**Avonbank Mineral Sands Project**

**Environment Effects Statement**

**Chapter 23 – Aboriginal Cultural HeritageGraphical user interface, website

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# Aboriginal Cultural Heritage

## Introduction

This Chapter provides an overview of the Aboriginal cultural heritage assessment and associated Cultural Heritage Management Plan (number: 17043) (CHMP) conducted for the Avonbank Mineral Sands Project (the Project). It has been prepared to address the Environment Effects Statement (EES) Scoping Requirements (DELWP, 2020).

The key evaluation objective relating to Aboriginal heritage defined in the Scoping Requirements is to ‘Avoid or minimise adverse effects on Aboriginal and historical cultural heritage. The associated issues and Project Scoping Requirements are detailed in Appendix A of this EES.

Aboriginal cultural heritage consists of places and items that are of significance to Aboriginal people because of their traditions, observances, beliefs and history. Cultural heritage can include both physical elements like stone artefacts and shell middens and non-physical elements such as memories, stories and associations that a particular feature or place may engender in Aboriginal people.

The Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagalk peoples are the recognised original inhabitants of the area of Western Victoria, which encompasses the Study area. These peoples are therefore the custodians of Aboriginal cultural heritage in the study area. They are represented by a body corporate, the Barengi Gadjin Land Council Aboriginal Corporation (BGLCAC), which is a Registered Aboriginal Party (RAP) within the State of Victoria.

A Notice of Intent to prepare a CHMP was submitted to the First Peoples - State Relations and the RAP for the area, BGLCAC, on 22 January 2020.

This Chapter has been prepared to describe the cultural heritage assessment and management requirements included in the CHMP, prepared by Landskape, a division of ML Cupper Pty Ltd (Landskape), in consultation with the RAP.

In accordance with the *Aboriginal Heritage Act 2006*, the CHMP was developed in consultation with BGLCAC. Following its completion, the CHMP was reviewed and evaluated by BGLCAC. A summary of the CHMP is provided as Appendix E of this EES. The full CHMP is considered to contain potentially culturally sensitive information and as such, has not been included in this EES.

## Methodology

### Scope and Study Area

The scope of the CHMP covers Project related activities associated with the Avonbank mine and secondary processing facility that may affect Aboriginal cultural heritage over the life of the Project.

The activity area defined in the CHMP covers the Project area and areas along the minor utilities corridor (power and water) (refer Figure 23‑1). The CHMP also provides context for the broader Wimmera region. The Projects development extent comprises mining and related activities within the proposed mining licence (3,426 ha), processing within the WIM Base Area (WBA) (90 ha), and a minor utilities corridor to the WBA for power and water, which will extend 14 km (~30 ha).

The assessment excludes areas/activities that do not involve land disturbance, such as the transport of Heavy Mineral Concentrate (HMC) and its storage, handling and shipping from the Port of Portland (PoP).

### Assessments

Landskape (Landskape, 2022) undertook the cultural assessment for the study area and developed the Project CHMP. Assessment work undertaken comprised:

* Characterisation of the existing conditions of the study area.
* Consultation with representatives of BGLCAC (the RAP), Heritage Advisors, Traditional Owners and the proponent, involving regular discussions, meetings and cultural values recording sessions.
* Desktop assessment, standard (ground survey) and complex (subsurface) assessments to identify potential or actual Aboriginal cultural heritage sites in the study area.

Further detail of the methodology of these assessments is provided in Section 23.2.2.1 to Section 23.2.2.3.

The assessments undertaken by Landskape were completed in accordance with the requirements of the *Aboriginal Heritage Act 2006* and the *Aboriginal Heritage Regulations 2018*. Based on the results of the assessment, Landskape detailed relevant management and monitoring measures to be implemented over the life of the Project.

#### Desktop Assessment

The desktop assessment established the regional context and landscape setting for the study area. Geological, geomorphological and vegetation information was reviewed, and a land use history was constructed from historical sources.

A summary of the regional ethno-historical record was drawn from a range of primary and secondary sources. Background Aboriginal archaeology for the Wimmera area was determined by reviewing regional and local archaeological studies, primarily through information provided in cultural heritage consulting reports. Information from previous surveys undertaken in the area and the Victorian Aboriginal Heritage Register (VAHR) were reviewed to identify any Aboriginal places previously recorded in or near the study area.

A predictive determination of the potential Aboriginal place types and locations in the study area were developed based on background information obtained through the desktop assessment of the environment and regional archaeological record. The findings of the desktop assessment are summarised in Section 23.5.1.

