

# Aboriginal Cultural Heritage Management Plan

Cowal Gold Operations Open Pit Continuation Project

1 April 2025

## Aboriginal Cultural Heritage Management Plan

### Revision summary

Revision	Description	Prepared	Approved	Date
1	Draft	Cameron Neal	Alan Williams	11 April 2024
5	Draft for distribution	Alan Williams	-	7 August 2024
7	Final Draft	Alan Williams	-	23 October 2024
8	Final	Alan Williams	-	12 December 2024
9	Final (following HNSW comments)	Alan Williams	-	11 February 2025
10	Final (following DPHI comments)	Alan Williams	-	1 April 2025

## Executive Summary

### Purpose of Document

Evolution Mining (Cowal) Pty Limited (Evolution) is the owner and operator of Cowal Gold Operations (CGO), an existing open pit and underground gold mine approximately 38 kilometres (km) north-east of West Wyalong, NSW. Evolution has received approval for further open pit mining operations at CGO through the Open Pit Continuation Project (the Project). The Project primarily seeks to continue the open pit operations by approximately 10 years to 2036 and extend the total mine life by approximately two years to 2042. As part of the approval for this Project, an Aboriginal cultural heritage management plan (ACHMP) is required to provide a framework for managing Aboriginal heritage during the pre-construction and construction phases of the Project.

This document has been developed to address these conditions. This document supersedes a previous Indigenous Archaeology and Cultural Heritage Management Plan (2003) but has included incomplete and/or ongoing requirements of this earlier document wherever relevant.

### Summary of Aboriginal Heritage

Previous investigation has identified 20 discrete Aboriginal objects and sites within the Project's EIS study area, along with a broader low density stone artefact scatter across the region (Summary Figure 1).<sup>1</sup> These include:

- One area of past foci and activity (LC2 [#43-3-0022] characterised by high densities of surface and sub-surface stone artefacts ( $x \approx 52/m^2$ ) and some 4 ha (200 m<sup>2</sup>) in size, and which reflect extensive and/or repeated visitation and occupation by people over the last 5,000 years.
- Two areas of moderate stone artefact densities (Lake Cowal 2017-023 [#39-4-0313], CGO AS5 [#43-4-0194]).
- Fifteen hearths found across the Project area– #43-4-0190; #39-4-0318; #39-4-0329; #39-4-0330; #39-4-0331; #39-4-0332; #39-4-0276; #39-4-0284; #39-4-0291; #39-4-0292; #39-4-0301; #39-4-0302; #39-4-0290; #43-4-0055; and #43-4-0202.
- One culturally modified tree (Lake Cowal 2017-021 [#39-4-0311]).
- A stone artefact background scatter that is predicted to occur across the Project area and extending beyond its limits within which low artefact densities of  $\sim 0.4\text{--}5/m^2$  may be expected (CGO BS1 [#43-4-0191]). This zone also includes all previously identified sites along the water supply pipeline and Bland Creek Paleochannel borefield.
- A zone of  $\sim 100$  m encompassing the lake's edge micro-environment within which higher densities of stone artefacts and/or other areas of past foci may be expected to be present (CGO LEZ [#43-4-0189]).

With the revised cultural assemblage, it is now evident that of the 20 Aboriginal objects and sites within the Project's EIS study area, 11 would be adversely affected within the Project area. Several of these were identified for post-approval archaeological mitigation and recovery, the approach and methods of which are outlined in this document.

### Project Specific Aboriginal Heritage Requirements

- Project specific mitigation measures are required **prior to the construction phase** (Summary Figure 2). These include:
  - Surrendering of existing heritage permits and approvals as per Section 4.2.1 to allow implementation of activities approved under the SSDA.
  - Establishment of avoidance and protection measures for sites in Table 7 and as per Section 4.2.2.

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<sup>1</sup> While the EIS states that 21 discrete Aboriginal objects are within the Project EIS study area, additional research has found that one of the culturally modified trees (L-C-3 [#43-4-0035]) has been validated as lost.

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- Project specific mitigation measures are required **prior to the construction phase and/or during initial construction phase** (Summary Figure 2). These include:
  - Surface artefact collection of all proposed ground disturbance areas for the Project (see Section 4.2.4).
  - Archival recording, recovery and relocation of culturally modified tree (Lake Cowal 2017-021 [#39-4-0311]) (see Section 4.2.5).
  - Archival recording and recovery of four hearth sites (CGO23-Hearth 1 [#43-4-0202], Lake Cowal 2017-060 [#39-4-0276], Lake Cowal 2017-048 [#39-4-0284], Lake Cowal 2017-043 [#39-4-0292]) (see Section 4.2.6).
  - Archaeological excavations of three significant cultural deposits (LC2 [#43-3-0022], Lake Cowal 2017-023 [#39-4-0313] and CGO LEZ [#43-4-0189]) (see Section 4.2.7)
  - Mechanical monitoring or topsoil stripping of the beach zone for potential ancestral and/or faunal remains (see Section 4.2.8).
- Project specific mitigation measures are required **during construction and/or operational phases** (Summary Figure 2). These include:
  - Reviewing and updating the various heritage databases to ensure all documented Aboriginal objects and sites are accurate in private and public archival resources (see Section 4.2.3).
  - The ongoing management of removed topsoil that may contain cultural materials, either by retention and suitable re-use on site, or through additional archaeological recovery methods (see Section 4.2.9).
  - Information on a Keeping Place for recovered cultural materials from previous and proposed archaeological activities (see Section 4.4).

### General Aboriginal Heritage Requirements

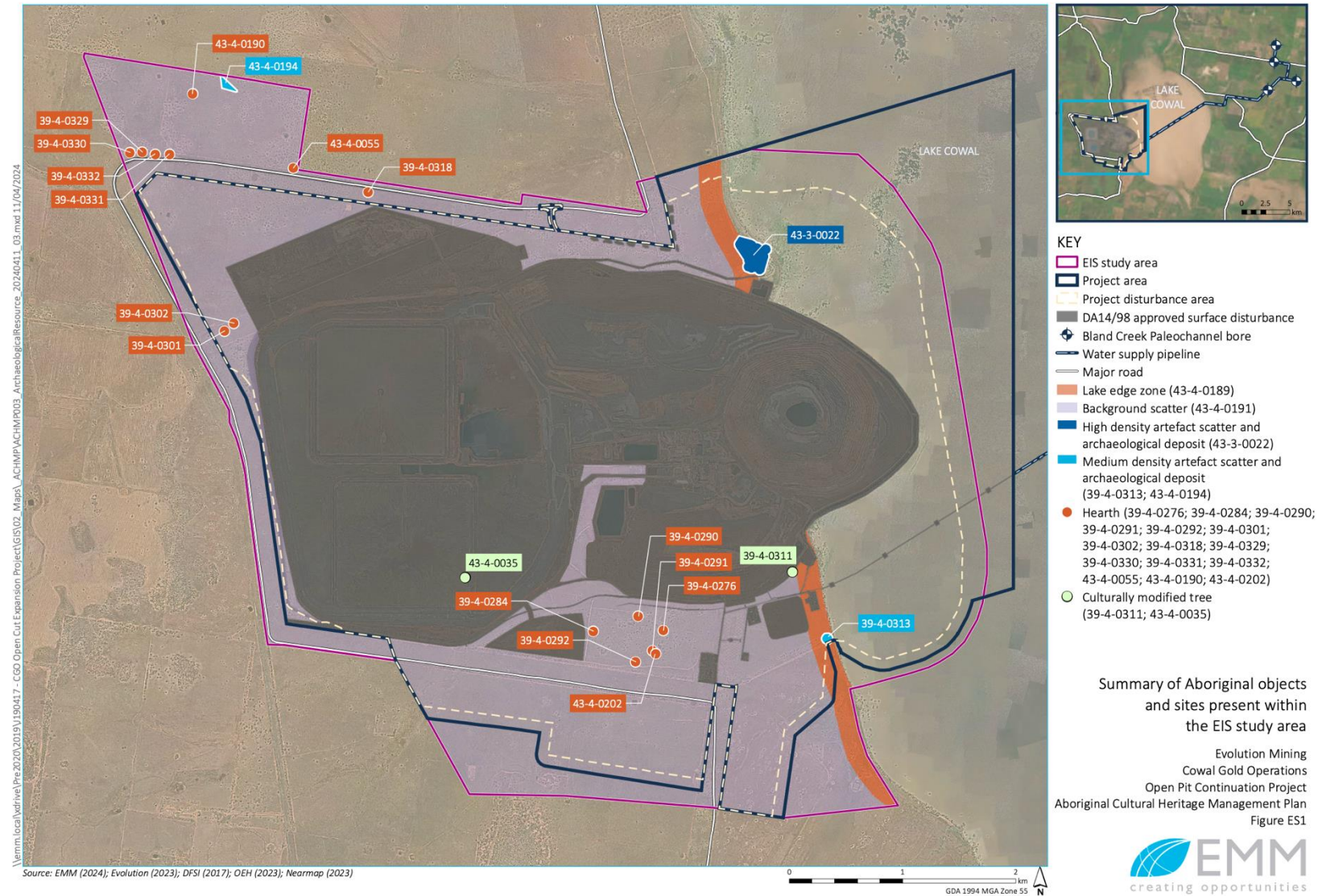
The ACHMP outlines a number of general requirements to be implemented prior to and during construction (Section 4):

- Requirements for establishing and maintaining suitable cultural inductions and awareness for all contractors and visitors during the Project (Section 4.3.1)
- Protocols and procedures for unexpected finds, such as skeletal/human remains (Section 4.3.2)
- Protocols and procedures for Aboriginal parties to be able to access and undertaken activities on-Country within the Project area (Section 4.3.4)
- Protocols for undertaking activities in areas that have not been previously assessed (Section 4.5).

### Other Useful Information

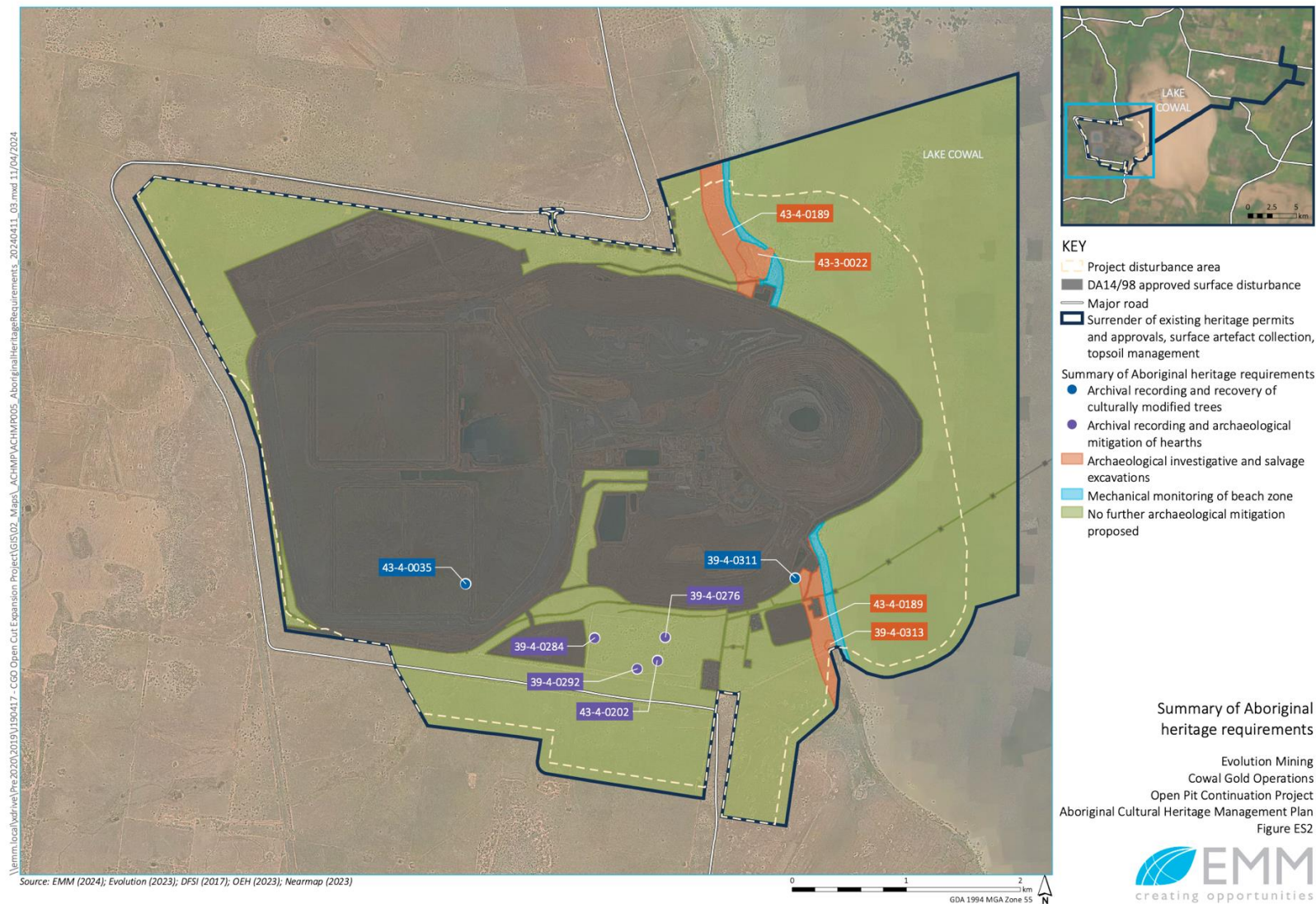
The ACHMP also provides guidance on:

- Processes to maintain ongoing consultation with the Wiradjuri Condobolin Corporation and other registered Aboriginal parties (RAPs) and Heritage NSW (Section 2); and
- Other administrative requirements, including ongoing compliance, regular review and update of the ACHMP to ensure its functionality is maintained through the Project (Section 5).



**Summary Figure 1: Summary of Aboriginal objects and sites present within the EIS study area**





Summary Figure 2: Summary of Aboriginal heritage management requirements

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## List of Abbreviations

Abbreviation	Explanation
ACHA/ACHAR	Aboriginal cultural heritage assessment
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
ACHMP	Aboriginal cultural heritage management plan
CoA	Conditions of Approval
EA	Environmental Assessment
EMM	EMM Consulting Pty Limited
DEC/DECCW	A former NSW government body, now Heritage NSW
DPE	NSW Department of Planning and Environment, now DPHI
DPHI	NSW Department of Planning, Housing and Infrastructure
IPC	Independent Planning Commission
ICIP	Indigenous cultural and intellectual property
LALC	Local Aboriginal Land Council
LGA	Local government area
RAP	Registered Aboriginal Party (for the project)
RTS	Response to submissions
SSD	State Significant Development
SSI	State Significant Infrastructure
SSDA	State Significant Development approval, also called Project Approval
SSIA	State Significant Infrastructure approval, also called Project Approval

## 1 Introduction

### 1.1 Purpose of Document

Evolution Mining (Cowal) Pty Limited (Evolution) is the owner and operator of Cowal Gold Operations (CGO), an existing open pit and underground gold mine ~38 kilometres (km) north-east of West Wyalong (Figure 1). CGO is located on the traditional lands of the Wiradjuri People and is immediately adjacent to the western foreshore of Lake Cowal, which is an ephemeral waterbody.

Development consent SSD 42917792 was granted for the Project in late 2024 by the NSW Minister for Planning under Section 4.5 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). As part of the assessment process needed to obtain the approval for these works to proceed, investigation of Aboriginal cultural heritage for the project area was undertaken by EMM Consulting Pty Limited (EMM).

These previous investigations consisted of an Aboriginal Cultural Heritage Assessment (ACHA) and addendum developed in consultation with the local Aboriginal community and included a range of on-site investigations to identify tangible and intangible cultural heritage (EMM 2023, 2024). Further details of the report and its findings are presented in Section 3. The report recommended that an Aboriginal cultural heritage management plan (ACHMP) be developed following the approval to provide a framework for managing Aboriginal heritage during the preconstruction and construction phases of the Project. This recommendation has now been included as a condition in the State Significant Development Approval (SSDA) (Section 1.1.1).

This document has been developed to address approval conditions, and provides guidance on:

- Processes to maintain ongoing consultation with the local Aboriginal community and Heritage NSW (Section 2)
- Management procedures for Aboriginal cultural heritage values within, and adjacent to, the Project area during pre-construction, construction and operational phases (Section 4)
- Protocols and procedures for unexpected finds, such as human remains (Section 4.3)
- Protocols for undertaking activities in area areas that have not been previously assessed (Section 4.5)
- Other administrative requirements, including post-project management of Aboriginal finds and recovered material, ongoing compliance, regular review and update of the ACHMP to ensure its functionality is maintained through the project (Section 5).

To conform with the conditions B56-B59 inclusive, B63-65 inclusive of the approval, Evolution commits to implementing the requirements of the ACHMP prior to and during the proposed development activities.

#### 1.1.1 Legislative Context

Aboriginal heritage is managed under the National Parks and Wildlife Act 1974. The State Significant Development (SSD) process ‘switches off’ a number of requirements under this Act, including the need to obtain Aboriginal heritage impact permits (AHIP) to harm Aboriginal objects. Rather, Aboriginal heritage is managed by the Conditions of Approval (CoA) provided in the SSDA (Table 1).

A range of other Commonwealth and State legislation also applies to Aboriginal heritage, although none have been identified as pertinent to this Project. These are further outlined in the ACHA (EMM 2023).

**Table 1: The project conditions of the SSDA that this document applies to**

Requirement	Section Addressed
<b>Management of Aboriginal Heritage</b>	
B56.If any suspected human remains are discovered in, on or under the land:	Section 4.3.2
a. All work at the location must immediately cease	
b. The area must be secured to avoid further harm to the remains	
c. Local police and Heritage NSW must be notified as soon as practicable and details of the suspected remains and their locations provided	
d. Work must not recommence at the location unless authorized in writing by the Planning Secretary.	

