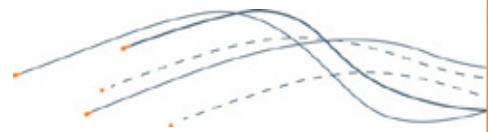


Central Eyre Iron Project Mining Lease Proposal



CHAPTER 10 NON-ABORIGINAL HERITAGE



COPYRIGHT

Copyright © IRD Mining Operations Pty Ltd and Iron Road Limited, 2015

All rights reserved

This document and any related documentation is protected by copyright owned by IRD Mining Operations Pty Ltd and Iron Road Limited. The content of this document and any related documentation may only be copied and distributed for purposes of section 35A of the *Mining Act, 1971* (SA) and otherwise with the prior written consent of IRD Mining Operations Pty Ltd and Iron Road Limited.

DISCLAIMER

A declaration has been made on behalf of IRD Mining Operations Pty Ltd by its Managing Director that he has taken reasonable steps to review the information contained in this document and to ensure its accuracy as at 5 November 2015.

Subject to that declaration:

- (a) in writing this document, Iron Road Limited has relied on information provided by specialist consultants, government agencies, and other third parties. Iron Road Limited has reviewed all information to the best of its ability but does not take responsibility for the accuracy or completeness; and
- (b) this document has been prepared for information purposes only and, to the full extent permitted by law, Iron Road Limited, in respect of all persons other than the relevant government departments, makes no representation and gives no warranty or undertaking, express or implied, in respect to the information contained herein, and does not accept responsibility and is not liable for any loss or liability whatsoever arising as a result of any person acting or refraining from acting on any information contained within it.

10 Non-Aboriginal Heritage 10-1

10.1	Applicable Legislation and Standards	10-1
10.2	Assessment Method	10-1
10.3	Existing Environment	10-2
10.3.1	Summary of Key Environmental Values	10-4
10.4	Context and Views of Affected Parties	10-6
10.5	Potentially Impacting Events	10-6
10.5.1	Non-Identified Heritage Values.....	10-6
10.5.2	Vibration at Warramboo Cemetery.....	10-7
10.6	Control Measures to Protect Environmental Values	10-7
10.7	Impact and Risk Assessment.....	10-7
10.8	Proposed Outcome(s)	10-7
10.9	Findings and Conclusion	10-7

List of Figures

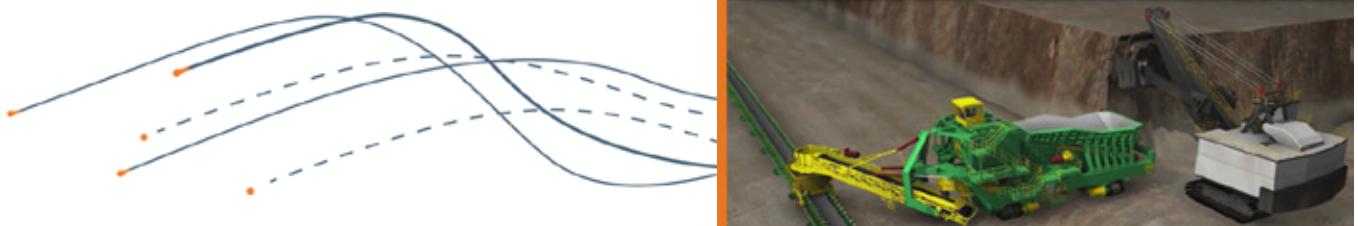
Figure 10-1 Places of Non-Aboriginal Heritage Significance	10-5
--	------

List of Plates

Plate 10-1 View from Waddikee Rocks.....	10-3
Plate 10-2 Warramboo Cemetery.....	10-3



This page has been left blank intentionally.



10 Non-Aboriginal Heritage

The first permanent European settlement on the Eyre Peninsula was established at Port Lincoln in 1839. By the 1870s, much of the Peninsula was utilised for primary production purposes, predominately grazing (Regional Development Australia 2011).

The majority of places exhibiting non-Aboriginal heritage significance are related to the early primary production industries, including sites established as support services. Establishment of the proposed mining lease can impact the historical significance of sites. The degree of interaction between places of heritage significance and the proposed mining lease will determine the level of impact to heritage and community values.

This chapter identifies recognised sites of non-Aboriginal heritage in the locality of the proposed mining lease, including places of listed heritage significance and other identified culturally significant sites, such as places of worship and cemeteries. It provides an assessment of impacts on identified places of heritage significance and details design modifications and management measures incorporated into the project to reduce impacts where necessary.

The impact of the proposed mining lease on Aboriginal heritage is addressed in Chapter 9.