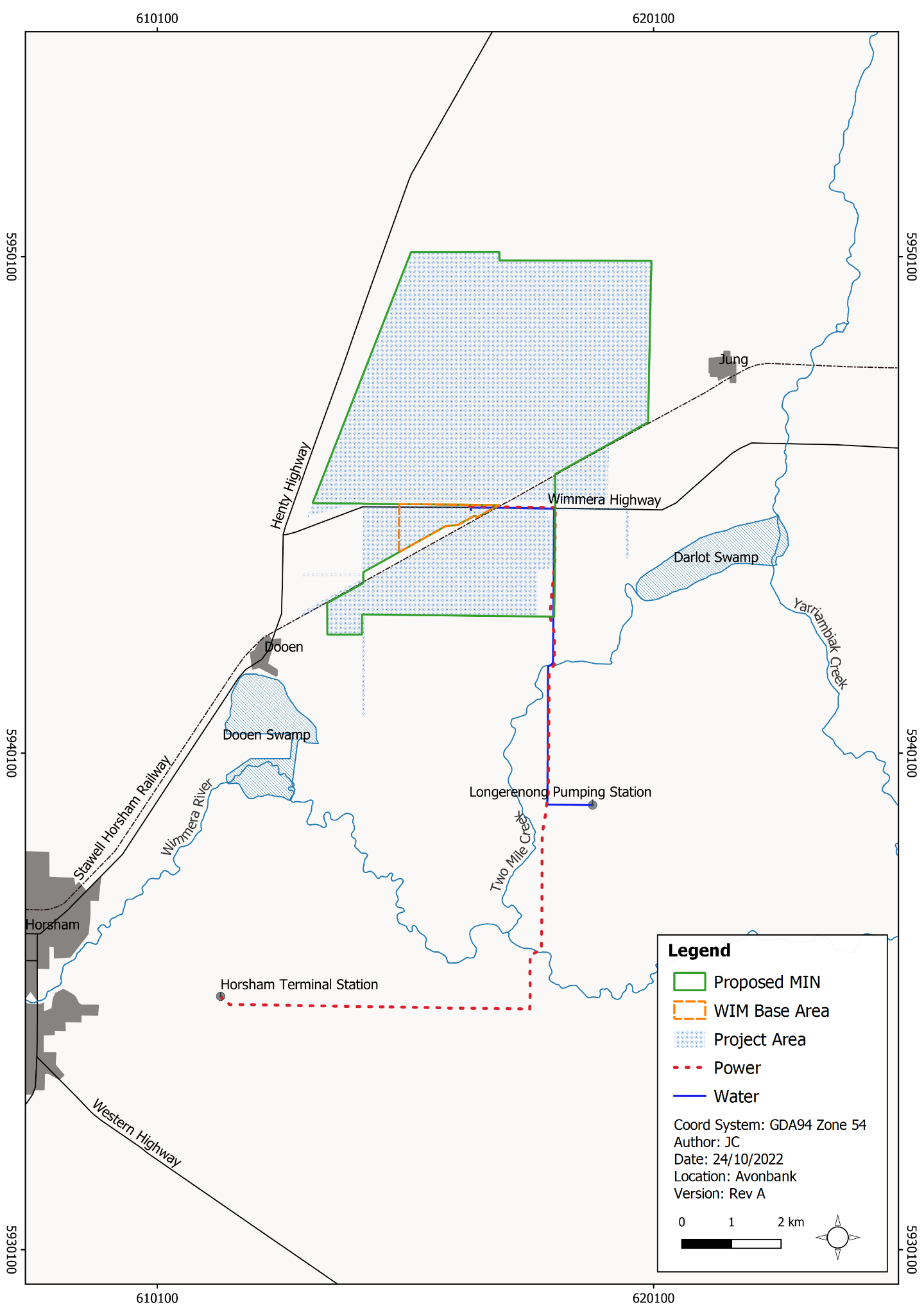


Figure 23‑1: Study area

#### Standard assessment – archaeological ground survey

A standard cultural heritage assessment, including a ground survey for the presence of Aboriginal cultural heritage within the activity area was conducted. Archaeological ground survey works were undertaken on 20 and 21 February 2020 and 7 March 2022. The survey work was completed in accordance with s.53(2) of the *Aboriginal Heritage Act 2006* and conformed with proper archaeological practice, as stipulated in r.63(5) of the *Aboriginal Heritage Regulations 2018*.

The study area was surveyed by establishing evenly distributed transects (linear survey units) across 180 ha. Typically, the transects were 10 m apart, running from approximately west to east. The location of specific survey areas are detailed in the CHMP.

The survey team, comprising representatives from Landskape and the BGLCAC, systematically walked the transect lines, recording any pertinent information relating to the environmental and archaeological context of the study area. The ground surface was examined for any archaeological traces, such as stone artefacts, hearths, hearthstones, shells, bones and mounds. All mature or old growth indigenous trees in the activity area were inspected for scarring by Aboriginal people. Particular survey attention was paid to areas with high ground surface visibility, which included vehicle and stock tracks and scalds and other eroded areas.