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Requirement	Section Addressed
B57. Any human remains determined to be a traditional Aboriginal ancestral burial must be managed in consultation with the Registered Aboriginal Parties and Heritage NSW.	Section 4.3.2
B58. The aboriginal sites identified in Table 12 and shown in Figure 1 of Appendix 5 must be protected.	Table 7, Section 4.2.2
B59. The development must not result in any direct or indirect impacts on any aboriginal sites located outside the area/s identified as “aboriginal sites to be disturbed” in Figure 1 of Appendix 5.	Table 7, Section 4.2.2, Figure 11
B60. Aboriginal objects collected/salvaged from the mine disturbance area must be stored in a secure facility.	Section 4.4
B61. The applicant must maintain a database of all aboriginal objects that have been collected/salvaged. The database must: <ol style="list-style-type: none"> <li>Identify and describe each aboriginal object that has been collected/salvaged</li> <li>Identify where the aboriginal objects were originally located</li> <li>Identify where the aboriginal objects are stored.</li> </ol>	Section 4.2.3
<b>Aboriginal Heritage Management Plan</b>	
B62. The applicant must prepare an aboriginal heritage management plan to the satisfaction of the planning secretary. The plan must:	This document
<ol style="list-style-type: none"> <li>Be prepared by a suitably qualified and experienced person</li> </ol>	This document was developed by Dr Alan Williams, Technical Lead, Aboriginal Heritage
<ol style="list-style-type: none"> <li>Be prepared in consultation with the Registered Aboriginal Parties</li> </ol>	Section 2.4 and Appendix B
<ol style="list-style-type: none"> <li>Be prepared in consultation with Heritage NSW</li> </ol>	A meeting was undertaken to discuss the ACHMP on 12 December 2024 with Heritage NSW, and advise to submit direct to the DPHI portal was provided. It was subsequently submitted in January 2025 and comments were received from Heritage NSW, which have been addressed (Section 1.1.2).
<ol style="list-style-type: none"> <li>Include a tabulated list of Aboriginal sites that would be protected</li> </ol>	Table 7
<ol style="list-style-type: none"> <li>Include a clear map demarcating the Aboriginal sites that would be protected and the Aboriginal sites that would be disturbed</li> </ol>	Figure 9 and Figure 10
<ol style="list-style-type: none"> <li>Describe the measures that would be implemented to protect, monitor and manage Aboriginal sites identified for protection</li> </ol>	Section 4.2.2
<ol style="list-style-type: none"> <li>Describe the measures that would be implemented to mitigate the impacts to Aboriginal sites identified to be disturbed, including:               <ol style="list-style-type: none"> <li>The methodology and procedures/protocols for collection, sub-surface testing and salvage of Aboriginal objects</li> <li>The measures that would be implemented to protect, store and manage collected/salvaged Aboriginal objects, including post mining</li> <li>Procedures for recording details of any Aboriginal objects that are collected/salvaged and their management</li> </ol> </li> </ol>	Sections 4.2.2– 4.2.9 inclusive
<ol style="list-style-type: none"> <li>Describe the reporting procedures for test excavation and salvage activities</li> </ol>	Section 4.2.7 and Appendix F
<ol style="list-style-type: none"> <li>Describe ongoing consultation that would be undertaken with Registered Aboriginal Parties regarding the conservation and management of Aboriginal objects on site and in any storage areas, and how the outcomes of this consultation will be recorded</li> </ol>	Sections 2.5 and Section 5
<ol style="list-style-type: none"> <li>Describe opportunities that would be provided for Registered Aboriginal Parties to participate and assist in the protection, removal and management of Aboriginal objects</li> </ol>	Section 2.4



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Requirement	Section Addressed
k. Describe the measures that would be implemented to maintain reasonable access for Registered Aboriginal Parties to Aboriginal sites on the site and in any biodiversity offset areas managed by the Applicant	Section 4.3.4
l. Describe how workers on site would receive suitable heritage inductions prior to carrying out any activities that may disturb Aboriginal sites.	Section 4.3.1
B63. Development under this consent must not commence until the aboriginal heritage management plan is approved by the planning secretary.	-
B64. The aboriginal heritage management plan, as approved by the planning secretary, must be implemented for the development.	-
<b>Aboriginal Heritage Research Program</b>	
B65. A research program focused on building knowledge of spatial and temporal aboriginal occupation of the area must be prepared for the development. This program must:	The research program does not form part of the ACHMP, and will be developed as per the conditions of the Consent
<ul style="list-style-type: none"> <li>a. Unless otherwise agreed by the planning secretary, be submitted to the planning secretary for approval within 24 months of the commencement of development under this consent</li> <li>b. Describe the research aims and objective</li> <li>c. Be prepared and undertaken by a suitably qualified and experienced expert</li> <li>d. Be prepared in consultation with the registered aboriginal parties</li> <li>e. Describe the methods that would be undertaken to conduct the research</li> <li>f. Set out the timing for undertaken the research</li> <li>g. Describe how the outcomes of the research would be recorded, reported and shared</li> </ul>	
B66. The research program, as approved by the planning secretary, must be implemented for the development.	The research program does not form part of the ACHMP, and will be developed as per the conditions of the Consent

### 1.1.2 Liaison with Heritage NSW

A draft version of the ACHMP was provided to Heritage NSW for review and comment on 13 January 2025. They provided comments on 30 January 2025 seeking modifications and/or clarifications to the ACHMP to align with the project conditions (HMS ID 8740). Table 2 provides the specific comments raised by Heritage NSW and where they have been addressed in the revised ACHMP.

**Table 2: Heritage NSW comments on the draft ACHMP and where addressed**

Requirement	Section Addressed
1. Section 2.4 states that: "all Aboriginal consultation and co-ordination will be undertaken through the Wiradjuri Condobolin Corporation". We note that this is not consistent with the Consultation guidelines and community consultation program completed for the project. Please update the ACHMP to ensure that all Registered Aboriginal Parties are consulted regarding the management of Aboriginal cultural heritage within the project area.	The language in this section has been clarified and now outlines that all registered Aboriginal parties will be consulted during the project, but that the Wiradjuri Condobolin Corporation will facilitate any on-Country activities and participation.
2. It is understood that CGO BS1 (AHIMS 43-4-0191) represents a background scatter identified at low densities across the Project area which encompasses "a large number of discrete site recordings (n=42) undertaken over the previous 20 years" (pg.13-14). As CGO BS1 (AHIMS 43-4-0191) contains discrete registrations which remain valid on the Aboriginal Heritage Information Management System (AHIMS). following any impacts to these sites/objects	-

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Requirement	Section Addressed
under the ACHMP, Aboriginal Site Impact Recording Forms (ASIRFs) must be submitted for the individual AHIMS registrations affected. With consideration of this, please update the ACH MP to include:	
a. List or table identifying the discrete AHIMS-registered Aboriginal sites that are considered part of the amalgamated low density background scatter CGO BS1 (AHIMS 43-4-0191).	This is included as a footnote in Section 3.2
b. A procedure for managing the site-status of the individual AHIMS registrations that are encompassed within CGO BS1 (AHIMS 43-4-0191) following any impacts.	This has been described in Section 4.2.3.1
c. Consideration of how the unexpected finds protocol for Aboriginal artefacts (outlined in Section 4.3.2) is to be implemented in the context of CGO BS1 (AHIMS 43-4-0191). To address this Section 4.3.2 (i) could be updated to include definitions and/or criteria to assist with differentiating between: <ul style="list-style-type: none"> <li>i. unexpected Aboriginal objects considered to be of low conservation significance (i.e. consistent with understandings of CGO BS1) and thus do not require management; versus</li> <li>ii. unexpected Aboriginal objects considered to be of potential heritage conservation significance (i.e. inconsistent with understandings of CGO BS1) and thus requires additional consultation with Aboriginal stakeholders, DPHI, Heritage NSW and the development of a management strategy.</li> </ul>	Significance criteria are already included in Section 3.2 and outline key features, themes and/or features that would prompt further management and/or mitigation requirements. Further reference to these criteria within Section 4.2.4 and Table 9 has been included to address this requirement.
3. Please update the unexpected finds protocol outlined in Table 4.1 to indicate if/when notification to DPHI/Planning Secretary is required and, where relevant cross-reference to the section within the ACHMP which covers incident notification. Note that the protocol currently includes a requirement to seek written approval from the Planning Secretary/DPHI prior to resuming works in the area of the unexpected find (second last dot point), however, there currently are no steps for notifying them of the unexpected find in the first place.	Table 9 and Table 10 are updated to include DPHI earlier in the unexpected find processes.
4. Please update the management of unexpected skeletal/human remains protocol provided in Table 4.2 to include the requirement that "work must not recommence at the location unless authorised in writing by the Planning Secretary" in accordance with Condition B56 of the Conditions of Consent.	Table 10 has been updated to include this requirement.
5. Please update the ACHMP to include a methodology for recording/analysing Aboriginal artefacts post-salvage as required by Condition B62(g)(iii). This should minimally include an outline of attributes and measurements that will be recorded with consideration of the research questions outlined in Appendix F and details of the recording process to ensure consistency in the data collected and methods of analysis used throughout the project.	This is already included in Appendix F, but has now also been expanded in Sections 4.2.4 and 4.2.7
6. Section 5 (Compliance, review and improvement) must be revised to ensure consistency with Conditions D7, D8, D9 and D10 and Appendix 8 of the Conditions of Consent. We note that these conditions specify timeframes and procedures for notification and reporting on incidents and non-compliances it would therefore be beneficial to include such details in the ACHMP to ensure compliance. Specifically, the following is requested:	-
a. Please include a sub-section on Incident notification and reporting requirements with reference to Conditions D8, D9 and Appendix 8.	This has been added and is now presented as Section 5.2.3
b. Please update Section 5.2.3 (Non-conformance) to align with Condition D10 which requires the department to be notified via the NSW Major Projects planning portal "within seven days of becoming aware of a non-compliance".	Section 5.2.3 (now Section 5.2.4) has been updated to align with condition D10
c. Please update Section 5.3.2 (ACHMP review and update) to include a requirement to provide any revised ACH MPs to the Planning Secretary for approval "within six weeks of the review" as required by Condition D7.	Section 5.3.2 has been updated to include the relevant timeframes.
7. We note that copies of the Aboriginal Heritage Impact Permit (AHIP) surrender and variation documentation have been provided in Appendix C of the ACHMP.	This documentation was submitted to Heritage NSW in December 2025. Discussions are being undertaken

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Requirement	Section Addressed
Please clarify the status of these application forms and whether they have been formally submitted.	with Heritage NSW in parallel to the ACHMP finalisation process in relation to the AHIPs.
8. The Easting and Northing for Aboriginal sites in Table 3.1 and Table 3.2 must be included in the unredacted version of the ACHMP.	Table 6 – Table 8 inclusive has been updated to include eastings and northings.
9. There is an inconsistency in the number provided for the AHIP consent that covers the north-west of the Subject Area. Section 4.2.1, for example, refers to the AHIP as 'C000457' in contrast to Section 1.1.2(i) and Figure 1.2 which refer to it as 'C0004570'. Please update Section 4.2.1 to correct this.	Section 4.2.1 has been updated to meet this requirement.
10. Please update the third dot point in Section 4.2.3 to remove the word 'consider' noting that it is a requirement of the conditions of approval that the applicant "must maintain a database of all Aboriginal objects that have been collected/salvaged" as per Condition B61.	Section 4.2.3 has been updated to meet this requirement.
11. Please ensure that all cross-references to different sections of the ACHMP are accurate. We note, for example, that Section 4.2.9 (Topsoil management) incorrectly refers to the surface artefact collection protocol as being in Section 4.2.3 (where 'Surface artefact collection' is covered in Section 4.2.4 of the ACHMP). Similar errors are observed in Section 4.2.10 for the various cross references to the sections referenced for surface artefact collection, management of culturally modified trees, management of hearth sites, additional archaeological excavations etc. Please review and update for accuracy.	A review of all cross-referencing has occurred and updated where required.
12. There is a discrepancy in ACHMP in the Appendix that is referenced as containing the post salvage analysis and reporting procedures. Sections 4.2.4, 4.2.5, 4.2.6, 4.2.7, 4.2.8, Tables 4.1 and 4.2, for example, refer to "Appendix D". In contrast, Section 4.4 refers to these being contained within "Appendix F". Please review and update for accuracy.	The ACHMP now includes references to both Appendix D and Appendix F throughout. Appendix D includes the legislative obligations focussing on reporting to Heritage NSW and the AHIMS database, while Appendix F provides further information about the types of analysis that should be considered in more detailed archaeological reporting of any activities undertaken. As such both approaches are valid in the majority of mitigation measures presented.

### 1.1.3 Previous Cultural Heritage Management and Approvals

#### 1.1.3.1 Aboriginal Heritage Impact Permits

Prior to the establishment of the CGO, Aboriginal heritage was assessed, and approvals obtained from Heritage NSW (then NSW National Parks and Wildlife Service) to allow harm to cultural materials in advance of development. Three authorised impact permits were obtained: Consent 1467 (C0004173)/Permit 1468, issued 27 November 2002 (expires in 2042 following renewal in 2022); Consent 1680/Permit 1681, issued 28 July 2003 (expired 2022-2023); and AHIP C0004570, issued 27 June 2019 (expires 2033).

These permits authorise the archaeological mitigation and/or destruction of all cultural materials within their spatial curtilage (Figure 2), and which covers the majority of the Project area. Only the southern edges of the Project are currently outside these existing permits. The most recent AHIP C0004570 includes a small 'no-harm' zone centred on a culturally modified tree, #39-4-0311, within the southeast quadrant of the Project area.

As part of the most recent approvals in 2019, a care agreement (C0004976) was also obtained from Heritage NSW in July 2019, and which expires in 2032. The care agreement sets out the terms and conditions of the curation of cultural materials, which requires them to remain on site in a 'locked shipping container'.

An SSD cannot operate in tandem with these approvals, which relate to other parts of the National Parks and Wildlife Act 1974 and Environmental Planning and Assessment Act 1979. These permits and consents would be surrendered by Evolution prior to construction of the Project (Section 4).

### 1.1.3.2 Cultural Heritage Management Plans

The specific management and mitigation of cultural materials across the Project under these permits was outlined in an Indigenous Archaeology and Cultural Heritage Management Plan (IACHMP) developed in 2003 (Appendix A). A subsequent update to this plan occurred in 2019, but: i) it was substantially the same in content and process to the 2003 version; and ii) was never finalised or implemented.

The focus of the IACHMP was on the management of specific identified cultural materials within the Project area. Since 2003, the majority of processes and requirements outlined in the IACHMP for these named places have been completed (Appendix A). Existing reporting suggests that the recovery, mitigation and/or destruction of identified cultural materials within the plan had been undertaken by 2009. A review of the IACHMP indicates the following components remain valid and required:

- Ensuring intellectual property remains vested with the local Aboriginal community, and specifically the Wiradjuri Condobolin corporation
- Ensuring the ongoing involvement of the local aboriginal community and specifically the Wiradjuri Condobolin corporation, in on-site activities associated with cultural heritage management
- The management and mitigation of Ic2 [#43-3-0022]
- The management and mitigation of the 'beach' environmental zone situated in the eastern portion of the project area
- Unexpected finds procedures for previously unidentified cultural materials, including human remains
- The management of topsoil stripped as part of the project, with efforts to its return (and associated cultural materials within it) back to its original location during rehabilitation of the site in the 2030-40s
- The requirement to curate recovered cultural materials within the Project area, although the specific location and manner are not specified.

These unresolved requirements have been integrated into this document primarily within Section 4, albeit with some minor changes to reflect current site conditions and/or the Project-specific activities.

Where this document conflicts with any of the requirements and/or actions of the IACHMP (2003), this document would take precedence.

## 1.2 Key Stakeholders

This section outlines the project team that will be involved in the Project and Aboriginal stakeholder individuals and/or organisations relevant to the project (Table 3).

**Table 3: Key stakeholder details**

Personnel	Organisation	Role
<b>Evolution Mining Personnel</b>		
Michael Thomas	Evolution Mining (Cowal)	Superintendent Environment
Lynsey Reilly	Evolution Mining (Cowal)	Superintendent Community and Indigenous Relations
Charmaine Saltner	Evolution Mining	First Nations Engagement Supervisor
Gregory Coase	Evolution Mining (Cowal)	Manager Sustainability
<b>Government Organisations</b>		
-	DPHI	Planning regulator
-	Heritage NSW	Heritage regulator
<b>Registered Aboriginal Parties</b>		
Ally Coe	Wiradjuri Condobolin Corporation	Aboriginal engagement co-ordination
Linton Howarth	West Wyalong LALC	Aboriginal representative
David Acheson	Wiradjuri Council of Elders	Aboriginal representative

Note: \* It is the responsibility of these individuals to ensure the ACHMP is implemented, adopted and maintained through the project.



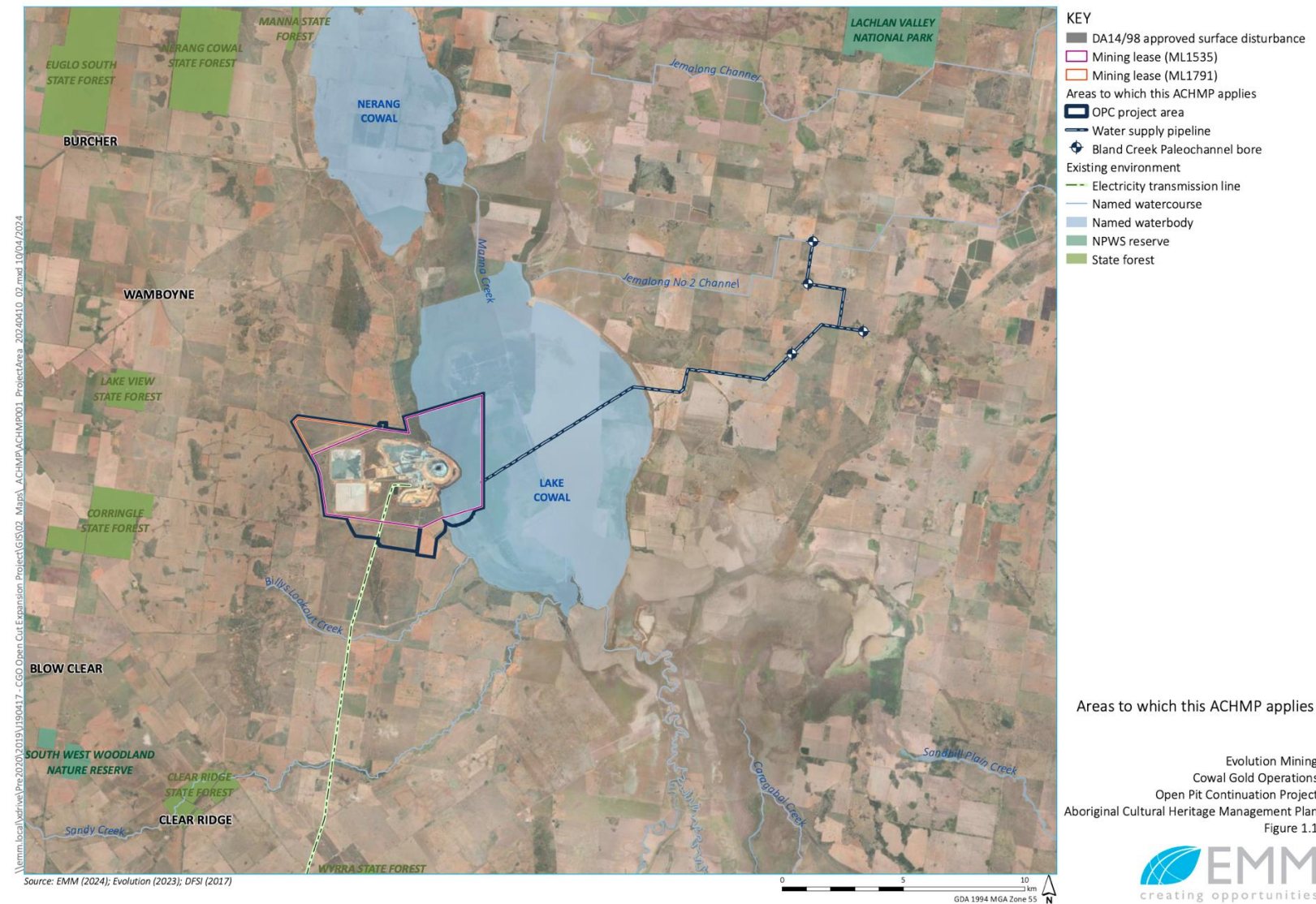


Figure 1: Areas to which this ACHMP applies



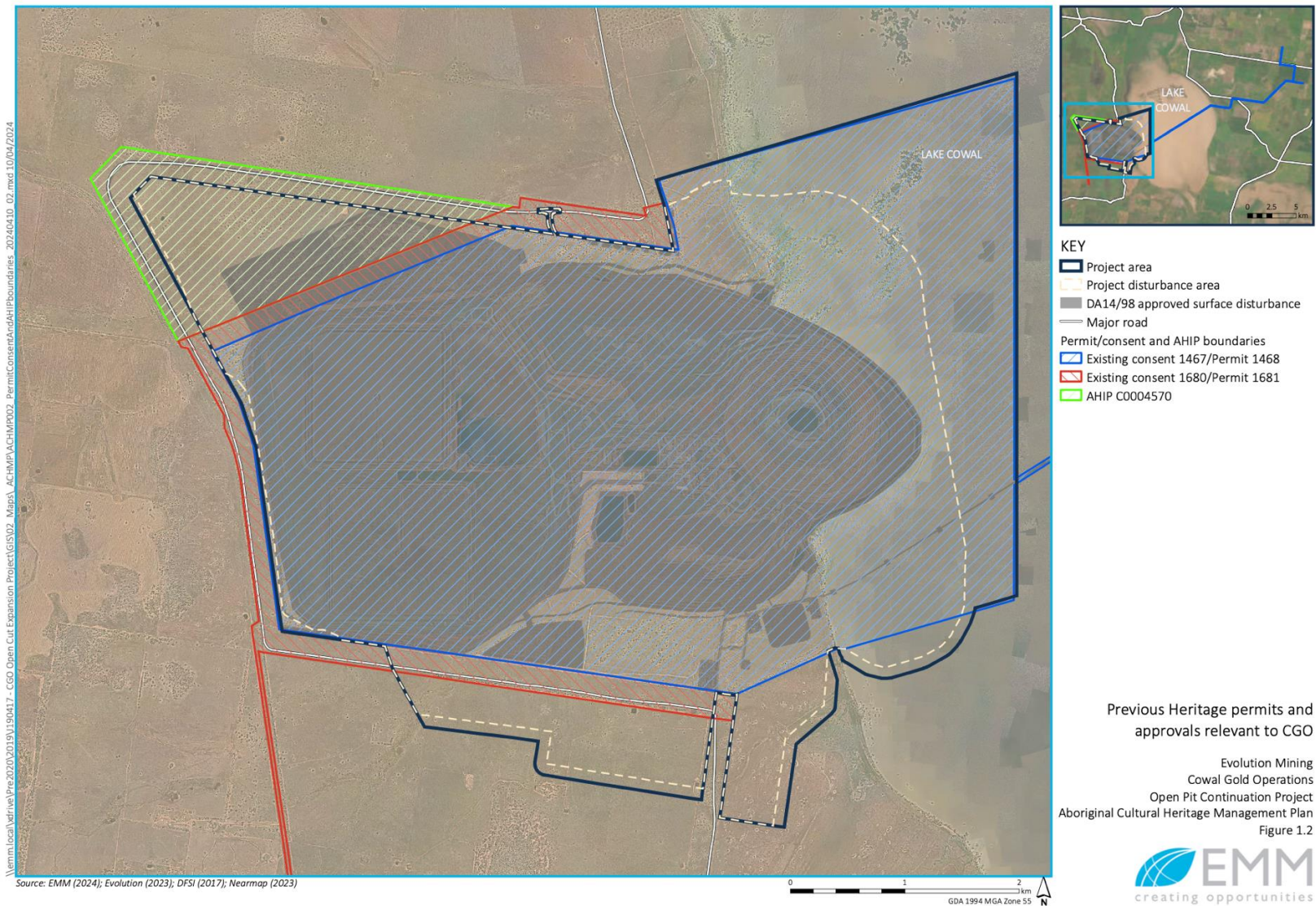


Figure 2: Existing heritage permits and approvals within the project area

## 2 Aboriginal Consultation

### 2.1 At a Glance

- All interested Aboriginal parties require consultation during the finalisation of, and any updates to, the ACHMP. A list of the stakeholders and their contacts are presented in Table 3.
- Following the finalisation of the ACHMP, the Wiradjuri Condobolin Corporation will act in an Aboriginal engagement coordination role for the Project. Any activities authorised by this document must ensure the early engagement and liaison with Wiradjuri Condobolin Corporation, who will determine the Aboriginal participation requirements for cultural awareness inductions, project specific heritage mitigation activities, and in the event of any unexpected finds being encountered. The West Wyalong LALC must also be kept informed of activities to ensure they meet their obligations under the Aboriginal Land Rights Act 1983. Timing for notification of each of these activities is provided in Table 4.
- Table 5 provides a list of dates that are important to the Aboriginal community, and during which works requiring their participation should be delayed/cancelled to avoid any potential conflict.

