvenor Downs and was amongst the earliest pioneers at the copper fields of the Peak Downs district (QSA File No: LAN/AF 388). A homestead was erected on the station under the tenure of A.B. McDonald and is said to have featured a main building with wide verandahs, a semi-detached kitchen and staff quarters, various outbuildings and a tended vegetable garden (Fox 1923, 783–84).

McDonald's holding began with the original Grosvenor runs, but he was able to consolidate a number of other runs into an enlarged Grosvenor Downs. By the time of McDonald's death in 1907, Grosvenor Downs included the Winchester, Teviot Bank, Broadmeadow, Roseylie, Broadlee, Hermitage Forest and Harrow holdings (see Figure 16).

After McDonald's death, ownership of the Grosvenor Downs lease was transferred to J.W. and W.M. Allan (O'Donnell c. 1989, 19). By 9 November 1910, the ownership of the run was taken over by J.H. Clark, who presented it to his younger daughter.

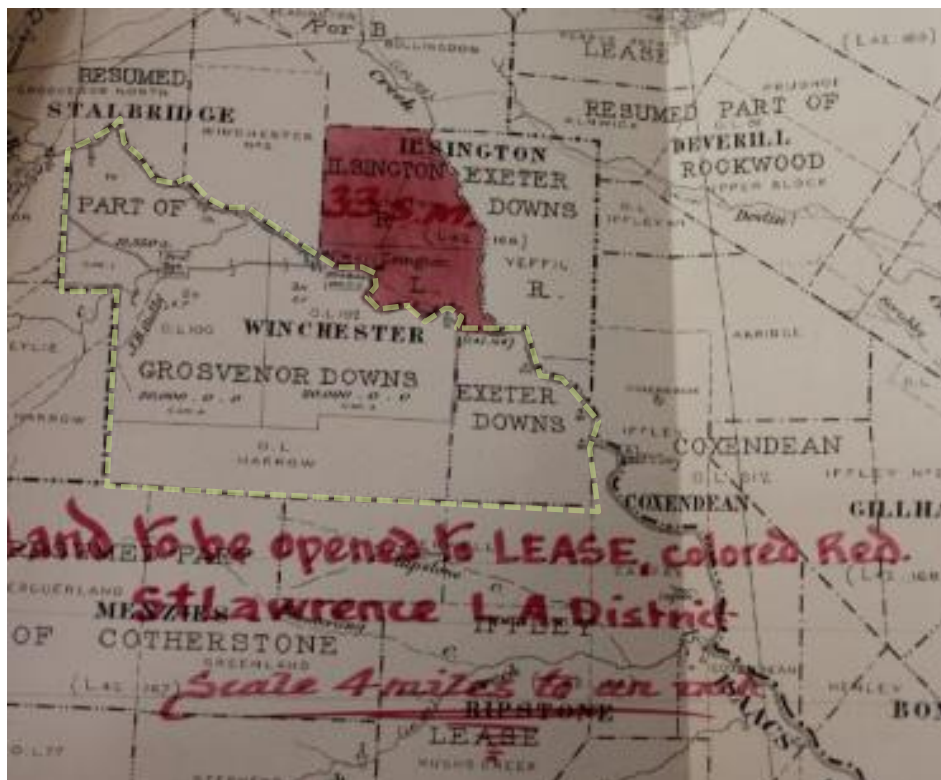


Figure 16. The Grosvenor Downs lease, including the 'Winchester' holding, in the Project Area in 1907 (dotted yellow line). Source: QSA Item ID 437838.

*Note that the red text and shading shown on this map are part of the annotations made on the original document. These annotations identify the Islington Holding, which is not part of the Project and is not subject to assessment in this report.*

The Project area was part of the 'Winchester' holding, which was taken up by J.Y. and E.Y. Shannon who took up the Winchester pastoral lease in 1909. This holding was used for running cattle and had a permanent water source in the Isaac River. Although the holding underwent several lessee changes, this was the preferred use throughout the rest of the twentieth century. In 1914, Francis Herbertson took over the Winchester holding which, after five years, he sold (Fox 1923, 514). In 1917, 22.5 square miles of the eastern part of the property was resumed to the Land Commissioner. However, the Shannon family maintained ownership of the rest of property until 1952 when the lessee, M.R. Shannon, passed away.

By the 1940s, the Winchester holding had been consolidated into three separate leases: Winchester Downs, Wynette and Iffley. Winchester was transferred to D.B. Neilsen in 1958. In 1967, the Neilsens applied for a new lease under selection tenure as a Grazing Homestead (Hansen and Bailey 2009, 3).

Currently, Winchester Downs is owned by Beryl Neilsen. The Wynette and Iffley properties are owned by Whitehaven WS and Pembroke Olive Downs Pty Ltd, respectively.

### 3.5 Land use

Since the 1860s, mining and pastoral activities have been the dominant industries in the Peak Downs area. Today, the Project area and its immediate surrounds are characterised by a mix of land uses and a range of activities, each one represented by a variety of infrastructure and built forms.

The land has been cleared for some 100–150 years and the remnants of past pastoral and agricultural activities are visible in the landscape. However, they share the area with mining operations and mine infrastructure that have been part of the wider landscape for decades. This has been a relevant consideration in this assessment.

The existing land use in the Project area is predominantly grazing. There are no nature conservation areas, including National or State Parks, in the Project area or immediate surrounds.

## 4. Assessment of cultural heritage significance

The following section provides a description and historic overview of the twenty-eight potential sites of non-Indigenous cultural heritage significance identified during the field survey of the Study Area, as well as an assessment of their heritage significance and archaeological potential.

The implications of these significance assessments are discussed in Part 5.

### 4.1 Summary

The following Table 5 presents a summary of the significance assessment for potential sites of non-Indigenous cultural heritage significance in accordance with the criteria (a-h) for heritage significance pursuant to the *Queensland Heritage Act 1992*.

It is noted that the broader 'cultural landscape' is also considered in Part 4.30.

Table 5. The significance assessment for potential sites of non-Indigenous cultural heritage significance in accordance with the criteria for heritage significance pursuant to the *Queensland Heritage Act 1992*

Criterion														
<i>Y – Fulfilled criterion for significance</i>	WS01	WS02	WS03	WS04	WS05	WS06	WS07	WS08	WS09	WS10	WS11	WS12	WS13	WS14
<i>N – Failed to meet criterion for significance</i>														
(a) The place is important in demonstrating the evolution or pattern of Queensland's history.	N	N	N	N	N	N	N	N	N	N	N	N	N	N
(b) The place demonstrates rare, uncommon or endangered aspects of Queensland's cultural heritage.	N	N	N	N	N	N	N	N	N	N	N	N	N	N
(c) The place has potential to yield information that will contribute to an understanding of Queensland's history.	N	N	N	N	N	N	N	N	N	N	N	N	N	N
(d) The place is important in demonstrating the principal characteristics of a particular class of cultural places.	N	N	N	N	N	N	N	N	N	N	N	N	N	N
(e) The place is important because of its aesthetic significance.	N	N	N	N	N	N	N	N	N	N	N	N	N	N
(f) The place is important in demonstrating a high degree of creative or technical achievement at a particular period.	N	N	N	N	N	N	N	N	N	N	N	N	N	N
(g) The place has a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.	N	N	N	N	N	N	N	N	N	N	N	N	N	N
(h) The place has a special association with the life or work of a particular person, group or organisation of importance in Queensland's history.	N	N	N	N	N	N	N	N	N	N	N	N	N	N



Criterion														
<i>Y – Fulfilled criterion for significance</i>	WS15	WS16	WS18	WS19	WS20	WS22	WS23	WS24	WS25	WS26	WS27	WS28	WS29	WS30
<i>N – Failed to meet criterion for significance</i>														
(a) The place is important in demonstrating the evolution or pattern of Queensland's history.	N	N	N	N	N	N	N	N	N	N	N	N	N	N
(b) The place demonstrates rare, uncommon or endangered aspects of Queensland's cultural heritage.	N	N	N	N	N	N	N	N	N	N	N	N	N	N
(c) The place has potential to yield information that will contribute to an understanding of Queensland's history.	N	N	N	N	N	N	N	N	N	N	N	N	N	N
(d) The place is important in demonstrating the principal characteristics of a particular class of cultural places.	N	N	N	N	N	N	N	N	N	N	N	N	N	N
(e) The place is important because of its aesthetic significance.	N	N	N	N	N	N	N	N	N	N	N	N	N	N
(f) The place is important in demonstrating a high degree of creative or technical achievement at a particular period.	N	N	N	N	N	N	N	N	N	N	N	N	N	N
(g) The place has a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.	N	N	N	N	N	N	N	N	N	N	N	N	N	N
(h) The place has a special association with the life or work of a particular person, group or organisation of importance in Queensland's history.	N	N	N	N	N	N	N	N	N	N	N	N	N	N

## 4.2 WS01—Cattle Yards

### 4.2.1 Location

WS01 is located at 632485.09, 7544103.50 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

### 4.2.2 Description

WS01 (see Figure 17–Figure 19) comprises cattle yards constructed using a combination of different fencing types, namely timber post-and-rail and timber post strung with wire. The yards feature a central rectangular holding yard with a concrete water trough along its northern boundary, metal gates, and a timber cattle sorting gate on its western boundary.