Landscape features and areas of ground disturbance were also recorded through digital photographs.

The findings of the standard assessment are summarised in Section 23.5.2.

#### Complex assessment – subsurface works

As a subsurface artefact had been identified approximately 13 km to the north of the activity area in similar alluvial sediments, a complex assessment (that is, involving subsurface works) was considered warranted to assist in assessing the Aboriginal cultural heritage in the study area. The assessment was completed in accordance with Clause 9 Schedule 2 of the *Aboriginal Heritage Regulations 2018*.

The subsurface works undertaken involved hand excavation, mechanical test trenching, and mapping and site datum to establish the stratigraphy and general subsurface nature of the study area. Two test pits and two trenches were excavated. No specific areas of archaeological potential were identified during fieldwork; there were no landforms, such as rocky outcrops or waterways, in the study area. The test pits and trenches were located in the immediate vicinity of existing mature trees in areas that were considered to be less disturbed.

The subsurface investigations comprised:

* Hand excavation (by shovel or trowel) of two square pits (1 m x 1 m) to a depth of 0.6 m on 15 December 2020. Beyond the depth of 0.6 m (the soil B horizon), no items of cultural significance are expected to be found.
* The two test pits were strategically located in areas that were considered to be less disturbed. One test pit was placed in a stand of remnant Buloke trees and the second in a stand of remnant Buloke and Yellow Gum.
* Mechanical excavation of two test trenches (1 m x 10 m) to a depth of 0.6 m.
* An excavator was used to complete the works on 16–17 December 2020. The two trenches were excavated in the same area of Buloke and Buloke/Yellow Gum as the hand excavation works.

Material from the excavations was removed in 100 mm spits (a unit of archaeological excavation with an arbitrarily assigned measurement of depth and extent) and then sieved through a 5 mm diameter mesh screen.

The locations of the survey points were entered and captured. Descriptions of the soil profile, sediments, sediment colour, pH and any evidence of disturbance were recorded. Photographs of the test excavations were taken and a photographic board was used to denote the details of the test locations, including spit depth and context.

The findings of the complex assessment are summarised in Section 23.5.2.

### Record of Consultation

The CHMP was informed by consultation between the WIM Resource (the Sponsor), Heritage Advisors (professionals from Landskape) and Traditional Owners, including representatives from the relevant RAP, BGLCAC.

In accordance with the *Aboriginal Heritage Act 2006*, copies of a Notice of Intent to Prepare a Cultural Heritage Management Plan were submitted to the First Peoples - State Relations and the BGLCAC. The BGLCAC were consulted throughout the assessment process.

Regular discussions were held between the Sponsor, Heritage Advisor(s) and BGLCAC. A meeting (videoconference, 10 July 2020) was held prior to the commencement of field survey work and CHMP preparation. The discussion focused on the mine activities and potential impacts on Aboriginal cultural heritage items, places and values and the planned cultural heritage assessment. The BGLCAC was provided with maps of the activity area. Opinions about the development and its potential impacts on cultural heritage were sought and any concerns or queries were discussed.

On-site survey works were undertaken by one of the Project's Heritage Advisors and four BGLCAC representatives on 20 February 2020, 21 February 2020 and 7 March 2022. Follow-up field works were completed by the Heritage Advisor and four representatives from BGLCAC on 15-17 December 2020. During this time, informal discussions were held between the Heritage Advisors and the BGLCAC representatives to ascertain the Traditional Owners’ views about the proposed activities and their potential impact on Aboriginal cultural heritage items, places and values.

Following the completion of field survey work, a video conference was held between the Heritage Advisor, Project Sponsor representatives and the BGLCAC RAP Manager (29 January 2021) to discuss the results of the assessment and conditions of the CHMP.

Following a request from the BGLCAC RAP Manager, it was agreed that a cultural value recording session with Traditional Owner representatives be undertaken. The recording session was completed in the study area on 9 September 2021. A Sponsor representative explained the proposed Project to the Traditional Owners present and a recording was made of the cultural information provided by Traditional Owners.

The BGLCAC elected to review the CHMP upon its completion. The RAP Manager was appointed by the RAP to review the results of the existing conditions assessment (refer Section 23.2.2), the recommendations for managing Aboriginal cultural heritage, and the contingency plans detailed in the CHMP.

## Operational Context

The development extent of the Project occupies a total area of 3,546 ha, of which 3,426 ha comprises mining and related activities. Processing activities will occur on a 90 ha parcel of land, and a linear infrastructure corridor to the WBA for power and water will require an approximate 30 ha area.