### 2.2 Consultation up to the SSD Approval

As a requirement of the assessment process, the Project's ACHA undertook Aboriginal consultation in accordance with Heritage NSW's Aboriginal Cultural Heritage Consultation Requirements for Proponents. This process required the identification and notification of the local Aboriginal community to identify individuals and/or organisations that had an interest in the Project, and which identified three individuals and/or organisations (Table 3).

Identified as registered Aboriginal parties (RAPs), these three individuals and/or organisation were provided opportunities to review Aboriginal heritage documentation, including the ACHA, and participating in the on-site activities and Project-specific meetings. As part of the ACHA process, a range of feedback around post-approval requirements was provided by the RAPs, and this has been integrated into this document.

### 2.3 Consultation for this ACHMP

A draft copy of this ACHMP was sent to identified RAPs listed in Table 3 on 23 July 2024 for a 21-day review period (Appendix A). All comments received and their contents are presented in Appendix B, with necessary changes in the document undertaken prior to finalisation to address any residual concerns or issues.

### 2.4 Consultation Required Following the SSDA

Aboriginal consultation will continue with all registered Aboriginal parties in the formation, development and updates of the ACHMP. This will include seeking input into the ongoing and future management of cultural materials identified, predicted and/or encountered during the project.

Evolution and the Wiradjuri Condobolin Corporation have a long and deep relationship extending over 20 years. For this reason, **all** on-Country activities and co-ordination will be undertaken through the Wiradjuri Condobolin Corporation (Table 3). Evolution will ensure the RAPs are kept informed of any on-Country activities, but it will be any further involvement will be at the discretion of the Wiradjuri Condobolin Corporation.

Table 4 provides the required Aboriginal consultation to be implemented prior to, and during construction activities. Any Aboriginal consultation undertaken as part of these activities must be documented in Appendix B during the lifetime of the Project. Any updated information is to be included in future revisions of the ACHMP.

Table 5 provides a list of dates that are culturally sensitive, and when works requiring Aboriginal heritage input and/or participation should be avoided where possible.

**Table 4: Aboriginal consultation to be undertaken as part of the Project**

Project Stage	Activity	Type and Preferred Method of Communication	Comment Period to be Provided
Pre-construction	Development of ACHMP	Distribution of this document to the Aboriginal parties listed in Table 3 for three weeks to provide review and comment. An offer	3 weeks

Project Stage	Activity	Type and Preferred Method of Communication	Comment Period to be Provided
		of a face-to-face and/or online meeting with RAPs to discuss the ACHMP and its contents should be made during this comment period.	
	Finalisation of ACHMP	Provision of final report via e-mail and/or post prior to its implementation to the Aboriginal parties listed in Table 3.	1 week
Pre-construction/ construction	Updates to the ACHMP (as required)	Initial notification via phone/e-mail to the Aboriginal parties listed in Table 3 to advise of proposed update. Provision of updated ACHMP for review and inputs via e-mail and/or post. Where significant changes are proposed, a face-to-face meeting will be offered.	3 weeks
	Additional assessment outside of approved areas (as required)	Initial notification via phone/e-mail to the Aboriginal parties listed in Table 3 to advise of proposed areas outside of approved project area. Provision of a detailed description, including appropriate maps, of the new areas and proposed assessment methods and reporting. Where significant changes are proposed, a face-to-face meeting and/or on-site investigations will be offered.	3 weeks
	Archaeological mitigation requirements as outlined in Section 4 and including surface collection, salvage excavations, and mechanical monitoring	Initial notification via phone/e-mail to the identified Aboriginal parties in Table 3. Wiradjuri Condobolin Corporation to be advised of the schedule of the proposed program and required number of personnel to be organised from their and other organisations (as determined by the Wiradjuri Condobolin Corporation), followed by further details, timing, personnel required, and relevant engagement and subcontract documentation, etc, via e-mail/post.	3 weeks
Construction	Cultural awareness inductions	Notification via phone/e-mail to the identified Aboriginal parties in Table 3. Request to the Wiradjuri Condobolin Corporation for a representative to conduct inductions will be made at least 7 days prior to the required date via phone and/or e-mail.	Ongoing, with a minimum of two weeks' notice when required
	Unexpected finds	Contact to the Wiradjuri Condobolin Corporation and West Wyalong LALC via phone and e-mail to advise of any unexpected finds and proposed management. Notification of the proposed approach to other identified Aboriginal parties in Table 3 once determined. Further actions as required to be implemented as per Section 4.3.2	Within 2 days of find
	Incident reporting and non-compliance (see Sections 5.2.3 and 5.2.4)	Initial notification/discussion to the Wiradjuri Condobolin Corporation and West Wyalong LALC via phone and e-mail followed by provision of documentation for review as required. This may include invitation to undertake on-site observations and/or face-to-face meetings where significant cultural materials, such as human remains are discovered. Notification of the proposed resolution to other identified Aboriginal parties in Table 3 once determined.	≤1 week
	Other activities as required	Initial notification/discussion to the Wiradjuri Condobolin Corporation and West Wyalong LALC via phone and e-mail followed by provision of documentation for review as required. Where significant or major changes, suitable face-to-face meetings and/or on-site observation will be provided. Notification of the proposed resolution to other identified Aboriginal parties in Table 3 once determined.	≥2 weeks

Note: \*Additional time may be required during particularly busy periods.



## Aboriginal Cultural Heritage Management Plan

**Table 5: Culturally sensitive dates during which activities requiring Aboriginal heritage inputs/participation should be avoided**

Dates	Activity	Description
26 January	Australia Day	The public holiday and surrounding days are increasingly seen as a time of trauma for Aboriginal people, and any work activities should be re-scheduled to avoid this date.
27 May – 3 June	National Reconciliation Week, includes Sorry Day	A week during which Australians are encouraged to learn about shared histories, cultures, and achievements, and to explore how one can contribute to achieving reconciliation in Australia. Aboriginal people are often committed to activities during this week and will often be unavailable.
First Sunday – Second Sunday July	NAIDOC week	A week during which Australians are encouraged to celebrate Aboriginal history, cultural and achievements. Aboriginal people are often committed to activities during this week and will often be unavailable.
-	Sorry business	Sorry business is when a member of the Aboriginal community has passed away, and includes the funeral, mourning period and other related associated activities. The timing for these is unknown and can be variable, but when advised that there is Sorry business, the project will seek guidance from the Wiradjuri Condobolin Corporation and CGO Operations on how to proceed with project activities.

### 2.5 Indigenous Cultural and Intellectual Property

The following outlines the definition and management of Indigenous cultural and intellectual property (ICIP) developed as activities resulting from the Project and this ACHMP.

ICIP is defined as the cultural rights of identified Aboriginal parties in Table 2 to their heritage. Heritage comprises all objects, sites, languages and knowledge, the nature or use of which has been transmitted, or continues to be transmitted from generation to generation, and which is regarded as pertaining to a particular Aboriginal group or its territory. Heritage includes without limitation:

- Literary, performing and artistic works (including songs, music, dances, stories, ceremonies, symbols, languages and designs)
- Traditional knowledge, which includes cultigens, medicines and the phenotypes of flora and fauna
- All items of movable cultural property
- Ancestral remains and human genetic material
- Immovable cultural property (including sacred and historically significant sites and burial grounds)
- The findings of any archaeological activities implemented under this plan
- Documentation of Indigenous peoples' heritage in archives, film, photographs, videotape, audiotape and all forms of media.

It is acknowledged that ICIP is likely to be incorporated in some or all of the Project-specific activities authorised under this ACHMP. Evolution agrees that ownership of any ICIP will remain with Wiradjuri traditional owners with connections to the *Galari* (Lachlan) river, waters and adjacent lands people. For the purposes of management and discussions of ICIP, authorisations and permissions would be sought from the Wiradjuri Condobolin Corporation and West Wyalong LALC.

Where ICIP is incorporated in any Project-related activities, management, regulatory or other legislative requirements:

- Evolution will notify the Wiradjuri Condobolin Aboriginal Corporation and West Wyalong LALC of the ICIP and seek guidance on any cultural protocols or restrictions on using and dealing with the ICIP
- Evolution will comply with any such protocols or restrictions provided by the Wiradjuri Condobolin Aboriginal Corporation and West Wyalong LALC, where possible having regard to Evolution's legislative, regulatory or management requirements



- Evolution incorporating the ICIP will ensure that free, prior informed consent for use of the ICIP in the Project is sought and received by the Wiradjuri Condobolin Aboriginal Corporation and West Wyalong LALC where possible having regard to Evolution's legislative, regulatory or management requirements
- Evolution incorporating the ICIP will ensure that the Wiradjuri Condobolin Aboriginal Corporation and West Wyalong LALC are appropriately attributed for use of their ICIP in all relevant Project product
- Evolution will not use the ICIP for any purpose other than as part of the Project, or as contemplated in this ACHMP.

### 3 Aboriginal Cultural Heritage within the Project Area

#### 3.1 At a Glance

- The ACHA and addendum undertaken as part of the SSD identified 20 Aboriginal sites within the Project's EIS study area as part of the previous assessments.<sup>2</sup> These consist of discrete high density stone artefact scatters, degraded hearths, culturally modified trees encompassed within a complex landscape of surface and buried stone artefacts documented as CGO LEZ (#43-4-0189) – an archaeologically sensitive zone - and CGO BS1 (#43-4-0191) – a background scatter where low densities of stone artefacts are expected.
- Of these sites, 11 are within the Project area, and would be adversely impacted, as well portions of CGO LEZ (#43-4-0189) and CGO BS1 (#43-4-0191).
- As part of the ACHA and addendum process, post-approval archaeological actions were discussed, including the need for archaeological mitigation of moderate and high significant sites within the impact footprint, and opportunity for surface collection of cultural materials. These have been included in subsequent sections of the ACHMP.

#### 3.2 Summary of Aboriginal Heritage Investigations

As part of the SSD assessment an ACHA and addendum were undertaken in accordance with Heritage NSW guidelines. This included consultation with the Aboriginal community, desktop review of the regional archaeological record, and on-site investigations (field survey and test excavations) to identify and assess the cultural heritage within the Project area.

The assessment found that there has been an extensive history (~30 years) of archaeological investigation within the Project area, and these studies provided a robust archaeological model of the western edge of Lake Cowal. Specifically, they demonstrated that the archaeological record at Lake Cowal was dominated by stone artefactual sites, with lesser occurrences of hearth features and culturally modified trees. With rare exception, the stone artefact sites were primarily isolated finds or of low density (<20), and indicative of a repeated, but ephemeral use of the lake's edge.

Archaeological field survey and test excavations validated these earlier studies, and resulted in the identification of 21 Aboriginal sites along with a continuous and complex distribution of surface and shallowly buried stone artefacts distributed across the Project area. The latter encompassing a large number of discrete site recordings (n=42) undertaken over the previous 20 years. Investigations identified an area of past foci and activity (#43-3-0022) of high cultural and scientific significance that was characterised by high densities of surface and sub-surface artefacts ( $\bar{x} \approx 52/\text{m}^2$ ). This site reflected extensive and/or repeated visitation and occupation by people over the last 5,000 years and was considered to be ~4 ha (200 x 200 m) in size. Although this site was mitigated in the early 2000s and has been listed as 'destroyed' on AHIMS, the assessment validated the presence of cultural materials. Other sites of high significance include two culturally modified trees and a series of hearth sites; the latter reflect a single period of Aboriginal activity, and the significance of these sites has since been changed to low following additional investigations by EMM (2024). A 'background' stone artefact scatter labelled 'CGO BS1' (#43-4-0191) was identified at low densities across the Project area, and was assessed as having low

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<sup>2</sup> It should be noted that the ACHA identified a larger number of Aboriginal objects and sites, which was revised following additional desktop review and field investigations undertaken for an addendum to the report in late 2023.

significance.<sup>3</sup> This included lowest densities of cultural materials along the water supply pipeline and Bland Creek Paleochannel borefield, many of which appear to have been mitigated based on 2009 reports. Lastly, the lake-edge ridge environmental zone was registered as a site ('CGO LEZ', #43-4-0189) in which high densities of stone artefacts and/or other forms of archaeological material are considered probably along the high ground adjacent Lake Cowal.

An addendum to the ACHA was developed in late 2023 (EMM, 2024). This undertook further review of desktop information and additional field investigations, and ultimately concluded that 21 Aboriginal objects and/or sites were present in the Project's EIS study area.<sup>4</sup> These are outlined in Section 3.3. A significance assessment of these cultural materials was presented in EMM (2024). It concluded that two sites were of high significance, including LC 2 (#43-3-0022) and the CGO LEZ (#43-4-0189), which conforms with earlier albeit un-classified findings in the late 1990s and early 2000s. Moderately significant sites included identified culturally modified trees and several of the disparate stone artefact scatters.

Many of the hearths were subject to more detailed significance and while the site type can be of high value in certain situations, those within the Project area were generally considered of low or moderate significance. Subsequent radiocarbon dating of the hearths, however, has identified four of these as having increased research potential due to the ages returned. Three demonstrate ages of over 3,500 years old, which makes them some of the earliest in the region, while one reflects activity in the early 20th Century and represents one of the few archaeological examples of post-contact activity within the Project area - #39-4-0292 (about 70 years old [UNSW-3149 – 23±18 14C years BP/59-27 calibrated years BP]), #43-4-0202 (about 3,200 years old [UNSW-3152 – 3140±39 14C years BP/3,400-3,175 calibrated years BP]), #39-4-0276 (about 3,900 years old [UNSW-3151 – 3662±40 14C years BP/4,089-3,831 calibrated years BP]), and #39-4-0284 (about 6,000 years old [UNSW-3145 – 5270±60 14C years BP/6,263-5,895 calibrated years BP]).

Heritage NSW sought that where regionally significant cultural materials are encountered a process of project re-design is undertaken. The Aboriginal cultural heritage assessment addendum developed in response to this issue and broader questions, provides definitions of regionally significant cultural materials as follows:

- Presence of cultural materials of Pleistocene (>10,000 years ago) age, which is known regionally, but has not been encountered at Lake Cowal
- Presence of deeply (>1 m) stratified cultural materials, with most excavations to date suggesting only shallow or truncated soil profiles are present at Lake Cowal
- Presence of lunette landforms, soil profiles and/or cultural deposits. Typically lunettes are found on the eastern side of Lake Cowal and other comparable water bodies in western NSW, and are frequently found to contain highly significant cultural materials
- Presence of rare cultural materials, such as wooden artefacts, which given the soil profiles are not expected, but would be extremely rare if encountered
- Identification of ancestral remain/s, and especially those of significant antiquity. No such remains have been documented to date, but they are known in other parts of Lake Cowal and are of significance to the local Aboriginal community.

Several culturally significant locations around Lake Cowal—but outside of the Project area—were identified by Aboriginal stakeholders. Five are related to ceremonial life, two (Booberoi Hills and Manna Mountain) feature significant cultural materials in the form of stone artefacts, and one location (Marsden) is used for contemporary cultural training by Wiradjuri people today. The only two locales in proximity to the Project area include Wamboyne Mountain to the north and a ceremonial area on the south-east banks of the lake.

<sup>3</sup> CGO BS1 incorporates a number of discrete site listings, including: CGO AS1-4, AS6-AS7, IF1, #39-4-0286, #39-4-0293, #39-4-0294, #39-4-0295, #39-4-0296, #39-4-0297, #39-4-0307, #39-4-0308, #39-4-0309, #39-4-0310, #39-4-0312, #39-4-0313, #39-4-0314, #39-4-0315, #39-4-0319, #39-4-0320, #39-4-0321, #39-4-0322, #39-4-0323, #39-4-0325, #39-4-0326, #39-4-0327, #39-4-0333, #43-4-0024, #43-4-0027, #43-4-0034, #43-4-0035, #43-4-0045, #43-4-0085, #43-4-0086, #43-4-0087, #43-4-0088, #43-4-0089, and #43-4-0092.

<sup>4</sup> One of the culturally modified trees making up this number has since been found to be lost, L-C-3 (#43-4-0035). While this was hypothesised in the EIS studies, additional investigation has validated the tree is no longer present at the spatial co-ordinates recorded. Elsewhere in this plan, this number has been corrected to 20 sites and places.

### **3.3 Aboriginal Sites and/or Deposits within the Project's EIS Study Area**

Table 6 presents a summary of the Aboriginal objects and places identified within the Project area. Table 7 presents the sites that were documented within the EIS study area, but which are outside of the Project area or proposed development activities. Examples of cultural materials presented in the tables, are shown in Figure 3- Figure 8 inclusive and Figure 9.