A separate small holding pen is located in the south-east corner, fencing a small waterhole with a steep embankment. A large rectangular-shaped depression with various lengths of modern PVC pipe scattered across the surface is adjacent to the eastern boundary of the yards. This appears to be the location of a former dam. Two modern PVC water tanks are adjacent to the northern boundary of the yards.

At the time of the field survey, the cattle yards were in use and in fair condition. The land within and surrounding the cattle yards has been subject to previous land clearing and ground disturbance due to cattle grazing. Some sections of the timber fencing were overgrown with vegetation.

### 4.2.3 Assessment of significance and archaeological potential

WS01 is of minor local historical interest, as the fence design (combination timber post-and-rail and timber post strung with wire) provide some evidence of mid-to-late-twentieth century farming practices, especially in relation to cattle grazing. Although WS01 is part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS01 fails to meet the threshold for local heritage significance.

WS01 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.



Figure 17. View north looking towards north-east corner of timber cattle yards (WS01). Note the combination of timber post-and-rail and timber post strung with wire. Two modern PVC water tanks are visible in the distance.



Figure 18. View west showing timber gate apparatus at WS01. Note the timber post-and-rail construction.



Figure 19. The timber cattle yard fencing typical of WS01, illustrating the timber post-and-rail construction.

## 4.3 WS02—Cattle Yards

### 4.3.1 Location

WS02 is located at 631409.46, 7541481.40 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

### 4.3.2 Description

WS02 (see Figure 20–Figure 22) comprises cattle yards constructed using a combination of traditional fencing (timber post strung with wire) and modern fencing types (metal post-and-rail). The yards include a main holding pen with two large depressions that are indicative of the location of two former dams. The yards also include a cattle sorting gate constructed using a combination of narrow timber horizontal rails and metal uprights and horizontal rails.

At the time of the field survey, the cattle yards were in use and in good condition. The land has been subject to previous land clearing and ground disturbance due to cattle grazing.

### 4.3.3 Assessment of significance and archaeological potential

WS02 is of relatively recent construction and although it is part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS02 fails to meet the threshold for local heritage significance.

WS02 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 20. View towards WS02 – cattle yards constructed using a combination of metal post-and-rail and timber posts strung with wire. Note the cattle sorting gate in the centre of frame, constructed using a combination of metal uprights and horizontal rails, and narrow timber rails.



Figure 21. Detail of the main cattle sorting gate of WS02. Note that the gate's sorting component is constructed of timber rails supported within a modern metal framework.



Figure 22. View showing the interior of the WS02 cattle yards with the main gate to the right of frame.

## 4.4 WS03—Water Infrastructure 1

### 4.4.1 Location

WS03 is located at 630668.93, 7546067.94 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

### 4.4.2 Description

WS03 (see Figure 23–Figure 25) comprises a collection of water infrastructure in an undulating grassed paddock, namely two dams with steep embankments (one of which is no longer filled with water), a circular concrete water trough, a modern PVC water tank, and a windmill.

Various metal debris was also observed in proximity to the windmill. The windmill has been adapted for solar power and, therefore, is a modified feature (i.e. not characteristic of historical rural farming practices).

At the time of the field survey, the windmill, water trough and one of the dams were in use and observed to be in good condition.

### 4.4.3 Assessment of significance and archaeological potential

The water infrastructure comprising WS03 appear to be of more recent construction. Although the windmill may have been associated with the early pastoral history and activities of this rural estate, it is now a modified feature (having been adapted for solar power). While WS03 is part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS03 fails to meet the threshold for local heritage significance.

WS03 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 23. View facing south of WS03, showing one of the dams and the associated windmill. Note the modern addition of solar panels providing power to the windmill.



Figure 24. The modern PVC water tank located in proximity to the windmill at WS03. Note the embankment of the second dam is visible in the left background; at the time of the field survey, this dam was dry and appeared to have been out of use for some time.



Figure 25. An example of the metal debris observed in proximity to the windmill at WS03.

## 4.5 WS04—‘New’ Winchester Downs Cattle Yards

### 4.5.1 Location

WS04 is located at 629565.52, 7546164.92 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

### 4.5.2 Description

WS04 (see Figure 26–Figure 28) comprises large cattle yards of steel post-and-rail construction, which were built in recent years as the primary cattle holding facility for the current operations of Winchester Downs. The yards include a main holding yard, metal gates, concrete water troughs, various smaller holding pens and a cattle-loading ramp with uprights and horizontal rails. In contrast to the other cattle yards on Winchester Downs (e.g. WS01 and WS02), this cattle yard is constructed entirely of steel elements; no timber posts or rails were present. A concrete block, held together with metal rods and packed with earth, is located adjacent to the eastern boundary of the cattle yards. This appears to be part of a modified cattle-loading ramp and is not characteristic of early pastoral activities.

At the time of the field survey, the cattle yards were in use and in good condition. The land within and surrounding the cattle yards has been subject to previous land clearing and ground disturbance due to cattle grazing. Pockets of sparse eucalypt regrowth were observed surrounding the yards; however, there was little to no grass ground cover within the yards themselves.

### 4.5.3 Assessment of significance and archaeological potential

WS04 is of more recent construction and were specifically built to replace the former Winchester Downs cattle yards. Therefore, they are not characteristic of, nor associated with, the early pastoral history of this rural estate. Although WS04 is part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS04 fails to meet the threshold for local heritage significance.

WS04 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 26. View south of WS04, known as the 'new' Winchester Downs cattle yards.



Figure 27. Detail of the modern metal fencing used in the construction of WS04. The cattle loading ramp and various small holding pens are visible in the background.



Figure 28. View south towards WS04 showing the concrete block structure located adjacent to the eastern boundary of the cattle yards. This concrete block is held together by metal rods and packed with earth, and may have been used as a modified cattle-loading ramp.

## 4.6 WS05—Remains of ‘Winchester Downs’ Cattle Yards 1

### 4.6.1 Location

WS05 is located at 629339.05, 7546347.81 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

WS05 is located within approximately 50 metres (m) of other remnant structures associated with the former Winchester Downs cattle yards: a pump shed and water tank (WS06), the concrete foundations of a former water tank (WS07), a former cattle dip (WS08), and another timber debris pile (WS09). It is also located approximately 200 m north-west of the current Winchester Downs cattle yards (WS04).

### 4.6.2 Description

WS05 (see Figure 29–Figure 30) comprises a pile of timber debris, including both natural timber from uprooted trees and remnant timber posts mortised for rails. Although no standing elements remain, it is consistent with the location of the former Winchester Downs cattle yards. Some of the timber posts observed in the debris pile show evidence of having been mortised for rails, as well as having been strung with wire. This indicates that the former cattle yards were likely constructed using a combination of different fencing types, including both timber post-and-rail and timber posts strung with wire. On the day of the field survey, the condition of WS05 was very poor; it presents as a debris pile or a ruin within the broader landscape.

### 4.6.3 Assessment of significance and archaeological potential

While WS05 appear to be associated with the former Winchester Downs cattle yards and therefore, form part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS05 fails to meet the threshold for local heritage significance.

WS05 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 29. View north of WS05, which comprises a combination of natural timber debris and remnant timber fence posts.



Figure 30. Detail of the timber fence posts comprising WS05, some of which have been mortised for rails.

## 4.7 WS06—Pump Shed and Water Tank

### 4.7.1 Location

WS06 is located at 629318.51, 7546345.21 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

WS06 is located within approximately 50 m of other remnant structures associated with the former Winchester Downs cattle yards: two separate timber debris piles (WS05 and WS09), the concrete foundations of a former water tank (WS07), and a former cattle dip (WS08). It is also located approximately 200 m north-west of the current Winchester Downs cattle yards (WS04).

