



Appendix I

Aboriginal Heritage Due Diligence Report





Cowal Gold Operations Underground Development Project

Aboriginal heritage assessment

Prepared for Evolution Mining (Cowal) Pty Limited
September 2020





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Cowal Gold Operations Underground Development Project

Aboriginal heritage assessment

Report Number

J190140 RP11

Client

Evolution Mining (Cowal) Pty Limited

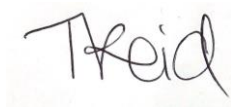
Date

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Version

v2 Final

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23 September 2020

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Table of Contents

1	Introduction	1
1.1	Overview	1
1.2	The Project	6
1.3	Legislative context	9
1.4	Assessment guidelines and requirements	11
1.5	Objectives of the assessment	13
1.6	Authorship	13
2	Aboriginal community consultation	14
3	Environmental context	16
3.1	Rationale	16
3.2	Landscape overview	16
3.3	Hydrology	18
3.4	Geology and soils	18
3.5	Land disturbance	18
4	Aboriginal heritage context	19
4.1	Ethno-historical context	19
4.2	Overview of key previous heritage investigations and permits	19
4.3	Summary of key archaeological investigations	20
4.4	Aboriginal Heritage Information Management System	24
4.5	Implications for archaeology	24
5	Visual inspection results	26
6	Impact assessment and management measures	30
6.1	Discussion of potential impacts	30
6.2	Management measures	30
6.3	Conclusion	31
	References	33
	Appendices	
	Appendix A Aboriginal consultation documentation	
	Appendix B AHIMS extensive search	

Tables

Table 1.2	SSD CGO Underground Development Project overview	7
Table 1.3	Proposed modification components	7
Table 1.4	Aboriginal cultural heritage – relevant SEARs issued by DPIE	11
Table 1.5	Aboriginal cultural heritage –recommended BCD requirements	12
Table 2.1	List of registered Aboriginal parties for the CGO	14
Table 2.2	Summary of comments and how they are addressed	15
Table 4.1	Summary of archaeological management zones	21
Table 6.1	BCD management recommendations and proposed management measures	31

Figures

Figure 1.1	Regional context	3
Figure 1.2	Local setting	4
Figure 1.3	Project area	5
Figure 4.1	AHIMS sites and existing AHIP boundaries	23
Figure 5.1	Visual inspection results	29

Plates

Plate 3.1	CGO Archaeological Management Zones – Typical Cross Section (Source: Barrick 2003, Appendix 5)	17
Plate 5.1	Lakebed, facing south-west	26
Plate 5.2	Lakebed, facing east along vehicle track	27
Plate 5.3	Lakebed, facing south along vehicle track	27
Plate 5.4	Lakebed, facing west	28

1 Introduction

1.1 Overview

EMM Consulting Pty Limited (EMM) has been engaged by Evolution Mining (Cowal) Pty Limited (Evolution) to prepare a Aboriginal heritage due diligence assessment guided by the *Due Diligence Code of Practice for the Protection of Aboriginal Objects* (DECCW 2010) for the Cowal Gold Operations (CGO) Underground Development Project (the project).

Evolution is the owner and operator of CGO, which is located approximately 38 kilometres (km) north-east of West Wyalong in the central west region of NSW.

CGO is an existing open cut gold mining operation, which has been operational since 2005. It operates under a Ministerial development consent (DA 14/98) which allows Evolution to:

- extract 167 million tonnes (Mt) of ore by open-cut methods until 2032;
- process this ore at an on-site processing facility at a rate of 9.8 Mtpa;
- produce up to 6.1 million ounces of gold;
- emplace tailings and waste rock on site at an Integrated Waste Landform (IWL) and waste rock emplacement areas; and
- progressively rehabilitate the site.

The mine operates under two mining leases (mining lease (ML) 1535 and ML 1791). The current open-cut mine and surface infrastructure is wholly contained within ML 1535 with soil stockpiling contained within ML 1791.

Evolution operates CGO under DA 14/98 and within ML 1535 and ML 1791. Evolution also operates a water supply pipeline to the Bland Creek Palaeochannel Borefield, which is approved under DA 14/98.

The CGO site also includes a range of surface infrastructure, which generally includes an ore processing plant, the IWL (which includes tailings storage facilities (TSFs), waste rock emplacement areas, ore stockpiles and other ancillary facilities).

Evolution additionally holds a development consent (DA 2011/64) from Bland Shire Council which allows it to operate the Eastern Saline Borefield.

The site is adjacent to Lake Cowal in the Lachlan Catchment, which is an ephemeral inland wetland system. Lake Cowal is the largest natural inland lake in NSW, and when full is approximately 21 km long (north to south) and 9.5 km wide (east to west) covering an area of over 13,000 hectares (ha).

The project application area is illustrated at a regional scale in Figure 1.1 and at a local scale in Figure 1.2. The project area is shown in Figure 1.3.

Evolution is now seeking to introduce an underground mine at CGO. To enable this to be developed and operated, it is seeking development consent for the construction of the project.

The project comprises four key components (refer Figure 1.3):

- underground mine development – underground access will be provided by construction and operation of a decline that will extend northwards from a portal located adjacent to the existing open cut pit. Ore extraction will be via stope mining practices to a final depth of -850 m Australian Height Datum (AHD);

- the production of up to 1.8 Mtpa of ore for 20 years;
- backfilling extracted stopes with cemented pastefill made from cement and tailings; and
- transporting ore to the surface via a conveyor system and by truck.

The construction and operation of the underground mine is the subject of a State Significant Development (SSD) application (SSD 10367) under Part 4, Division 4.7, section 4.38 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act).

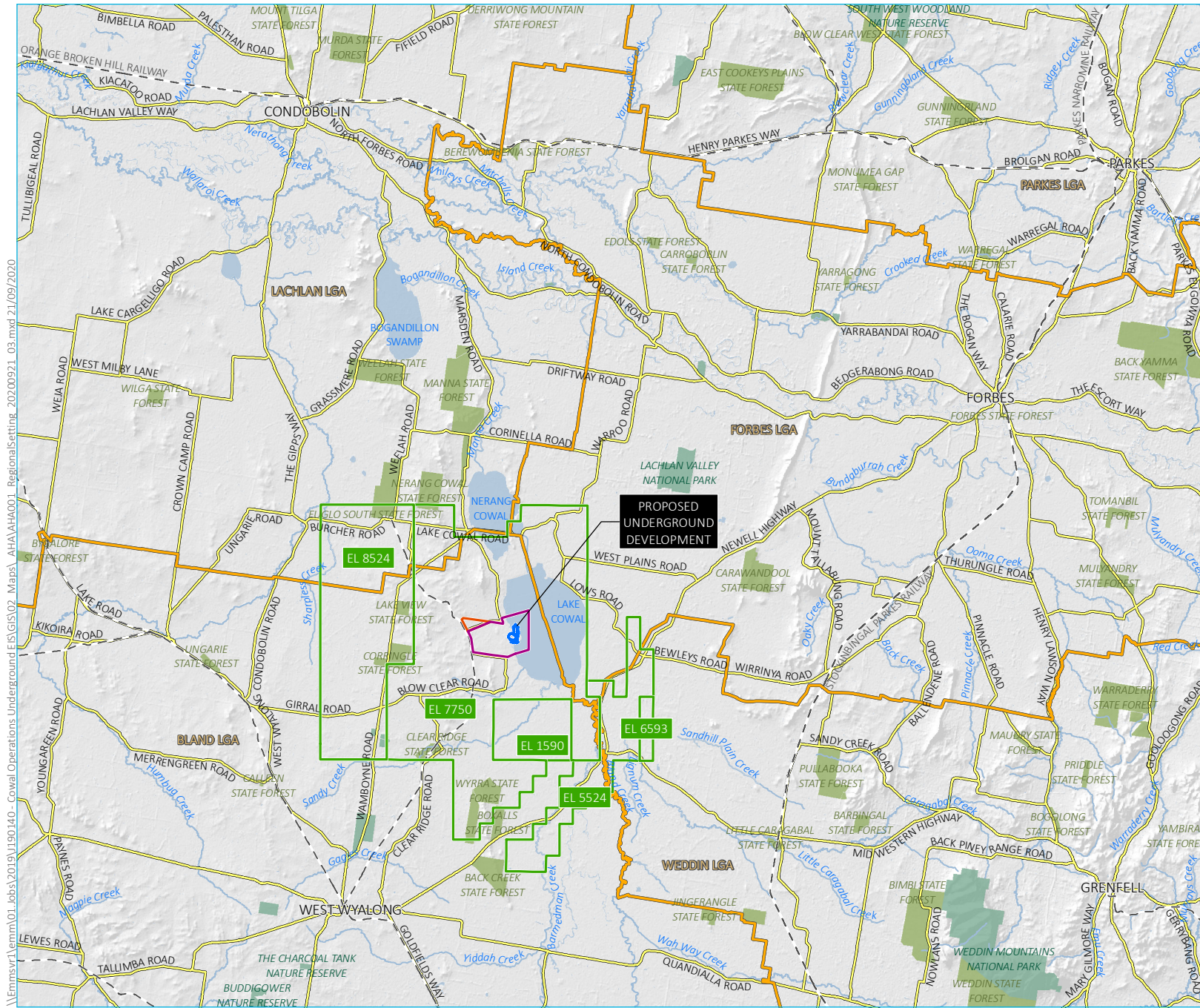
The development of the underground mine is seeking approval for the following changes to the previously approved development, including (refer Figure 1.3):

- extending the life of the surface operations in line with the life of proposed underground mining;
- construction of a box-cut;
- transporting the additional 27 million tonnes (Mt) of ore from the underground mine to the processing facility;
- processing the additional ore;
- emplacement of around 3.9 Mt of waste rock to existing waste rock emplacement areas;
- producing an additional 1.8 million ounces (Moz) of gold; and
- construction and operation of a paste fill plant to produce paste fill to backfill underground stopes.

The surface changes are the subject of a separate application, in the form of a request for modification (Modification 16) to the existing development consent (DA 14/98) under Section 4.55(2) of the EP&A Act.

EMM has prepared an assessment guided by the *Due Diligence Code of Practice for the Protection of Aboriginal Objects* (DECCW 2010) and include consultation with Registered Aboriginal Parties (RAPs) for the project to address relevant Aboriginal heritage matters. The Project is not expected to cause any additional impacts to Aboriginal heritage objects as it is located entirely within previously assessed and approved areas of disturbance. Similarly, the level of assessment is commensurate with risk of harm to Aboriginal objects. Nevertheless, as a courtesy to the RAPs, stakeholder consultation has been carried out.

Non-Aboriginal heritage matters (eg historical heritage) are addressed in their respective chapters in the main environmental impact statement (EIS) rather than in this document.



- KEY**
- ▭ Proposed underground development
 - ▭ Mining lease (ML1535)
 - ▭ Mining lease (ML1791)
 - ▭ Exploration licence (EL)
 - - - Rail line
 - ▬ Main road
 - ▬ Named watercourse
 - ▭ Waterbody
 - ▭ Local government area
 - ▭ NPWS reserve
 - ▭ State forest

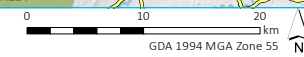
Regional setting

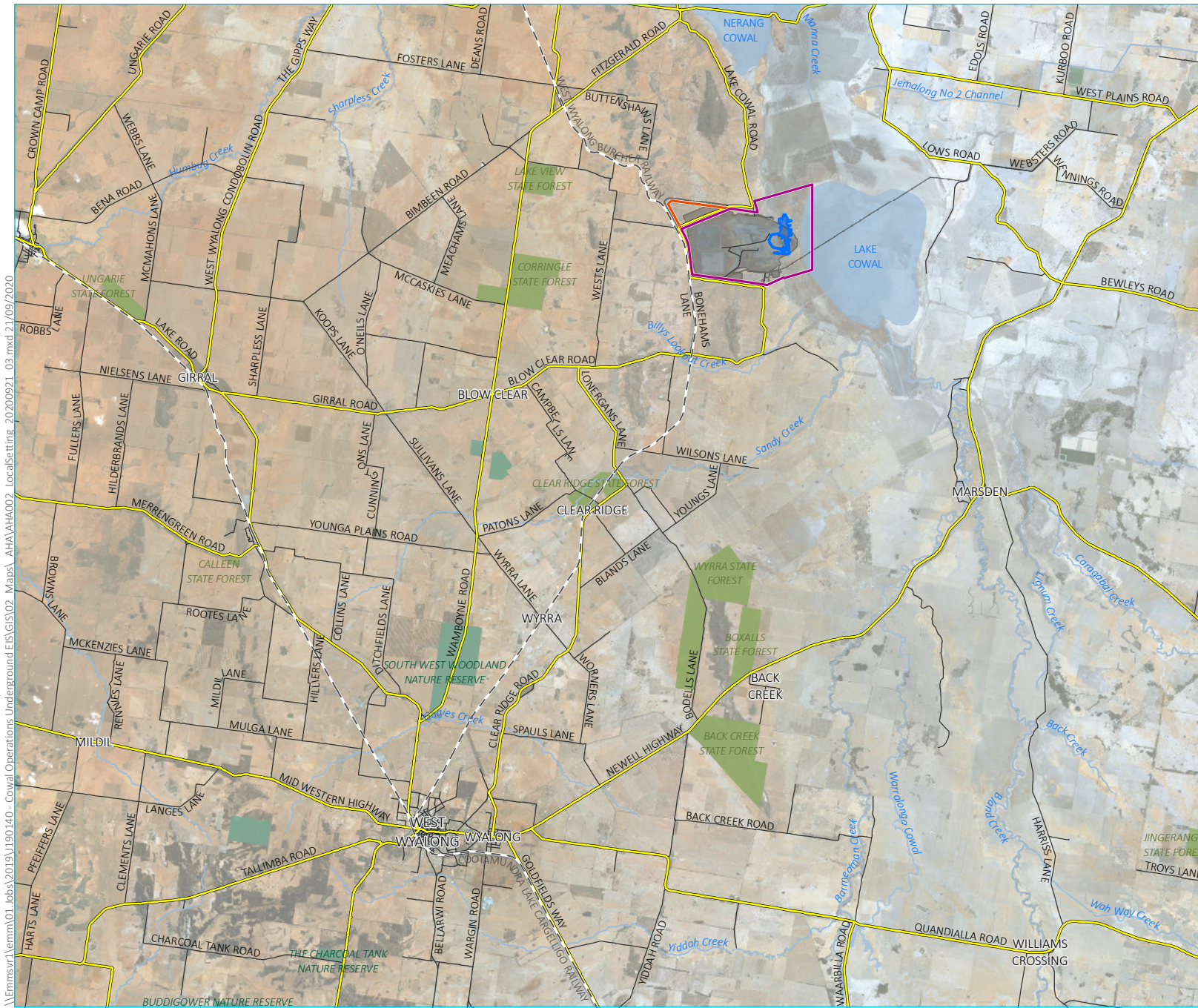
Evolution Mining
Cowl Gold Operations
Aboriginal heritage assessment
Figure 1.1