## Aboriginal Cultural Heritage Management Plan

**Table 6: Aboriginal objects, sites and places documented within the project area. All co-ordinates presented in MGA 2020 Area 55**

AHIMS #	Site Name	Site Type	Easting	Northing	Archaeological Significance	Description
39-4-0276	Lake Cowal 2017-060	Hearth	536522	6276076	Low	Hearth site in scattered (highly degraded) condition.
39-4-0284						Lake Cowal 2017-048    Hearth    535903    6276066    Low    Hearth site in scattered (highly degraded) condition.
39-4-0290						Lake Cowal 2017-045    Hearth    536300    6276201    Low    Hearth site in scattered (highly degraded) condition.
39-4-0291	Lake Cowal 2017-044	Hearth	536424	6275897	Low	Hearth site in scattered (highly degraded) condition.
39-4-0292	Lake Cowal 2017-043	Hearth	536278	6275796	Low	Hearth site in scattered (highly degraded) condition.
39-4-0301	Lake Cowal 2017-034	Hearth	532643	6278720	Low	Hearth site in scattered (highly degraded) condition.
39-4-0302	Lake Cowal 2017-033	Hearth	532725	6278789	Low	Hearth site in scattered (highly degraded) condition.
39-4-0311	Lake Cowal 2017-021	Culturally modified tree	537664	6276591	Moderate	Tree exhibiting a scar suggestive of tool (e.g. coolamon, shield etc.) manufacture.
39-4-0313	Lake Cowal 2017-023	Medium density artefact scatter	537960	6276008	Moderate	Surface scatter of >20 chert artefacts on vehicle track adjacent to lake shore.
43-3-0022	LC2	High density artefact scatter	537312	6279255	High	An area of past foci containing substantive surface and subsurface artefacts (up to 52/m <sup>2</sup> ) and reflecting reflect long term and/or repeat visitation and occupation by people. The site is considered some 4 ha in size.
43-4-0035	L-C-3	Culturally modified tree, unspecified artefact site	534655	6276360	Moderate	A potential culturally modified tree recorded by Pardoe in 2009. On-site investigations have demonstrated that this site is now within a tailings dam and the tree no longer present. The site is considered destroyed for management purposes.
43-4-0191	CGO BS1	Low density artefact scatter	535623	6279337	Low	A stone artefact background scatter across the back plain zone within which artefact densities of ~0.4-5/m <sup>2</sup> may be expected and which reflect long-term, transient use of the region for at least 5 ka.
43-4-0189	CGO LEZ	Heritage focus area – cultural deposit	537000	6279000	High	An area of past foci on the lake's edge incorporating the lake's edge ridge management zone. Several sites have been identified in this zone including #39-4-0313 and #43-4-0022.

AHIMS #	Site Name	Site Type	Easting	Northing	Archaeological Significance	Description
43-4-0202	CGO23 Hearth 1	Hearth	536452	6275870	Low	Hearth site in scattered (highly degraded) condition

**Table 7: Aboriginal objects, sites and places documented within the Project's EIS study area, but outside of the Project area. All co-ordinates presented in MGA 2020 Area 55**

AHIMS #	Site Name	Site Type	Easting	Northing	Archaeological Significance	Description
39-4-0318	Lake Cowal 2017-030	Hearth	533914	6279947	Low	Hearth site in scattered (highly degraded) condition.
39-4-0329	Lake Cowal 2017-006	Hearth, unspecified artefact site	531916	6280298	Low	Hearth site in scattered (highly degraded) condition in association with two stone artefacts.
39-4-0330	Lake Cowal 2017-016	Hearth	531808	6280296	Low	Hearth site in scattered (highly degraded) condition.
39-4-0331	Lake Cowal 2017-017	Hearth	532155	6280283	Low	Hearth site in scattered (highly degraded) condition.
39-4-0332	Lake Cowal 2017-018	Hearth	532029	6280283	Low	Hearth site in scattered (highly degraded) condition.
43-4-0055	Lake Cowal 2017-068	Hearth	533250	6280160	Low	Hearth site in scattered (highly degraded) condition.
43-4-0190	CGO H1	Hearth	532360	6280814	Low	Potential hearth site in scattered (highly degraded) condition.
43-4-0194	CGO AS5	Medium density artefact scatter	532627	6280869	Moderate	Basalt and chert artefacts identified at base of beefwood tree (identified by RAPs as culturally significant species).





Figure 3: Lake Cowal 2017-023 (#39-4-0313), a large artefact scatter identified on a vehicle access track, view south



Figure 4: Sample of artefacts identified at AHIMS Lake Cowal 2017-023 (#39-4-0313)





Figure 5: LC 2 (#43-3-0022), a large artefact scatter identified on a vehicle access track, view southeast



Figure 6: Sample of artefacts identified at LC2 (#43-3-0022)





Figure 7: Typical example of a mudstone artefact identified at CGO AS1



Figure 8: Chert artefacts identified at CGO AS2

## Aboriginal Cultural Heritage Management Plan

### 3.4 Potential Aboriginal Heritage Impacts by the Project

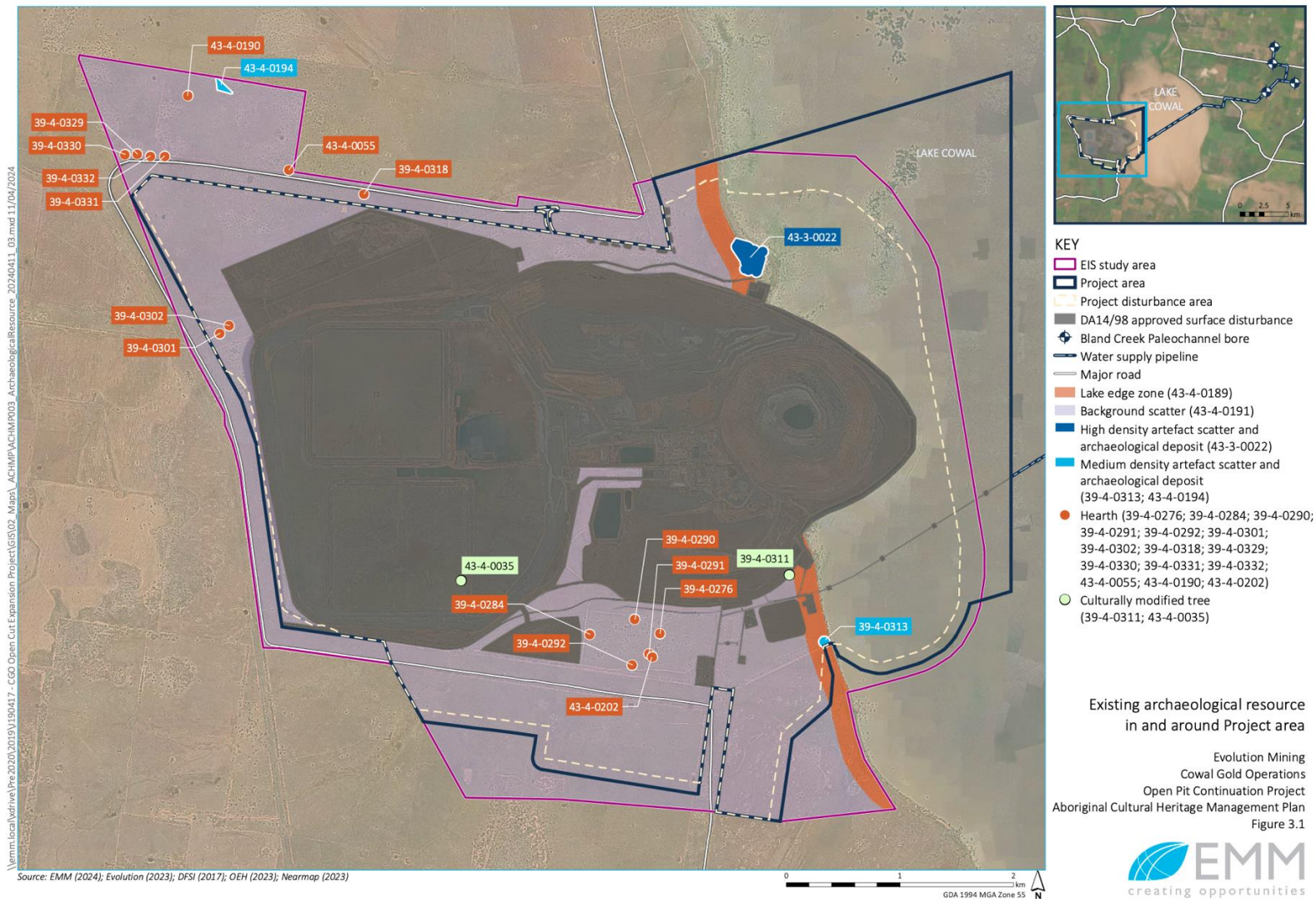
The Project will adversely affect 12 discrete Aboriginal objects and/or sites, as well as portions of the various densities of stone artefacts found across the Project area and encompassed within CGO LEZ and CGO BS1 (Table 8, Figure 9 and Figure 10).

**Table 8: Summary of potential impacts to Aboriginal objects, sites and deposits in the project area**

AHIMS ID	Easting	Northing	Site Name	Proposed Activity Causing Harm	Degree of Harm	Consequence of Harm
43-3-0022	537312	6279255	LC2	E46 pit and subsequent E46 WRE	Whole site	Complete loss of value
43-4-0035	534655	6276360	L-C-3	IWL – Stage 7	Whole site*	Complete loss of value
43-4-0189	537000	6279000	CGO LEZ	All activities that encroach on the lake's edge.	Partial site	Partial loss of value
43-4-0191	535623	6279337	CGO BS1	All activities	Partial site	Partial loss of value
43-4-0202	536452	6275870	CGO23 Hearth 1	Waste Rock Dump - Southern	Whole site	Complete loss of value
39-4-0276	536522	6276076	Lake Cowal 2017-060	Southern WRE	Whole site	Complete loss of value
39-4-0284	535903	6276066	Lake Cowal 2017-048	Waste Rock Dump - Southern	Whole site	Complete loss of value
39-4-0290	536300	6276201	Lake Cowal 2017-045	Southern WRE	Whole site	Complete loss of value
39-4-0291	536424	6275897	Lake Cowal 2017-044	Waste Rock Dump - Southern	Whole site	Complete loss of value
39-4-0292	536278	6275796	Lake Cowal 2017-043	Waste Rock Dump - Southern	Whole site	Complete loss of value
39-4-0301	532643	6278720	Lake Cowal 2017-034	Northern IWL	Whole site	Complete loss of value
39-4-0302	532725	6278789	Lake Cowal 2017-033	Northern IWL	Whole site	Complete loss of value
39-4-0311	537664	6276591	Lake Cowal 2017-021	Pit E41	Whole site	Complete loss of value
39-4-0313	537960	6276008	Lake Cowal 2017-023	Southern extent of expanded LPB and UCDS (south)	Whole site	Complete loss of value

Note: \* This site is considered to have been previously destroyed by the existing IWL (see Section 3.2).





**Figure 9: Existing archaeological resource in and around project area and water supply pipeline**

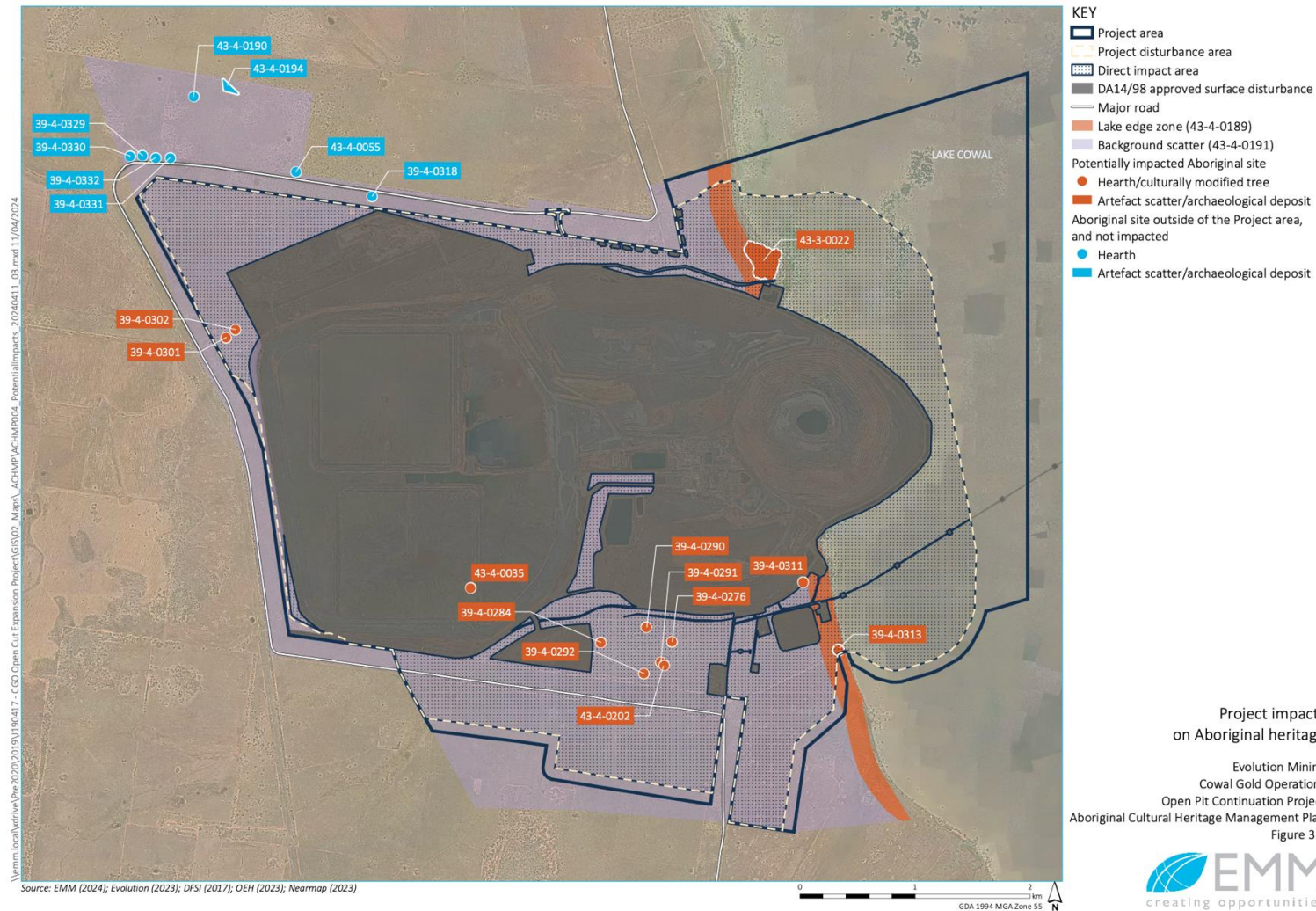


Figure 10: Project impacts to identified Aboriginal heritage within the project area



## 4 Mitigation and Management

### 4.1 At a Glance

- Project specific mitigation measures are required **prior to the construction phase**. These include:
  - Surrendering of existing heritage permits and approvals as per Section 4.2.1 to allow implementation of activities approved under the SSDA
  - Establishment of avoidance and protection measures for sites in Table 7 and as per Section 4.2.2.
- Project specific mitigation measures are required **prior to the construction phase and/or during initial construction phase**. These include:
  - Surface artefact collection of all proposed disturbance areas for the OPC, and as per Section 4.2.4.
  - Archival recording, recovery and relocation of a culturally modified tree (Lake Cowal 2017-021 [#39-4-0311]), and as per Section 4.2.5
  - Archival recording and recovery of four hearth sites (CGO23-Hearth 1, Lake Cowal 2017-060 [#39-4-0276], Lake Cowal 2017-048 [#39-4-0284], Lake Cowal 2017-043 [#39-4-0292], and as per Section 4.2.6
  - Archaeological excavations of three significant cultural deposits (LC2 [#43-3-0022], Lake Cowal 2017-023 [#39-4-0313] and CGO LEZ [#43-4-0189]), and as per Section 4.2.7
  - Mechanical monitoring or topsoil stripping of the beach zone for potential ancestral and/or faunal remains, and as per Section 4.2.8.
- Project specific mitigation measures are required **during construction and/or phases**. These include:
  - Reviewing and updating the various heritage databases to ensure all documented Aboriginal objects and sites are accurate in private and public archival resources, and as per Section 4.2.3
  - The ongoing management of removed topsoil that may contain cultural materials, either by retention and suitable re-use on site, or through additional archaeological recovery methods as per Section 4.2.9
  - Expand and modify the existing Keeping Place for recovered cultural materials from previous and proposed archaeological activities, and as per Section 4.4.
- Several ongoing general post-approval heritage requirements are required **during construction and initial operational phases**. These are outlined in detail in this section and include the need to implement suitable cultural heritage inductions for all on-site personnel, protocols in the event that unexpected cultural materials are found, and processes in the event that areas outside the approved project area require development activities.

### 4.2 Project Specific Requirements

The ACHA Addendum identified 12 Aboriginal sites that would be adversely affected by the Project as well portions of CGO LEZ (#43-4-0189) and CGO BS1 (#43-4-0191). As such, a range of mitigation requirements are proposed to offset these impacts (Figure 11). This section outlines the specific activities and timing of these requirements.

#### 4.2.1 Surrender of Existing Heritage Permits and Consents

Existing Aboriginal heritage impact permits, care agreements and consents (see Section 1.1.3.1) will conflict with the SSD approval and this ACHMP. As soon as feasible following Project approval, they should be surrendered to Heritage NSW. This includes Consent 1467 (C0004173)/Permit 1468, issued 27 November 2002; Consent 1680/Permit 1681 (the latter is considered expired); and care agreement C0004976.

Depending on the future requirements for upgrades of Lake Cowal Road to the north-west of the Project area in the area currently covered by AHIP C0004570, a variation to AHIP C0004570 may be preferred rather than surrendering the permit. This portion of AHIP C0004570 is outside the project area (Figure 2), and therefore outside the purview of the ACHMP. Variation to remove any areas of AHIP that overlap the Project area, and the

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removal of the current no-harm area encompassing #39-4-0311 would be required to allow activities in Sections 4.2.3 – 4.2.9 to proceed.

Surrendering or varying of these permits and approvals can be undertaken by the signature and submission of the form in Appendix C to Heritage NSW at [heritagemailbox@environment.nsw.gov.au](mailto:heritagemailbox@environment.nsw.gov.au).

Further information of surrendering approvals can be found at:

<https://www.environment.nsw.gov.au/topics/heritage/apply-for-heritage-approvals-and-permits/aboriginal-objects-and-places/transfer-vary-surrender-ahip#>

The majority of the requirements and mitigation measures in the existing permits and approvals have been completed (Section 1.1.2). Where relevant unresolved conditions and requirements outlined in these permits remain needed, they have been integrated into the ACHMP.

### 4.2.2 Avoidance and Site Protection

Table 7 presents Aboriginal sites that will be unaffected by the Project. In accordance with the SSDA, these sites must be avoided by, and where necessary protected from, development activities associated with the Project. The following actions should be implemented to reduce inadvertent short and long-term impacts:

- During construction:
  - Incorporation of the sites, curtilages, and obligations for their protection into cultural inductions for site personnel as per Section 4.3.1.
  - Incorporation of the sites and curtilage into 'no-go' and/or constraint layers within the development document packages; and their inclusion into ground disturbance permit/approval requirements for the Project.
  - Establishment of fencing and/or signage encompassing the sites during works in and around this location. These will be established by a heritage professional with the participation of Wiradjuri Condobolin Corporation personnel.
  - Where necessary, establishment of surface protection such as heavy-duty ground protection mats, or equivalent.
- Following construction and long-term conservation:
  - Establishment of permanent (non-intrusive) signage to indicate cultural deposits at depth and to contact a heritage professional prior to excavation.
  - Addition of Aboriginal heritage to any planning certificate issued by Council under Section 10.7 of the Environmental Planning and Assessment Act 1979 to alert any purchaser or consent authority to the Aboriginal heritage values of the site, and place restrictions on future development that may affect these values.

### 4.2.3 Reviewing and Updating Existing Aboriginal Objects and Sites Database

The long history of cultural heritage management across the Project area has resulted in an extensive record of Aboriginal objects and sites being documented. However, the ongoing, intermittent management of cultural materials since the late 1990s has resulted in complex and in some instances incomplete records for a number of the cultural materials extending across the Project area. The assessment process identified a considerable number of cultural materials that remain extant in various databases but have likely been mitigated given the status of the mine activities. Heritage NSW comments on the assessment process indicate the need for a detailed audit of cultural materials to occur, and the Heritage NSW database to be updated. This is further elaborated in condition B61 of the Project approval

To achieve this, the following tasks are required:

- Undertake a review of all cultural materials within the current Keeping place to identify Aboriginal objects and sites mitigated. Using existing documentary information, and in consultation with the Wiradjuri Condobolin

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Corporation personnel, determine the locations of the identified cultural materials and align them with existing Heritage NSW database records.