10.1 Applicable Legislation and Standards

Registered heritage places, sites or objects within South Australia are protected at various levels through Commonwealth and State legislation. Places registered on the World Heritage, National Heritage or Commonwealth Heritage Lists are protected by Commonwealth legislation, whereas State and Local Heritage Places are afforded protection at a State level.

The relevant operative legislative documents relating to non-Aboriginal heritage within South Australia are:

- *Development Act 1993 (SA)*
- *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*
- *Heritage Places Act 1993 (SA)*

An overview of the requirements and obligations of the relevant legislation is provided within Chapter 4. Specifically, the *Heritage Places Act 1993* states that places or objects of geological, paleontological, speleological or archaeological significance must not be damaged, destroyed or disturbed without the prior approval of the South Australian Heritage Council.

10.2 Assessment Method

A desktop assessment of listed places of non-Aboriginal heritage significance was conducted by Jacobs in 2012, with a follow-up assessment conducted in 2014. The desktop study involved:

- Review of Commonwealth Heritage Registers (Department of the Environment 2014); Register of the National Estate¹, World Heritage List, National Heritage List and Commonwealth Heritage List. These are all administered by the Department of the Environment.
- Search of the following State and local databases (DEWNR 2014, SARIG 2014):
 - South Australia Heritage Register

¹ The Register of the National Estate is no longer a statutory heritage list requiring assessment under the EPBC Act; however the register indicates places that the local/regional community may value.

- State Heritage Areas
- Local Heritage Places listed within local Council's Development Plan
- Places of geological significance within the South Australian Resources Information Geoserver

In addition, cemeteries and places of worship (not formally registered in any of the above databases) were identified based on information held by Wudinna DC (Wudinna DC 2014) and publically available information.

Places of heritage significance were considered relevant if they were located within 5 km of the proposed mining lease. Places are considered to be of non-Aboriginal heritage significance if they are listed on statutory heritage registers, or are a local heritage place, church, cemetery or place of geological significance.

10.3 Existing Environment

This section provides an overview of the existing environment adjacent to and within 5 km of the proposed mining lease in relation to non-Aboriginal heritage. Registered heritage places are identified, as well as any places of geological significance, cemeteries or places of worship that may hold cultural value to the local community.

A review of the Commonwealth, State and Local Heritage Registers identified one listed heritage site or object within 5 km of the proposed mining lease boundary. The Hambidge Wilderness Protection Area is listed on the Register of the National Estate and is located approximately 3.5 km southeast of the proposed mining lease boundary. No additional registered places of heritage significance were identified within 5 km of the proposed mining lease boundary.

No places of geological significance are located within the proposed mining lease, with the nearest being Waddikee Rocks (Plate 10-1), adjacent to the Eyre Highway and approximately 15 km north of the proposed mining lease boundary. Additional places of geological significance outside the study area but within the region include the Polda Rocks, Turtle Rock and Mount Wudinna, which are located within the Gawler Ranges, 8 km north east of Wudinna and 27 km northwest of the proposed mining lease boundary.



Plate 10-1 View from Waddikee Rocks

The Warramboo cemetery (Plate 10-2) is located east of Warramboo, off Kimba Road and approximately 200 m west of the proposed mining lease boundary. No other cemeteries are located within 5 km of the proposed mining lease boundary, with the nearest alternative cemeteries located at Kyancutta, Lock, Wudinna and Darke Peak.



Plate 10-2 Warramboo Cemetery

There are no places of worship within 5 km of the proposed mining lease boundary, nor within the Warramboo township. The nearest places of worship outside of the study area are the Lutheran and Uniting churches in Wudinna and the Uniting, Lutheran and Presbyterian churches at Lock, approximately 24 and 30 km from the proposed mining lease boundary respectively.

The freehold land over which vegetation heritage agreement (HA 869) applies is located within the boundary of the proposed mining lease. The heritage agreement was established pursuant to Section 23 of the *Native Vegetation Act 1991* (SA) for the conservation of native vegetation and fauna. As HA 869 was established for conservation rather than heritage purposes, an overview of its existing environmental values (ecological) and subsequent impacts are discussed in detail in Chapters 11 and 12.

Places of heritage significance in the region surrounding the proposed mine are depicted in Figure 10-1.