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Source: EMM (2020); Evolution (2020); DFSI (2017); GA (2011); ASGC (2006)

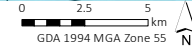




- KEY**
- Proposed underground development
 - Mining lease (ML1535)
 - Mining lease (ML1791)
 - DA14/98 approved surface disturbance
 - - - Rail line
 - Main road
 - Minor road
 - Named watercourse
 - Named waterbody
 - NPWS reserve
 - State forest

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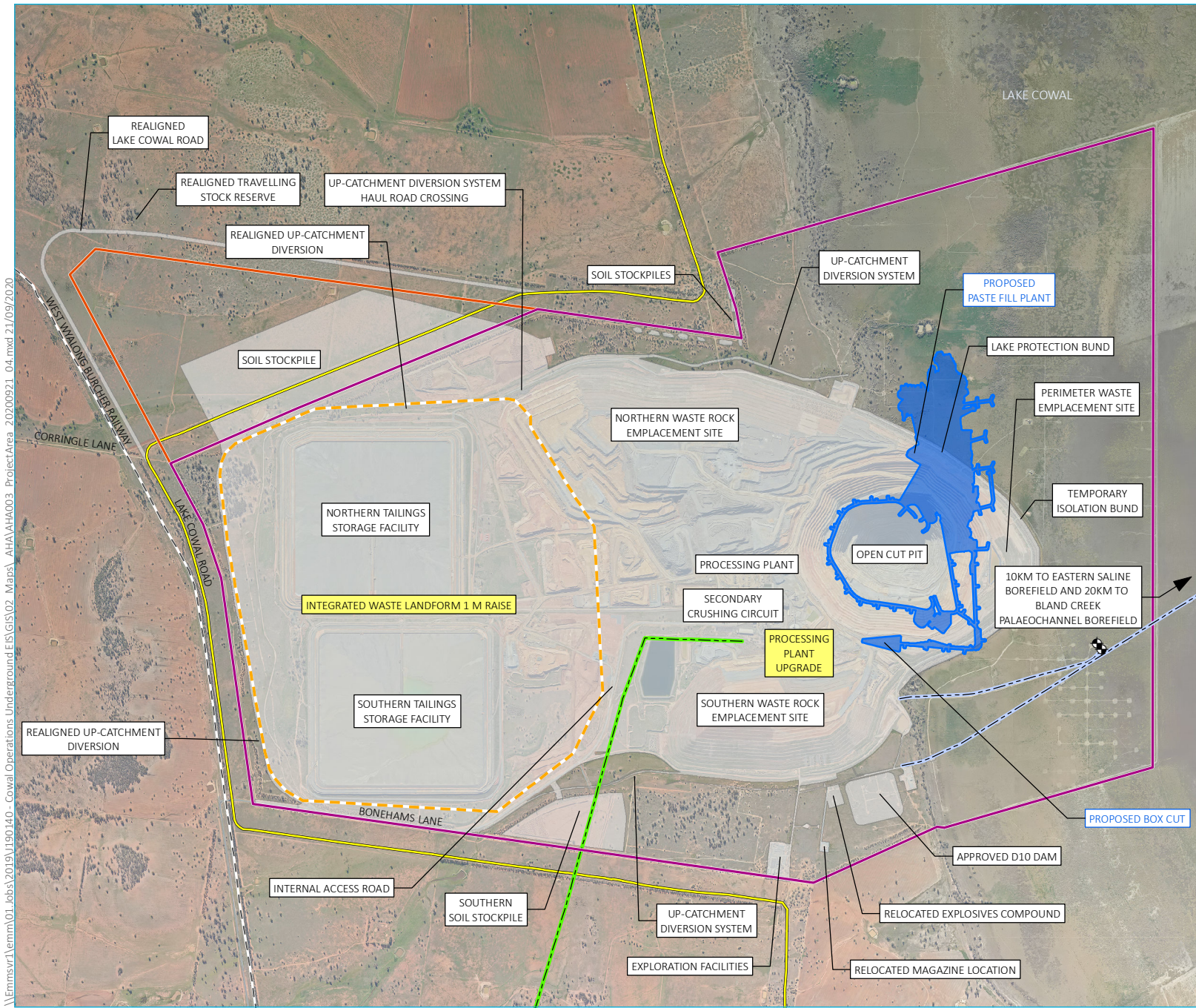
Source: EMM (2020); Evolution (2020); DFSI (2017)



Local setting

Evolution Mining
 Cowal Gold Operations
 Aboriginal heritage assessment
 Figure 1.2





- KEY**
- Proposed underground development
 - Mining lease (ML1535)
 - Mining lease (ML1791)
 - DA14/98 approved surface disturbance
 - Indicative integrated waste landform perimeter
 - Electricity transmission line
 - Water supply pipeline
 - ⊕ Saline groundwater supply bore
 - - Rail line
 - Main road
 - xxx Underground development elements
 - xxx Mod 16 surface elements
 - xxx Approved surface elements

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Source: EMM (2020); Evolution (2020); DFSI (2017)



Project area

Evolution Mining
Cowl Gold Operations
Aboriginal heritage assessment
Figure 1.3



1.2 The Project

1.2.1 Approvals pathway

To facilitate the project, Evolution proposes to seek approval under the EP&A Act for three separate but inter-related applications:

- **Underground development EIS** – a SSD application under section 4.38 of the EP&A Act for the new underground components.
- **Surface changes modification** – a request for modification (Modification 16) to the existing CGO development consent (DA 14/98) under section 4.55(2) of the EP&A Act for the new surface components.
- **Accommodation village** – a separate application is being applied for through the Bland Shire Council, which does not form part of this assessment report.

This assessment addresses heritage matters for both development applications.

1.2.2 Terminology

A brief description of project and assessment definitions is outlined below in Table 1.1.

Table 1.1 Project and assessment definitions

Full component name	Abbreviated name(s)	Description
Cowal Gold Operations	CGO or 'the site'	Existing open cut mine and associated processing plant, IWL, TSFs, waste rock emplacement areas, ore stockpiles and ancillary facilities.
Cowal Gold Operations Underground Workings	Underground development or underground mine	The proposed underground development, which is the subject of the SSD application and associated EIS.
Cowal Gold Operations Modification 16 to DA 14/98	Modification 16 (Mod 16)	The proposed surface changes to the existing CGO development consent (DA14/98) associated with the proposed underground development, covered in a separate modification report.
The combined Cowal Gold Operations Underground Workings and Modification 16	The Project	An abbreviated term to address the overall proposed underground development project, including both the underground mine and the surface changes modification.
The study area	Study area	The study area referenced in this report primarily relates to the land within ML 1535 and ML 1791 (encompassing the Project) which has been reviewed to provide an Aboriginal heritage and landscape context for this assessment.

1.2.3 Project description

i Underground development

The underground development project is further defined in Table 1.2.

Table 1.2 SSD CGO Underground Development Project overview

Aspect	Description
General description	<p>Construction and operation of an underground mine at the Cowal Gold Mine to extract the GRE46 mineralisation, which includes:</p> <ul style="list-style-type: none"> • a box-cut entry to the underground workings; • a decline from the box-cut to provide access for personnel and maintenance; • six access points to the decline for access, ore haulage, ventilation circuit, underground services and emergency egress; • a network of underground tunnels to provide access to the ore, transportation to the surface and ventilation; • use of sub-level open stoping (SLOS) to extract the ore; • production of up to 27 Mt of ore at a rate of 1.8 Mtpa; • production of approximately 5.74 Mt of waste rock; • delivery of extracted ore and waste rock to the surface by truck; • development of a paste fill plant, and the delivery of paste fill via a borehole and the backfilling underground stopes with the paste; and • development of ancillary underground infrastructure to support the underground operation, including dewatering infrastructure, ventilation system, electrical reticulation.
Project duration	<ul style="list-style-type: none"> • construction of the decline and development drives over a period of up to two years; and • ore production of the currently known economic resource until the end of the 2039.
Mining method	<ul style="list-style-type: none"> • Top down SLOS to a depth of -850 m AHD with approximately 1106 stopes developed over the life of the mine.
Stope backfill	<ul style="list-style-type: none"> • Stopes to be fully backfilled with paste material made from dewatered tailings and cement. • Paste material to be produced in a purpose-built paste plant on the surface. • Paste material will be delivered to the underground workings via a borehole near the paste fill plant.
Ore transport	<ul style="list-style-type: none"> • Ore will be transported to the surface by truck.

ii Modification 16

Modification 16 is further described in Table 1.3.

Table 1.3 Proposed modification components

Development Component	Approved CGO	Proposed Modification
Life of Mine	CGO is approved to operate to the end of 2032.	Extension to the end of 2040.
Gold Production	Production of approximately 6.1 million ounces (Moz) of gold over the life of the CGO.	Production of a further 1.8 Moz of gold (approximate).

Table 1.3 Proposed modification components

Development Component	Approved CGO	Proposed Modification
On-site ore Transportation	Ore is transported from the open-cut by truck to a temporary stockpile prior to rehandling to the primary crusher.	No change. Underground ore trucked from the underground run-of-mine stockpile to the temporary ore stockpile.
Ore processing Facility	Ore processing is undertaken at the ore processing facility at a rate up to 9.8 Mtpa. A secondary ore crushing circuit within existing process plant is approved to be constructed.	No change to processing rate. The existing processing facility would be modified to include: <ul style="list-style-type: none"> • a tailings desliming and tailings thickener circuit; • an ore receival bin and mill feed conveyor; and an upgraded elution circuit.
Cyanide Consumption	Use of a primary ore conventional carbon-in-leach circuit, which includes recovery of gold from flotation tailings.	No change. Increase in annual cyanide consumption associated with the higher grade ore.
Site Water Management Infrastructure	The existing CGO water management infrastructure is comprised of the following key components: <ul style="list-style-type: none"> • Up-catchment Diversion System (UCDS) and • the ICDS (including the contained water storages); • lake isolation system (comprising the temporary isolation bund, lake protection bund and perimeter waste rock emplacement); • integrated erosion, sediment and salinity control system; and open pit sump and dewatering borefield.	No change to UCDS and ICDS. Pipeline from the tailings deslimer to the paste fill plant and a return water pipeline from the paste fill plant to the processing facility. Augmentation of dam D5A. This augmentation would not change the overall catchment area of the dam. Augmentation of other on-site water storages from time to time depending on water supply and on-site requirements.
Tailings storage	Tailings are deposited in two (Northern and Southern) tailings storage facilities (TSFs). NTSF and STSF are allowed to be constructed to approximately 240 mAHD and 248 mAHD, respectively. These TSFs are also approved to be combined with the northern waste rock emplacement to form the integrated waste landform (IWL), which would provide a life of mine tailings strategy. The IWL is approved to be developed to a final rehabilitated height of 245 mAHD.	A height increase from 245 mAHD to 246 mAHD to the final rehabilitated height of the IWL.
Waste rock	Approximately 299 Mt of waste rock produced over the life of the approved CGO and emplaced in the Northern, Southern and Perimeter waste rock emplacements.	Approximately 5.74 Mt of additional underground mine waste rock would be managed.

Table 1.3 Proposed modification components

Development Component	Approved CGO	Proposed Modification
Ancillary surface infrastructure	A range of ancillary surface infrastructure is operated to support open-cut mining operations, including that related to administration, water management, maintenance, pipelines, magazines and other functions.	Development of additional surface infrastructure and augmentation of existing infrastructure, all within the existing approved disturbance areas, including (but not limited to): administration facilities, offices and car parking, warehouses and stores, vehicle washdown facilities, heavy vehicle and light vehicle maintenance workshop and maintenance bays, control room, fuel farm, core yards and drill sheds, hard stands and go lines, ablutions, bathhouse and changerooms, communications infrastructure, access tracks, water storages and other minor ancillary infrastructure.