The total mining footprint covers an area of 2,215 ha, comprising four Blocks (Block A to Block D). Following initial site establishment and construction, the four Blocks will be mined sequentially. The mine will be an open-cut operation, and a ‘moving hole’ mining method will be used. Mining of the ore body will involve excavation to approximately 24 m to 30 m below ground level. Ore will be mined with an excavator or by use of two D11 dozers. Overburden will be stripped using excavators and trucks or scrapers.

The mining method will involve the direct return of tailings and overburden into the mined cell as the mining front advances to enable progressive rehabilitation over the life of the Project. Progressive rehabilitation will minimise the area developed and/or disturbed; at any given time, the extent of disturbance will, on average, be less than 300 ha. The disturbed area will be returned to its previous productive land use and capability within 4 years of the initial disturbance. The land will be handed back to landholders once it has been rehabilitated to a safe, stable and sustainable state.

Upon Project commencement, construction of the Wet Concentrator Plant (WCP) will be undertaken and a box-cut starter pit approximately 1.4 km long and 400 m wide will be established in Block A. Subsoil and topsoil will be stripped and stockpiled adjacent to the pit. Overburden will be excavated and hauled to an overburden stockpile to the west of the mining area.

The stockpile will store the first 8 months of overburden to provide sufficient room for ore mining and in-pit tailings deposition. From year 2, the Project will enter the standard operation phase. Topsoil and subsoil horizons will be stripped and stockpiled adjacent to the ore mining cell. Typically, overburden will be excavated and directly returned to a previously completed ore mining cell to progressively backfill the mine void, along with tailings from the WCP. After the void is backfilled and tailings have dried sufficiently, subsoil and topsoil will be placed.

Following the completion of mining in Block A at around year 6, mining north of the Wimmera Highway in Block B will commence. Following the completion of mining in Block B, the operation will move to Block C and then Block D. All mined areas will be progressively rehabilitated.

## Existing Conditions

### Environmental Context

#### Regional setting, geology and landforms

The study area is located 5 km north-east of Dooen in the Wimmera Southern Mallee (WSM) region of western Victoria. The WSM region is semi-arid, receiving approximately 390 mm of rainfall per annum (BOM, 2022). The study area is situated within the North Western Dunefield and Plains landscape, which is characterised by clay plains with subdued ridges with a very low variation in elevation.

The surface geology encompassing the site is primarily alluvial (river-lain) or aeolian (windblown) sediments deposited in the basin over the Late Neogene and Quaternary. The study area occupies alluvial plains between the north of the Wimmera River and west of Yarriambiack Creek.

The study area is relatively flat and low-lying at around 140 mAHD. The underlying sediments are alluvial grey clays, silts, and sands of the Shepparton Formation. These are floodplain deposits of the Quaternary courses of the Wimmera River, Yarriambiack Creek and their precursor streams.

#### Hydrology

The WSM is part of the Murray-Darling Basin. The Yarriambiack Creek is located 3 km to the east of the study area and the Wimmera River 3.5 km to the south. The Yarriambiack Creek is a distributary stream of the Wimmera River, flowing almost due north from its source near Longerenong, discharging to Lake Coorong near Hopetoun. There are several wetlands along Yarriambiack Creek in addition to Lake Coorong, including Darlot Swamp, located approximately 1 km to the east of the study area.

There are no surface water features or designated waterways in the study area. Surface run-off tends to pool in localised depressions or flow toward Dooen Swamp, a floodplain wetland on the Wimmera River, located approximately 1 km to the south-west.

#### Vegetation

The study area has previously been almost completely denuded of native vegetation and disturbed by agriculture and pastoralism.

A relatively small proportion of remnant vegetation exists in the study area. The trees are generally characterised by mature canopy species, such as Buloke (*Allocasuarina luehmannii*) or Black Box (*Eucalyptus largiflorens*). The modified and treeless areas generally support a low cover and diversity of native grass species, such as Spear Grass and Wallaby Grass. However, modified areas are dominated by exotic species, primarily associated with agricultural practices.

#### Land use history

Prior to European settlement, the study area was ‘Plains Woodland’ and ‘Plains Savannah’ grassland. These plains probably supported Grey Box (*Eucalyptus microcarpa*), Yellow Gum (*E. leucoxylon*) and Buloke trees with a grassy understorey.

In 1839, Major Thomas Livingstone Mitchell (Surveyor-General of New South Wales) was the first European to visit the WSM region. Mitchell was closely followed by stockmen driving herds of cattle overland through the WSM from the Murray River to Portland. Overlanders began settling the Wimmera from around 1841, and by 1851 sheep and cattle runs occupied all but the least arable land.

In August 1842, overlander James Monckton Darlot established Brighton Station, which encompassed the study area, and a pastoral lease was granted for the station in July 1843. The station land was subdivided along the course of the Wimmera River in May 1859 to form Brighton North and Brighton South.