### 4.7.2 Description

WS06 (see Figure 31–Figure 33) comprises a pump shed constructed of corrugated iron with timber posts and framing elements. It is sited immediately adjacent to a concrete water tank, which features a small drainage outlet on its western side and the remnants of two timber stumps on its southern side. The pump shed and its associated water tank are both in poor condition and appear to have been abandoned for some time.

On the day of the field survey, the pump shed was observed in a state of partial collapse; the roof was missing and various building material debris (including some of the corrugated iron roof sheeting) had since fallen inside the shed. The concrete fabric of the water tank also appeared to be deteriorating with general surface cracking observed in places.

### 4.7.3 Assessment of significance and archaeological potential

Although WS06 is one of several extant structures that appear to be associated with the former Winchester Downs cattle yards and therefore, is part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS06 fails to meet the threshold for local heritage significance.

WS06 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 31. View south-west of WS06 showing the rear of the pump shed and the associated water tank.



Figure 32. View south showing the interior of the pump shed, which is in a state of partial collapse. Note the large corrugated iron roof sheet, which has collapsed into the interior of the shed.



Figure 33. View north of WS06 showing the concrete water tank associated with the pump shed. Note the two remnant timber stumps in the foreground and a small drain on the west (left) side of the tank.

## 4.8 WS07—Water Tank Foundations

### 4.8.1 Location

WS07 is located at 629311.93, 7546322.35 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

WS07 is located within approximately 50 m of other remnant structures associated with the former Winchester Downs cattle yards: two separate timber debris piles (WS05 and WS09), a pump shed and water tank (WS06), and a former cattle dip (WS08). It is also located approximately 200 m north-west of the current Winchester Downs cattle yards (WS04).

### 4.8.2 Description

WS07 (see Figure 34–Figure 36) comprises the remains of a hexagonal concrete slab, which is likely the foundations of a former water tank. It is connected on its western edge to the remains of a former cattle dip (WS08) and there is a small drain on this edge.

The slab features a lipped edge that presents as a narrow and regular groove around the perimeter of the slab. On each corner of the slab, there are small holes that may be indicative of former posts (possibly for a tank stand) or drainage points. A pile of medium-sized field stones is adjacent to the south of the slab.

On the day of the field survey, the slab was observed in poor condition, with evidence of cracking and broken edges.

### 4.8.3 Assessment of significance and archaeological potential

Although WS07 is one of several extant structures that appear to be associated with the former Winchester Downs cattle yards and therefore, is part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS07 fails to meet the threshold for local heritage significance.

WS07 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 34. View north showing the hexagonal concrete slab that likely served as the foundations of a former water tank. Note the pile of fieldstones in the foreground. WS06 is visible in the background.



Figure 35. View east of WS07. The former cattle dip (WS08) connects with the concrete foundations of the former water tank on this western edge; one of the cattle dip walls is visible in the bottom left of frame.



Figure 36. View of the eastern edge of the concrete slab, showing the lipped edge and the holes on each corner, which may be indicative of former posts or drainage holes.

## 4.9 WS08—Former Cattle Dip

### 4.9.1 Location

WS08 is located at 629294.66, 7546328.80 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

WS08 is located within approximately 50 m of other remnant structures associated with the former Winchester Downs cattle yards: two separate timber debris piles (WS05 and WS09), a pump shed and water tank (WS06), and the concrete foundations of a former water tank (WS07). It is also located approximately 200 m north-west of the current Winchester Downs cattle yards (WS04).

### 4.9.2 Description

WS08 (see Figure 37–Figure 39) comprises the remains of a former cattle dip, with an approximate width of 2 m and a length of 12 m. It is connected on its eastern end to a hexagonal concrete slab (WS07), which is likely the foundations of a former water tank. The western end of the dip retains evidence of a concrete path, or possibly a ramp, that connects to the small concrete steps that lead down into the dip itself.

On the day of the field survey, the former cattle dip was observed to be in very poor condition. The concrete fabric is cracking in places and the southern wall has collapsed into the dip itself. The interior of the dip was inaccessible and not visible, as it is filled with debris including timber posts, metal signage, and wire.

### 4.9.3 Assessment of significance and archaeological potential

Although WS08 is one of several extant structures that appear to be associated with the former Winchester Downs cattle yards and therefore, is part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS08 fails to meet the threshold for local heritage significance.

WS08 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 37. View north of WS08, a former cattle dip. Note the relationship between the former dip (centre), the concrete slab to the right (WS07) and the pump shed and tank in the background (WS06).



Figure 38. The collapsed southern wall (foreground) and the extant northern wall of the former cattle dip.



Figure 39. View east showing the remains of a concrete path leading to the former cattle dip.

## 4.10 WS09—Remains of ‘Winchester Downs’ Cattle Yards 2

### 4.10.1 Location

WS09 is located at 629274.67, 7546330.63 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

WS09 is within approximately 50 m of other remnant structures associated with the former Winchester Downs cattle yards: another timber debris pile (WS05), a pump shed and water tank (WS06), the concrete foundations of a former water tank (WS07), and a former cattle dip (WS08). It is also located approximately 200 m north-west of the current Winchester Downs cattle yards (WS04).

### 4.10.2 Description

WS09 (see Figure 40–Figure 42) comprises a pile of timber debris, including both natural timber from uprooted trees and remnant timber posts mortised for rails. Although no standing elements remain, it is consistent with the location of the former Winchester Downs cattle yards.

Some of the timber posts observed in the debris pile show evidence of having been mortised for rails, as well as having been strung with wire. This indicates that the former cattle yards were likely constructed using a combination of different fencing types, including both timber post-and-rail and timber posts strung with wire.

On the day of the field survey, the condition of WS09 was very poor; it presents as a debris pile or a ruin within the broader landscape.

### 4.10.3 Assessment of significance and archaeological potential

While WS09 appears to be associated with the former Winchester Downs cattle yards and therefore, forms part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right. In any event, WS09 presents as a collection of debris and disturbed archaeological material associated with the former Winchester Downs cattle yards.

As a result, WS09 fails to meet the threshold for local heritage significance.

WS09 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 40. View west of WS09, a debris pile containing remnants of the former Winchester Downs cattle yards.



Figure 41. The timber debris pile (WS09) comprising both natural timber and the remnants of timber posts mortised for rails.



Figure 42. An example of some of the timber fence posts with metal fixings.

## 4.11 WS10—Wire Tree

### 4.11.1 Location

WS10 is located at 629328.56, 7546301.62 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

WS10 is within approximately 50 m of other remnant structures associated with the former Winchester Downs cattle yards: two separate timber debris piles (WS05 and WS09), a pump shed and water tank (WS06), the concrete foundations of a former water tank (WS07), and a former cattle dip (WS08). It is also located approximately 200 m north-west of the current Winchester Downs cattle yards (WS04).

### 4.11.2 Description

WS10 (see Figure 43–Figure 45) comprises a tree with single notch cut out of its trunk, similar to a fence post that has been mortised for rails. Sections of wire appear to have been strung around and looped through its trunk via three small holes, spaced at regular intervals. It is, therefore, possible that this tree may have been used as a fence post, or may relate to an earlier, but temporary, fence line associated with the former Winchester Downs cattle yards.

On the day of the field survey, the wire itself was observed to be poor condition; some of the wire had corroded and appeared to have been cut off at a short length from the tree trunk.

### 4.11.3 Assessment of significance and archaeological potential

Factory-produced wire became widely available in Australia from the 1850s and barbed wire began to appear in the early 1880s (Connah 1988). Given that this tree features both factory-produced and barbed wire (looped through holes in the trunk of the tree at regular intervals), it is possible that this tree may relate to an earlier fence line or temporary boundary associated with the former Winchester Downs cattle yards. However, no other physical evidence of a fence line in this location was observed on the day of the field survey.

While WS10 forms part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS10 fails to meet the threshold for local heritage significance.

WS10 has low potential to be an archaeological ‘artefact’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 43. View south-east of WS10, a tree that may have been formerly used as a fence post.



Figure 44. The notch cut into the tree's trunk and the remnant wire looped around and through the trunk.



Figure 45. View of the reverse side of the tree trunk. Note the holes spaced at regular intervals.

## 4.12 WS11—Water Trough 1

### 4.12.1 Location

WS11 is located at 628725.29, 7546669.30 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

WS11 is within approximately 50 m of other remnant items of water infrastructure including: another concrete water trough (WS12), the remains of a windmill (WS13), and the remains of a water tank (WS14).