1.3 Legislative context

1.3.1 NSW planning framework

The EP&A Act provides the statutory framework for the environmental impact assessment of development in NSW. The statutory trigger for development consent is provided for under section 4.2(1) of the EP&A Act.

The EP&A Act and NSW *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) form the statutory framework for planning approval and environmental assessment in NSW. This legislation is supported by Environmental Planning Instruments (EPIs) including State Environmental Planning Policies (SEPPs) and Local Environmental Plans (LEPs).

Clause 7(1)(a) of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* (Mining SEPP) provides that development for the purposes of underground mining is permissible with development consent.

1.3.2 National Parks and Wildlife Act 1974

Aboriginal objects and places are protected in New South Wales (NSW) under the Part 6 of the *National Parks and Wildlife Act 1974* (NPW Act). Section 90 of the NPW Act requires an Aboriginal Heritage Impact Permit for harm to an Aboriginal object or Aboriginal place. Significant penalties are in place for harm to Aboriginal objects or places regardless of whether the harm was committed knowingly or not. Defences against prosecution include impacts in compliance with an Aboriginal heritage impact permit (AHIP), acting in accordance with specified codes of practice or the conduct of certain low impact activities. The NPW Act defines an Aboriginal object as:

any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction and includes Aboriginal remains.

Harm is defined as:

any act or omission that:

- (a) destroys, defaces or damages the object or place, or
- (b) in relation to an object—moves the object from the land on which it had been situated, or
- (c) is specified by the regulations, or
- (d) causes or permits the object or place to be harmed in a manner referred to in paragraph (a), (b) or (c),

but does not include any act or omission that:

- (e) desecrates the object or place, or
- (f) is trivial or negligible, or
- (g) is excluded from this definition by the regulations.

1.3.3 National Parks and Wildlife Regulation 2009

The National Parks and Wildlife Regulation 2009 (NPW regulation) is subsidiary legislation made under its parent act, the NPW Act. The NPW regulation provides codes of practice, documents and guidelines that relate to the NPW Act.

The *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (due diligence guidelines) (DECCW 2010a) is adopted by the NPW Regulation under Clause 80A. Compliance with the due diligence guidelines provide a defence for harming Aboriginal objects and places in certain circumstances.

Section 80D of the NPW Regulation requires a cultural heritage assessment report to be completed to accompany any AHIP application. The *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011) sets out the information required to support an AHIP.

The *Aboriginal Consultation Requirements for Proponents 2010* (DECCW 2010c) set out the consultation requirements for proponents seeking an AHIP. These requirements are under section 80C of the NPW regulation.

The *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (the Code) (DECCW 2010b) has been adopted by clause 3A of the NPW Regulation. Acts carried out in accordance with the Code are excluded from the definition of harm.

1.3.4 State significant development application

Under the provisions of clause 8(1) and clause 5 to Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) mining development with a capital investment value of more than \$30 million is declared SSD. SSD requires the approval of the Minister for Planning and Public Spaces (or delegate – e.g. the Department of Planning, Industry and Environment (DPIE) or the Independent Planning Commission (IPC)). An application for SSD must be accompanied by an Environmental Impact Statement (EIS). The EIS is required to be made available for public exhibition. Following public exhibition, the applicant is required to respond to issues raised in submissions received by the DPIE during the exhibition period.

The project will have a capital investment value of more than \$30 million. Accordingly, Evolution seeking the Minister's approval for the development as SSD.

Under sections 4.41 and 5.23 of the EP&A Act, State significant development and State significant infrastructure projects are exempt from requiring certain approvals under other legislation, as this will be incorporated into the project approval and subsequent conditions received for a project. This includes an AHIP to harm Aboriginal objects under Section 90 of the NPW Act.

As noted in section 1.1, the project will not cause new impacts beyond those previously approved. In this context, DPIE has directed Evolution through the SEARs that an Aboriginal due diligence assessment is appropriate. This must still demonstrate that the project is not at risk of harming Aboriginal objects and that appropriate stakeholder consultation has been undertaken. The SEAR directions are shown in Table 1.4.

1.3.5 Modification 16

To allow for the changes to the existing operations associated with the underground development, Evolution will also seek to modify the existing development consent under section 4.55(2) of the EP&A Act. The modification application will be considered concurrently with the SSD application for the underground development project.

An AHIP under section 90 of the NPW Act is required to harm Aboriginal objects for projects assessed under Part 4 (applicable to Modification 16) and Part 5 of the EP&A Act. Notwithstanding, the proposed modification is entirely within the footprint of previously approved disturbance and within an existing AHIP boundary (Consent 1467/Permit 1468) (refer to section 4.2 and Figure 4.1).

1.4 Assessment guidelines and requirements

The assessment was prepared in accordance with the requirements set out in the Secretary’s Environmental Assessment Requirements (SEARs) for the project, issued on 27 September 2019. The SEARs identify matters which must be addressed in the EIS.

In addition, the assessment was prepared with reference to the methods outlined in the *Due Diligence Code of Practice for the protection of Aboriginal Objects in New South Wales* (DECCW 2010) and included consultation with representatives of the local Aboriginal community to address SEARs.

Table 1.4 lists the individual requirements for the proposed development relevant to this assessment and where they are addressed in this report.

Table 1.4 Aboriginal cultural heritage – relevant SEARs issued by DPIE

Requirement	Section addressed
Heritage – including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, including adequate consultation with the local Aboriginal community	This report, Chapter 16 of the EIS and Chapter 6.6 of the Modification Report. Note: This report only includes matters relating to Aboriginal cultural heritage and not historical heritage, which is addressed in respective EIS main documents and not in this document.

To inform preparation of the SEARs, DPIE invited other government agencies to recommend matters to be addressed in the EIS. These matters were taken into account by the Secretary for DPIE when preparing the SEARs. Copies of government agency advice to DPIE were attached to the SEARs.

Table 1.5 summarises the recommended requirements provided by the Biodiversity and Conservation Division (BCD) of DPIE for the underground development and for Modification 16.

Table 1.5 Aboriginal cultural heritage –recommended BCD requirements

Requirements	Section addressed
<p>Ground surface and subsidence impacts from the proposed Cowal Gold underground mine development/proposed modification are considered to be negligible in the Scoping Report provided. Given this, the Department considers that for this proposal the assessment requirements for Aboriginal Cultural Heritage (ACH) as part of the EIS may comprise a due diligence approach in accordance with the 'Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales'.</p>	This report.
<p>The Department supports the approach for Aboriginal community consultation for the underground mine\proposed modification outlined in Section 6.6 of the Scoping Report (EMM, 2019). This approach comprises the proponent providing the Registered Aboriginal Parties (RAPs) for the existing development with the project information relating the underground mine, detail of any identified potential impacts to ACH values from the new works and effective consultation with RAPs regarding avoidance or mitigation strategies in relation to ACH.</p>	Section 2 of this report.
<p>Aboriginal Cultural Heritage (ACH) may be assessed using a due diligence approach in accordance with the 'Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales' (DECCW 2010). The purpose of the due diligence will be to:</p> <ol style="list-style-type: none"> a. Identify whether or not Aboriginal objects are, or are likely to be present in the area of the proposed underground mine\proposed modification works b. Determine whether or not the activity is likely to harm Aboriginal objects (if present) c. Determine whether further assessment, management and approval is required. 	Sections 3–6 of this report.
<p>If ACH values are identified during the due diligence assessment for the underground mine\proposed modification, the Department must be notified in the first instance to determine further assessment requirements. It is likely this will necessitate the preparation of an Aboriginal Cultural Heritage Assessment Report in accordance with the Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH 2010), and be guided by the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011)</p>	Section 6 of this report.
<p>Consultation with Aboriginal people must be undertaken as outlined in Section 6.6 of the Scoping Report (EMM, 2019). This includes:</p> <ol style="list-style-type: none"> a. Providing the Registered Aboriginal Parties (RAPs) for the existing Cowal Gold Mine with the project information relating the underground mine\proposed modification b. Providing detail of any identified potential impacts to ACH c. Providing RAPs with sufficient opportunity to provide advice regarding avoidance or mitigation strategies in relation to ACH. 	Section 2 of this report.
<p>The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the EIS.</p>	Sections 2, 4 and 6 of this report.
<p>The EIS must outline procedures to be followed if Aboriginal objects are found at any stage of the life of the project to formulate appropriate measures to manage unforeseen impacts.</p>	Section 6 of this report.
<p>The EIS must outline procedures to be followed in the event Aboriginal burials or skeletal material is uncovered during construction to formulate appropriate measures to manage the impacts to this material.</p>	Section 6 of this report.

1.5 Objectives of the assessment

The objectives of this archaeological assessment are to:

- identify Aboriginal cultural heritage values relevant to the study area which include:
 - Aboriginal objects and sites;
 - Aboriginal socio-cultural or historic values which might not be related to Aboriginal objects; and
 - areas of archaeological sensitivity.
- assess the significance of Aboriginal objects, sites and locations identified in the course of the archaeological investigations and through Aboriginal community consultation;
- assess the impact of the project on identified Aboriginal cultural heritage values; and
- propose appropriate management measures for any potentially impacted Aboriginal cultural heritage values in response to their assessed significance.

1.6 Authorship

This report was prepared by Taylar Reid (EMM archaeologist) and reviewed and revised by EMM Associate Archaeologist Ryan Desic (BA (Hons) Prehistoric and Historical Archaeology, University of Sydney).

EMM would like to thank registered Aboriginal parties (RAPs) for their involvement in ongoing consultation, knowledge sharing and fieldwork assistance at the CGO. This includes site officers Jared and Richard Coe (Wiradjuri Condobolin Community) and Louise Davis (West Wyalong Local Aboriginal Land Council (LALC)).

2 Aboriginal community consultation

In accordance with the SEARS, consultation has been undertaken with the RAPs listed in Table 2.1. This comprises those parties who have been previously identified as having registered an interest in the CGO, including RAPs identified in 2014 during the preparation of an Aboriginal cultural heritage assessment (ACHA) for Modification 14 (Niche 2014). Evidence of consultation is provided in Appendix A.

A search of the National Native Title Tribunal (NNTT) Register of Native Title Applications, Registration Decisions and Determinations completed on 27 August 2019 identified no determined Native Title or land claims over the study area. A search of the NNTT Register of Indigenous Land Use Agreements (ILUAs) completed on 27 August 2019 identified no ILUAs over the study area. The study area is situated within the jurisdiction of the West Wyalong Local Aboriginal Land Council (LALC).

Table 2.1 List of registered Aboriginal parties for the CGO

Name	Name	Name
Alona Apps	Jahnaya Freeman	Norma Freeman
Beverly Johnson	Janine Thompson	Peter Peckham
Braydon & Mikayla Davis	Jirrah Freeman	Sharon Williams
Calara Culture & Heritage Aboriginal Corporation	Judy Johnson	Shawn Williams
Cindy Fuller	Keith Freeman	Stuart Cutmore
Condobolin Local Aboriginal Land Council	Krystal Ingram	Wayne Williams
Didge Ngunawal Clan	Louise Davis	West Wyalong Local Aboriginal Land Council
Enid Clarke	Marnie Freeman	Wiradjuri Condobolin Corporation
Ernie Johnson	Murie Elders Aboriginal Corporation	Wiradjuri Interim Working Party
Isabelle Collins	Neville Williams	

A draft version of this report was issued to all RAPs on 31 August 2020 accompanied by an email specifying a 14-day timeframe for review. The draft report included relevant information set out in SEARs, including:

- project information relating the underground mine/proposed modification; and
- providing detail of any identified potential impacts to Aboriginal cultural heritage values (not applicable).

As no impact to any known Aboriginal site is predicted for the proposed development, development of avoidance and mitigation measures for Aboriginal cultural heritage values is not required and similarly, their discussion of impacts and management strategies with the RAPs is also not required. Nevertheless, Evolution has invited the RAPs to review the document as a professional courtesy.

The comments raised during the review period and EMM's response to the comment are outline below in Table 2.2.

Table 2.2 **Summary of comments and how they are addressed**

Comment by Enid Clarke	Response to comment
On behalf of Alona Apps, Jahnaya Freeman, Norma Freeman, Jirrah Freeman, Keith Freeman, Krystal Ingram, Marnie Freeman, and Enid Clarke herself. The proposed modification is within the footprints of previously approved disturbance and within an existing AHIP boundary. We find this acceptable.	No response required.

3 Environmental context

3.1 Rationale

The environmental context is used to predict the spatial distribution, preservation and likelihood of archaeological material occurring within an area. Landscape features were an important factor for the choice of camping, transitory and ceremonial areas used in the past by Aboriginal people. Natural resources, including raw stone materials and local flora and fauna would have provided food, tools and material resources. These resources are linked to the topography, hydrology, geology and soil types in the region. Additionally, natural and cultural (human-made) site formation processes influence the present location of archaeological material (eg if moved through disturbance), along with its archaeological integrity.

3.2 Landscape overview

The study area is situated within the NSW South Western Slopes (NSS) Bioregion within the Lower Slopes subregion and is comprised wholly of the Cowal Lakes, Swamps and Lunettes landscape unit. This landscape unit is characterised by ephemeral lakes, swamps and associated channels and lunettes (Mitchell 2002, p. 91). Lake Cowal is at an elevation around 200 m Australian Height Datum (AHD) with minimal local relief ranging from 10 m to 15 m.