- Using documentary records, existing reports and in consultation with the Wiradjuri Condobolin Corporation personnel, update the current Heritage NSW AHIMS database to reflect the current status of cultural materials within the Project area.
- Develop and implement Evolution's own internal database of cultural materials for the Project area to maintain current and up to date information on the cultural materials within the Project area. This should:
  - Be developed with the assistance of a heritage professional and in consultation with the Wiradjuri Condobolin Corporation, and maintained by the Environmental manager
  - Be updated and validated every six months
  - Be aligned with Heritage NSW AHIMS database information every six months, with any changes implemented as required. A copy of the database would be provided to the Wiradjuri Condobolin Corporation and/or West Wyalong LALC at their written request.
  - Evolution will submit a completed Aboriginal site impact recording form to the NSW Aboriginal Heritage Information Management System for each Aboriginal site that has been subject to salvage.

It is noted that the database would conform with the ICIP requirements outlined in Section 2.5

### 4.2.3.1 Management of Background Scatter

As outlined in Section 3.2 a low density of stone artefacts is present across the Project area, and identified as CGO BS1 (#43-4-0191). While identified a single site in the ACHMP, it represents the amalgamation of a large number of discrete recordings and listings in the Heritage NSW AHIMS database documented over the last 30 years. To avoid confusion for future management, each of these individual site listings will require updating in the AHIMS database as the Project progresses and they are avoided, mitigated and/or destroyed. The following steps should be undertaken for all sites encompassed within CGO BS1:

- As each stage of the Project progresses, a list of existing AHIMS site listings within that stage is to be identified by a heritage consultant.
- At the completion of archaeological mitigation activities in Section 4.2.4-4.2.9 inclusive, vegetation removal and/or ground disturbance of the Project stage, the heritage consultant would submit an AHIMS site impact recording form (Appendix D) for each of the site listings that were affected by the activities.

During further ACHMP updates, a description of all updated AHIMS site listings associated with CGO BS1 as a result of Project activity will be incorporated into Section 3.2.

### 4.2.4 Surface Artefact Collection

Low densities of stone artefactual material are found across the Project area and encompassed within the broader listings of CGO LEZ (#43-4-0189) and CGO BS1 (#43-4-0191). Prior to ground disturbance activities, an opportunity to collect any surface cultural materials within the Project area where disturbance is proposed should be implemented. The following section outlined the approach and methods for this mitigation measure.

#### 1. Identification of participants

- Wiradjuri Condobolin Corporation will be contacted to organise Aboriginal participants to undertake the activity (see Section 2 and Table 4). It is considered that 3-4 participants would be suitable, but this should be discussed and agreed with the Wiradjuri Condobolin Corporation prior to implementation.

#### 2. Vegetation clearance of ground surface in advance of artefact collection

- At the time of development of the ACHMP, the current ground conditions are dominated by thick low-lying grasses making any surface artefact collection ineffective. Improved visibility of the ground surface is preferable prior to implementing this activity to improve its efficiency and to minimise ongoing unexpected finds requirements (Section 4.3.2) through the Project.

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- Within the limits of permissible Project biodiversity requirements, Evolution will undertake reduction of ground cover conditions applying methods in discussion and agreement with the Wiradjuri Condobolin Corporation, and which may include:
  - Mowing, trimming or other mechanical approach. (note: any cut grass/plants would need to be removed and not left on the ground surface to hinder visibility).
  - Localised cultural burning in areas of proposed mitigation.

### 3. Artefact collection

- The field team (heritage consultant and Aboriginal participants) will undertake pedestrian linear transects across the Project area, with an aim of achieving 100% investigation of the disturbance footprint.
- Stone artefacts will be flagged on the ground and a photograph taken of the flagged site. Each flagged artefact will be marked as a waypoint in the non-differential GPS
- Where more than 5/m<sup>2</sup> artefacts in a discrete location is identified outside of identified Aboriginal site curtilages listed in Table 6 and Table 7, the find would be further assessed by a heritage professional against significance criteria outlined in Section 3.2. Where identified as regionally significant, further discussion of any additional management and/or mitigation measures would be undertaken by Evolution, heritage professional, and the Wiradjuri Condobolin Corporation, and as necessary Heritage NSW.
- All artefacts will be collected into snap lock plastic bags or equivalent, marked with the Project name, site name, collection date and waypoint number

### 4. Reporting and curation

- Analysis of all collected stone artefacts should be undertaken. Analysis should include:
  - Type of raw material, including grain size, texture and any evidence of heat treatment
  - Basic measurements, including length, width, thickness, and weight
  - Morphological attributes, including type of platform, shape, termination type, flake scars, re-touch, etc
  - Technological attributes, including flaking methods, reduction stage, artefact type, tool description, function
  - Any other characteristics that would inform the research questions outlined in Appendix F.
- All collected cultural materials should be subject to reporting as per Appendix D and Appendix F and managed in accordance with Section 4.4.

The exact length of time for this activity is unknown and will depend on how ground cover removal is undertaken, whether piecemeal across the Project area or the entire site at one time. This would dictate whether the artefact collection occurs as multiple shorter field phases or a single longer campaign. However, to provide certainty for the Project, each area would only be inspected and subject to artefact collection once. After completion, this area would be considered to have been subject to the mitigation measure and the requirement complete, regardless of the success of the activity. If a specific area is considered to have been subject to ineffective artefact recovery by Wiradjuri Condobolin Corporation, it may be subject to additional vegetation clearance and/or artefact collection where agreed with Evolution.

Following this activity, the management status of any discrete Aboriginal objects and/or sites, and the portion of CGO BS1 (#43-4-0191) mitigated would be considered destroyed, and no further mitigation actions required.

#### 4.2.5 Management of Culturally Modified Trees

One extant culturally modified tree would be adversely affected by the Project, including Lake Cowal 2017-021 (#39-4-0311).

For any culturally modified trees requiring removal, the following tasks will be undertaken:

1. Identification of participants



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- Wiradjuri Condobolin Corporation will be contacted to organise Aboriginal participants to undertake the activity (see Section 2 and Table 4). It is considered that 1-2 participants would be suitable, but this should be discussed and agreed with the Wiradjuri Condobolin Corporation prior to implementation.
- 2. A suitable heritage consultant should undertake an archival recording of Lake Cowal 2017-021 in accordance with Heritage NSW (2006) Photographic recording of heritage items using film or digital capture guidelines or equivalent. The report should be provided to all RAPs (Table 3) and submitted to Heritage NSW AHIMS report database once completed.
- 3. Careful removal and recovery of the tree would be undertaken by a qualified arboriculturist, a heritage consultant and Aboriginal participants. A specialised tree-logging team may also be required, as well as ancillary support by Evolution.
- 4. Consideration would be given to whether live transport of the tree can be achieved and is a preferred approach by the WCC and Evolution Mining (Cowal) Pty Ltd. Where feasible, suitable methods would be adopted to enable live transport and relocation of the tree. Where this is not the preferred option or feasible, the following methods should be adopted (modified at the direction of the field team and depending on the ground and tree conditions):
  - As needed: prepare the ground around the tree to enable vehicles and/or heavy machinery to gain access. This may include introduction and/or packing of soil/sediment or establishment of surface protection
  - Establish safe work surface around the tree
  - Apply measures to support the trunk of the tree for the duration of the works, such as mobile crane and strapping (or equivalent), and to enable removal of crown, and subsequent movement of the trunk
  - Use appropriate equipment to remove the upper portions of the crown and trunk incrementally until the only the trunk ~1 m above the scar remains. Removal should be undertaken from a suitable elevated work platform or other safe working environment. Branch and trunk sections should not exceed 1.5 m in size to reduce risks of damage to the scar or surrounding equipment as they fall. For WHS, these removed sections should be collected and stored away from the tree. They should not be destroyed or mulched until the tree has been suitable relocated and opportunity by the field team to collect suitable samples for analysis (if required) is undertaken
  - Undertake excavations around the base of the tree to enable either removal with the root bole intact, or more commonly to provide enough space to enable sawing of trunk and/or roots a suitable distance below the scar (ideally >1 m) to loosen the tree. Excavations may occur using mechanical methods where able to do so without damaging the tree, or manually where there is risk of such impacts
  - Once the trunk is loosened, use a mobile crane (or equivalent) to lift the remaining trunk onto a suitable truck or equivalent. The truck should have a bed of tyres and geofabric material installed to ensure the trunk is protected in transit
  - Once the trunk is in place, secure appropriately, and relocate to the agreed repository (section 4.4)
  - The field team should undertake examination and collection of suitable non-scarred parts of the chopped tree to determine whether further analysis (e.g. The age of the tree and therefore maximum age of the scar) may inform the broader research questions in Appendix F.
- 5. Once established the trunk is established in the agreed repository, it should be subject to a Condition Assessment report to assess the current condition, determine storage requirements, and identify future conservation needs. This should be undertaken by a suitably qualified conservator, and consider:
  - Management of pest/biological activity
  - provide advice on the controlled setting and environment, including required humidity and temperature to prevent rapid deterioration and fungal growth
  - Identify a suitable monitoring regime to ensure management is suitable, and to enable immediate corrective actions should issues be identified.



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### 6. Reporting and curation

- All collected cultural materials should be subject to reporting as per Appendix D and Appendix F and managed in accordance with Section 4.4.

The above methods would be adopted for any other culturally modified trees encountered as part of the Project.

#### 4.2.6 Management of Hearth Sites

The majority of hearth features encountered within the Project area were considered of low significance (Section 3.3). They were commonly dispersed hearths composed of charcoal and burnt clay distributed across the surface, with limited cultural deposit that could be subject to investigation and analysis. Such sites would be managed as part of the surface artefact collection outlined in Section 4.2.4. Subsequent radiocarbon dating of several of the hearths identified that four that have potential to further inform the past use and visitation of the lake, either some of the earliest activity of the site (CGO23-Hearth 1, Lake Cowal 2017-060 [#39-4-0276], Lake Cowal 2017-048 [#39-4-0284]) and the post-Contact period (Lake Cowal 2017-043 [#39-4-0292]). Given these findings, additional tasks are required for these four sites.

##### 1. Identification of participants

- Wiradjuri Condobolin Corporation will be contacted to organise Aboriginal participants to undertake the activity (see Section 2 and Table 4). It is considered that 1-2 participants would be suitable, but this should be discussed and agreed with the Wiradjuri Condobolin Corporation prior to implementation.

##### 2. A heritage consultant with Aboriginal participants should re-visit CGO23-Hearth 1, #39-4-0276, #39-4-0284 and #39-4-0292 and identify any further archaeological mitigation that may be required to assist in further understanding the past use of the region. These may include:

- Additional surface collection of relevant cultural materials (e.g. nearby stone artefacts, hearthstones, clay balls, etc) to enable subsequent analysis (e.g. lipid and/or DNA analysis). These should be collected archaeologically, including spatial location, pre-recovery photographs and notes, and suitable collection into snap lock plastic bags or equivalent, marked with the Project name, site name, collection date and waypoint number
- additional archaeological excavations to recover soil, sediment and any organic matter within the hearth, which can be subject to further analysis. Excavations would be constrained to the hearth features, and be undertaken using methods outlined in Appendix F.

##### 3. Reporting and curation

- All collected cultural materials should be subject to reporting as per Appendix D and Appendix F and managed in accordance with Section 4.4.

The focus of any activity should be on recovering samples for subsequent analysis to inform past activities, such as dietary habits, types of fuel burnt, types of artefacts heated, etc, rather than the complete recovery of the site's cultural materials and/or deposits.

#### 4.2.7 Additional Archaeological Excavations of Significant Sites and Deposits

Two Aboriginal sites and an environmental zone was identified in previous assessment phases as of high significance, with potential to further inform the past use and visitation of Lake Cowal. These include LC2 (#43-3-0022), Lake Cowal 2017-023 (#39-4-0313) and CGO LEZ (#43-4-0189).<sup>5</sup> As a requirement of the approval, these sites are to be subject to further archaeological excavations prior to impact.

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<sup>5</sup> The management of LC2 (AHIMS #43-3-0022) that was outlined in IACHMP (2003). This site was subject archaeological salvage in the form of surface artefact collection and temporary storage of any remaining artefacts in soil stockpiles, prior to reinstatement of stripped soil and any artefacts therein. The status of this site was subsequently listed as 'Destroyed' on AHIMS following the completion of these activities. However, recent excavations carried out by EMM (2023) in the vicinity of LC2 suggested that the site remains valid and is extant in the form of a subsurface stone artefact deposit. The methods outlined below are in addition to the requirements of the IACHMP (2003), which are considered fulfilled.



Figure 11 - Figure 14 inclusive presents the proposed locations of additional investigative archaeological excavations required during the project. The additional test pits have been designed to supplement the archaeological program undertaken during the ACHA, and where construction is newly proposed. Salvage excavations focussing on one or several of these initial test pit locations would be dependent on cultural thresholds being met. The required excavation methods and the thresholds for additional work are outlined in Appendix F. In addition to these standard excavation techniques, the following requirements should be met:

- Wiradjuri Condobolin Corporation will be contacted to organise Aboriginal participants to undertake the activity (see Section 2 and Table 4). It is considered that 4-5 participants per team would be suitable, but this should be discussed and agreed with the Wiradjuri Condobolin Corporation prior to implementation.
- The archaeological team should consist of a suitable number and division of archaeologists and Aboriginal participants with ancillary support provided by the Evolution. Ancillary support should consist of a surveyor to peg out the archaeological excavation locations, site hut/porta-loo, access to water, and an excavator for backfilling (as required).
- Excavations are only proposed to recover the cultural materials expected to be shallowly buried within the topsoil and A2 horizon. Excavations would cease at the interface with the heavy clay subsoil, which is typically found at ≤55cm below surface. The depth of excavations would be determined by the ground conditions and the Excavation Director.
- All archaeological findings should be compared with the criterion for 'regional significance' presented in Section 3.2. If cultural materials encountered meet these thresholds, refinements to the Project should be considered to avoid them, and/or additional mitigation measures applied to offset any further impact by the Project.

Once the archaeological excavations have been completed to the satisfaction of the heritage consultant in discussion with the RAPs, the construction works in these areas may progress. A notification of the completion of these works should be provided to all key stakeholders (Table 3).

Post excavation analysis and reporting should be undertaken in accordance with Appendix F and build upon the results of the ACHA. Any artefacts recovered should ensure the following analytical information is captured:

- Type of raw material, including grain size, texture and any evidence of heat treatment
- Basic measurements, including length, width, thickness, and weight
- Morphological attributes, including type of platform, shape, termination type, flake scars, re-touch, etc
- Technological attributes, including flaking methods, reduction stage, artefact type, tool description, function
- Any other characteristics that would inform the research questions outlined in Appendix F.

The reporting can be developed in parallel with the construction and is not required before development activities resume. Once developed, the report should be provided to the identified Aboriginal parties for comment in accordance with Section 2.3. Once finalised the report should be submitted to Heritage NSW's AHIMS database as outlined in Appendix D.

#### **4.2.8 Mechanical Monitoring of the Beach Zone**

The IACHMP (2003) included a requirement that the beach zone would be subject to mechanical topsoil stripping to identify any potential ancestral or faunal (e.g. Dingo) burials. There is no evidence that this requirement was ever adopted, and it is therefore included in this ACHMP for implementation.

To address this requirement, the following tasks is required for this activity:

1. Identification of participants
  - Wiradjuri Condobolin Corporation will be contacted to organise Aboriginal participants to undertake the activity (see Section 2 and Table 4). It is considered that 1-2 participants would be suitable, but this should be discussed and agreed with the Wiradjuri Condobolin Corporation prior to implementation.



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2. A heritage consultant with Aboriginal participants and ancillary support from Evolution would implement a mechanical monitoring of the beach zone (Figure 15), including:
  - A mechanical excavator with large flat bladed bucket would carefully remove the soil profile in 10-20cm intervals or spits.<sup>6</sup>
  - The depth of the soil profile removal would be determined in the field, but should extend into consolidated sediments indicative of a subsoil, within which any 'cut' or 'feature' from a burial or grave would be discernible. Nominally, this would be expected within 1 m of the surface
  - The field team would supervise the scraping of the soil profile, inspecting any colour or sedimentological changes that may dictate a 'cut' or 'feature' from a burial.<sup>7</sup> where encountered, unexpected finds procedures as outlined in section 4.3 should be implemented
  - All monitoring activities would be suitably documented, including photographs and written descriptions, recovery of relevant soil samples that may assist in further informing the past development of the lake. Spatial information of the monitoring and any findings should be undertaken preferably with a non-differential GPS.
3. Reporting and curation
  - All activities should be subject to reporting as per Appendix D and Appendix F and managed in accordance with Section 4.4.

It is acknowledged that the beach zone is frequently submerged by the lake itself. As such the implementation of this task may occur in a piecemeal approach as areas become available. To provide certainty for the Project, once an area has been subject to monitoring, it would be considered complete and the requirement complete, regardless of the success of the activity. If a specific area is considered to have been subject to ineffective artefact recovery by Wiradjuri Condobolin Corporation, it may be subject to additional monitoring where agreed with Evolution.

### 4.2.9 Topsoil Management

The IACHMP (2003) stated the following relation to the management of topsoil within the Beach zone, Lake Edge Ridge zone, and Back Plain zone:

Remaining Aboriginal objects to be collected with the topsoil during soil stripping and temporarily stored in soil stockpiles. Collected surface Aboriginal objects to be eventually replaced. All collected Aboriginal objects to be eventually replaced.

It is not stated in the IACHMP, but referenced in the existing heritage approvals that the soil stockpiles would then be remediated back to their general location. It may also account for the current archaeological mitigation approaches within the Project area of undertaking surface and grader-scrape recovery of cultural materials in advance of disturbance, since the multi-decadal management of topsoil required under this condition would be operationally complex.

To align with the IACHMP (2003), the following management of topsoil recovered from these environmental zones as follows:

1. Any topsoil (0-50 cm below surface of the current land surface) that is stripped for development activities would be retained within the Project area. These soil stockpiles would be retained and re-used within the Project area, and not removed from mine site, thereby ensuring unidentified cultural materials remain on Country.

<sup>6</sup> The IACHMP (2003) specified 5cm intervals, but such a small value is considered unfeasible with a mechanical excavator. Hence, a slightly larger interval is proposed here.

<sup>7</sup> All monitoring would need to align with the Project's Biodiversity approval and requirements. As such, monitoring may need to avoid major vegetation features and/or trees that cannot be removed at the time of this work. Where this proves the case, monitoring of accessible areas would be undertaken with the outcomes and/or success of the initial monitoring inform whether further investigations are considered worthwhile once vegetation is removed. Any decisions on the reduction of this activity should be undertaken in consultation with the Wiradjuri Condobolin Corporation and a heritage professional.

2. Where (1) is not achievable, Evolution should consider the implementation of artefact surface collection (as per Section 4.2.4) in advance any topsoil removal. In addition, the removal of topsoil should be monitored by Wiradjuri Condobolin Corporation personnel and opportunity provided to recover any identified cultural materials. These should be managed as per Section 4.2.4. Where these approaches are implemented (1) would no longer be required.

#### **4.2.10 Timing**

Typically, archaeological mitigations are best undertaken during pre-construction/progressive mine development prior to any construction activities/progressive mine development that may affect surface and/or shallowly buried cultural materials. It is probable that these works would be staged across the Project to align with the proposed mine construction and operational schedule.

Specifically, the following timing must be adopted:

- Pre-construction
  - Surrendering of existing heritage permits and approvals as per Section 4.2.1
- Pre-construction and/or construction/ongoing mine development works (i.e. progressive development of the open pits, waste rock emplacements)
  - The following tasks can occur pre-construction and/or during construction/mine development works where any development activities do not disturb identified cultural materials and/or cultural deposits until archaeological mitigation has occurred:
    - Surface artefact collection as per Section 4.2.4.
    - Management of culturally modified trees as per Section 4.2.5.
    - Management of hearth sites as per Section 4.2.6.
    - Additional archaeological excavations of significant sites and deposits as per Section 4.2.7.
  - Mechanical monitoring of the beach zone as per Section 4.2.8.
- Construction/ongoing mine development works (i.e. progressive development of the open pits, waste rock emplacements) and/or operation
  - Reviewing and updating existing Aboriginal heritage databases as per Section 4.2.3.
  - Topsoil management as per Section 4.2.9.