### 4.12.2 Description

WS11 (see Figure 46–Figure 48) comprises a concrete water trough (approximately 7 m in length) supported on concrete footings and surrounded by a timber post-and-rail frame. This frame features eight timber upright posts approximately 1 m high and 20 centimetres (cm) in diameter, as well as several horizontal beams. At one end of the trough, there is a metal plug inscribed with the name ‘ROCLA’.

On the day of the field survey, the condition of the trough was observed to be very poor and appeared to have been abandoned for some time. The timber frame was deteriorated and in a state of partial collapse. The concrete fabric of the trough itself is cracked in the middle.

### 4.12.3 Assessment of significance and archaeological potential

Rocla Pty Ltd (‘Rocla’) is a leading Australian supplier of concrete products including stormwater piping, box culverts, sewerage piping, irrigation, water storage solutions, railway sleepers etc. Established by Walter Robertson and Heaton Clarke, the Rocla name was registered in 1922 and remains one of Australia’s leading manufacturers and suppliers of concrete solutions for the agricultural, municipal, industrial, construction, and mining industries (Rocla 2019).

It is possible that this concrete water trough dates to the mid-1920s following the establishment of the Rocla company, and therefore, may relate to the historical operations of Winchester Downs from the mid-twentieth century onwards. However, no evidence of a homestead in this location, nor in its vicinity, was observed. While WS11 is of some minor historical interest as an example of pastoral water infrastructure, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS11 fails to meet the threshold for local heritage significance.

WS11 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 46. View north-west of WS11, a concrete water trough with a timber post-and-rail frame.



Figure 47. Detail of the trough's timber post-and-rail frame. Note the concrete footings.



Figure 48. Detail of the trough's metal plug, which reads 'ROCLA'.



## 4.13 WS12—Water Trough 2

### 4.13.1 Location

WS12 is located at 628723.10, 7546678.84 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

WS12 is within approximately 50 m of other remnant items of water infrastructure including: another concrete water trough (WS11), the remains of a windmill (WS13), and the remains of a water tank (WS14).

### 4.13.2 Description

WS12 (see Figure 49–Figure 51) comprises a concrete water trough with a timber shell and surrounded by a timber post-and-rail frame. This frame features eight timber upright posts approximately 1 m high and 20 cm in diameter, as well as several horizontal beams. The remains of what appears to have been a timber post-and-rail fence are located immediately perpendicular to the eastern end of the trough, extending out to the north. At the western end of the trough, there is a piece of sheet metal. At the eastern end, there is a metal gallon drum.

On the day of the field survey, the condition of the trough was observed to be very poor and appeared to have been abandoned for some time. Both the timber post-and-rail frame and the timber lining have deteriorated over time. The trough itself is in a state of partial collapse and is filled with debris.

### 4.13.3 Assessment of significance and archaeological potential

It is likely that this concrete water trough dates to the 1950s or later and therefore, it may relate to the historical operations of Winchester Downs from the mid-twentieth century onwards. However, no evidence of a homestead in this location, nor in its vicinity, was observed on the day of the field survey. While WS12 is of some minor historical interest as an example of pastoral water infrastructure and forms part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS12 fails to meet the threshold for local heritage significance.

WS12 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.



Figure 49. View west showing WS12, a concrete water trough with a timber shell and surrounded by a timber post-and-rail frame. Note the remains of a timber post-and-rail fence perpendicular to the trough.



Figure 50. View looking east from the western end of WS12. Note the piece of metal sheeting.



Figure 51. The eastern end of the water trough, showing the timber shell encasing the concrete trough.

## 4.14 WS13—Remains of Windmill

### 4.14.1 Location

WS13 is located at 628742.78, 7546689.08 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

WS13 is within approximately 50 m of other remnant items of water infrastructure including: two concrete water troughs (WS11 and WS12) and the remains of a water tank (WS14).

### 4.14.2 Description

WS13 (see Figure 52–Figure 54) comprises the remains of a windmill in a grassed paddock. The remnant metal fixture from the pump is still visible, positioned in the centre of the metal windmill frame. Some windmill debris (e.g. assorted metal parts) were observed scattered across the paddock further to the east.

On the day of the field survey, the condition of WS13 was observed to be very poor; all of the windmill blades were missing and it did not appear to have been functional for some time.

### 4.14.3 Assessment of significance and archaeological potential

It is possible that this windmill may relate to the historical operations of Winchester Downs, dating from the mid-twentieth century onwards. However, while WS13 is of some minor historical interest as an example of pastoral water infrastructure and forms part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS13 fails to meet the threshold for local heritage significance.

WS13 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 52. View north of the remains of a windmill (WS13). Note all the blades are missing.



Figure 53. The metal windmill stand and remnant metal fixture of WS13.



Figure 54. An example of some of the windmill debris scattered across the paddock to the east.

## 4.15 WS14—Water Tank

### 4.15.1 Location

WS14 is located at 628740.27, 7546673.16 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

WS14 is within approximately 50 m of other remnant items of water infrastructure including: two concrete water troughs (WS11 and WS12) and the remains of a windmill (WS13).

### 4.15.2 Description

WS14 (see Figure 55–Figure 57) comprises the remains of a large corrugated iron water tank, lined with concrete and mounted on a concrete slab. The condition of WS14 is very poor: the tank is a state of partial collapse and the corrugated iron sheeting is corroded. The concrete slab, which is visible inside the tank, is overgrown in places with vegetation and is broken in multiple places around its edge.

The tank is no longer functional and appears to have been abandoned for some time.

### 4.15.3 Assessment of significance and archaeological potential

It is possible that this water tank may relate to the historical operations of Winchester Downs, dating from the mid-twentieth century onwards. However, while WS14 is of some minor historical interest as an example of pastoral water infrastructure and forms part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS14 fails to meet the threshold for local heritage significance.

WS14 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 55. View north of WS14, being the remains of a corrugated iron water tank.



Figure 56. View south of WS14 showing the concrete lining and corrugated iron sheeting. Note the tank is in a state of partial collapse and the corrugated iron sheeting is corroded.



Figure 57. View west showing the remains of the concrete slab foundations of the water tank.



## 4.16 WS15—Cattle Loading Ramp

### 4.16.1 Location

WS15 is located at 627744.91, 7546584.78 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

### 4.16.2 Description

WS15 (see Figure 58–Figure 60) comprises a timber and earthen cattle ramp, constructed of two horizontal logs stacked between two trees. The ramp itself is of packed red earth, and extends out approximately 2 m to the south. The timber logs forming the front section of the ramp appear to be uprooted trees that have been repurposed; there is no evidence to suggest they are sawn or cut logs.

WS15 is located in a cleared and flat area with only sparse regrowth vegetation and no grass ground cover. The two trees flanking the ramp also appear to be regrowth.

On the day of the field survey, the ramp was observed to be in reasonable condition. Given its position immediately adjacent to a dirt vehicle access track, the ramp itself (and its location) is still possibly in use.

### 4.16.3 Assessment of significance and archaeological potential

Given that this is a timber and earthen cattle ramp, it may date to the 1940s and therefore, it is possible that it relates to the historical operations of Winchester Downs from the mid-twentieth century onwards. However, the two trees flanking the ramp (as well as those forming the main structure of ramp) do not appear to be of considerable age (i.e. dating back to the 1940s). It is therefore likely that this current ramp is a more recent iteration (i.e. in the last thirty–forty years).

In any event, while WS15 forms part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS15 fails to meet the threshold for local heritage significance.

WS15 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.



Figure 58. View south-west of WS15, a timber and earthen cattle ramp constructed between two trees.



Figure 59. View west showing the packed earthen mound forming part of the cattle ramp.



Figure 60. Detail of the timber logs and packed earth forming the cattle ramp (WS15).

## 4.17 WS16—Cattle Yard

### 4.17.1 Location

WS16 is located at 627256.59, 7546993.31 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

### 4.17.2 Description

WS16 (see Figure 61–Figure 62) comprises a small cattle yard constructed using timber posts and wire fencing. The yard includes a cattle sorting gate constructed using a combination of timber uprights, timber horizontal rails, and wire. The sorting element is constructed of timber, whereas the gate itself is metal.

On the day of the field survey, there was evidence of recent repair work to the sorting gate (e.g. the addition of blue wire and new timber horizontal rails). The remains of two water tanks were visible inside: one modern PVC and one concrete. A second modern PVC water tank, which appears to be in use, is outside the yards to the north.