Dr Colin Pardoe was engaged by Barrick Australia Limited (Barrick) to prepare a research design and study plan (2002) to accompany two investigative AHIPs for impacts to Aboriginal objects associated with CGO. The research design divided the project area into different zones of management based on their landforms, soils, potential erosion impact, recorded Aboriginal sites and archaeological potential. These landscape management zones have become instrumental in identifying landscape features and applying appropriate management measures. Accordingly, this assessment has approached landform definitions according to the five zones of management as follows (refer Plate 3.1):

- lake bed;
- beach;
- slope;
- lake edge ridge; and
- back plain.

The archaeological potential of each zone of management is discussed in the archaeological context section of this report (refer section 4). The proposed underground development is wholly underground and below the lake bed landform/management zone. The proposed surface disturbance footprint related to Modification 16 is on disturbed terrain that has been previously determine to be part of a back plain landform/management zone.

This type of landscape restricts a number of archaeological site types, such as rock shelter and rock engravings, which require sharp exposed sandstone relief not common in these areas. Conversely, surface artefact scatters and buried cultural material are likely to be more prevalent depending on the nature and extent of previous disturbance.

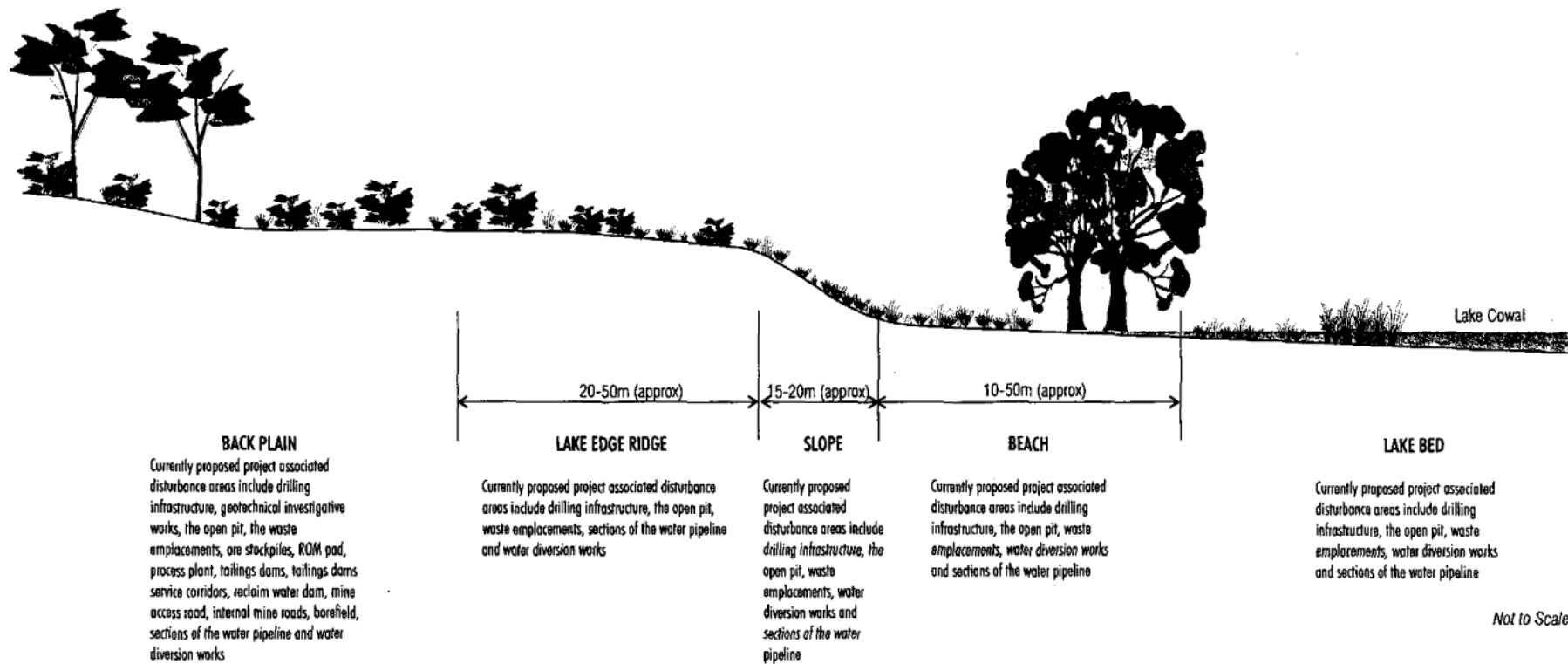


Plate 3.1 CGO Archaeological Management Zones – Typical Cross Section (Source: Barrick 2003, Appendix 5)

3.3 Hydrology

The study area is located in the Lachlan River catchment within the broader Murray-Darling Basin. The study area features the former alignments of ephemeral tributaries (1st to 3rd stream order) to Lake Cowal and Lake Cowal itself (Cowal is a Wiradjuri word for ‘large water’ (Woolrych 1890, p. 65). The shallow, ephemeral lake is approximately 21 km long and 9 km wide, making it the largest natural inland lake in NSW. The presence of large, mature trees throughout the lake bed attest to its highly ephemeral nature, with the lake bed itself periodically utilised for agricultural production, including cultivation and grazing. There are several streams that feed into Lake Cowal on its western and southern perimeter; however, their channels terminate at the intersection with the lake shore.

Lake Cowal is fed by floodwaters and groundwater from Bland Creek to the south and overflow from the Lachlan River system in the north. Once the lake has been filled and no further inundation occurs, it takes roughly 2–3 years to dry out (mainly through evaporation) (Hatton 1991, as cited in King 1998) assuming there are no addition inflows. The margins and back plains of Lake Cowal feature gilgai depressions ranging in diameter and depth, which would collect water during rain or flood events. “Gilgaay” is a Wiradjuri word meaning ‘waterhole’, and the term gilgai is now used throughout the world to refer to this feature (Pardoe 2002). When Lake Cowal was full it was large enough to host a larger population of people and during dryer times these gilgai formations would have been a water source for transient groups moving through the region (Cane 1994, p. 13).

The ephemeral creeks/drainage lines at the west and to the south of the study area are potentially of significant antiquity, with waters draining in that direction for millions of years. Substantial amounts of lithic artefactual material have been identified along these creek channels during previous site surveys (Cane 1994; Pardoe 2002). Cane (1994) notes that Bland Creek at the southern end of Lake Cowal is the most permanent water source in the immediate area, increasing its archaeological potential.

At the time of the visual inspection for this assessment, Lake Cowal was dry (refer Plate 5.1 to Plate 5.4).

3.4 Geology and soils

The geology of the study area features Quaternary alluvium clays, sands and gravels from the Cowra and Lachlan Formations (King 1998). Soil Landscapes of the Forbes 1:250,000 Sheet shows the study area to be characterised by water-inundated lakes and adjoining plains.

The study area is dominated by the Lake Cowal soil landscape (eSpade 2019). These soils are very poorly drained due to a permanently high-water table with high salinity, and are susceptible to erosion. Soil types are dominated by very deep Grey Clays (>150 cm) with occasional very deep self-mulching black earths (>150 cm) on lake margins and less inundated areas. Pardoe (2002) noted that the lake bed consisted of well-sorted sand that would be moved around by wave and current action when the lake was full of water. Beneath these sand drifts, it is estimated that 5 m of cracking grey clays have built up over time (Pardoe 2002).

3.5 Land disturbance

Above the proposed underground development, on the lake bed of Lake Cowal, the land is characterised by a history of historical period agricultural and pastoral activities, as well as the mining operation itself. Use of the land surrounding the lake for livestock grazing has caused the soil to become heavily compacted. While, plains around the lake have been subject to both irrigated and dryland cropping and, when the lake bed is dry, some limited cropping occurs within the lake. As such, the upper soil profile, within which much of the cultural material is likely present, has often been affected by past natural and anthropogenic activities.

The land where surface ground disturbance is proposed as part of Modification 16 has either been disturbed previously through approved mining activities within the approved CGO surface disturbance footprint or is within as yet undisturbed areas within the approved disturbance footprint and is being managed under existing AHIP Consent 1467/Permit 1468.

4 Aboriginal heritage context

4.1 Ethno-historical context

Lake Cowal falls within the traditional country of the Wiradjuri peoples, the largest language group in NSW, which extends west from the Great Dividing Range to Hay in the west, Nyngan in the north and south as far down as Albury (Tindale 1940; Tindale 1974; Attenbrow 2010).¹ Kabaila (2005) notes that the Wiradjuri were not territorial in the sense of maintaining property, rather the boundaries with their neighbours would have shifted and changed with the seasons and circumstance.

The Wiradjuri are amongst some of the oldest cultures that lived in Australia, likely thriving on country as early as 45,000 years ago (Pardoe 2013). Large gatherings for ceremonies, initiation, and trade would have also fostered social and cultural exchange amongst different groups, which would have been paramount for the social and cultural stability of the Wiradjuri (Kabaila 2005).

Wiradjuri country was highly sought after by European colonialists who were drawn to the area in search of fertile soils for agriculture and farming, which led to open conflict for several years during the early 1800s (Niche 2018a). Read (1983) and Gammage (1983) report that the Wiradjuri were in conflict with settlers until about 1840 (Cane 1994, p. 23). Ethnohistorical information indicates that despite this period of upheaval, the Wiradjuri still maintained strong kinship ties with their neighbours, reinforced through trade, economy, movements and participating in ceremonies (Kabaila 2005). The Wiradjuri maintain strong cultural connections to, and knowledge of, their land.

4.2 Overview of key previous heritage investigations and permits

A number of Aboriginal heritage investigations have previously been completed within the CGO area and its surrounds, including the following:

- Paton (1989) Preliminary Archaeological Inspection of Lake Cowal Mining Exploration Lease.
- Cane (1995) Camp sites at Lake Cowal: an archaeological survey in central New South Wales.
- The Cowal Gold Project EIS (North Limited, 1998).
- Pardoe (2009a) Archaeological Investigations at Lake Cowal.
- Pardoe (2009b) Archaeological Excavations at Lake Cowal.
- Pardoe (2013) Cowal Gold Mine Extension Modification Aboriginal Cultural Heritage Assessment.
- Pardoe (2015) Summary of Stone Tools from Barrick Gold Mine.
- Niche (2018 Cowal) CGO processing rate modification (Modification 14) Aboriginal Cultural Heritage Assessment.

¹ It is important to note that information about the socio-cultural structure of Aboriginal society prior to European contact largely comes from ethno-historical accounts made by colonial settlers. Most ethnographical accounts of Aboriginal life during contact were written in the context of a period of immense change through death and disease, displacement, and a loss of culture, country and knowledge. As a result, this information is often limited and contentious.

- Multiple due diligence style investigations and salvage activities (2005 to present).

Subsequent to the approval of the Cowal Gold Project in 1999, the key assessment and management document that has guided CGO Aboriginal cultural heritage management is an Indigenous Archaeology and Cultural Heritage Management Plan (IACHMP) (Barrick 2003) which was approved in 2003 by the then Department of Planning.

The IACHMP is guided by a Research Design and Study Plan prepared by Dr Colin Pardoe which was incorporated into AHIP permits 1468 and 1681 (Barrick 2003, Appendix 5). The IACHMP applies to the following:

- the land the subject of the Cowal Gold Project Development Consent as follows:
 - the area of Mining Lease No. 1535 (Act 1992) (ML Area), granted in satisfaction of Mining Lease Application No.45;
 - the area of the four proposed bores west of the ML Area (the borefield);
 - the area of the proposed water pipeline from the ML Area to the borefield;
 - the area of the proposed relocated travelling stock reserve; and
- an approved road upgrade area from Wamboyne Road to the ML Area (approved by the Bland Shire Council under Part 5 of the Environmental Planning and Assessment Act 1979 on 21 April 1999 (No.83/98) (road upgrade area).

The permits and consents relevant to the IACHMP are as follows (refer Figure 4.1):

- Permit 1468 authorising certain archaeological works in the ML Area, water pipeline area and borefield area;
- Consent 1467 authorising the destruction of Aboriginal objects (in certain circumstances) in the ML Area, water pipeline area, and borefield area;
- Permit 1681 authorising certain archaeological works in the relocated travelling stock reserve area and road upgrade area;
- Consent 1680 authorising the destruction of Aboriginal objects (in certain circumstances) in the relocated travelling stock reserve area and road upgrade area.

Subsequent to the Modification 14 ACHA prepared by Niche (2018), an AHIP was granted in June 2019 for Lots 101 and 102 DP 1059150 to facilitate harm to Aboriginal objects outside of the original AHIP consent areas for ML 1535. AHIP C0004570 is north-west of the previously granted AHIP boundaries and shown on Figure 4.1. The AHIP area includes the proposed travelling stock reserve (TSR) relocation and Lake Cowal Road alignment around the perimeter of ML 1791.

4.3 Summary of key archaeological investigations

Many Aboriginal heritage assessments have been undertaken in the Lake Cowal area in the past 30 years, including surveys, salvage excavation and collections. Most investigations have been compliance based, completed for mining and ongoing modification approvals for the CGO, which operates within ML 1535 adjacent to and partially within Lake Cowal (refer Figure 4.1).