With the passing of the 1860s and early 1870s land selection Acts, a policy of closer settlement was pursued during the second half of the nineteenth century. Since the establishment of pastoralism in the 1840s and the closer settlement in the 1870s, the native woodland vegetation of the study area was cleared and cultivated.

The Brighton North holding was subdivided into smaller properties in the early 1880s. Selectors were granted title to 320-acre blocks of land. Land was cultivated for wheat from this time, with cereal cropping also expanding with further subdivisions for returned soldier settlement after World War 1.

The expansion of the Wimmera wheat fields contributed to the commercial development of the town of Horsham by 1888. The town of Dooen was also established at this time.

Attempts were made by the early settlers to control flows of water along the Wimmera River and Yarriambiack Creek to establish more reliable sources of water. The control of water became more systematic during the 1880s with the formation of water trusts. During the late nineteenth and much of the twentieth century, a network of earthen channels were excavated throughout the Wimmera and Mallee to distribute water to farmers and townships.

Earthworks for the construction of roads and internal access tracks have extensively modified parts of the land surfaces of the study area. The construction of fences, channels, dams and high-voltage electricity transmission lines has also impacted the activity area.

The Project activity area is primarily situated on privately owned property that is currently used for broadacre continuous cropping.

### Ethno-history

Prior to the 1840s, Aboriginal people of the Jardwadjali language group occupied the part of the southern Wimmera encompassing the study area. The Jardwadjali and their neighbours, who included peoples of related Wergaia and Djab wurrung language groups to the north and south, shared a similar language and kinship systems.

There were estimated to be at least 37 Jardwadjali clans, with individual clan populations ranging between 40–120 individuals. The total population of the region was estimated to be between 1500 and 4500 people. The Jardwadjali were hunter-fisher-gatherers and it appears each clan lived in a small number of semi-permanent settlements within their area.

Aboriginal people constructed watercraft from bark slabs cut from River Red Gum trees and made fishing lines and nets. They caught fish, including eels, freshwater crayfish, yabbies, tortoises and freshwater mussels, in the streams and wetlands in the region. Some of the other animals that Aboriginal people of the Wimmera hunted include kangaroos, wallabies, emus, possums, echidnas, lizards, snakes, and frogs. Plant foods eaten included native millet, panic grass, pigface fruits, wild cherries, kangaroo apple, tubers, yams, roots, and other grass grains.

Aspects of the initial interaction between Europeans and the Aboriginal people of the Wimmera in the 1840s led to violent conflict. Aboriginal people were displaced from their land by pastoral settlers. Within a decade, while living a semi-traditional existence, many of the Aboriginal people of the Wimmera resided adjacent to pastoral homesteads.

During the 1850s and 1860s, grants of land were set aside for church and government Aboriginal reserves. The Ebenezer Mission was located on the Wimmera River at Antwerp, approximately 70 km west of the study area. This mission was operated by the Moravian Brethren between 1859 and 1904. In 1905, most of the Aboriginal people on the Ebenezer Mission moved to the nearby Antwerp Township Reserve, and in 1918 the total population of this Reserve was 180 people. This population was reduced to 70 after some people relocated to Lake Tyres in Gippsland.

Descendants of the language groups and clans of the Wimmera are part of the region’s contemporary Aboriginal community. Some of these Traditional Aboriginal Owners refer to themselves as ‘Wotjobaluk’, a Wergaia term meaning ‘men and women’.

A native title claim over a large area of western Victoria, encompassing the study area, was lodged with by the Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagalk peoples, was referred to the National Native Title Tribunal for mediation in September 1999. The claim focussed on the Wimmera River area and the determination of the claim was made in December 2005, whereby the Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagalk peoples were recognised as having non-exclusive native title rights over some Crown reserves along the banks of the Wimmera River.

In 2005, the Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagalk peoples set up BGLCAC to manage the land rights, and the BGLCAC entered into an indigenous land use agreement (ILUA) with the Victorian and Australian Governments. Through related agreements, the cultural ties of the Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagalk peoples to their traditional country are recognised.

### Background Archaeology

Previous studies of the alluvial plain hinterland, including the area encompassing the Project, record scar trees along the banks of main stream water courses, with evidence of Aboriginal activity in both pre and post-European settlement in the area. Earth mounds and shell middens have also been recorded along the banks of the Wimmera River and some of the more permanent lakes. Stone artefact scatters and isolated finds of stone artefacts, typically flakes and flaked pieces struck from quartz, quartzite, silcrete and chert, have been recorded on sandy source-bordering dunes and alluvial floodplain terraces of the rivers and creeks and on lunettes (bow shaped dunes) and other landforms marginal to some of the lakes and swamps.