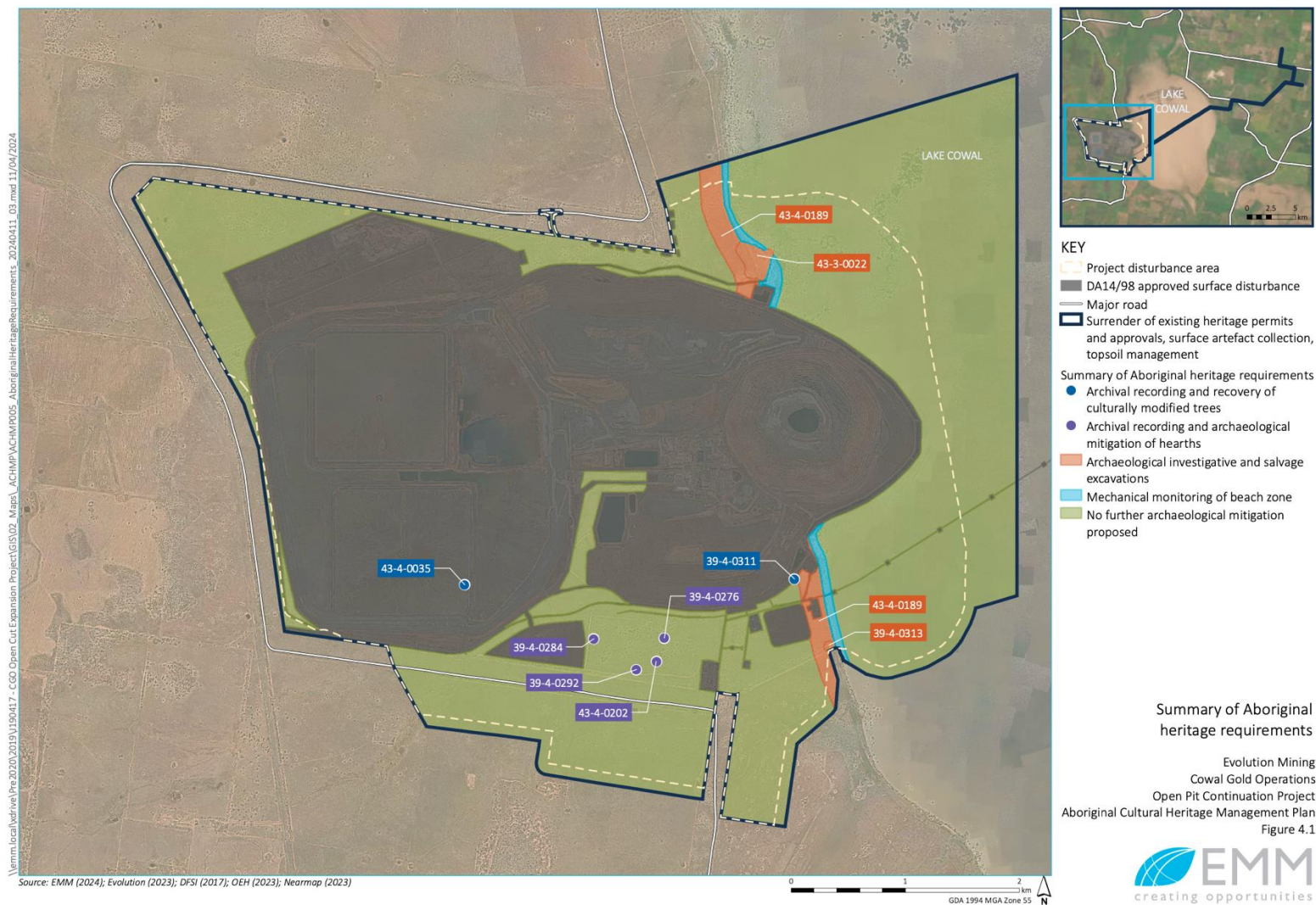
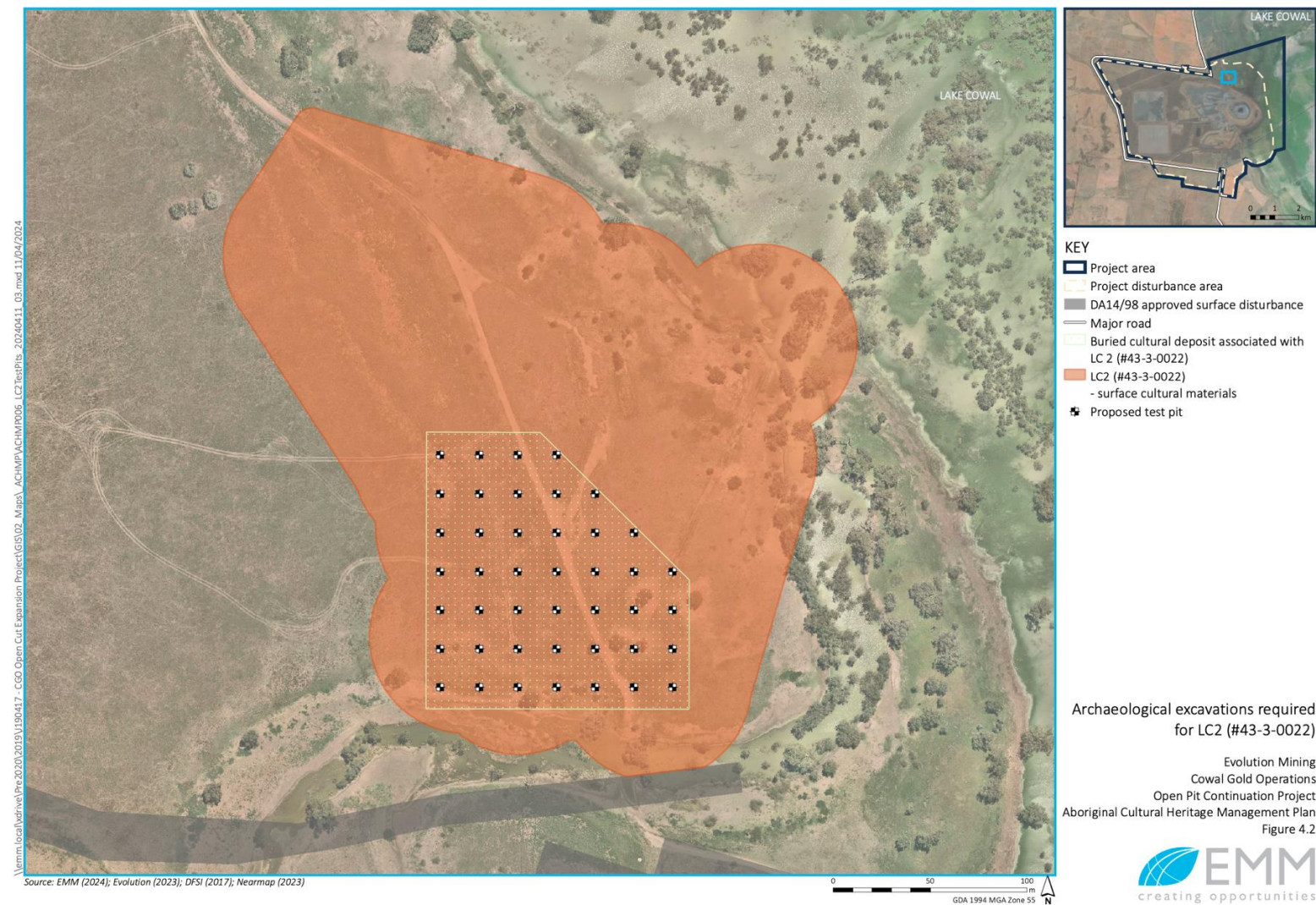


Figure 11: Summary of Aboriginal heritage management requirements





**Figure 12: Archaeological excavations required for LC2 (#43-3-0022)**



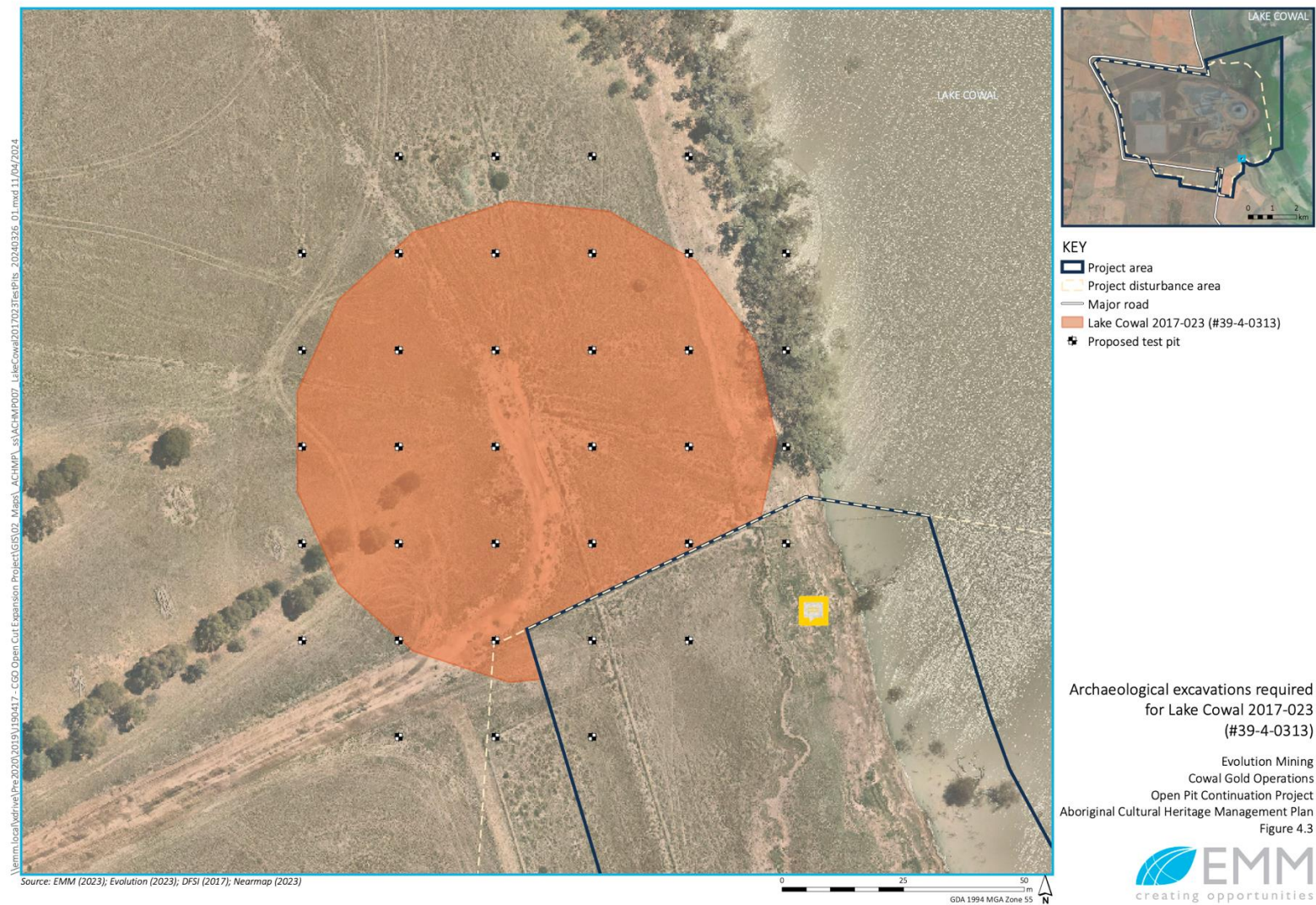


Figure 13: Archaeological excavations required for Lake Cowal 2017-023 (#39-4-0313)



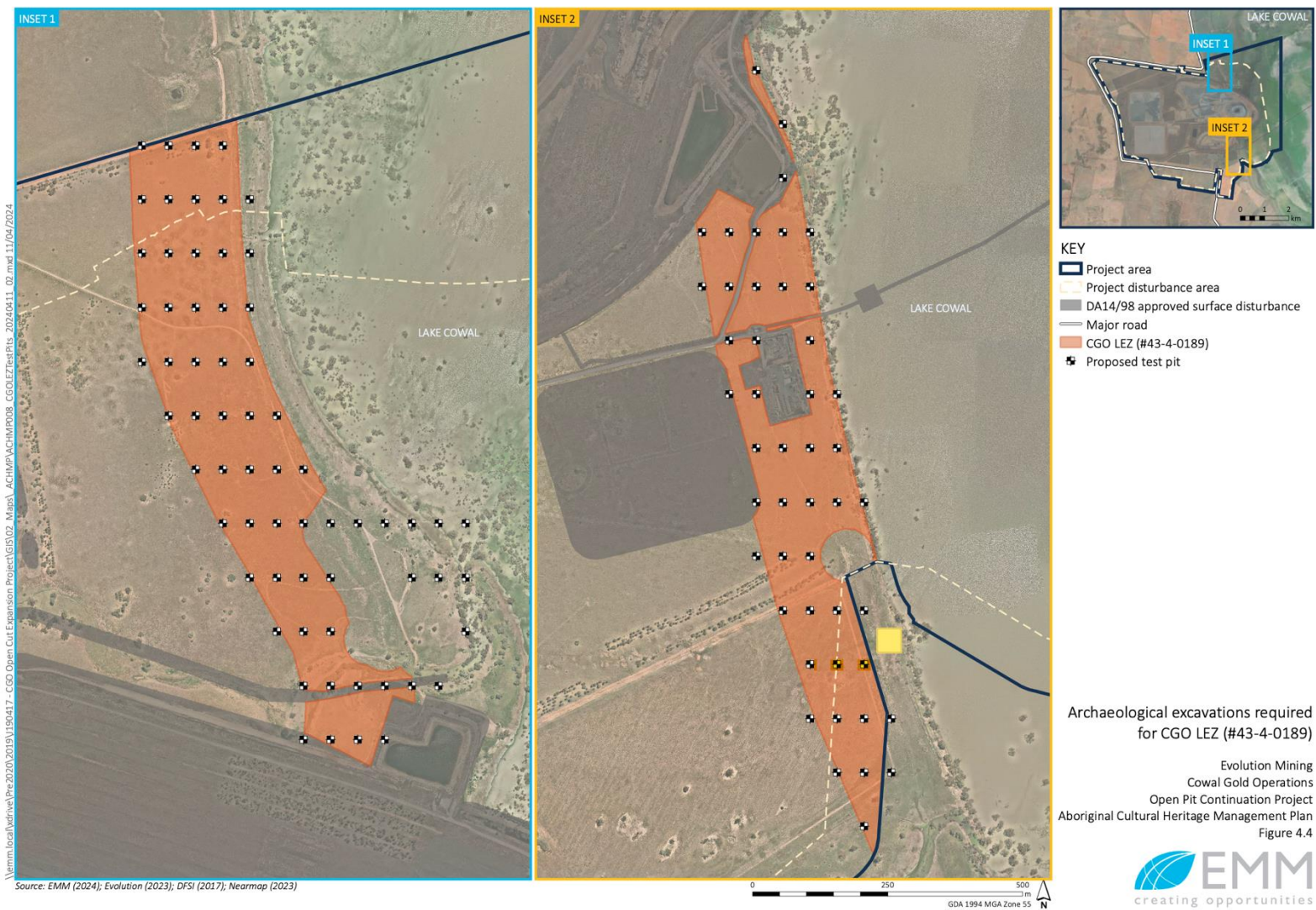


Figure 14: Archaeological excavations required for and CGO LEZ (#43-4-0189)

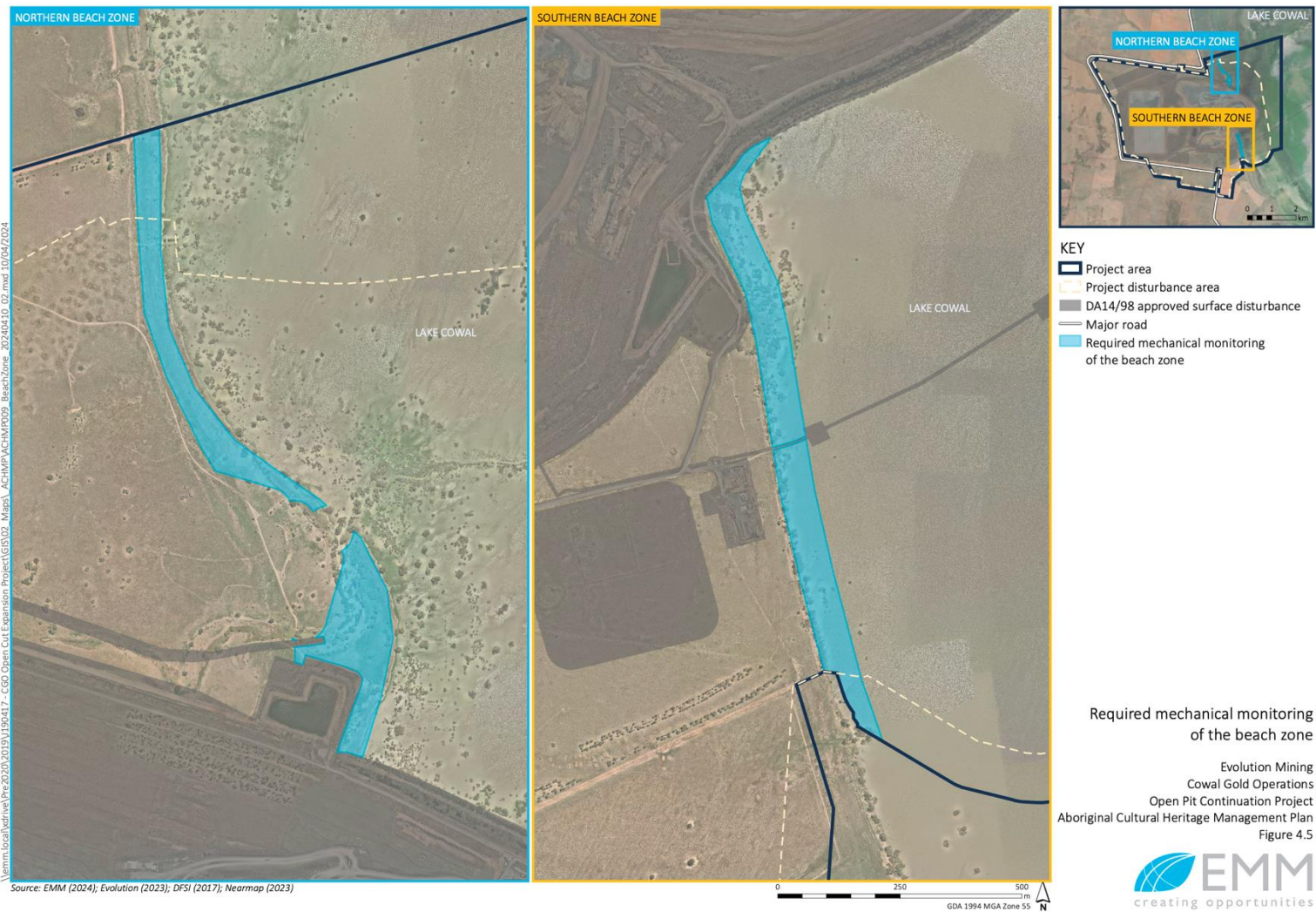


Figure 15: Required mechanical monitoring of the beach zone



### 4.3 General Requirements

The following sections outline a range of general cultural heritage process and procedures that must be implemented prior to and during the construction phase of the Project (Figure 7).

#### 4.3.1 Cultural Heritage Inductions

Cultural heritage awareness inductions should maintain existing protocols at the Cowal Gold Operations. Specifically:

- All permanent employees and contractors are to be inducted as part of established general site induction processes and information packages.
- At regular intervals on-Country cultural awareness training should be provided to permanent employees by representatives of the Wiradjuri Condobolin Corporation.