Initial archaeological investigations of Lake Cowal were conducted by Paton in 1989 who sought to develop a predictive model of the likely type and distribution of Aboriginal sites in comparison to other lake regions in Wiradjuri country. He was followed by Scott Cane who conducted archaeological surveys in 1994 as part of a

feasibility study for development of the lake shore for mining infrastructure (Cane 1994). This study resulted in the identification of 10 Aboriginal sites on the western and southern margins of the lake. Site types included one scarred tree and nine open artefact scatters, some of which contained over 100 artefacts and others which represented very low-density assemblages (Cane 1994). Cane identified regionally unique stone artefacts recorded in many of these sites, with one area dominated by quartz artefacts and another area that contained many micro blade/backed artefacts.

Lake Cowal features markedly higher numbers of backed blades in comparison to other parts of the region, with backed artefacts representing 12% of the assemblage at Lake Cowal in contrast to 1% of the assemblages along the Lachlan River, suggesting the subsistence practices of the inhabitants of Lake Cowal focused on hunting (Cane 1994, p. 46). This hypothesis is supported by minimal representation of grinding artefacts which would have been associated with seed processing and consumption. Backed artefact typologies are typically associated with the Late Holocene period, and the presence of this type of industry has been used to date occupation of the area to 4,000–1,500 years ago (Cane 1994, p. 49).

Following the archaeological assessments completed to date by Paton (1989) and Cane (1994), Dr Colin Pardoe was engaged to prepare a research design and study plan (2002) to accompany two Section 90 AHIP permits for impacts to Aboriginal objects associated with mining development. The research design divided the project area into different zones of management based on their landforms, soils, potential erosion impact, and their archaeological potential. The five landforms and an interpretative summary of their archaeological potential are provided in Table 4.1. Pardoe’s subsequent assessments (2009a, 2009b, 2013) largely conformed to the findings of the research design and study plan.

Table 4.1 Summary of archaeological management zones

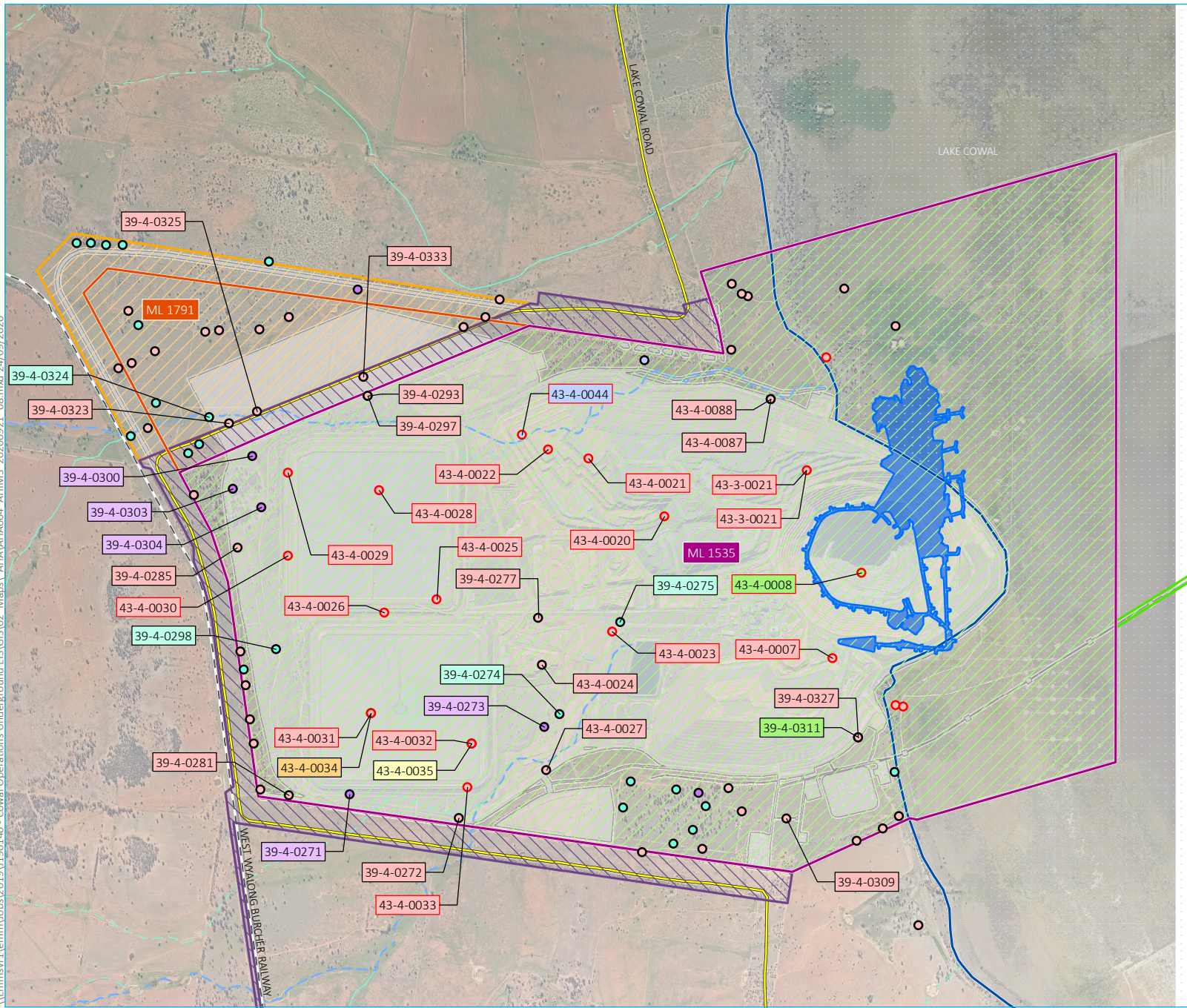
Management zones	Summary of archaeology
Lake bed zone	This landform is considered to be of low archaeological potential and only one stone artefact has been registered on this landform to date AHIMS 43-4-0089. Pardoe predicted that it would have largely been unsuitable for prolonged occupation due to regular inundation and that if Aboriginal objects were identified within this zone, they would likely have been transported via lake water movement.
Beach zone	One scarred tree was identified within this landform. Pardoe predicted that alluvial fans within this management zone would be of higher archaeological sensitivity for subsurface deposits.
Slope zone	This landform is considered to be of low archaeological potential and no Aboriginal sites have previously been registered on this landform. Pardoe predicted that Aboriginal objects within this landform would likely have been transported by erosion and bioturbation from sites upslope of this zone.
Lake edge ridge zone	This landform is considered to have high archaeological potential for surface and subsurface archaeological deposits. This area is likely to represent the foci of Aboriginal occupation and activity associated with Lake Cowal with potential to feature an array of site types including stone artefact sites, hearths, grinding stones, heat retainers and Aboriginal modified trees (carved or scarred).
Back plain zone	This landform has widespread archaeological material in varying densities, from background scatter to concentrated scatters. Concentrations of artefacts are likely to relate to Aboriginal occupation associated with the ephemeral water sources of the gilgai depressions. This zone is characterised by a ‘continuous background scatter of artefacts’, and there is a distinct difference between the sites recorded on the margins of the lake, which consist primarily of backed-blade artefacts.

The IACHMP prescribes several activities such as monitoring, collection of surface artefacts, excavations, additional assessment of potential scar trees, relocation of scarred trees, covering sites with geotextile and then placing soil over the sites and analysis of the results of these activities. The types of stone artefacts that were recovered from the salvage program to date include flaked stone, ground-edge axes, grinding stones, axe-sharpening stones, hammer stones and percussion stones. Quartz and silicified volcanic rock were the primary raw materials.

Only one tree was confirmed to be a culturally modified tree. Notably, the proposed surface disturbance footprint of Modification 16 is within areas that has previously been subject to archaeological site survey and salvage activities.

There were 10 radiocarbon dates retained from the cultural remains at Lake Cowal, which put occupation in the area dating from around 8,000–6,000 years ago, demonstrating many thousands of years of Wiradjuri occupation at this site.

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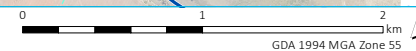


- KEY**
- Proposed underground development
 - Mining lease (ML1535)
 - Mining lease (ML1791)
 - DA14/98 approved surface disturbance
 - Rail line
 - Main road
 - Waterbody
 - Extent of Lake Cowal
 - Strahler stream order
 - 1st order
 - 2nd order
 - 3rd order
 - AHIP boundaries
 - Existing consent 1467/Permit 1468*
 - Existing consent 1680/Permit 1681*
 - AHIP C0004570
 - AHIMS site feature
 - Isolated find
 - Isolated find (destroyed)
 - Artefact and hearth
 - Artefact and modified tree
 - Artefact and stone quarry
 - Hearth
 - Modified tree
 - Modified tree (destroyed)
 - Not specified
 - Not specified (destroyed)

NOTE
 *THE CONSENT BOUNDARIES SHOWN ARE CONCEPTUAL REPRESENTATIONS OF THE AREAS DESCRIBED IN CONSENT 1467 AND CONSENT 1680. THE FULL EXTENT OF CONSENT 1467 AND CONSENT 1680 IS NOT SHOWN ON THIS FIGURE.

Archaeological context: AHIMS sites and existing AHIP boundaries

Evolution Mining
 Cowal Gold Operations
 Aboriginal heritage assessment
 Figure 4.1



In 2018, Niche completed an ACHA for Modification 14 CGO. The ACHA included survey of areas within ML 1535 and to the north-west involving Lots 101 and 102 DP 1059150 (ML 1791). The survey largely took place on back plain zones but also lake edge, slope and beach zones. The lake was inundated at the time, so survey coverage of the lake bed zone was not possible. A total of 65 Aboriginal sites were identified as a result of survey and test excavation. Site types included stone artefact sites, ovens, heat retainers, and one scarred tree along the edge of the lake (Niche 2018a, p.2).

4.4 Aboriginal Heritage Information Management System

A search of the AHIMS database completed on 27 August 2019 identified 104 Aboriginal sites within an 84 km² area centred on the CGO mining area. AHIMS data best reflects the extent of previous archaeological assessments as opposed to an accurate depiction of the extent/presence of Aboriginal objects. The results provided by the AHIMS database are regarded as a predictive modelling tool to assist in assessing the potential for Aboriginal objects and places to occur within certain landforms and features within the overall landscape. Evidence of the AHIMS database search has been provided in Appendix B.

The frequency and type of AHIMS sites identified in the search area are listed in Table 4.2 and shown on Figure 4.1. Stone artefact sites, including isolated finds and artefact scatters, dominate the local archaeological assemblage (67%), followed by hearth sites (29%) featuring heat retainers and ground ovens. Modified trees have been documented in limited numbers, and one stone quarry is listed. A total of 19 Aboriginal sites, including 18 artefact sites and 1 modified tree, are listed as destroyed in AHIMS in accordance with approved AHIPs and are shown on Figure 4.1. Overall, the AHIMS results provide a visual representation of the archaeological character present across the five archaeological management zones.

No AHIMS sites have been registered within the proposed surface disturbance footprint associated with Modification 16 or above the underground development.

Table 4.2 AHIMS extensive search results (as of 27 August 2019)

Site types	Number of sites	%
Isolated finds	2	2
Artefact scatters (number unspecified)	68	65
Hearths	29	28
Stone Quarry	1	1
Modified Tree	4	4
Total	104	100

4.5 Implications for archaeology

Due to the numerous and extensive archaeological assessments that have been conducted for CGO, it is possible to make accurate predictions of where archaeological sites will occur in proximity to Lake Cowal and the study area. Specifically, the majority of previously recorded sites are located within Pardoe's (2002) back plain and lake edge ridge zones, predominantly in close association with gilgai or drainage lines (Pardoe 2002). Deeper soil profiles along the lake edge ridge zone increase the likelihood of stratified sites, which possess high cultural and scientific value and high research potential (Barrick 2003, Niche 2019).

The beach zone is likely to have provided a transitional area as Aboriginal people would have moved across this landform to be in proximity to the water's edge as the lake flooded and dried out. This zone is therefore considered to have the potential to contain Aboriginal objects but due to extended periods of inundation by floodwaters and the extensive cropping history, any cultural material has likely been reworked and/or lost by fluvial processes. The lake bed is predicted to be of negligible archaeological potential and any artefacts identified within this landscape are predicted to have been imported from the slope and lake edge ridge landforms during periods of inundation by floodwaters.

This chapter has aimed to provide an overview of the archaeological character of Lake Cowal and its surrounding landforms. However, despite the rich archaeological record, the nature and location of the Underground Development (including surface changes) has negligible potential to feature Aboriginal objects in areas of proposed surface disturbance. Furthermore, the lake bed zone above the proposed underground development is not predicted to feature Aboriginal objects; and additionally, will not be disturbed through the proposed development activities.

5 Visual inspection results

A visual site inspection was carried out on 6 June 2019, by EMM archaeologists Ryan Desic and Taylor Reid and included Aaron Bowden (EMM Associate Environmental Planner), Rob Morris (EMM Divisional Leader, Planning/Acoustics/Air Quality) and Evolution's then Environment Superintendent Danielle Wallace.

Archaeological survey for the project was not considered necessary with respect to the requirements of the due diligence guidelines as no impacts to Aboriginal cultural heritage values are anticipated outside of the already approved surface ground disturbance of CGO. The proposed ground disturbance will be within existing areas of approved disturbance and the underground development will not result in subsidence impacts to the ground surface. Notwithstanding, the natural lake bed landform above the proposed underground development was inspected during the scoping study for the EIS and has been included in this report to further verify predictions that the lake bed landform is of low archaeological potential. Visual inspection of the Modification 16 areas was deemed unnecessary as they exist wholly within approved disturbed areas of ML 1535, which have been managed previously under existing AHIP Consent 1467/Permit 1468 and the approved IACHMP (Barrick 2003).