Artificial drainage channels have also been identified in the Wimmera region. For example, a series of such channels (dated 210+/-120 years before present) were identified approximately 90 km south-west. The channels were approximately 2.5 m wide, 1 m deep and 400 m in length.

### Previously Identified Aboriginal Cultural Heritage

Based on the Victorian Aboriginal Heritage Register, accessed on 20 June 2022, no Aboriginal cultural heritage sites have been identified within the study area. The study area comprises land that has been extensively modified since the 1840s, presumably destroying evidence of Aboriginal cultural heritage sites.

Aboriginal artefacts and sites of cultural significance recorded within 15 km of the study area, are detailed in the CHMP (Landskape, 2020) and are not reproduced in this Chapter.

## CHMP Assessment Findings

### Desktop Assessment

The desktop review of previous archaeological studies indicated the most frequently recorded Aboriginal cultural heritage places in the Wimmera region are stone artefact scatters and scarred trees. The archaeological record for the Wimmera region also represented burials, earthen features (mounds), ovens and hearths, quarries, stone features, rock wells, rock shelters and rock art. The potential for their presence in the study area through a predictive model based on the existing environmental context of the site is summarised below.

Based on the predictive assessment, the study area has:

* A lower probability of having Aboriginal cultural heritage sites as the past Aboriginal occupation of the Wimmera would have a greater focus on the major waterways and their associated wetlands, given these areas offered a rich resource zone in an otherwise arid landscape.
* A landscape setting that reduces the possibility of encountering site types. For example:
* shell middens would not occur in the study area as they are normally encountered within 100 m of permanent freshwater sources;
* rock shelters, rock art, stone quarries or stone features will be absent as there are no suitable rock outcrops on-site;
* scar trees are less likely to be present on-site as the majority of the original vegetation has been removed; and
* earthen features are unlikely to be present due to site land clearing and ploughed cultivation. Although Aboriginal people would have regularly journeyed into the more poorly watered hinterland to collect plants, hunt animals, and exploit mineral resources, these areas, including the study area, have a lower probability of containing Aboriginal cultural heritage places and items than the riverine corridors.
* A moderate probability that Aboriginal stone artefacts exist, as land modification by ploughing and earthworks may have dispersed but not destroyed artefacts.
* A negligible probability of having burials given that most of them occur in landforms such as lunettes or source-bordering sand dunes elevated above waterways, which do not occur in the study area.

The results of the predictive model are provided in Table 23‑1.

Table 23‑1: Desktop predictive model

| Scarred Trees | Stone Artefacts | Earthen Features | Stone Features | Burials | Hearths | Shell Middens |
| --- | --- | --- | --- | --- | --- | --- |
| Moderate | Moderate | Low | Negligible | Negligible | Low | Negligible |

### Standard and Complex Assessment

Ground surveys were conducted to assess the presence of Aboriginal cultural heritage within or associated with the study area. At this time, oral information relating to cultural value was provided by the Aboriginal community representatives of the BGLCAC.

During the site survey, the ground surface was examined for any archaeological traces, such as stone artefacts, hearths, hearthstones, shells, bones, and mounds, including mature or old growth indigenous trees in the study area that were scarred by Aboriginal people.

The study area is approximately 3,600 ha. The standard assessment included an effective survey coverage of 5% of the study area. However, access was only available to approximately 1,550 ha; as such, a sample coverage of more than 10 % (11.6 %). The ground surface visibility during the survey periods was excellent. The survey conditions and landscape features encountered during the standard assessment are summarised in Table 23‑2.

Table 23‑2: Standard assessment: conditions summary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Landscape Setting | Vegetation | Visibility (%) | Exposures | Survey Method |
| Cleared alluvial plains | Cleared wheat paddocks either ploughed or with sparse, low stubble, remnant Gum, Box and Bull-Oak trees along fence lines, weeds and grasses | 90 | Ploughed furrows, graded fence lines, vehicle and stock tracks, scalds, gullies | Pedestrian |

During the conduct of the standard assessment, the following observations were made:

* There are no caves, rock shelters or cave entrances in the area.
* Site conditions did not impede the survey.
* There was no evidence of Aboriginal artefacts or items of cultural heritage interest.

However, following consultation between the Heritage Advisor and the BGLCAC Aboriginal Corporation RAP Manager, it was determined that a complex assessment of the area should be undertaken.

The test excavations completed during the complex assessment confirmed that previous earthworks and ploughing have heavily disturbed the surface of alluvial terrace landforms of the study area, as evidenced by mixed soil profiles. No Aboriginal archaeological sites or cultural heritage effects were identified in the area during the standard and complex assessments.