The existing cultural awareness information will be updated to include the findings of recent Aboriginal heritage investigations (Section 3) and the proponent's legislative obligation, mitigation measures and points of contact.

In addition, visitors to the project and general contractors not involved in ground-disturbing activities will be made aware of their obligation to avoid harm to cultural heritage through a cultural heritage component of the general site induction. Records of these inductions will be kept by the proponent and/or lead contractor.

#### 4.3.2 Unexpected Finds Protocols

Unexpected finds of both cultural materials and ancestral remains are outlined in existing heritage permits and approvals, and IACHMP (2003). The following sections provide updated unexpected finds procedures for the Project. These closely align with the previous requirements, although in the case of ancestral remains they provide guidance following discovery, and which was not permissible for recovery or mitigation as part of earlier approvals.

##### 4.3.2.1 Discovery of Aboriginal Artefactual Materials

Table 9 sets out the measures that will require implementation in the event that any previously unidentified cultural material is identified during the pre-construction, construction and/or operational phases of the Project. Appendix E provides a description of the types of Aboriginal site that may be encountered during the Project.

The recording of, and any proposed mitigation measures, will be completed by a heritage professional(s) with participation from the Wiradjuri Condobolin Corporation (see Table 3 and Section 2.3). Avoidance of newly identified Aboriginal objects is always the preferred heritage outcome where feasible. Mitigation measures will only be employed when it can be reasonably demonstrated that avoidance is not possible. Heritage NSW must be notified about any plans to move, collect or salvage newly identified sites (Table 9; Appendix B).

**Table 9: Management of unexpected cultural materials (except skeletal/human remains)**

#### Protocols to Follow

- All works within the location of the Aboriginal object/s must stop.
- The person who identified the Aboriginal objects must immediately notify the person in charge of the activity e.g. Senior Project Manager, Foreman, Environmental Representative. The responsible person should contact Evolution as soon as possible.
- All construction that could potentially harm the Aboriginal objects or values must cease (including stopping all construction within at least 20 m). Only construction that is required to make the area safe is permissible.
- The Aboriginal object/s is to be protected with the establishment of a no-go zone.
- Contact the Project heritage consultant (Section 1.2) and Wiradjuri Condobolin Corporation and West Wyalong LALC (see Section 2.3) to lead the subsequent management of the find.
- Contact all identified Aboriginal parties, DPHI and Heritage NSW personnel via the major projects portal (Table 3) of the find and proposed management measures to be implemented.
- Consideration of avoidance of the cultural materials should be undertaken. Where avoidance can be achieved, implement the following:
  - Where the find is within 20 m of the disturbance area, the find will be managed through active protection using suitable fencing (e.g. Star pickets, stakes and wire, bollards, concrete blocks, etc) and appropriate signage (e.g. 'no access')

and/or 'heritage site'). These measures should be established by a heritage professional with the participation of the Wiradjuri Condobolin Corporation; and/or

- Where the find is over 20 m from the disturbance area, no fencing, signage or active land management measures are required for these sites. Suitable recording of the site must be undertaken by a heritage professional and representatives of the Wiradjuri Condobolin Corporation and West Wyalong LALC (Appendix D). The site/s must be integrated into the cultural inductions (Section 4.3.1) to ensure all personnel are aware of the location and to avoid inadvertent impacts during the construction.
- Where avoidance **cannot** be achieved, determine the most appropriate course of action based on below in consultation with the Wiradjuri Condobolin Corporation, West Wyalong LALC, project archaeologist and as necessary, Heritage NSW:
  - For isolated Aboriginal object (e.g. stone artefacts, etc) found in disturbed contexts, the site should be recorded as found (see Appendix D), and subsequently collected by a heritage professional with participation of the Wiradjuri Condobolin Corporation.
  - Where more than 5/m<sup>2</sup> artefacts in a discrete location is identified, the find would be further assessed by a heritage professional against significance criteria outlined in Section 3.2. Where identified as regionally significant, discussion on further management of the find would be undertaken with Heritage NSW prior to implementation.
  - Where intact cultural deposits are identified with any Aboriginal objects by the heritage professional, additional archaeological excavations should be undertaken prior to any further work in the area. Excavations should include an initial investigative phase to characterise the site, followed by a more extensive salvage excavation where significant cultural material is identified. Excavation methods that can be used as a guide are presented in Appendix F
- Once the archaeological on-site activities are complete to the satisfaction of the heritage professional in consultation with the Wiradjuri Condobolin Corporation and Heritage NSW, written approval from the Planning Secretary, Department of Planning, Housing and Infrastructure must be obtained to allow works to resume.
- All archaeological activities should ensure suitable analysis of any cultural materials, chronological, palaeo-environmental and sedimentological samples collected are suitably analysed and documented in a report that is provided to Heritage NSW (see Appendix F). This should include submission of the identified cultural materials and findings to the Heritage NSW Aboriginal Heritage Information Management System.

#### 4.3.2.2 Discovery of Skeletal/Human Remains

In the event that known or suspected human skeletal remains are encountered during the Project, the following procedure presented in 10 and conditions B56 and B57 off the Consent must be applied.

**Table 10: Management of unexpected skeletal/human remains**

##### Protocols to Follow

- All work must **STOP** in the vicinity of the remains. The remains must be left in place and protected from further harm or damage. All construction that could potentially harm the human remains must cease. Only construction that is required to make the area safe is permissible.
- The person who identified the human remains must immediately notify the person in charge of the activity (e.g. Project Manager, Foreman, Environmental Representative).
- The human remains are to be protected with the establishment of a no-go zone.
- The person in charge shall take photographs with scale (without touching any remains) and provide them to the heritage consultant and seek initial advice. If uncertain or probable human identification, proceed with next steps.
- The person in charge will notify NSW Police of the discovery as soon as possible. All subsequent steps will be dictated by the NSW Police.
  - Police contact: West Wyalong police station – T: (02) 6342 7620.
- Contact the Project heritage consultant (Section 1.2), DPHI and Heritage NSW personnel, and identified Aboriginal parties (see Section 2.3) to brief them on the evolving situation.
- If the NSW Police advise that the human remains are of ancestral Aboriginal origin, and indicate that they will not investigate, the person in charge will contact the project heritage consultant (Section 1.2), Wiradjuri Condobolin Corporation and West Wyalong LALC (see Section 2.3) to lead the subsequent management of the find. Heritage NSW (T: 131 555) will also be notified.
- All future management of the human remains is to be determined by the Wiradjuri Condobolin Corporation and West Wyalong LALC. As such, discussion between the Wiradjuri Condobolin Corporation, West Wyalong LALC, Project heritage consultant, the proponent and contractor will be organised as soon as possible. Once an agreement on the subsequent management of the find is undertaken, DPHI and Heritage NSW will be advised of the proposed course of action to be implemented.



- Discussions will include consideration and resolution of the following:
  - If needed; further investigation to understand the extent, distribution and characteristics of the human remains. Where required, the heritage professional in close consultation with the Wiradjuri Condobolin Corporation, West Wyalong LALC, and participation of a physical anthropologist, will establish the investigation area and define protocols and excavation methods to be adhered to during such investigation.
  - Avoidance and/or project redesign to ensure the human remains can be left unaffected by the works.
  - Where avoidance cannot be achieved, the suitable recovery and relocation of the human remains. Where required, the heritage professional in close consultation with the Wiradjuri Condobolin Corporation, West Wyalong LALC, and participation of a physical anthropologist, will establish the investigation area and define protocols and excavation methods to recover and move the remains.
  - Whether scientific research is desired by the Wiradjuri Condobolin Corporation and/or West Wyalong LALC to provide further context of the remains (e.g. age of individual, how they died, gender, time of burial, etc).
  - If relocation is determined, identify a suitable re-burial location, and ensure the necessary discussions and agreements are in place for the re-burial to occur. Where agreed, a temporary storage location may be considered while the final location is resolved.
- Once the archaeological on-site activities are complete to the satisfaction of the heritage professional in consultation with the Wiradjuri Condobolin Corporation and Heritage NSW, written approval from the Planning Secretary, Department of Planning, Housing and Infrastructure must be obtained to allow works to resume.
- Once the agreed management activities are implemented and completed, ensure suitable analysis (as required) of the remains, and formal reporting is developed to be provided to Heritage NSW (Appendix D).

#### 4.3.3 Changing Heritage Professional

Where the heritage consultant changes through the Project, suitable hand over will be undertaken to minimise loss or mistranslation of the intent of the information, findings and future steps in relation to Aboriginal heritage.

Any handover would include Evolution's facilitation of:

- A face-to-face/online meeting between the heritage consultants to discuss the Project requirements, key issues, community commitments, and expectations
- Ensure data and mapping in useable formats are provided by the incumbent heritage consultant.

Once undertaken, the change of heritage consultant should be advised to the Wiradjuri Condobolin Corporation outlined in Table 3.

#### 4.3.4 Future Project Access

As outlined in condition B63(k), ongoing access to biodiversity and offset locales within the project area should be provided to the Aboriginal parties. While Evolution is supportive of maintaining on-Country access for local Aboriginal organisations, as an active mine site there are WHS and other requirements that must be adhered to in order to facilitate these activities. As such, visitation would need to be organised in advance, and may be required to align with some on-site requirements to proceed. The following protocols should be adopted for on-Country access:

##### 1. Organisation of access

- Access will be initially sought via Wiradjuri Condobolin Corporation (see Section 2 and Table 4) who will determine preferred dates, timing and activities to be provided to Evolution
- Wiradjuri Condobolin Corporation will provide a written request to Evolution personnel to undertake on-Country access. The request will be provided at least 4 weeks prior to the required attendance. The request will include:
  - Preferred date, time, and expected duration on-Country
  - The number of participants expected to attend, and whether they have been to the Project area previously

- The general location of the proposed activities within the Project area. This can be provided as a rough sketch and/or written description
- The general activities expected to be undertaken (e.g. Fishing, gathering plants, cultural burning, etc)
- Identification of any expected needs or requirements to be provided by Evolution, such as vehicles, personnel, etc.
- Evolution will provide written confirmation of the activity, along with any on-Country specific requirements that may need to be adopted by the attendees. Any issues with the proposed requirements can be further explored via mechanisms in Section 5.2.2.

## 2. Undertaking on-Country activity

- On-Country activities will be implemented in accordance with the discussion and agreement outlined in (1) above. Any modifications or deviations from the agreement between the parties would be at the discretion of the Evolution personnel managing the activity and may require delay and/or cancellation of the activities while resolved.

## 4.4 Management of Recovered Cultural Materials and Keeping Place

### 4.4.1 Post-Mitigation Analysis and Reporting

All analysis and reporting should be undertaken in accordance with Appendix D and Appendix F1.6.

### 4.4.2 Mid- and Long-Term Curation

The proposed archaeological mitigations of LC2 (#43-3-0022), Lake Cowal 2017-023 (#39-4-0313) and CGO LEZ (#43-4-0189) and mechanical monitoring of the beach zone are expected to recover various cultural materials, including stone artefacts, hearth fragments, faunal remains, and other sedimentological, palaeo-environmental, and/or chronological samples. Where these are proposed for further analysis to inform reporting requirements outlined in Appendix F, they would initially be managed and stored temporarily by the heritage consultant to enable suitable analysis and reporting. At the completion of these activities – less than six months – any such cultural materials would be returned to the Keeping Place. Any relocation or movement of cultural materials between consultant and Keeping Place should be delivered by trusted personnel or a trusted courier.

The ACHA process undertook several discussions with the RAPs on the curation of recovered cultural materials, which included both the temporary on-site and off-site repositories, with cultural materials ultimately returned to Country following remediation of the mine in 2042. However, while numerous options were explored, the current IACHMP (2003) and existing heritage approvals require that the cultural materials are ultimately stored within the Project area.

To align as closely as possible with existing conditions, a Keeping Place is to be maintained within the Project area, or within Evolution holdings adjacent Lake Cowal that would align with these requirements. The following requirements must be implemented for the Keeping Place:

- A Condition Assessment of the existing cultural assemblage and any newly recovered cultural materials should be undertaken by a suitable conservator to inform the environmental requirements of a keeping place
- The Keeping Place should be developed with the Wiradjuri Condobolin Corporation, and include agreement on access to the Wiradjuri Condobolin Corporation, researchers and other Aboriginal people. A key concern of discussions to date has been the limited access by both Evolution and the Wiradjuri Condobolin Corporation, and the need to improve the current situation
- Evolution should assist the Wiradjuri Condobolin Corporation with the development of protocols for short term loan and borrowing of parts of the cultural assemblage to researchers, museums and other communities for research, educative and interpretive opportunities.

The Keeping Place should be operational by December 2025. Once established, the location and access requirements of the Keeping Place should be provided to all RAPs in Table 3 and Heritage NSW. Relevant information on the Heritage NSW AHIMS database should also be updated, so the location of recovered cultural assemblages is documented.

Once the Keeping Place is operational and suitable protocols developed, they should be integrated into later versions of this ACHMP.

In accordance with the wishes of the RAPs, following remediation of the mine in 2042, all cultural materials should be returned on Country. The approach and methods of these activities should be included in the mine plan closure developed for the remediation of the Project area.

#### **4.5 Any Proposed Activity Outside Approved Project Area**

Any activity that may cause ground disturbance outside of the approved Project area (Figure 1), or outside other existing approved areas under the development consent, will not occur without prior Aboriginal heritage assessment and other relevant legislative and internal approvals sought as required.

Depending on the scope, nature and approval pathway of the proposed ground disturbance, the following may apply:

- If the proposed activity requires additional environmental assessment, such as a modification to the existing development consent, an Aboriginal heritage assessment will be completed in accordance with relevant assessment requirements as specified by Heritage NSW/DPHI.
- If the proposed activity is permissible under the existing SSDA (i.e. an Aboriginal heritage impact permit (AHIP) not required), an Aboriginal heritage assessment must initially be completed to a level consistent with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW 2010b) guidelines. Any potential impacts to known or newly identified Aboriginal objects will be managed in accordance with the unexpected finds procedures set out in Section 4.3.2.
- If the proposed activity requires a separate approval pathway not permissible as part of the existing SSDA, then an Aboriginal heritage assessment must initially be completed to a level consistent with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW 2010b) guidelines. Depending on the outcomes of the due diligence assessment, further investigation may be required in accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales* (DECCW 2010c) and/or other relevant guidelines. If Aboriginal objects are likely to be impacted, further approvals under the National Parks and Wildlife Act 1974 and/or Environmental Planning and Assessment Act 1979 as required may be required prior to work being permissible.

## **5 Compliance, Review and Improvement**

### **5.1 At a Glance**

- This section provides information to ensure the ACHMP is complied with during the Project, and processes and procedures to manage complaints, non-compliances and incident reporting. A complaints register for use is provided in Appendix G.
- Criteria and timing for revisiting and updating the ACHMP is provided in this section. A document control and revision table are provided in Appendix H.

### **5.2 Compliance and Auditing**

#### **5.2.1 Measuring Performance**

Compliance with the ACHMP will be measured by standard environmental auditing procedures undertaken at regular intervals for the Project. The audit will include an assessment of compliance with SSDA conditions and will include auditing the following measures:

- Protection of all nominated sites
- Inductions are taking place and include appropriate material
- Reporting and managing any unexpected finds in accordance with this ACHMP.

Evolution may be required to engage a heritage consultant to assist with reporting compliance as part of an Independent Environmental Audit (this will be confirmed by DPHI prior to the commencement of the audit).

Any incidents and non-compliance notifications will follow requirements set out in SSDA and as per the broader Environmental Management System (EMS).

### 5.2.2 Complaints

Any complaints can be made to the key stakeholders identified in Table 3, and will be documented in a 'complaints register' included in Appendix G.

Any complaints will be used in improvements of the ACHMP as outlined in Section 5.3.

### 5.2.3 Incident Reporting

In accordance with condition D.8, any incident will be subject to a detailed investigation by Evolution and heritage consultant (Section 1.2) in consultation with the identified Aboriginal parties (Section 2.3). The incident must be advised to DPHI via the NSW planning portal (Major Projects) within 24 hours of occurring, and include:

- a. Date, time and location of the incident
- b. A brief description of what occurred and why it has been classified as an incident
- c. A description of what immediate steps were taken in relation to the incident
- d. Identifying a contact person for further communication regarding the incident.

Following this initial notification, a more detailed report of the incident is required to be provided to DPHI. This is outlined in detail in Appendix 8 of the project approval. It requires the report to be provided within seven days, and include:

- a. Identifies how the incident was detected
- b. Identifies when the applicant became aware of the incident
- c. Identifies any actual or potential non-compliance with conditions of consent
- d. Identifies further action(s) that will be taken in relation to the incident
- e. A summary of the incident
- f. Outcomes of an incident investigation, including identification of the cause of the incident
- g. Details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence, including the period for implementing any corrective and/or preventative actions
- h. Details of any communication with other stakeholders regarding the incident.

Evolution must submit any further reports as directed by the Planning Secretary.

### 5.2.4 Non-Compliance

Any non-compliance will be subject to a detailed investigation by Evolution and heritage consultant (Section 1.2) in consultation with the identified Aboriginal parties (Section 2.3).

The investigation must be provided to DPHI via the NSW planning portal (Major Projects) within seven days and will include:

- The development (including the development application number and name)
- Set out the condition of this consent that the development is non-compliant with, why it does not comply, the reasons for the non-compliance (if known)
- What actions have been undertaken, or will be undertaken, and when, to address the non-compliance.

Any non-compliance will be used in improvement of the ACHMP as outlined in Section 5.3.

## 5.3 Review and Improvement

### 5.3.1 Continual Improvement

Continual improvement of this ACHMP will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement. The continual improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management which leads to improved environmental performance
- Determine the root cause or causes of non-conformances and deficiencies
- Develop and implement a plan of corrective and preventative action to address non-conformances and deficiencies
- Verify the effectiveness of the corrective and preventative actions
- Document any changes in procedures resulting from process improvement.

### 5.3.2 ACHMP Review and Update

The ACHMP will be revisited and updated in accordance with condition D.6 of the Project. Specifically, within three months of:

- The annual review of the environmental risk assessment under condition D1 of the Project approval
- The submission of an incident report under condition D8 (see Section 5.2.3)
- The submission of an annual review under condition D11
- The submission of an independent environmental audit under condition D12
- The approval of any modification of the conditions of this consent (unless the conditions require otherwise)
- Notification of a change in development phase under condition A10.

In accordance with condition D7, any revisions must be provided to the Planning Secretary within six weeks of the review for approval. The revisions will require written approval from the Planning Secretary prior to their implementation.

Any changes to the ACHMP will be included in the document control table provided in Appendix H. Aboriginal consultation for any updates and/or changes will be undertaken in accordance with Section 2.3.

### 5.3.3 Annual Review

In accordance with Schedule 2, Condition D11, an annual report reviewing the environmental performance of the development will:

- (a) *be submitted:*
  - i. *to the Department by the end of March each year after the commencement of development under this consent, or other timeframe agreed by the Planning Secretary;*
  - ii. *to Council and made available to the CCC.*
- b. *describe the development (including any rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;*
- c. *include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, including a comparison of these results against the:*
  - i. *relevant statutory requirements, limits or performance measures/criteria;*
  - ii. *requirements of any plan or program required under this consent;*
  - iii. *monitoring results of previous years; and*



- iv. *relevant predictions in the document/s listed in condition A2(c);*
- d. *identify any non-compliance or incident which occurred in the previous calendar year, and describe what actions were (or are being) taken to rectify the non-compliance and avoid reoccurrence;*
- e. *evaluate and report on:*
  - i. *the effectiveness of the noise and air quality management systems; and*
  - ii. *compliance with the performance measures, limits and operating conditions of this consent;*
- f. *identify any trends in the monitoring data over the life of the development;*
- g. *identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and*
- h. *describe what measures will be implemented over the next calendar year to improve the environmental performance of the development.*

With specific reference to Aboriginal heritage, the Annual Review will also include:

- any Aboriginal cultural heritage non-compliances, incidents or complaints for the review period;
- a summary of all mitigation measures outlined in Section 4, their status and any findings;
- a summary of the Aboriginal Heritage Research Program, including its status, key milestones and any findings.