Images of the locations examined during the site inspection of the lake bed are shown from Plate 5.1 to Plate 5.4. The location of each plate is shown in Figure 5.1. The results of the visual inspection conformed to the predictive model and findings of previous archaeological assessments with the lake bed landform to be of low archaeological potential. No new Aboriginal objects were identified during inspection. Although the lake bed was thickly grassed in areas, there were a number of vehicle tracks with high exposure and visibility conditions. EMM inspected all visible trees on the lake bed above the underground development, but no signs of Aboriginal scarring or carving was observed.



Plate 5.1 Lakebed, facing south-west



Plate 5.2 Lakebed, facing east along vehicle track

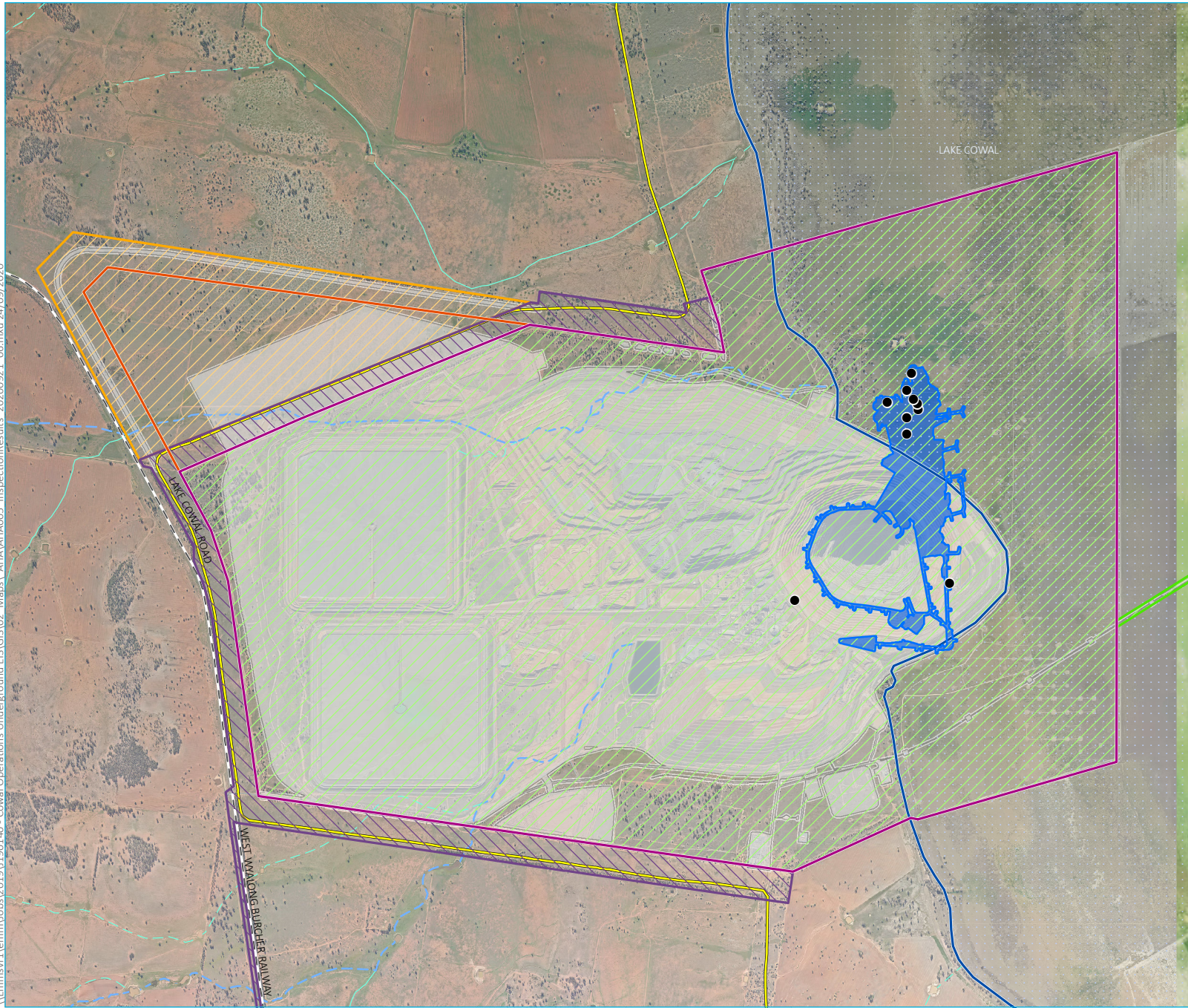


Plate 5.3 Lakebed, facing south along vehicle track



Plate 5.4 Lakebed, facing west

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- KEY**
- Heritage survey photo
 - Proposed underground development
 - Mining lease (ML1535)
 - Mining lease (ML1791)
 - DA14/98 approved surface disturbance
 - - Rail line
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 - AHIP C0004570

NOTE
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Visual inspection results

Evolution Mining
 Cowal Gold Operations
 Aboriginal heritage assessment
 Figure 5.1



6 Impact assessment and management measures

6.1 Discussion of potential impacts

The potential impacts of the proposed underground development and associated ground disturbance activities on Aboriginal cultural heritage values are discussed below.

The project design and construction elements are described in section 1.2 of this report. The proposed underground development has been assessed for its potential to cause surface subsidence impacts; but the potential risk was regarded as negligible with both marginal upsidence and subsidence possible in the order of 20 to 25 mm. This is not regarded as significant to either known or currently unknown Aboriginal objects. The lake bed above the underground development footprint does not contain any known Aboriginal objects and is unlikely to feature unknown Aboriginal objects. Regardless, any unknown Aboriginal objects present in the lake bed above the underground development footprint would not be impacted by the project.

Modification 16 would involve ground disturbance activities (as described in section 1.2.3ii) which are within the approved CGO disturbance footprint. This portion of the approved CGO disturbance footprint is within the AHIP Consent 1467/Permit 1468 boundary and has been managed in accordance with relevant AHIP conditions. As these portions of the approved CGO disturbance footprint have either previously been developed, or are within the existing approved disturbance footprint, they have undergone archaeological survey and surface artefact collection prior to soil stripping, followed by further inspection after soil stripping and additional artefact collection by an archaeological and Aboriginal community representatives (refer section 5.3 and 5.4 of the IACHMP, Barrick 2003). Overall, the ground disturbance activities related to Modification 16 will not harm Aboriginal objects outside existing AHIP boundaries.

6.2 Management measures

As no additional impacts to Aboriginal cultural heritage values are anticipated from the project, including both the proposed underground development and associated ground disturbance activities, no additional management measures are proposed above those already in place under AHIP Consent 1467/Permit 1468 and the IACHMP, and no further heritage investigation is considered necessary. Notwithstanding, Table 6.1 outlines proposed unexpected finds protocols. It is proposed that the unexpected finds protocol be included in the next update of the IACHMP.

Table 6.1 assesses the management measures that EMM notes the recommended made by DPIE's Biodiversity Conservation Division in its letter dated 10 September 2020.

Table 6.1 BCD management recommendations and proposed management measures

BCD Comment	Management measures
The EIS must outline procedures to be followed if Aboriginal objects are found at any stage of the life of the project to formulate appropriate measures to manage unforeseen impacts.	<p>If Aboriginal objects are found at any stage of the life of the project all works in the immediate vicinity must cease immediately and the find will be reported to the work supervisor who will immediately advise the environmental manager or other nominated senior staff member of its discovery.</p> <p>As the Underground Development falls wholly within the AHIP boundary of Consent 1467/Permit 1468, it is proposed that any newly identified objects associated with the proposed Underground Development are managed in accordance with the approved IACHMP (Barrick 2003) which sets out management measures in accordance with the conditions of AHIP Consent 1467/Permit 1468 (refer Section 5.3 of Barrick 2003).</p>
The EIS must outline procedures to be followed in the event Aboriginal burials or skeletal material is uncovered during construction to formulate appropriate measures to manage the impacts to this material.	<p>In the event that Aboriginal burials or skeletal material is uncovered during construction all work in the immediate vicinity will cease and the find will be reported to the work supervisor who will advise the site supervisor or other nominated senior staff member. The site supervisor or other nominated senior staff member will promptly notify the police and the State coroner (as required for all human remains discoveries).</p> <p>Although the Underground Development falls wholly within the AHIP boundary of Consent 1467/Permit 1468, the conditions do not permit impacts to human skeletal remains (refer Special Condition 1 of Permit 1468 and Consent 1467).</p>

6.3 Conclusion

In accordance with the applicable SEARs for the Project, EMM has completed a comprehensive Aboriginal due diligence assessment for the project guided by the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW 2010).

The research method included a review of previous heritage investigations and permits completed in the CGO area, a search of the AHIMS on 27 August 2019 and a site inspection of the underground development footprint on 6 June 2019.

A draft version of this report was provided to RAPs, as outlined in Table 2.1, on 31 August 2020 to comment on the significance of cultural heritage values relating to the project and the broader CGO. As no physical impact from the proposed development, no avoidance or mitigation for Aboriginal cultural heritage values is required and no discussion of impacts and management strategies was necessary. Nevertheless, as a courtesy to the RAPs, consultation of the due diligence process was carried out.

This assessment has been summarised with reference to the due diligence guidelines and demonstrates that the project is unlikely to impact Aboriginal cultural values, as the underground development will not result in subsidence and activities resulting in ground disturbance will be contained within the approved CGO disturbance boundary.

Therefore, no further investigation is considered necessary and no additional management measures are proposed above those already in place under AHIP Consent 1467/Permit 1468 and the IACHMP. An unexpected finds protocol in accordance with the SEARs and as described in Table 6.1 should be implemented and included in the next update of the IACHMP. A summary of the due diligence process undertaken, and results are outlined in Table 6.2.

Table 6.2 Summary of the due diligence assessment process and results

Step	Results	Section in this report
STEP 1: Will the activity disturb the ground surface or any culturally modified trees?	<p>The project will only impact the ground surface in areas previously disturbed through approved CGO development.</p> <p>No subsidence impacts are predicted above the underground development footprint.</p> <p>There are no culturally modified trees existing in any areas of proposed ground disturbance.</p>	Section 1
STEP 2: Check for records of Aboriginal objects and places in area of proposed activity.	A search of the AHIMS database was conducted on 27 August 2019 which did not identify any previously recorded Aboriginal objects at risk of being impacted by the project.	Section 4
STEP 3: Is the activity a 'Low Impact Activity', as defined in the NPW Regulation?	No, a component of the project will involve bulk earthworks but within previously developed areas of the approved CGO disturbance footprint.	Section 1
STEP 4: Are there any landscape features on undisturbed land that are likely to indicate the presence of Aboriginal objects?	<p>The lakebed above the underground development is on a landscape feature that has the low potential to contain Aboriginal objects based on extensive previous archaeological investigations. The study area is contained within the lake bed landform, which would have been periodically inundated with floodwaters, and any cultural material subject to reworking and fluvial processes.</p> <p>Areas of proposed disturbance related to Modification 16 is within areas previously disturbed and/or managed under existing AHIP approvals.</p>	Section 3
STEP 5: Does a desktop assessment and visual inspection confirm that there are Aboriginal objects present or likely to be present?	The desktop assessment and visual inspection of the lake bed above the underground development footprint indicates that the project will not impact additional known Aboriginal objects outside of AHIP boundaries and is very unlikely to harm unknown Aboriginal objects as surface disturbance will occur in previously disturbed landscapes.	Sections 3-6
STEP 6: Can the activity be relocated away from the known/likely area for Aboriginal objects?	N/A	
STEP 7: Commence investigation for an AHIP.	N/A	Section 6