### 4.17.3 Assessment of significance and archaeological potential

WS16 appears to be a cattle yard of more recent construction and in use at the time of the field survey. Therefore, while WS16 is part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS16 fails to meet the threshold for local heritage significance.

WS16 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 61. View west of the WS16 cattle yard, which appears to be of more recent construction and is currently in use. Note the timber post with wire rail fencing and the modern PVC water tank to the right.



Figure 62. View south-west of WS16, showing the main cattle sorting gate constructed using a combination of timber posts and rails, metal wire, and a metal gate.

## 4.18 WS18—Former Fence Line

### 4.18.1 Location

WS18 is located at 628045.20, 7549083.25 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

### 4.18.2 Description

WS18 (see Figure 63–Figure 64) comprises the remains of a former fence line running east-west across a grassed paddock, which has been subject to previous land clearing for the purposes of grazing cattle. The western extent of the fence comprises the remains of two timber fence posts, which may represent a former gate or entrance.

On the day of the field survey, the condition of these remnant posts was observed to be poor, with visible deterioration of the timber elements. The eastern extent of the fence line appears to generally follow the same alignment, but has been replaced in recent times with modern fencing constructed of metal palings strung with barbed wire.

### 4.18.3 Assessment of significance and archaeological potential

Factory-produced wire became widely available in Australia from the 1850s and barbed wire began to appear in the early 1880s (Connah 1988). Given that the remnant posts comprising WS18 feature factory-produced wire, it is possible that these posts may relate to an earlier fence line or former property boundary associated with the historical operations of Winchester Downs. However, no other physical evidence of a fence line in this location was observed.

Therefore, while WS18 forms part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS18 fails to meet the threshold for local heritage significance.

WS18 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 63. View south of WS18. These two timber posts are the only remnants of what appears to be a former fence line running east–west and may indicate the location of an earlier property boundary.



Figure 64. Detail of one of the timber fence posts comprising the former fence line, WS18.



## 4.19 WS19—Water Infrastructure 2

### 4.19.1 Location

WS19 is located at 629137.62, 7549603.83 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

### 4.19.2 Description

WS19 (see Figure 65–Figure 66) comprises a dam with steep embankments, which appears to be of more recent construction and is currently in use. A circular concrete water trough is located on the western embankment.

The surrounding land is cleared of vegetation, with the exception of several trees in proximity to the dam, and the ground surface has been impacted by cattle grazing. There is evidence of major previous ground disturbance as a result of the establishment of the dam itself.

### 4.19.3 Assessment of significance and archaeological potential

The dam and water trough appear to be modern features (i.e. of more recent construction) and are not considered characteristic of the historical operations of rural homesteads. While WS19 forms part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS19 fails to meet the threshold for local heritage significance.

WS19 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.



Figure 65. View east of WS19, comprising a dam with steep embankments. The rail corridor is visible in the distance to the right of frame.



Figure 66. View east showing the circular concrete water trough located on the western bank of the dam.

## 4.20 WS20—Disc Plough 1

### 4.20.1 Location

WS20 is located at 629128.37, 7549958.30 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

### 4.20.2 Description

WS20 (see Figure 67–Figure 69) comprises a disc plough, which presents as an isolated piece of farm machinery in a grassed paddock now used for cattle grazing. No manufacturing information or a name plate were discernible; however, it appears to have hydraulic fixings, which may indicate that this piece of machinery dates to the 1940s or later.

The plough itself is in poor condition—the metal elements are visibly corroded and it appears to have been abandoned for a long period of time. Tall, dense grass has overgrown the plough in places and the wheels are partially embedded in the ground.

### 4.20.3 Assessment of significance and archaeological potential

It is possible that this disc plough is associated with the historical operations of Winchester Downs. However, while WS20 forms part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right. It is an isolated piece of farm machinery of a common type.

As a result, WS20 fails to meet the threshold for local heritage significance.

WS20 has low potential to be an archaeological ‘artefact’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 67. View north of WS20, an abandoned disc plough.

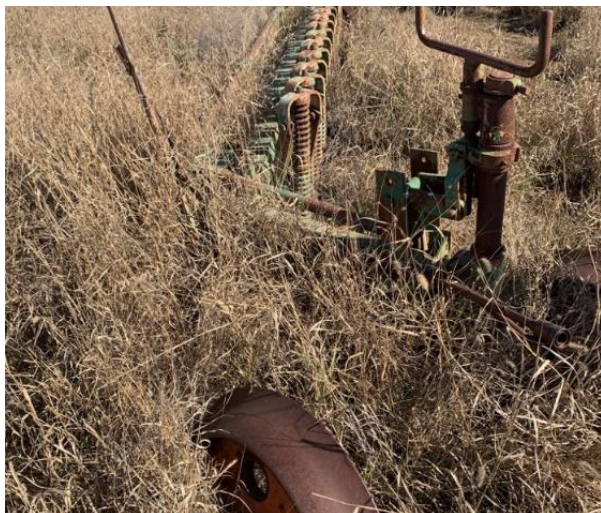


Figure 68. View south of WS20. Note the extent to which the grass has overgrown the plough.



Figure 69. A close-up view of the hydraulic fixings of the disc plough (WS20).

## 4.21 WS22—Dumping Area

### 4.21.1 Location

WS22 is located at 630451.61, 7550392.19 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

### 4.21.2 Description

WS22 (see Figure 70–Figure 72) comprises a cleared open area of land with sparse regrowth, which contains a concrete water trough, various piles of rubble and assorted debris (including the metal remnants of farming implements, gallon drums, rubber tyres, and concrete blocks). The site appears to be a dumping area of more recent use and not characteristic of the activities of historical rural homesteads.

The debris appears to have been abandoned for some time: it is fragmented and scattered across the site without any discernible pattern. However, the area appears to still be in use, as evidenced by the presence of dirt vehicle access tracks leading to and from the area, and its proximity to the contemporary Winchester Quarry.

### 4.21.3 Assessment of significance and archaeological potential

WS22 presents as an assorted collection of debris that appear to be the result of more recent dumping activities. Although it is still part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS22 fails to meet the threshold for local heritage significance.

WS22 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 70. View south across WS22 showing some of the scattered debris typical of the site.



Figure 71. View north-east showing two of the large piles of rubble typical of WS22.



Figure 72. View north across WS22 showing refuse piles either side of a dirt vehicle access track.



## 4.22 WS23—Disc Plough 2

### 4.22.1 Location

WS23 is located at 629629.13, 7547818.92 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

### 4.22.2 Description

WS23 (see Figure 73–Figure 75) comprises a disc plough, which presents as an isolated piece of farm machinery in a paddock now used for cattle grazing. The plough is situated immediately adjacent to a dirt vehicle access track. A cattle yard of more recent construction (WS25) and a collection of various pieces of abandoned farm machinery are also located in proximity (i.e. less than 50 m). The plough itself is in poor condition—the metal elements are visibly corroded and it appears to have been abandoned for a long period of time.

A ‘Sovereign Shearer’ name plate is visible on the body of the plough. The Shearer brothers were agricultural machinery manufacturers of grubbing machines, fixed ploughs, scarifiers, harrows, and strippers in the late 1800s through the mid-1930s (Chant 2015, 65). It is therefore possible that this piece of machinery dates to the 1930s, or possibly earlier.

### 4.22.3 Assessment of significance and archaeological potential

Given the identification of the ‘Sovereign Shearer’ name plate, it is possible that this disc plough may date to the 1930s, or possibly earlier, and is therefore associated with the historical operations of Winchester Downs. However, while WS23 forms part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right. It is an isolated piece of farm machinery that presents as a ruin in the landscape (i.e. it is divorced from its former use).

As a result, WS23 fails to meet the threshold for local heritage significance.

WS23 has low potential to be an archaeological ‘artefact’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.



Figure 73. View south-west of WS23, an abandoned Sovereign Shearer disc plough.



Figure 74. Detail of the 'Sovereign Disc Plough' name plate. The brand 'Shearer' is visible to the left.



Figure 75. A close-up of WS23. Note the hydraulic fixings, which appear similar to those observed on the disc plough located at WS20.

## 4.23 WS24—Farm Machinery and Former Windmill Pads

### 4.23.1 Location

WS24 is located at 629651.38, 7547840.88 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

WS24 is within approximately 25 m of cattle yards (WS25) and is located directly across the dirt vehicle access track from WS23.