10.3.1 Summary of Key Environmental Values

There are no items of non-Aboriginal heritage significance (with the exception of HA 869 discussed in Chapters 11 and 12) located within the proposed mining lease boundary and only three places of significance located within 5 km of the proposed mining lease boundary:

- Warramboo cemetery, approximately 200 m west of the proposed mining lease boundary
- Hambidge Wilderness Protection Area, approximately 3.5 km southeast of the proposed mining lease boundary
- Waddikee Rocks, adjacent to the Eyre Highway and approximately 15 km north of the proposed mining lease boundary

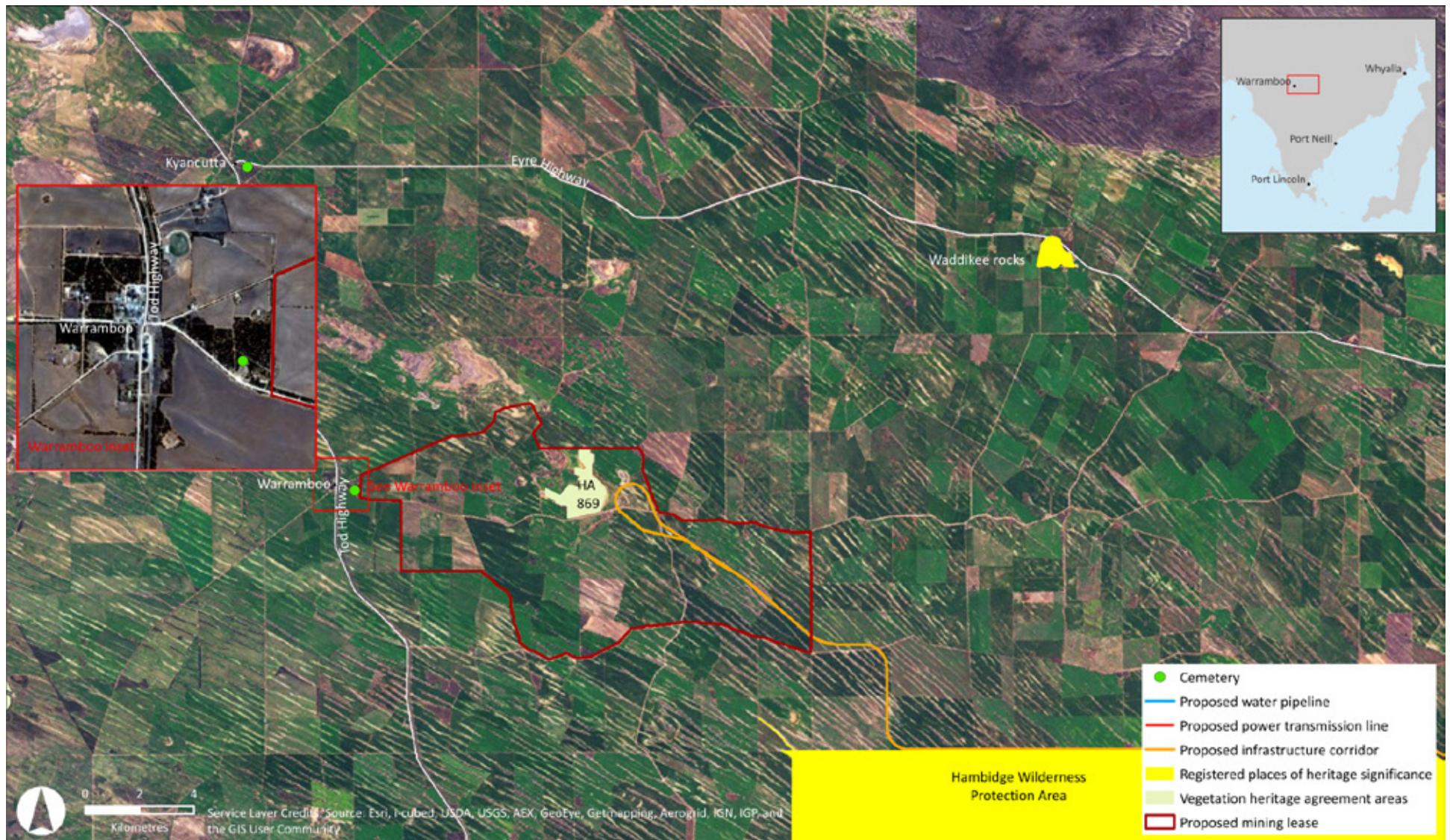


Figure 10-1 Places of Non-Aboriginal Heritage Significance

10.4 Context and Views of Affected Parties

Stakeholders relevant to non-Aboriginal heritage include the local community, Wudinna DC, Department of Environment, Water and Natural Resources (DEWNR) and the Eyre Peninsula Natural Resources Management Board (EP NRMB). Stakeholders are seeking the following outcomes in relation to non-Aboriginal heritage:

- No impacts on the Warramboo cemetery and other historic buildings within the Warramboo township such as the Warramboo Institute.