References

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Appendix A

Aboriginal consultation documentation

Aboriginal Consultation Requirements for Proponents (DECCW 2010)*

ABORIGINAL PARTY ADDRESSES

Project Name: Cowal Gold Operations Underground EIS

Status ("Notified" or "Registered")	Organisation	Name - First	Name - Last	Address_1	Address_2	Phone	Mobile	Email	Tracking numbers	Contact date
Registered	West Wyalong Local Aboriginal Land Council	Leeanne	Hampton	76-78 Main Street WEST WYALONG NSW 2671	PO Box 332 WEST WYALONG NSW 2671	02 6972 3493	0418 723 498	ww.lalc@bigpond.com		31-Aug-20
Registered		Neville	Williams		PO Box 70 COWRA NSW 2794		0402 642 687		605 46801010 098	30-Aug-20
Registered		Shawn	Williams		95 Ballandella Road TOONGABBIE NSW 2146		0478 662 507	swilliams197395@gmail.com		31-Aug-20
Registered		Sharon	Williams		13 Yaldara Crescent COWRA NSW 2794			swilliams@hotmail.com		31-Aug-20
Registered		Wayne	Williams		c/- PO Box 70 COWRA NSW 2794		0478 653 553		605 46801009 092	30-Aug-20
Registered		Stuart	Cutmore		8 Nelson Street COWRA NSW 2794		0457 625 596		605 46801011 095	30-Aug-20
Registered	Wiradjuri Interim Working Party	Tony	Tony		14 Condon Place DUBBO NSW 2830	02 6884 0093			605 46801012 092	30-Aug-20
Registered	Wiradjuri Condobolin Corporation	Ally	Coe	(Or Vicki Swadling)	PO Box 194 CONDOBOLIN NSW 2877	02 6895 4664	0431 220 199	accounts@wiradjuricc.com		30-Aug-20
Registered	Condobolin Local Aboriginal Land Council	Dave	Carter	18 William Street CONDOBOLIN NSW 2877	PO Box 114 CONDOBOLIN NSW 2877	02 6895 3639	0477 482 254	condolalc@westserv.net.au		31-Aug-20
Registered		Beverley	Johnson		23 Bringagee Street GRIFFITH NSW 2680	02 6962 5714	0421 878 402	bev.johnson11@yahoo.com.au		31-Aug-20
Registered		Isabelle	Collins		5 MacQueen Place CHARWOOD ACT 2615	02 6259 9925	0475 397 349		605 46801014 096	30-Aug-20
Registered		Ernie	Johnson		Unit 2/8 - 13 Snaith Place GRIFFITH NSW 2680		0434 580 448		605 46801015 093	30-Aug-20
Registered		Enid	Clarke		182 William Street YOUNG NSW 2594	02 6382 1166 (wk) 02 6382 3216 (hm)		enid.clarke1@det.nsw.edu.au		31-Aug-20
Registered		Norma	Freeman		247 Boorowa Street YOUNG NSW 2594	02 6382 5669 (wk)	0439 649 443	younglalc62@gmail.com		31-Aug-20
Registered		Jirrah	Freeman		247 Boorowa Street YOUNG NSW 2594		0439 649 443		605 46801016 090	30-Aug-20
Registered		Judy	Johnson		C/- Isabelle Collins 5 MacQueen Place CHARWOOD ACT 2615			marambang@outlook.com		31-Aug-20
Registered		Cindy	Fuller		Unit 1-42 Tantangara Street DUFFY ACT 2611		0459 784 917		605 46801013 099	30-Aug-20
Registered		Janine	Thompson		2 Bunker Place CHARWOOD ACT 2615				605 46801017 097	30-Aug-20
Registered	Didge Ngunawal Clan	Paul Boyd and Lilly Carroll					0426 823 944	didgengunawalclan@yahoo.com.au		31-Aug-20
Registered	Murie Elders Aboriginal Corporation	Rebecca	Shepherd		18 William Street CONDOBOLIN NSW 2877		0474 298 119	condowag@gmail.com		31-Aug-20
Registered		Peter	Peckham				0427 871 418	peterpeckham53@gmail.com		31-Aug-20
Registered	Calara Culture & Heritage Aboriginal Corporation	Janine	Richards				0422 156 967	calarachac@gmail.com		31-Aug-20
Registered		Marnie	Freeman		247 Boorowa Street YOUNG NSW 2594		0447 290 256	marnie.freeman@yahoo.com.au		31-Aug-20
Registered		Jahnayah	Freeman		247 Boorowa Street YOUNG NSW 2594		0427 907 491	nayahrana@gmail.com		31-Aug-20
Registered		Alona	Apps		11 Malbacino Road YOUNG NSW 2594	02 6832 3986			605 46801018 094	30-Aug-20
Registered		Krystal	Ingram		Unit 2/237 Wakaden Street GRIFFITH NSW 2680		0481 987 660		605 46801059 097	30-Aug-20
Registered		Louise	Davis		53 McDonnell Street CONDOBOLIN NSW 2877		0458 663 428	louise.davis28@hotmail.com		31-Aug-20

Memorandum



Level 3, 175 Scott Street
Newcastle NSW 2300

T 02 4907 4800

E info@emmconsulting.com.au

www.emmconsulting.com.au

31 August 2020

To: Registered Aboriginal Party
From: Taylar Reid, Archaeologist
Subject: Cowal Gold Operations Underground EIS | Aboriginal heritage due diligence assessment

Dear Registered Party,

Introduction

Thank you for your continued participation as a Registered Aboriginal Party for the Cowal Gold Operations. We appreciate your involvement and knowledge sharing. An Aboriginal heritage due diligence assessment was completed for the Cowal Gold Operations underground mining project. We would appreciate your review of the document and any comments or additional information you would like to provide.

The draft Aboriginal heritage due diligence assessment is included in this letter for you to review.

Notes for your review and comment on the draft due diligence report

If you have specific comments for the draft Aboriginal heritage due diligence report, please identify the section heading and page number so that we know specifically which part of the document to address. Our preference is for you to provide your comments in writing via email or letter. You will note that there are **highlighted sections** of the document that will be updated based on further consultation and amended for the final report. Notably, the consultation log and consultation material will be collated and attached in the final document.

When to respond by

If you wish to comment on the draft Aboriginal heritage due diligence assessment, please provide your consolidated comments within 14 days (ie by **14 September 2020**). If you are having trouble responding within this timeframe please let us know early so that we can consider alternative options.

Closing

Please do not hesitate to contact me on the details below for any matters regarding the project or if you have any difficulties in downloading the document.

Yours sincerely

Taylor Reid
Archaeologist
treid@emmconsulting.com.au

Lia Zwolinski

From: Enid Clarke <Enid.Clarke1@det.nsw.edu.au>
Sent: Wednesday, 9 September 2020 1:24 PM
To: Lia Zwolinski
Cc: alonaapps@bigpond.com; younglalc62@gmail.com
Subject: Re: Cowal Gold Operations Underground EIS - Aboriginal heritage due diligence assessment

CAUTION: This email originated outside of the Organisation.

Hi Lia,

On behalf of Alona Apps, Jahnaya Freeman, Norma Freeman, jirrah Freeman, Keith Freeman, Krystal Ingram, Marnie Freeman and myself Enid Clarke:

We wish to make comment re Cowal Gold Operations Underground EIS- Aboriginal Heritage due diligence assessment.

The proposed modification is within the footprints of previously approved disturbance and within an existing AHIP boundary. We find this acceptable.

There fore we have no comments.

Thank you

Enid

Enid Clarke
Young NSW.

From: Lia Zwolinski <lzwolinski@emmconsulting.com.au>
Sent: Monday, 31 August 2020 12:27 PM
To: Enid Clarke
Subject: Cowal Gold Operations Underground EIS - Aboriginal heritage due diligence assessment

Dear Registered Party,

Thank you for your continued participation as a Registered Aboriginal Party for the Cowal Gold Operations. We appreciate your involvement and knowledge sharing. An Aboriginal heritage due diligence assessment was completed for the Cowal Gold Operations underground mining project. We would appreciate your review of the document and any comments or additional information you would like to provide.

The draft Aboriginal heritage due diligence assessment is attached to this email for you to review.

If you have specific comments for the draft Aboriginal heritage due diligence report, please identify the section heading and page number so that we know specifically which part of the document to address. Our preference is for you to provide your comments in writing via email or letter. You will note that there are **highlighted sections** of the document that will be updated based on further consultation and amended for the final report. Notably, the consultation log and consultation material will be collated and attached in the final document.

If you wish to comment on the draft Aboriginal heritage due diligence assessment, please provide your consolidated comments within 14 days (ie by **14 September 2020**). If you are having trouble responding within this timeframe please let us know early so that we can consider alternative options.

Please do not hesitate to contact Taylor Reid at treid@emmconsulting.com.au or 0428 280 542 for any matters regarding the project or if you have any difficulties in downloading the document.

Kind regards,

Lia

Lia Zwolinski

Environmental Scientist

T 02 9493 9500

www.emmconsulting.com.au

This message is intended for the addressee named and may contain
privileged information or confidential information or both. If you
are not the intended recipient please delete it and notify the sender.

Appendix B

AHIMS extensive search

AHIMS Web Services (AWS)

Note: This Excel report shows the sites found in AHIMS on the 27/08/2019. If this date is not the same as the original date of the Search Results letter or Search Results letter.

<u>Site ID</u>	<u>Site name</u>	<u>Datum</u>	<u>Zone</u>	<u>Easting</u>	<u>Northing</u>	<u>Context</u>	<u>Site status</u>	<u>Site features</u>
43-4-0034	L-C-2	AGD	55	533900	6276590	Open site	Valid	Artefact : 1, Stone Quarry : 1
43-4-0035	L-C-3	AGD	55	534655	6276360	Open site	Valid	Artefact : 1, Modified Tree (Carved or Scarred) : 1
43-4-0085	Lake Cowal 2018.049	GDA	55	536838	6279898	Open site	Valid	Artefact : -
43-4-0086	Lake Cowal 2018.046	GDA	55	536714	6279496	Open site	Valid	Artefact : -
43-4-0087	Lake Cowal 2018.055	GDA	55	537007	6279127	Open site	Valid	Artefact : -
43-4-0088	Lake Cowal 2018.056	GDA	55	537007	6279127	Open site	Valid	Artefact : -
43-4-0089	Lake Cowal 2018.054	GDA	55	537944	6279675	Open site	Valid	Artefact : -
43-4-0090	Lake Cowal 2018.053	GDA	55	537560	6279955	Open site	Valid	Artefact : -
43-4-0091	Lake Cowal 2018.047	GDA	55	536718	6279991	Open site	Valid	Artefact : -
43-4-0092	Lake Cowal 2018.051	GDA	55	536792	6279916	Open site	Valid	Artefact : -
43-4-0105	Lake Cowal 2019 CI	GDA	55	532341	6278911	Open site	Valid	Artefact : -
43-3-0021	Cowal site LC1	AGD	55	537164	6278408	Open site	Destroyed	Artefact : -
43-3-0022	Cowal site LC2	AGD	55	537312	6279255	Open site	Destroyed	Artefact : -
43-3-0023	Cowal site LC3	AGD	55	537830	6276648	Open site	Destroyed	Artefact : -
43-3-0024	Cowal site LC4	AGD	55	537887	6276638	Open site	Destroyed	Artefact : -
43-3-0025	LC5;	AGD	55	538000	6275000	Open site	Valid	Artefact : -
43-3-0026	LC6;	AGD	55	539000	6274000	Open site	Valid	Artefact : -
43-3-0027	SC1;	AGD	55	541000	6271000	Open site	Valid	Artefact : -
43-4-0003	Lake Cowal;	AGD	55	545321	6272539	Open site	Valid	Artefact : -
43-4-0005	Lake Cowal;	AGD	55	545338	6270711	Open site	Valid	Modified Tree (Carved or Scarred) : -
43-4-0007	Cowal site P1	AGD	55	537359	6277000	Open site	Destroyed	Artefact : -
43-4-0008	Cowal Scarred Tree P2	AGD	55	537575	6277643	Open site	Destroyed	Modified Tree (Carved or Scarred) : -
43-4-0044	Wamboyne Back Plain Site 1	GDA	55	535144	6278861	Open site	Destroyed	Artefact : 1
43-4-0045	Wamboyne Back Plain Site 2	GDA	55	536061	6279420	Open site	Valid	Artefact : 1
43-4-0043	Lake Cowal Road Open Site with	GDA	55	529140	6270755	Open site	Valid	Artefact : -
39-4-0271	Lake Cowal 2017-055	GDA	55	533853	6276163	Open site	Valid	Artefact : -, Hearth : -
39-4-0272	Lake Cowal 2017-056	GDA	55	534670	6275987	Open site	Valid	Artefact : -
39-4-0273	Lake Cowal 2017-057	GDA	55	535310	6276670	Open site	Valid	Artefact : -, Hearth : -
39-4-0274	Lake Cowal 2017-058	GDA	55	535427	6276766	Open site	Valid	Hearth : -
39-4-0275	Lake Cowal 2017-059	GDA	55	535879	6277455	Open site	Valid	Hearth : -
39-4-0276	Lake Cowal 2017-060	GDA	55	536522	6276076	Open site	Valid	Hearth : -
39-4-0277	Lake Cowal 2017-061	GDA	55	535267	6277489	Open site	Valid	Artefact : -