### 4.23.2 Description

WS24 (see Figure 76–Figure 78) comprises an area of cleared land with sparse regrowth, which contains an assorted collection of debris. On the day of the field survey, the following debris was observed:

- abandoned pieces of old farm machinery (including a grain auger);
- various metal remnants of farming implements;
- metal gallon drums;
- remnant timber rails and posts;
- rubber tyres;
- two refuse piles consisting of rubble, tyres, timber, and corrugated iron sheeting; and
- several concrete pads that may indicate the former location of windmills.

The immediate area is used as a paddock for grazing cattle; several narrow cattle tracks traverse the site. WS24 is also located adjacent to a dirt vehicle access track running east-west. The condition of the visible surface material at WS24 is poor. The pieces of farm machinery are corroded and appear to have been abandoned for some time. The area appears to have been periodically used as a dumping area for debris associated with farming activities.

### 4.23.3 Assessment of significance and archaeological potential

WS24 presents as an assorted collection of debris that appears to be the result of more recent dumping activities. Although it is still part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS24 fails to meet the threshold for local heritage significance.

WS24 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 76. View west across WS24. Note the various pieces of metal and timber debris, as well as items of farm machinery in the centre and left background. The visible cattle track continues south-east, across a dirt vehicle access track, until it reaches the cattle yards (WS25).



Figure 77. View south-east showing one of the refuse piles at WS24, which contains tyres, rubble, timber debris and metal debris. Note the single timber fence post in the right foreground mortised for a rail.



Figure 78. Detail of one of the concrete pads, which may indicate the former location of a windmill.

## 4.24 WS25—Cattle Yard

### 4.24.1 Location

WS25 is located at 629822.03, 7547715.02 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area. It is within the vicinity (approximately 25 m) of WS24 and WS23.

### 4.24.2 Description

WS25 (see Figure 79–Figure 81) comprises a small cattle yard constructed using a combination of timber post-and-rail and timber post with wire fencing types. One section of the fence, being the south-west corner, has been replaced in recent times using PVC pipes strung with wire.

The yard includes two cattle sorting gates. One is constructed using a combination of timber uprights, timber horizontal rails, and metal chains and wire. The other is constructed entirely of metal uprights and horizontal rails. There is a water trough in the south-west corner. A PVC water tank and windmill are visible outside the yards further to the south-west.

On the day of the field survey, this yard was observed to be in reasonable condition and in use. It appears to be of more recent construction.

### 4.24.3 Assessment of significance and archaeological potential

While WS25 is part of the broader ‘story’ of the pastoral history of Winchester Downs and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS25 fails to meet the threshold for local heritage significance.

WS25 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 79. View north-west showing one of the cattle sorting gates at WS25. Its construction is timber post-and-rail bound together with metal wire.



Figure 80. A second cattle sorting gate in the northern fence of WS25.



Figure 81. View facing south-west showing a section of the WS25 cattle yard fencing, where the timber posts have been replaced with modern PVC piping and strung with wire.



## 4.25 WS26—Former Fence Line

### 4.25.1 Location

WS26 is within the Study Area and comprises a former fence line. The following coordinates record the remnant fence posts comprising part of that former fence line (see Figure 4):

- 631208.03, 7546429.01 (WS26-1);
- 631517.79, 7546539.23 (WS26-2);
- 631832.07, 7546648.41 (WS26-3);
- 632042.23, 7546722.03 (WS26-4);
- 632456.96, 7546867.88 (WS26-5);
- 632867.78, 7547013.53 (WS26-6);
- 633192.21, 7547125.81 (WS26-7); and
- 633289.90, 7547166.17 (WS26-8).

### 4.25.2 Description

WS26 (see Figure 82–Figure 84) comprises the remains of a former fence line running east–west across a cleared paddock now used for cattle grazing. The alignment appears to run parallel to an existing dirt vehicle access track. Some of the posts retain short strands of wire. Only one post had evidence of being mortised for rails. It is likely this fence line originally comprised thick timber uprights interspersed with thinner timber uprights, strung together with wire. The eastern extent of this former fence is located at the intersection with another dirt vehicle track. Opposite this track is a contemporary fence line that generally follows the same east–west alignment.

On the day of the field survey, the condition of WS26 was observed to be very poor: the remnant timber posts were deteriorating and some had fallen over. Overall, the remains of the fence line present as a ruin within the landscape.

### 4.25.3 Assessment of significance and archaeological potential

It is possible that these remnant posts comprising WS26 may relate to an earlier fence line or former property boundary associated with the historical operations of Winchester Downs. However, while WS26 forms part of the broader ‘story’ of the pastoral history of Winchester Downs and is of limited historical significance, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS26 fails to meet the threshold for local heritage significance.

WS26 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.



Figure 82. View north showing two pairs of remnant timber gate posts, each with a diagonal cross beam that has since collapsed. This section of the former fence line (WS26-2) may indicate a former gateway.



Figure 83. One of the remnant timber posts located at WS26-4. Note the two rectangular notches, which indicate that sections of this former fence line may have also been constructed using timber rails.



Figure 84. Two remnant timber posts (WS26-4). Note the large timber post (centre foreground) and the smaller timber post (left background). Holes for stringing wire are visible on both posts.

## 4.26 WS27—Cattle Yards with Loading Ramp

### 4.26.1 Location

WS27 is located at 634304.28, 7544847.38 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

### 4.26.2 Description

WS27 (see Figure 85–Figure 87) comprises extensive cattle yards of recent construction, located to the north of the Project site office in an open cleared area with sparse regrowth trees. The yards are of timber post-and-rail construction, secured with both recent and now-rusted wire. The site of WS27 includes:

- extensive cattle yards with a main holding yard, various small holding pens, and various modern metal apparatuses for sorting and/or handling cattle;
- timber and earthen cattle loading ramp, reinforced in places with metal uprights and rails;
- a windmill and two concrete tanks outside the yards to the north;
- two refuse piles located outside the yards to the south;
- a small dam adjacent to the west; and
- a temporary rear holding yard constructed of timber posts strung with wire.

On the day of the field survey, WS27 was observed to be in good condition and in use.

### 4.26.3 Assessment of significance and archaeological potential

WS27 are cattle yards of more recent construction. Therefore, while WS27 is part of the broader ‘story’ of the pastoral history of Wynette and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS27 fails to meet the threshold for local heritage significance.

WS27 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.





Figure 85. View north of the cattle loading ramp at WS27. The ramp is of timber and earthen construction, reinforced with metal elements.



Figure 86. View north showing the interior of the main holding yard at WS27. Note the consistent use of timber post-and-rail for the construction of the fencing.



Figure 87. View looking north along the western fence of the WS27 cattle yards. Note the remnant timber fencing, windmill and concrete water tanks located outside the yards to the west.

## 4.27 WS28 and WS29—Iffley Portion

### 4.27.1 Location

WS28 (see Figure 4) records the point from which a photograph of the Iffley portion was taken (see Figure 89). It is located at 638460.12, 7545796.74 (GDA94/MGA 56 GPS), being approximately 25 m north of and outside the Study Area.

WS29 (see Figure 4) records the point from which another photograph of the Iffley portion was taken (see Figure 90). It is located at 638265.37, 7544202.89 (GDA94/MGA 56 GPS) and is within the Study Area.

### 4.27.2 Description

The Iffley portion is located in the eastern extent of the Study Area and was not accessible at the time of the field survey, as it is privately-owned property (see Figure 5). However, the length of the western boundary of the Iffley portion was traversed by 4WD and photographs were taken at two points (see Figure 4): one looking east across the Iffley portion (WS28) and one looking west across the majority of the Study Area (WS29).

From these two locations (see Figure 89–Figure 90, below), the Iffley portion was observed to comprise cleared land for grazing cattle with some regrowth vegetation and thick grass cover. Some timber fence lines and metal gates were visible. No built structures were evident from these two locations. In addition, a virtual survey of the Iffley portion was undertaken using high-resolution Google Earth aerial imagery. The 2019 aerial imagery (see Figure 88) confirms the extent of land clearing activities on this portion of the Study Area and illustrates the lack of built structures. Various vehicle access tracks are discernible traversing the Iffley portion. A dam has been constructed to the north.