DEWNR and the EP NRMB have raised concerns associated with impacts on Hambidge Wilderness Protection Area (WPA) in relation to altered groundwater regimes, potential fire risk, the introduction of weeds and noise emissions. No effects to the cultural value of Hambidge WPA were identified, with potential impacts as a result of weed management, altered fire regimes, the introduction of noise sources and altered groundwater movement due to the proposed mine discussed in Chapters 12, 16 and 19 respectively. No other values in relation to non-Aboriginal heritage have been identified by stakeholders during consultation.

10.5 Potentially Impacting Events

Considering the views and contexts of affected parties and the issues identified during technical studies, an assessment of Source, Pathway, Receptor (SPR) has been undertaken, as per the methodology outlined in Chapter 6, to determine which potential impact events are considered applicable to this project.

The following potential impact events are not considered further as there is no confirmed linkage between source, pathway and receptor. For non-Aboriginal heritage, these include:

- Non-identified heritage values (PIM_10_01, discussed in Section 10.5.1)
- Vibration at Warramboo cemetery (PIM_10_02, discussed in Section 10.5.2)
- Potential impacts to Hambidge WPA, as the concerns raised by DEWNR and the EP NRMB were in relation to the protection of ecological values as opposed to non-Aboriginal heritage values and is discussed in relation to weed management, altered fire regimes, the introduction of noise sources and altered groundwater movement in Chapters 12, 16 and 19 respectively.
- Potential impacts to the freehold land over which vegetation heritage agreement HA 869 applies, as the vegetation heritage agreement was established for the conservation of fauna and native vegetation, as opposed to heritage values and impacts are discussed in Chapters 11 and 12 respectively.

The impact and risk register presented in Appendix C provides further details around source, pathway and receptor for each potential impact event considered.

10.5.1 Non-Identified Heritage Values

Items of non-Aboriginal heritage significance which have not been identified and are located within, or adjoining the proposed mining lease could be impacted by construction, operation or closure of the mine. Given the historical use of the region, consultation with the local community and the lack of identified places of Non-Aboriginal heritage significance, it is not expected that any additional sites will be identified at the proposed mine. As such, there is no confirmed SPR linkage as there is no site of non-Aboriginal heritage significance considered to represent a receptor.

10.5.2 Vibration at Warramboo Cemetery

Warramboo cemetery is approximately 200 m west of the proposed mining lease boundary and 2.2 km west of the mine pit. Warramboo cemetery is the closest place of non-Aboriginal heritage significance to the proposed mining lease that is associated with the Warramboo township and the only place east of the Tod Highway. Predicted airblast overpressure (refer Chapter 17 for further information) indicates that human discomfort will not occur at distances greater than 1.95 km from the mine pit (the location of the nearest sensitive receiver). Similarly, ground vibration is not anticipated to be discernible at distances greater than 200 m from the mine pit (refer Chapter 17). Buildings or structures (for example, Warramboo cemetery) are less sensitive to effects from vibration than the limits outlined in AS 2187.2-2006 for human comfort. As such, there is no confirmed SPR linkage as there is no source of vibration at the proposed mine that is able to affect Warramboo cemetery or places of non-Aboriginal heritage significance.

10.6 Control Measures to Protect Environmental Values

As there are no known places of non-Aboriginal heritage significance within the proposed mining lease, no specific design modifications have been made to protect non-Aboriginal heritage values.

Similarly, no impacts to non-Aboriginal heritage values with a confirmed SPR linkage were identified. As such, no control and management strategies are proposed.

10.7 Impact and Risk Assessment

No impact events associated with non-Aboriginal heritage with a confirmed SPR linkage have been identified.

10.8 Proposed Outcome(s)

As no impact events with a confirmed SPR linkage have been identified, no outcomes are required in relation to non-Aboriginal heritage in accordance with the methodology presented in Chapter 6.

10.9 Findings and Conclusion

A desktop assessment of non-Aboriginal heritage was conducted to identify places listed on statutory heritage registers, former statutory heritage registers, places of geological significance, churches and cemeteries that are within 5 km of the proposed mining lease. No places of non-Aboriginal heritage significance were identified as being within the footprint of the proposed mining lease (with the exception of HA 869 discussed in Chapters 11 and 12). The Warramboo cemetery and Hambidge WPA are both within 5 km of the proposed mining lease boundary. No impacts to the cultural value of the Warramboo cemetery or Hambidge WPA are anticipated as a result of construction, operation or closure activities.

No impact events associated with non-Aboriginal heritage with a confirmed SPR linkage have been identified.



This page has been left blank intentionally.