39-4-0278	Lake Cowal 2017-062	GDA	55	533108	6276725	Open site	Valid	Artefact : -
39-4-0279	Lake Cowal 2017-063	GDA	55	533136	6276546	Open site	Valid	Artefact : -
39-4-0280	Lake Cowal 2017-066	GDA	55	532214	6278851	Open site	Valid	Hearth : -
39-4-0281	Lake Cowal 2017-054	GDA	55	533399	6276157	Open site	Valid	Artefact : -
39-4-0282	Lake Cowal 2017-053	GDA	55	533184	6276202	Open site	Valid	Artefact : -
39-4-0283	Lake Cowal 2017-052	GDA	55	533076	6276984	Open site	Valid	Artefact : -
39-4-0284	Lake Cowal 2017-048	GDA	55	535903	6276066	Open site	Valid	Hearth : -
39-4-0285	Lake Cowal 2017-050	GDA	55	533013	6278015	Open site	Valid	Artefact : -
43-4-0054	Lake Cowal 2017-067	GDA	55	533062	6277100	Open site	Valid	Hearth : -
43-4-0055	Lake Cowal 2017-068	GDA	55	533250	6280160	Open site	Valid	Hearth : -
39-4-0286	Lake Cowal 2017-049	GDA	55	536046	6275732	Open site	Valid	Artefact : -
39-4-0287	Lake Cowal 2017-051	GDA	55	533035	6277235	Open site	Valid	Artefact : -
39-4-0288	Lake Cowal 2017-047	GDA	55	535960	6276260	Open site	Valid	Hearth : -
39-4-0289	Lake Cowal 2017-046	GDA	55	536466	6276174	Open site	Valid	Artefact : -, Hearth : -
39-4-0290	Lake Cowal 2017-045	GDA	55	536300	6276201	Open site	Valid	Hearth : -
39-4-0291	Lake Cowal 2017-044	GDA	55	536424	6275897	Open site	Valid	Hearth : -
39-4-0292	Lake Cowal 2017-043	GDA	55	536278	6275796	Open site	Valid	Hearth : -
39-4-0293	Lake Cowal 2017-039	GDA	55	533990	6279152	Open site	Valid	Artefact : -
39-4-0294	Lake Cowal 2017-040	GDA	55	536690	6276212	Open site	Valid	Artefact : -
39-4-0295	Lake Cowal 2017-041	GDA	55	536791	6276036	Open site	Valid	Artefact : -
39-4-0296	Lake Cowal 2017-042	GDA	55	536497	6275756	Open site	Valid	Artefact : -
39-4-0297	Lake Cowal 2017-038	GDA	55	533990	6279152	Open site	Valid	Artefact : -
39-4-0298	Lake Cowal 2017-037	GDA	55	533304	6277252	Open site	Valid	Hearth : -
39-4-0299	Lake Cowal 2017-035	GDA	55	532686	6278407	Open site	Valid	Artefact : -
39-4-0300	Lake Cowal 2017-036	GDA	55	533125	6278700	Open site	Valid	Artefact : -, Hearth : -
39-4-0301	Lake Cowal 2017-034	GDA	55	532643	6278720	Open site	Valid	Hearth : -
39-4-0302	Lake Cowal 2017-033	GDA	55	532725	6278789	Open site	Valid	Hearth : -
39-4-0303	Lake Cowal 2017-032	GDA	55	532978	6278454	Open site	Valid	Artefact : -, Hearth : -
39-4-0304	Lake Cowal 2017-031	GDA	55	533193	6278317	Open site	Valid	Artefact : -, Hearth : -
39-4-0305	Lake Cowal 2017-030	GDA	55	532404	6279099	Open site	Valid	Hearth : -
39-4-0306	Lake Cowal 2017-029	GDA	55	532120	6279360	Open site	Valid	Artefact : -
39-4-0307	Lake Cowal 2017-028	GDA	55	532222	6279398	Open site	Valid	Artefact : -
39-4-0308	Lake Cowal 2017-025	GDA	55	537650	6275815	Open site	Valid	Artefact : -
39-4-0309	Lake Cowal 2017-026	GDA	55	537127	6275983	Open site	Valid	Artefact : -
39-4-0310	Lake Cowal 2017-027	GDA	55	532396	6279486	Open site	Valid	Artefact : -
39-4-0311	Lake Cowal 2017-021	GDA	55	537664	6276591	Open site	Valid	Modified Tree (Carved or Scarred) : -
39-4-0312	Lake Cowal 2017-022	GDA	55	537937	6276332	Open site	Valid	Hearth : -
39-4-0313	Lake Cowal 2017-023	GDA	55	537968	6276001	Open site	Valid	Artefact : -
39-4-0314	Lake Cowal 2017-024	GDA	55	537848	6275909	Open site	Valid	Artefact : -
39-4-0315	Lake Cowal 2017-003	GDA	55	534708	6279668	Open site	Valid	Artefact : -
39-4-0316	Lake Cowal 2017-004	GDA	55	534871	6279741	Open site	Valid	Artefact : -
39-4-0317	Lake Cowal 2017-005	GDA	55	534978	6279873	Open site	Valid	Artefact : -
39-4-0318	Lake Cowal 2017-006	GDA	55	533914	6279947	Open site	Valid	Artefact : -, Hearth : -

39-4-0319	Lake Cowal 2017-007	GDA	55	533400	6279743	Open site	Valid	Artefact : -
39-4-0320	Lake Cowal 2017-008	GDA	55	533177	6279651	Open site	Valid	Artefact : -
39-4-0321	Lake Cowal 2017-009	GDA	55	532874	6279641	Open site	Valid	Artefact : -
39-4-0322	Lake Cowal 2017-010	GDA	55	532771	6279631	Open site	Valid	Artefact : -
39-4-0323	Lake Cowal 2017-011	GDA	55	532949	6278945	Open site	Valid	Artefact : -
39-4-0324	Lake Cowal 2017-012	GDA	55	532802	6278992	Closed site	Valid	Hearth : -
39-4-0325	Lake Cowal 2017-013	GDA	55	533161	6279034	Open site	Valid	Artefact : -
39-4-0326	Lake Cowal 2017-014	GDA	55	532197	6279787	Open site	Valid	Artefact : -
39-4-0327	Lake Cowal 2017-020	GDA	55	537664	6276591	Open site	Valid	Artefact : -
39-4-0328	Lake Cowal 2017-019	GDA	55	532271	6279681	Open site	Valid	Hearth : -
39-4-0329	Lake Cowal 2017-015	GDA	55	531916	6280298	Open site	Valid	Hearth : -
39-4-0330	Lake Cowal 2017-016	GDA	55	531808	6280296	Open site	Valid	Hearth : -
39-4-0331	Lake Cowal 2017-017	GDA	55	532155	6280283	Open site	Valid	Hearth : -
39-4-0332	Lake Cowal 2017-018	GDA	55	532029	6280283	Open site	Valid	Hearth : -
39-4-0333	Lake Cowal 2017-001	GDA	55	533957	6279294	Open site	Valid	Artefact : -
43-4-0020	Lake Cowal back plains site A	AGD	55	536100	6278065	Open site	Destroyed	Artefact : -
43-4-0021	Cowal back plains site B	AGD	55	535529	6278500	Open site	Destroyed	Artefact : -
43-4-0022	Cowal Back Plains site C	AGD	55	535227	6278566	Open site	Destroyed	Artefact : -
43-4-0023	Lake Cowal back plains site D	AGD	55	535708	6277202	Open site	Destroyed	Artefact : -
43-4-0024	E	AGD	55	535180	6276950	Open site	Valid	Artefact : -
43-4-0025	Lake Cowal back plains site F	AGD	55	534393	6277443	Open site	Destroyed	Artefact : -
43-4-0026	Lake Cowal back plains site G	AGD	55	534000	6277344	Open site	Destroyed	Artefact : -
43-4-0027	H	AGD	55	535214	6276163	Open site	Valid	Artefact : -
43-4-0028	Lake cowal back plains site I	AGD	55	533960	6278262	Open site	Destroyed	Artefact : -
43-4-0029	Lake Cowal back plains site J	AGD	55	533279	6278393	Open site	Destroyed	Artefact : -
43-4-0030	Lake Cowal back plains site K	AGD	55	533279	6277770	Open site	Destroyed	Artefact : -
43-4-0031	Lake Cowal back plains site L	AGD	55	533900	6276590	Open site	Destroyed	Artefact : -
43-4-0032	Lake Cowal back plains site M	AGD	55	534655	6276360	Open site	Destroyed	Artefact : -
43-4-0033	Lake Cowal back plains site N	AGD	55	534622	6276033	Open site	Destroyed	Artefact : -

obtained during the Basic Search, then the search results might be different. The PDF version of this report will always coincide with the Basic

<u>Site types</u>	<u>Recorders</u>	<u>Reports</u>	<u>Permits</u>	<u>Longitude GDA94</u>	<u>Latitude GDA94</u>
	Doctor.Scott Cane			147.37	-33.65
	Doctor.Scott Cane	102172		147.37	-33.65
	Niche Environment and Heritage,Ms.Katherine Day			147.40	-33.62
	Niche Environment and Heritage,Ms.Katherine Day			147.40	-33.62
	Niche Environment and Heritage,Ms.Katherine Day			147.40	-33.63
	Niche Environment and Heritage,Ms.Katherine Day			147.40	-33.63
	Niche Environment and Heritage,Ms.Katherine Day			147.41	-33.62
	Niche Environment and Heritage,Ms.Katherine Day			147.40	-33.62
	Niche Environment and Heritage,Ms.Katherine Day			147.40	-33.62
	Niche Environment and Heritage,Ms.Katherine Day			147.40	-33.62
	Mr.John Gilding,OEH			147.35	-33.63
Open Camp Site	Doctor.Colin Pardoe,R Williams,Doctor.Scott Cane	102172,102173	1467,1468	147.40	-33.63
Open Camp Site	Doctor.Colin Pardoe,R Williams,Doctor.Scott Cane	102172,102173	1467,1468	147.40	-33.62
Open Camp Site	Doctor.Colin Pardoe,R Williams,Doctor.Scott Cane	102172,102173	1467,1468	147.41	-33.65
Open Camp Site	Doctor.Colin Pardoe,R Williams,Doctor.Scott Cane	102172,102173	1467,1468	147.41	-33.65
Open Camp Site	R Williams,Doctor.Scott Cane			147.41	-33.66
Open Camp Site	R Williams,Doctor.Scott Cane			147.42	-33.67
Open Camp Site	R Williams,Doctor.Scott Cane			147.44	-33.70
Open Camp Site	C.S Vale			147.49	-33.68
Carved Tree	Unknown Author	65		147.49	-33.70
Open Camp Site	Doctor.Colin Pardoe,R Williams,Doctor.Scott Cane	3148,102172,102173	1361,1467,1468	147.40	-33.64
Scarred Tree	Doctor.Colin Pardoe,R Williams,Doctor.Scott Cane	3148,102172	3323	147.41	-33.64
	Doctor.Colin Pardoe,Doctor.Colin Pardoe			147.38	-33.63
	Doctor.Colin Pardoe	102172		147.39	-33.62
	OzArk Environmental and Heritage Management	102740		147.31	-33.70
	Niche Environment and Heritage,Ms.Rebecca Vartto			147.37	-33.65
	Niche Environment and Heritage,Ms.Rebecca Vartto			147.37	-33.66
	Niche Environment and Heritage,Ms.Rebecca Vartto			147.38	-33.65
	Niche Environment and Heritage,Ms.Rebecca Vartto			147.38	-33.65
	Niche Environment and Heritage,Ms.Rebecca Vartto			147.39	-33.64
	Niche Environment and Heritage,Ms.Rebecca Vartto			147.39	-33.65
	Niche Environment and Heritage,Ms.Rebecca Vartto			147.38	-33.64

Niche Environment and Heritage,Ms.Rebecca Vartto		4376	147.36	-33.62
Niche Environment and Heritage,Ms.Rebecca Vartto		4376	147.36	-33.62
Niche Environment and Heritage,Ms.Rebecca Vartto		4376	147.35	-33.62
Niche Environment and Heritage,Ms.Rebecca Vartto		4376	147.35	-33.62
Niche Environment and Heritage,Ms.Rebecca Vartto		4376	147.36	-33.63
Niche Environment and Heritage,Ms.Rebecca Vartto		4376	147.35	-33.63
Niche Environment and Heritage,Ms.Rebecca Vartto		4376	147.36	-33.63
Niche Environment and Heritage,Ms.Rebecca Vartto		4376	147.35	-33.62
Niche Environment and Heritage,Ms.Rebecca Vartto			147.41	-33.65
Niche Environment and Heritage,Ms.Rebecca Vartto		4376	147.35	-33.62
Niche Environment and Heritage,Ms.Rebecca Vartto		4376	147.34	-33.62
Niche Environment and Heritage,Ms.Rebecca Vartto		4376	147.34	-33.62
Niche Environment and Heritage,Ms.Rebecca Vartto		4376	147.35	-33.62
Niche Environment and Heritage,Ms.Rebecca Vartto		4376	147.35	-33.62
Niche Environment and Heritage,Ms.Rebecca Vartto			147.37	-33.63
Doctor.Colin Pardoe,Doctor.Scott Cane	3148,102172	1467,1468	147.39	-33.63
Doctor.Colin Pardoe,Doctor.Scott Cane	3148	1467,1468	147.38	-33.63
Doctor.Scott Cane	3148,102172	1467,1468	147.38	-33.63
Doctor.Scott Cane,Mr.Roly Williams	3148	1467,1468	147.39	-33.64
Doctor.Scott Cane,Mr.Roly Williams	3148	1467,1468	147.38	-33.65
Doctor.Colin Pardoe,Doctor.Scott Cane,Mr.Roly Williams	3148,102172	1467,1468	147.37	-33.64
Doctor.Colin Pardoe,Doctor.Scott Cane,Mr.Roly Williams	3148,102172	1467,1468	147.37	-33.64
Doctor.Scott Cane	3148	1467,1468	147.38	-33.65
Doctor.Colin Pardoe,Doctor.Scott Cane	3148,102172	1467,1468	147.37	-33.63
Doctor.Colin Pardoe,Doctor.Scott Cane	3148,102172	1467,1468	147.36	-33.63
Doctor.Colin Pardoe,Doctor.Scott Cane	3148,102172	1467,1468	147.36	-33.64
Doctor.Colin Pardoe,Doctor.Scott Cane	3148,102172	1467,1468	147.37	-33.65
Doctor.Colin Pardoe,Doctor.Scott Cane	3148,102172	1467,1468	147.37	-33.65
Doctor.Colin Pardoe,Doctor.Scott Cane	3148,102172	1467,1468	147.37	-33.65

write a due diligence report for an EIS. Number of Aboriginal sites and Aboriginal objects found is 104

omission.