Additionally, Converge Heritage + Environment (2018) assessed this portion of land as part of the Non-Indigenous Cultural Heritage Technical Report prepared for the Olive Downs Project EIS. As part of this assessment, Converge Heritage + Environment (2018) did not identify any sites of potential non-Indigenous cultural heritage within the area. Furthermore, the assessment concluded that:

... due to the relatively obtrusive nature of visible heritage evidence, it is unlikely that additional heritage items would be present in the Project area... (Converge Heritage + Environment, 2018, 49)

### 4.27.3 Assessment of significance and archaeological potential

On the basis of the above observations, previous surveys conducted in the area and extrapolating the results of the field survey of the rest of the Study Area, there is some potential for the Iffley portion to contain isolated elements reflecting past agropastoral activities. However, there is low potential for the area to contain significant archaeology. Should any isolated elements exist, they would likely be in poor condition and unremarkable examples of their type, with low potential to satisfy the threshold for State or local heritage significance. Further, their removal would constitute a low level adverse cumulative impact to a mixed agropastoral-mining

cultural landscape. Therefore, while the Iffley portion is part of the broader ‘story’ of the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, the Iffley portion fails to meet the threshold for local heritage significance.

The Iffley portion has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.

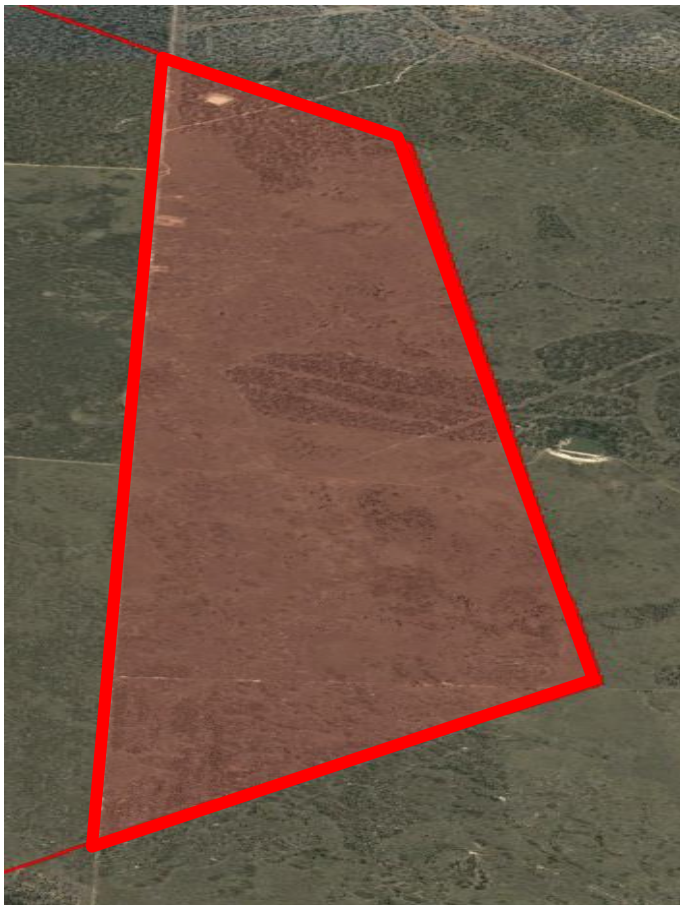


Figure 88. An extract of aerial imagery taken from Google Earth mapping of the Study Area, showing the Iffley portion (red line and shading). Note the extent of land clearing activities and lack of discernible built structures, which is consistent with the rest of the Study Area. Mapping file provided by Whitehaven with Extent overlay.





Figure 89. Photograph taken at a point along the western boundary of the Iffley portion looking east, recorded as WS28 (638460.12, 7545796.74 GDA94/MGA 56 GPS).



Figure 90. Photograph taken at a second point along the western boundary of the Iffley portion looking west, recorded as WS29 (638265.37, 7544202.89 GDA94/MGA 56 GPS).

## 4.28 WS30—Water Infrastructure 3

### 4.28.1 Location

WS30 is located at 636213.05, 7541901.69 (GDA94/MGA 56 GPS) (see Figure 4) and is within the Study Area.

### 4.28.2 Description

WS30 (see Figure 91–Figure 92) comprises a series of water infrastructure in a cleared area with sparse regrowth utilised for cattle grazing. It consists of a dam with steep embankments, which is enclosed by a fence constructed of timber posts strung with barbed wire. A rectangular concrete water trough is located adjacent to the dam, external to the fence (Figure 92).

At the time of the field survey, the dam and trough appeared to be in use and observed to be in good condition.

### 4.28.3 Assessment of significance and archaeological potential

The collection of water infrastructure comprising WS30 appear to be of relatively recent construction. Therefore, while WS30 is part of the broader ‘story’ of the pastoral history of Wynette and the rural way of life of the local Moranbah area, it does not make a significant contribution to the heritage value of the place in its own right.

As a result, WS30 fails to meet the threshold for local heritage significance.

WS30 has low potential to contain archaeological ‘artefacts’ as defined by the *Queensland Heritage Act 1992*. Further, it is considered to have low potential to yield scientific data that could make a contribution to substantive questions relating to Australian, State, or even wider local history.



Figure 91. View south-east of the dam at WS30. Note the modern PVC water tank on the opposite bank.



Figure 92. View north-west showing the concrete water trough adjacent to the dam at WS30. The steep dam embankment, surrounded by a timber post and wire fence, is visible behind.



## 4.29 Portion of ML 70389

A portion of the Study Area is located within ML 70389 for the Eagle Downs Mine and was not accessible at the time of the field survey, as detailed in Part 1.9.

This portion of land has been previously assessed as part of the Non-Indigenous Cultural Heritage Assessment prepared by Hansen Bailey Environmental Consultants (2009) for the Eagle Downs Project EIS. With regards to non-Indigenous cultural heritage, this assessment concluded:

No sites of historical cultural heritage significance were found in the project area during the field inspection. However, it was concluded, given that was not full ground surface visibility, that there is some potential for historical cultural heritage sites to exist in the project area (e.g. remains of boundary fence lines, survey trees etc.). However, based on the contextual background research and field inspection results, the likelihood for these sites to be of significance is low. (Hansen Bailey Environmental Consultants 2009, 15–3)

## 4.30 Cultural Landscape

In the case of the Bowen Basin region, especially within the vicinity of Moranbah and the Project, there is an ‘organically evolved landscape’ that developed through the nineteenth and twentieth centuries in response to two main social, economic and administrative imperatives (UNESCO 2019): rural activities and mining. These two activities responded to and modified the natural environment to create a cultural landscape that has existed in the Moranbah area and wider Bowen Basin region for some generations; a mixed mining and farming landscape.

Today, the Project area and its immediate surrounds are characterised by a mix of land uses and a range of activities, each one represented by a variety of infrastructure and built forms. The land has been cleared for some 100–150 years and the remnants of past pastoral and agricultural activities are visible in the landscape. However, they share the area with mining operations and mine infrastructure that have also been part of the wider landscape for decades. This includes the heavily mined areas to its immediate south-west (Peak Downs Mine and Saraji Mine), and north (Poitrel Mine and Daunia Mine).

The result has been that farming structures and rural activities (cropping, grazing, etc.) have existed alongside mining operations for generations, and throughout that time it has been common for mine sites to form part of the visual setting of historic built heritage places. In any event, the sites discussed above generally comprise unremarkable examples of agropastoral machinery and infrastructure, often in very poor condition. They are commonly difficult to see in the landscape except from quite close up, and for the most part make only a minor contribution to any possible ‘cultural landscape’.

The above has been a relevant consideration in this assessment.

The two nearest homesteads to the Project are Winchester Downs and Olive Downs (Figure 3). These two homesteads have been considered as part of the assessment of the broader cultural landscape that the Project would be a part of, or might potentially impact.

Winchester Downs and Olive Downs homesteads are located approximately 5 km west and 3 km north, respectively, from the Project. This assessment has concluded that the Project makes no significant contribution to the visual setting of the nearby homesteads, which are not a listed heritage place<sup>1</sup> in any case.

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<sup>1</sup> These homesteads are not listed on the statutory or non-statutory heritage registers detailed in Part 1.5 and Part 1.6.

## 5. Assessment of heritage impacts

The following section addresses the implications of the significance assessments provided in Part 4 above and provides a summary of the potential heritage impacts caused by the Project. A summary of the management recommendations is also provided.

The potential impacts on the Project's broader 'cultural landscape' (see Part 5.2) and the potential for impact to any known family grave sites in the Study Area (see Part 5.3) are also respectively considered.

### 5.1 Summary of heritage impacts and relevant management recommendations

The following Table 6 presents a summary of the assessment of heritage impacts and any relevant management recommendations.

No items of non-Indigenous cultural heritage significance have been identified within the Study Area. In heritage terms, it would be appropriate for the Project to proceed. Recommendations are presented in Table 6, below, that could be considered for the items of interest identified, although are not specifically required for non-Indigenous cultural heritage management.