### Aboriginal Cultural Values

Cultural heritage can include both physical elements (for example, stone artefacts and middens) and non-physical (intangible) elements, such as memories, stories and associations that a particular feature or place may engender in Aboriginal people. These intangible cultural elements determine the social and spiritual value of a place.

To assist in the identification of intangible cultural value associated with the study area, a cultural values recording session was completed on site on 9 September 2021, in the presence of the Heritage Advisor (Landskape), representatives of BGLCAC and the Sponsor.

These discussions are detailed in the CHMP and will not be reproduced in this Chapter.

## CHMP Impact Assessment

### Summary

To date, no Aboriginal archaeological sites or cultural heritage effects have been identified within the study area. The assessment of existing site conditions undertaken as part of the cultural heritage assessment and other baseline assessments for the EES confirm that there are no watercourses or landforms, such as rocky outcrops or caves, within the study area that represent an area of high cultural value. This is supported by discussions with the Traditional Owners.

However, the Traditional Owners and findings of the existing conditions assessment confirm that the study area was utilised by Aboriginal peoples. Aboriginal artefacts have been found in the vicinity of the study area. Although the majority of the study area has been modified through invasive agricultural practices, some Aboriginal artefacts may remain, even if they have been subject to past disturbance.

Although not recorded to date, it is possible that undiscovered archaeological artefacts are present on the surface or near surface soil in the development extent. As such, during the Project life, a range of management measures will be required in line with the CHMP. These measures are described in Section 23.7.3

### Consideration of *Aboriginal Heritage Act 2006*

Section 61 of the *Aboriginal Heritage Act 2006* outlines matters which are required to be considered in the CHMP. These matters provide for consideration of means for avoiding/minimising adverse impacts on cultural heritage and the management of cultural heritage issues.

As outlined below, these matters are addressed in the CHMP.

#### Avoiding and minimising harm to Aboriginal cultural heritage

No previously identified Aboriginal cultural heritage places or newly identified Aboriginal cultural heritage places occur in the study area.

In accordance with Section 61a of the Victorian *Aboriginal Heritage Act* *2006*, the construction and operation of the proposed Project would not harm any known or identified Aboriginal cultural heritage. If unexpected finds are made during the life of the Project, impacts will be avoided or minimised, as per Section 61b of the Act and described in Section 23.7.3.

#### Management of Aboriginal cultural heritage

Measures required for the management of cultural heritage issues will be through the CHMP in accordance with Section 61c of the *Aboriginal Heritage Act* *2006*.

A copy of the approved CHMP will be made readily available to all construction personnel and a cultural heritage induction for all contractors/site workers prior to or at the commencement of the proposed Project will be undertaken.

The cultural heritage induction session will include a general appreciation of relevant Aboriginal culture, practical training in the recognition of Aboriginal cultural heritage items and places, guidance on working with Aboriginal people, and a summary of the recommendations and contingencies contained in the CHMP and the obligations for employees/contractors/site workers under the *Aboriginal Heritage Act* *2006* (refer Section 23.7.3).

#### Required contingency plans

In accordance with Section 61d of the *Aboriginal Heritage Act* *2006*, processes to be followed in relation to disputes, delays and other obstacles are provided in the contingency plans, as outlined in Section 23.7.3.

#### Custody and management of Aboriginal cultural heritage

Custody and management of Aboriginal cultural heritage would be in accordance with the requirements of the contingency plans (refer Section 23.7.3), in compliance with Section 61e of the *Aboriginal Heritage Act* *2006.*

## Management Framework

### Environmental Objectives

Environmental objectives will be established as part of the environmental management system (EMS) to articulate the outcomes to be achieved during Project implementation. These reflect the expected and achievable outcomes based on the studies undertaken as part of this EES.

The key environmental objective relating to cultural heritage relevant to the Project during implementation is to ensure Project activities will not directly or indirectly impact Aboriginal cultural heritage in and around the development extent.

Performance standards will be established to measure/assess if the environmental objectives have been achieved during operations.

### Cultural Heritage Management Conditions

The management conditions are prescribed prior to the commencement of works and during the Project implementation once the CHMP is approved. The conditions prior to the commencement of works include:

* A cultural heritage assessment involving Heritage Advisor and RAP representatives covering at least 5% of the study area.
* Dissemination of the CHMP to all construction/office personnel. The CHMP must be available to personnel at all times during the construction and operation of the Project.
* Cultural awareness training for all management personnel, comprising a cross-cultural training session conducted by the RAP, which includes Aboriginal links to the study area.
* The provision of cultural heritage inductions for all personnel during the construction and operation life of the Project. These sessions will include:
* Provision of training to employees and contractors to educate the workforce about the potential for undiscovered artefacts being present on site and to emphasise the importance of such discoveries. The training will include practical training in the recognition of Aboriginal cultural heritage, items, and places.
* Practical training on working with Aboriginal People.
* A summary of the recommendations and contingencies contained in the CHMP.
* A summary of the obligations of employees/contractors/personnel under the *Aboriginal Heritage Act* *2006.*

Procedures to be applied in the event of a ‘chance find’, that is, an unexpected discovery of a potential Aboriginal artefact or item of cultural significance, are provided in Section 23.7.3.1. Records of all training relating to cultural heritage and record all potential chance find incidents, including all follow-up actions, will be maintained.