Table 6. A summary of the potential heritage impacts caused by the Project and the relevant management recommendations

Place	Potential Impacts	Management Recommendations
WS01—Cattle Yards	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS01. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society and/or library as a record.</p>
WS02—Cattle Yards	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS02. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society and/or library as a record.</p>
WS03—Water Infrastructure 1	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS03. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society and/or library as a record.</p>

Place	Potential Impacts	Management Recommendations
WS04—'New' Winchester Downs Cattle Yards	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological 'artefacts' as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS04. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society and/or library as a record.</p>
WS05—Remains of 'Winchester Downs' Cattle Yards 1	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological 'artefacts' as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS05. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society and/or library as a record.</p>
WS06—Pump Shed and Water Tank	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological 'artefacts' as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS06. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society and/or library as a record.</p>

Place	Potential Impacts	Management Recommendations
WS07—Water Tank Foundations	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS07. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHAs should be made available to a local Moranbah historical society and/or library as a record.</p>
WS08—Former Cattle Dip	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS08. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHAs should be made available to a local Moranbah historical society and/or library as a record.</p>
WS09—Remains of ‘Winchester Downs’ Cattle Yards 2	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS09. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHAs should be made available to a local Moranbah historical society and/or library as a record.</p>



Place	Potential Impacts	Management Recommendations
WS10—Wire Tree	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS10. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHAs should be made available to a local Moranbah historical society and/or library as a record.</p>
WS11—Water Trough 1	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS11. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHAs should be made available to a local Moranbah historical society and/or library as a record.</p>
WS12—Water Trough 2	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS12. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHAs should be made available to a local Moranbah historical society and/or library as a record.</p>

Place	Potential Impacts	Management Recommendations
WS13—Remains of Windmill	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS13. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHAs should be made available to a local Moranbah historical society and/or library as a record.</p>
WS14—Water Tank	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS14. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHAs should be made available to a local Moranbah historical society and/or library as a record.</p>
WS15—Cattle Loading Ramp	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS15. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHAs should be made available to a local Moranbah historical society and/or library as a record.</p>

Place	Potential Impacts	Management Recommendations
WS16—Cattle Yard	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS16. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society and/or library as a record.</p>
WS18—Former Fence Line	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS18. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society and/or library as a record.</p>
WS19—Water Infrastructure 2	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS19. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society and/or library as a record.</p>



Place	Potential Impacts	Management Recommendations
WS20—Disc Plough 1	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p><u>Offer the disc plough to a local historical society or local historical collector for historical display or interpretation purposes.</u></p> <p>If the offer is declined, it would be appropriate to proceed with its disposal and for the Project to proceed without constraints at the site of WS20. Where works might cause ground disturbance, <u>further input from an archaeologist is not required.</u></p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society or library as a record.</p>
WS22—Dumping Area	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS22. Where works might cause ground disturbance, <u>further input from an archaeologist is not required.</u></p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society and/or library as a record.</p>

Place	Potential Impacts	Management Recommendations
WS23—Disc Plough 2	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p><u>Offer the disc plough to a local historical society or local historical collector for historical display or interpretation purposes.</u></p> <p>If the offer is declined, it would be appropriate to proceed with its disposal and for the Project to proceed without constraints at the site of WS23. Where works might cause ground disturbance, <u>further input from an archaeologist is not required.</u></p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society or library as a record.</p>
WS24—Farm Machinery and Former Windmill Pads	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p><u>Offer the assorted farm machinery located at WS24 to a local historical society or local historical collector for historical display or interpretation purposes.</u></p> <p>If the offer is declined, it would be appropriate to proceed with its disposal and for the Project to proceed without constraints at the site of WS24. Where works might cause ground disturbance, <u>further input from an archaeologist is not required.</u></p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society or library as a record.</p>

Place	Potential Impacts	Management Recommendations
WS25—Cattle Yard	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS25. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society and/or library as a record.</p>
WS26—Former Fence Line	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS26. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society and/or library as a record.</p>
WS27—Cattle Yards with Loading Ramp	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS27. Where works might cause ground disturbance, <u>further input from an archaeologist is not required</u>.</p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society and/or library as a record.</p>



Place	Potential Impacts	Management Recommendations
WS28 and WS29—Iffley Portion	<p><b>Nil—not considered a heritage place.</b></p> <p>There is some potential for the Iffley portion to contain isolated elements reflecting past agropastoral activities (see Part 4.27). However, should any exist, they would likely be in poor condition and unremarkable examples of their type with low potential to satisfy the threshold for State or local heritage significance.</p> <p>Should such features exist, their removal would constitute a low-level adverse cumulative impact to a mixed agropastoral-mining cultural landscape.</p>	<p>Based on the conclusions contained in the report prepared by Converge Heritage + Environment (2018), and given the low potential for the Iffley portion to contain significant archaeology that would satisfy the definition of ‘artefacts’ under the <i>Queensland Heritage Act 1992</i>, it is appropriate for the Project to proceed without constraints within the Iffley portion.</p> <p>Where works might cause ground disturbance, <u>further input from an archaeologist is not required.</u></p>
WS30—Water Infrastructure 3	<p><b>Nil—not considered a heritage place.</b></p> <p>Fails to meet the threshold for local heritage significance.</p> <p>Low potential to contain archaeological ‘artefacts’ as defined by the <i>Queensland Heritage Act 1992</i>.</p>	<p>It is appropriate for the Project to proceed without constraints at WS30. Where works might cause ground disturbance, <u>further input from an archaeologist is not required.</u></p> <p>Once Project approval has been obtained, a copy of this NICHA should be made available to a local Moranbah historical society and/or library as a record.</p>

Place	Potential Impacts	Management Recommendations
Portion of ML 70389	<p>The portion of the Study Area located within ML 70389 has been previously assessed as part of the NICHA for the Eagle Downs Project EIS (Hansen Bailey 2009). That report concluded with regards to potential impacts:</p> <p><i>No sites of historical cultural heritage significance were found in the project area during the field inspection. As noted in Section 15.2.6, there is some potential for historical cultural heritage sites to exist in the project area. However, based on the contextual background research and field inspection results, the likelihood for these sites to be of significance is low.</i></p> <p><i>(Hansen Bailey Environmental Consultants 2009, 15–3)</i></p>	<p>Based on the conclusions contained in the report prepared by Hansen Bailey (2009), this NICHA therefore recommends it is appropriate for the Project to proceed without constraints within the portion of the area that is within part of ML 70389 for the Eagle Downs Mine.</p> <p>Where works might cause ground disturbance, <u>further input from an archaeologist is not required.</u></p>

## 5.2 Cultural landscape

The Project would be one of several mining operations that have existed in the local Moranbah area over a number of decades. Today, the Project area and its immediate surrounds are characterised by a mix of land uses and a range of activities, each one represented by a variety of infrastructure and built form.

The Study Area has been cleared for some hundred years and only the remnants of past pastoral and agricultural activities are visible in the landscape. They sit in close proximity to mining operations and mine infrastructure that have been part of the wider landscape for decades. Those remnants of past pastoral and agricultural activities identified within the Project area are typically in very poor condition and are unremarkable examples of their type. Their removal would constitute a low level of adverse cumulative impact to a mixed agropastoral-mining cultural landscape.

Insofar as new mine infrastructure resulting from the Project might be discernible from some locations outside of the boundary of the Project area, this would generally be consistent with the landscape that has existed in this area for decades (i.e. a rural landscape set against a mining landscape), and therefore the Project would be unremarkable in the landscape.

No specific action in mitigation of this minor impact is required.

Once Project approval has been obtained, a copy of this NICHA should be made available to a local historical society in Moranbah or the local Moranbah library to serve as a record.

## 5.3 Potential historical family grave sites

The ToR require that the potential for impact to any known family grave sites in the Study Area be considered as part of this report. Family grave sites by their nature were typically not recorded in official archives. They are usually identified a short distance from homesteads, and fenced off to prevent disturbance by cattle and humans. They may also be indicated by 'cultural plantings' that survive as mature trees within an otherwise bare landscape.

No homesteads were identified within the Project area, nor the Study Area. During the fieldwork described in this report, the heritage practitioner remained alert to the aforementioned features. None were identified within the Study Area. Therefore, no known family grave sites would be impacted by the Project.

The potential for 'family grave sites' in the Study Area is assessed to be low, based on the absence of homesteads and above-ground features that typify such locations.



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