### Contingency Plans

The contingency plans prepared for the proposed Project cover the management of any unexpected discoveries of Aboriginal cultural heritage, dispute resolution, compliance with the CHMP and mechanisms for remedying non-compliance. These contingency plans are outlined below. Further detail relating to these plans is provided in the CHMP.

#### Discovery of Aboriginal cultural heritage items

Upon discovery of any potential Aboriginal artefact/cultural heritage item in the development extent, work activities in the immediate area will cease and an appropriate barrier will be established to protect the area. A Heritage Advisor will be consulted to advise regarding the requirement for further assessment and work in the area will only resume when the Heritage Advisor completes the assessment. Consideration of chance finds will involve consultation between the Project operator, the Heritage Advisor, RAP representative(s) and First Peoples – State Relations.

If salvage of any Aboriginal cultural heritage encountered during construction were to be required, a Heritage Advisor along with a qualified archaeologist would make decisions about the methodology of excavation in accordance with proper archaeological practice, thereby reporting and updating all relevant records in the VAHR in accordance with First Peoples - State Relations ‘Practice Note: Salvage Excavation guide’.

#### Unexpected discovery of human remains

If any suspected human remains are found during any activity, work must cease. The remains must be left in place and protected from harm or damage.

The Victoria Police and the State Coroner’s Office should be notified immediately. If there are reasonable grounds to believe that the remains are Aboriginal Ancestral Remains, the Coronial Admissions and Enquiries hotline must be contacted, as detailed in the CHMP.

If it is confirmed by these authorities that the discovered remains are Aboriginal Ancestral Remains, the person responsible for the activity must report the existence of the Aboriginal Ancestral Remains to the Victorian Aboriginal Heritage Council in accordance with s17 of the *Aboriginal Heritage Act 2006*.

### Compliance

Project compliance with the CHMP is to be reviewed throughout the life of the Project. Monitoring of compliance will be achieved through the completion of a Compliance Review Checklist.

The Compliance Review Checklist itemises performance objectives and ensures compliance with the recommendations and provisions of the CHMP. Sections of the Checklist are to be completed prior to the commencement of works, on a periodic basis during operations and at mine closure/rehabilitation.

## Conclusion

This Chapter provides an overview of the cultural heritage assessment and CHMP, which has been prepared to address the EES Scoping Requirements for the Avonbank Mineral Sands Project. The CHMP was developed in consultation with BGLCAC, the RAP for the region encompassing the Project.

The possibility of encountering Aboriginal artefacts or cultural heritage items and the potential of adverse impacts on them as a result of Project activities were assessed. Consideration was given to the potential for Aboriginal cultural heritage locations and Aboriginal artefact distribution across the study area.

Management and monitoring measures were identified to avoid, reduce, and monitor any potential impacts so far as reasonably practicable. The key management and monitoring measures to be implemented during mining are in accordance with the CHMP and include:

* A cross-cultural induction training session conducted by the RAP for all management personnel prior to the commencement of on-site Project activity.
* A cultural heritage induction conducted for all site personnel during the construction and operational life of the Project.
* The application of contingency plans as a mechanism to avoid or minimise adverse impacts in the event of a chance find (Aboriginal artefacts/cultural heritage items) or upon the unexpected discovery of human remains.
* The application of a mechanism to ensure Project activities comply with the recommendations and provisions of the CHMP.
* The requirement for a hard copy of the CHMP to be accessible on-site (at the site office) at all times during the construction and operation of the Project.

The study area has been extensively modified since the 1840s. No Aboriginal cultural heritage locations are listed on the Victorian Aboriginal Heritage (accessed 20 June 2022) for the study area itself, nor are any referenced in literature for the area.

Further, no evidence of Aboriginal artefacts was observed during the site walk-over assessment and the subsurface assessment. As no Aboriginal cultural heritage has been identified in the study area and given the assessment has determined there is a low potential for such to occur, the Project will not increase cumulative impacts on Aboriginal cultural heritage in the region.

Overall, the proposed Project work/activity is unlikely to result in significant Aboriginal cultural heritage impacts, and it is anticipated that with proper implementation of the CHMP, any residual impacts can be managed, with monitoring and management measures in place to achieve the evaluation objectives.