#### 5.4 Access to information

In accordance with Schedule 2, Condition D15, until the completion of all rehabilitation required under this consent, the following information and documents will be:

- (b) *publicly available on the development website as they are obtained, approved or as otherwise stipulated within the conditions of this consent:*
  - i. *the EIS of this consent;*
  - ii. *all current statutory approvals for the development;*
  - iii. *all approved strategies, plans and programs required under the conditions of this consent;*
  - iv. *the proposed staging plans for the development if the construction, operation or decommissioning of the development is to be staged;*
  - v. *minutes of CCC meetings;*
  - vi. *regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent;*
  - vii. *a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;*
  - viii. *a summary of the current phase and progress of the development;*
  - ix. *contact details to enquire about the development or to make a complaint;*
  - x. *a complaints register, updated monthly;*
  - xi. *the Annual Reviews of the development;*
  - xii. *audit reports prepared as part of any Independent Environmental Audit of the development and the Applicant's response to the recommendations in any audit report;*
  - xiii. *any other matter required by the Planning Secretary; and*

The information and documents in condition D15 will be kept up to date to the satisfaction of the Planning Secretary.

### References

EMM Consulting Pty Ltd (EMM)

2023, Lake Cowal CGO Open Cut Expansion Project – Aboriginal cultural heritage assessment. Unpublished report for Evolution Mining Pty Ltd.

2024, Lake Cowal CGO Open Cut Expansion Project – ACHA Addendum. Unpublished report for Evolution Mining Pty Ltd

Department of Climate Change and Water (DECCW)

2010a, Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.

2010b, Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales.

2010c, Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales.

Pardoe, C.

2009a. Archaeological Investigations at Lake Cowal. Unpublished report to Barrick Gold of Australia Limited.

2009b. Archaeological Excavations at Lake Cowal. Unpublished report to Barrick Gold of Australia Limited.

2009c. Compliance Document for Archaeological Investigations at Lake Cowal. Unpublished report to Barrick Gold of Australia Limited.

## **Appendix A IACHMP (2003) and a Summary of Mitigation Requirements and their Status**

### **A.1 IACHMP (2003)**



## **A.2 IACHMP (2003) Mitigation Requirements**

Table 11 outlines the specific Aboriginal object and/or site mitigation measures outlined in the IACHMP and whether they have been completed to date. It further identifies tasks specific to these sites where mitigation measures continue to be needed.

The mitigation activities and their findings are presented in detail in Pardoe (2009a, b, c).

**Table 11: Summary of mitigation actions carried out by Pardoe (2009a, b, c) and outstanding management requirements under the IACHMP (2003)**

Environmental Zone	AHIMS #	Site Name	Summary of Mitigation Actions Undertaken by Pardoe (2009a, b, c)	Site Status Following Mitigation Actions	Outstanding Mitigation Requirements Specified Under Previous ACHMP
Lake bed	N/A	N/A	N/A	N/A	Nil
Beach	43-4-0008	P2	Removal of tree and treatment of the removed section to preserve cultural modification Storage in the on-site Keeping Place Additional excavations across alluvial fans in beach zone to determine presence and extent of buried deposits	Destroyed	Grader scraping in 5 cm spits in disturbance area prior to construction to confirm absence of human or faunal burials.
Slope	N/A	N/A	N/A	N/A	Nil
Lake edge ridge	43-3-0021	LC1	Surface collection Open-area excavation	Destroyed	Signposting and fencing
	43-3-0022	LC2		Partially destroyed – originally listed as destroyed following mitigation but recent investigations by EMM (2023) have shown this site to remain valid.	Nil
	43-3-0023	LC3		Destroyed	Nil
	43-3-0024	LC4		Destroyed	Nil
	43-4-0007	P1		Destroyed	Nil
	43-4-0020	Lake Cowal back plains site A		Destroyed	Nil
Back plain	43-4-0021	Lake Cowal back plains site B	Representative sample of surface artefacts collected.	Destroyed	Nil
	43-4-0022	Lake Cowal back plains site C	Any remaining Aboriginal objects were collected during soil removal and temporarily stored in soil stockpiles prior	Destroyed	Nil
	43-4-0023	Lake Cowal back plains site D		Destroyed	Nil
	43-4-0024	Lake Cowal back plains site E		Destroyed	Nil

Environmental Zone	AHIMS #	Site Name	Summary of Mitigation Actions Undertaken by Pardoe (2009a, b, c)	Site Status Following Mitigation Actions	Outstanding Mitigation Requirements Specified Under Previous ACHMP
	43-4-0025	Lake Cowal back plains site F	to soil replacement during rehabilitation activities.	Destroyed	Nil
	43-4-0026	Lake Cowal back plains site G		Destroyed	Nil
	43-4-0027	Lake Cowal back plains site H		Presumed destroyed based on location within soil stockpile.	Nil
	43-4-0028	Lake Cowal back plains site I		Destroyed	Nil
	43-4-0029	Lake Cowal back plains site J		Destroyed	Nil
	43-4-0030	Lake Cowal back plains site K		Destroyed	Nil
	43-4-0031	Lake Cowal back plains site L		Destroyed	Nil
	43-4-0032	Lake Cowal back plains site M		Destroyed	Nil
	43-4-0033	Lake Cowal back plains site N		Destroyed	Nil

## Appendix B Aboriginal Consultation

### B.1 Consultation Log

A log of all consultation undertaken with the RAPs is provided in the next page.



**Table 12: Consultation log**

Date	Incoming/Outgoing	External Organisation	Contact Made by (Internal Organisation)	Contact Received From (External Organisation)	Method	Details of Communication
Aboriginal consultation with the registered Aboriginal parties has been extensive and ongoing for this project since March 2022. Further details of these interactions are presented in EMM's ACHA and ACHA addendum reports. Further to this, the proponent has been working closely with the local Aboriginal community, since the early 2000s as evident by the development of the IACHMP in 2003 and its implementation thereafter.						
17 June 2024	Outgoing	Wiradjuri Condobolin Corporation	Alan Williams (EMM)	Ally Coe	Email	Advised that the ACHMP was near completion and begin talking about dates to catch up and discuss
3 July 2024	Outgoing	Wiradjuri Condobolin Corporation	Alan Williams (EMM)	Ally Coe	Email	Provision of draft ACHMP for review and organisation of a meeting to discuss
18 July 2024	Outgoing	Wiradjuri Condobolin Corporation	Alan Williams (EMM), Lynsey Reilly and Charmaine Saltner (CGO)	Ally Coe	Meeting	Undertook a meeting to work through and discuss the draft ACHMP. Minutes of the meeting are provided below. David Acheson was invited, but failed to attend.
23 July 2024	Outgoing	All registered Aboriginal parties	Alan Williams (EMM)	-	Email	Provision of draft ACHMP for review and organisation of a meeting to discuss
31 July 2024	Outgoing	All registered Aboriginal parties	Alan Williams (EMM)	-	Email	Further organisation of a meeting with all RAPs to discuss the report.
20 August 2024	Outgoing	Wiradjuri Condobolin Corporation, West Wyalong LALC	Alan Williams (EMM) and Lynsey Reilly (CGO)	Ally Coe, Linton Howarth	Meeting	Undertook a meeting to work through and discuss the draft ACHMP. Minutes of the meeting are provided below. David Acheson was invited, but failed to attend.
3 September 2024	Outgoing	Wiradjuri Condobolin Corporation,	Alan Williams (EMM)	Ally Coe	Email	Linton Howarth sought changes, which were adopted. Provided updated ACHMP following meeting with tracked changes showing changes and sought comments.
9 September 2024	Outgoing	Wiradjuri Condobolin Corporation,	Lynsey Reilly (CGO)	Ally Coe	Meeting	Met to discuss and confirm changes proposed to ACHMP. AC was happy with proposed changes
10 September 2024	Outgoing	West Wyalong LALC	Alan Williams (EMM)	Linton Howarth	Email	Provided updated ACHMP following meeting with tracked changes

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**B.2 Aboriginal Community Feedback**

The following section includes any feedback received during the finalisation and/or update of this ACHMP.

Table 2 has been provided in Section 1.1.2 above and details where feedback has been addressed.



## **Appendix C AHIP Surrender Documentation**

## Appendix D Legislation and Obligations

### D.1 Obligation to Protect Aboriginal Cultural Heritage

#### D.1.1 National Parks and Wildlife Act 1974

The National Parks and Wildlife Act 1974 (NPW Act) provides protection for Aboriginal objects and places across NSW:

- An Aboriginal object is defined as: Any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction and includes Aboriginal remains.
- An Aboriginal place is: any place declared to be an Aboriginal place under section 84. This is a very specific piece of legislation that provides process and management of Aboriginal sites of cultural, but not necessarily scientific, values. They are commonly, but not always associated with intangible values.
- Any place declared to be an Aboriginal place by the Minister for the Environment, under Section 84 of the Act.

#### D.1.2 Obligation to Avoid Harm

All employees, contractors, sub-contractors and visitors to the project have an obligation to avoid harming Aboriginal heritage unless engaged in an Aboriginal heritage management activity described in this plan.

The National Parks and Wildlife Act 1974 defines “harm” to an object or place as any act or omission that:

- a. Destroys, defaces or damages the object or place
- b. In relation to an object-moves the object from the land on which it had been situated
- c. Is specified by the regulations
- 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
- f. Is trivial or negligible
- g. Is excluded from this definition by the regulations.

#### D.1.3 Obligation to Protect and Implement Management Measures

Site personnel, contractors and subcontractors responsible for land management or construction have an obligation to protect Aboriginal heritage within their area or work responsibility. This extends to both cultural materials identified as part of earlier phases of the project, and any additional cultural materials identified during the construction. Protection means active recognition of known Aboriginal heritage and active measure to avoid and/or suitably mitigate Aboriginal heritage.

This may include fencing, erosion control and modification of work plans to avoid impacts to Aboriginal heritage, as well as facilitating a process where work personnel are aware of the nearby heritage.

Site personnel, contractors and subcontractors also have the responsibility to ensure that appropriate management measures have been employed prior to, or in association with, their activities which impact Aboriginal sites.

#### D.1.4 Statutory Reporting Requirements

Notifications to Heritage NSW are required in relation to discovery, impact and care of Aboriginal objects under the NPW Act. This will be the responsibility of the project manager, environmental representative and/or equivalent.

### **D.1.5 Discovery of Aboriginal Objects**

Under Section 89A of the NPW Act, it is a requirement that Heritage NSW is notified of the existence of Aboriginal objects as soon as practicable after they are first identified. This is done through the completion of the Heritage NSW Aboriginal Site Card which is submitted to the Registrar of AHIMS for inclusion on the Aboriginal site database. Information regarding AHIMS and site recording forms can be downloaded from Heritage NSW's website:

<http://www.environment.nsw.gov.au/licences/DECCAHISSiteRecordingForm.htm>.

### **D.1.6 Care Agreements**

Under s85A of the NPW Act, Aboriginal objects remain the property, and under the protection of, the Crown until formal transfer to a person or persons of a class prescribed by the regulations occurs. A Care Agreement is not currently proposed under this plan; however, may be pursued in the future if Aboriginal objects are identified to a level of significance that the RAPs wish to retain such objects.

Care Agreement application forms can be downloaded at:

<https://www.environment.nsw.gov.au/topics/aboriginal-cultural-heritage/protect-and-manage/care-agreements>.

### **D.1.7 Reporting Impact to Aboriginal Sites**

An Aboriginal Site Impact Recording Form must be completed following impacts to AHIMS sites that are:

- A result of test excavation carried out in accordance with the Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW;
- Authorised by an Aboriginal Heritage Impact Permit (AHIP) issued by Heritage NSW;
- Undertaken for the purpose of complying with Secretary's environmental assessment requirements issued by DPHI for:
  - State significant development (SSD);
  - State significant infrastructure (SSI); or
  - A major project; or
  - Authorised by an SSD/SSI approval under the EP&A Act.

Completed forms must be submitted to the AHIMS Registrar at [ahims@environment.nsw.gov.au](mailto:ahims@environment.nsw.gov.au).

Aboriginal Site Impact Recording Forms can be downloaded at:

<https://www.environment.nsw.gov.au/resources/cultureheritage/aboriginal-site-impact-recording-form-120558.pdf>

## Appendix E Aboriginal Site Descriptions

### E.1 Site Definitions

A description of terms used to describe different site features known to occur in the vicinity of the project area is provided in Table 13 and use definitions provided by Heritage NSW.

**Table 13: Site definitions and recording**

Site Feature	Definition and Recording Methods
Aboriginal ceremony and Dreaming	Previously referred to as mythological sites these are spiritual/story places where no physical evidence of previous use of the place may occur; e.g. natural unmodified landscape features, ceremonial or spiritual areas, men's/women's sites, dreaming (creation) tracks, marriage places etc.
Artefact site (open stone artefact site)	Objects such as stone tools, and associated flaked material, spears, manuports, grindstones, discarded stone flakes, modified glass or shell demonstrating evidence of use of the area by Aboriginal people.
Burials	A traditional or contemporary (post-contact) burial of an Aboriginal person, which may occur outside designated cemeteries and may not be marked; e.g. in caves, marked by stone cairns, in sand areas, along creek banks etc.
Fish trap	A modified area on watercourses where fish were trapped for short-term storage and gathering.
Grinding grooves	Grinding grooves are defined as an area of outcropping bedrock containing evidence of one or more grinding grooves where ground-stone hatchets or other grinding practices (i.e. seed grinding) were implemented.
Habitation structure	Structures constructed by Aboriginal people for short- or long-term shelter. More temporary structures are commonly preserved away from the NSW coastline, may include historic camps of contemporary significance. Smaller structures may make use of natural materials such as branches, logs and bark sheets or manufactured materials such as corrugated iron to form shelters. Archaeological remains of a former structure such as chimney/fireplace, raised earth building platform, excavated pits, rubble mounds etc.
Modified tree (carved or scarred)	Trees which show the marks of modification as a result of cutting of bark from the trunk for use in the production of shields, canoes, boomerangs, burials shrouds, for medicinal purposes, foot holds etc., or alternately intentional carving of the heartwood of the tree to form a permanent marker to indicate ceremonial use/significance of a nearby area, again these carvings may also act as territorial or burial markers.
Potential archaeological deposit (PAD)	An area where Aboriginal objects may occur below the ground surface. The term 'potential archaeological deposit' was first applied in Sydney regional archaeology in the 1980s and referred to rockshelters that were large enough and contained enough accumulated deposit to allow archaeologists to predict that subsurface cultural material was likely to be present. Since then, the term has come to include open sites where the same prediction can be made. Unless previously identified, it is considered unlikely that a PAD would be classified through an unexpected finds process.
Shell	An accumulation or deposit of shellfish from beach, estuarine, lacustrine or riverine species resulting from Aboriginal gathering or consumption. Usually found in deposits previously referred to as shell middens. Must be found in association with other objects like stone tools, fish bones, charcoal, fireplaces/hearths, and burials. Will vary greatly in size and composition.
Stone quarry	Usually, a source of good quality stone which is quarried and used for the production of stone tools. Stone quarries represent where Aboriginal people gathered raw stone materials for stone tools and/or manufactured stone tools from the adjacent source material. Quarry sites are found at rock outcrops where the material was of suitable quality to have been used to manufacture stone tools. Stone quarries were defined by the presence of outcropping stone material with nearby evidence of the same material type used in the stone tool manufacture process. This was most



Site Feature	Definition and Recording Methods
	commonly indicated by large stone cores or stone flakes distributed amongst the same naturally outcropping material.

## **Appendix F Archaeological Excavation Methods**

### **F.1 Aims and Approach**

The following section outlines an excavation methodology to be implemented for archaeological excavations of LC2 (#43-3-0022), Lake Cowal 2017-023 (#39-4-0313) and CGO LEZ (#43-4-0189) (Section 4.2.6). It can also be re-purposed for unexpected finds procedures where needed (Section 4.3). In the case of unexpected finds, this approach will be used a default, with alternate methods considered by the heritage consultant in consultation with the Wiradjuri Condobolin Corporation on a case-by-case basis.

The specific methods below propose a two-stage approach, reflecting initially an investigative phase followed by subsequent conservation ex situ or archaeological salvage where certain thresholds are met.

#### **F.1.1 Research Aims and Objectives**

Overall, the aims of the salvage excavation are to consider the following:

- To answer and/or resolve the research questions outlined in Section F.1.2 in relation to the formative and stratigraphic nature of the deposits, and what they can tell us about Aboriginal populations in the past.
- To use fine resolution excavation and environmental analyses to further characterise the archaeological deposits relating to the past Aboriginal occupation. This includes a greater understanding of resource exploitation; technological attributes; identification of any change through time in spatial and chronological phases of activity; and site formation processes.
- To obtain an appropriate assemblage of Aboriginal objects, for detailed documentation and long-term curation, within the spatial limits of the Project (i.e. preservation in record).
- To allow greater cultural association between the site and the registered Aboriginal parties (i.e. 'cultural salvage') through involvement in the excavation, and options for the interpretation of the results as part of the overall Project.
- To ensure that the Project can proceed with minimised risk of unknown or unexpected significant Aboriginal objects/features being harmed during activities.
- To integrate with the recommendations of the ACHA to provide a holistic and comprehensive understanding of the archaeological landscape and cultural materials within it.
- To inform any future interpretation for the Project.

#### **F.1.2 Research questions**

The following provide a series of research questions that should be further considered and/or answered as part of any archaeological investigative and salvage excavation program.

##### **F.1.2.1 Project-Specific Mitigation Measures**

- What is the chronological age of the various soil profiles encountered?
  - Are Pleistocene deposits present, and if so, what is their spatial extent and depths?
  - Can a robust chronology be developed from the shallow soil profiles present within the Project disturbance footprint to further improve an understanding of the recovered cultural assemblage?
- What is the age, composition, technological attributes, and significance of cultural materials within the Project disturbance footprint?
  - Are any of the cultural materials of Pleistocene age?
  - Can we identify changes in technology, procurement and general activities through time?

- Can we identify the onset and/or proliferation of Quandong processing implements identified in the region by Pardoe et al. (2019)? Pardoe et al. (2019) identify this locale as one of the type sites for this type of implement, but its origins and timing of use remain unknown.
- Can inter and/or intra- variation within the cultural assemblage be identified? How do these variations inform the timing and specific activities at each locale investigated?
- Can the spatial extent of discrete past activities (i.e. site size) be determined to inform the potential distribution of cultural materials elsewhere in the Project area and environs; and to further inform any subsequent salvage excavation requirements?
- Can additional analysis of heated clay retainers through chronology and/or geochemical techniques further inform the timing and activities that were being undertaken by Aboriginal people in the past?
- What are the environmental characteristics associated with the distribution of cultural materials within the Project disturbance footprint?
  - Can the formative processes of the stratigraphic profile provide information on the nature, movement and/or survivability of the cultural materials?
  - Can we identify any past flooding and/or inundation by Lake Cowal that may inform past conditions and use of the lake's edge in the past?
  - Can pollen, phytoliths, geochemistry and/or other analyses inform the development of the environment, and Aboriginal people's activities within them?
  - Are there other key factors in the distribution and extent of the material culture within the area?
- How does the additional excavations along the edges of Lake Cowal inform the zones of archaeological sensitivity developed for the Project area? Are they robust, or require further modification?
- What are the cultural, social and public values associated with the cultural materials in the Project disturbance footprint? Does the excavations support or require modification of the significance and values previously assigned to Aboriginal sites, places and/or locales within the Project disturbance footprint?

#### **F.1.2.2 General Research Questions for Any Unexpected Finds**

- What is the spatial and stratigraphic patterns of cultural materials within the investigation area? Can inter and/or intra-site past Aboriginal activities be determined through excavation in these areas?
- What is the age, composition, technological attributes, and significance of cultural materials within the areas of the proposed activity?
- What are the environmental characteristics associated with the distribution of Aboriginal cultural heritage within the area? Can the formative processes of the stratigraphic profile provide information on the nature and/or survivability of the archaeological resources? Are there other key factors in the distribution and extent of the material culture within the area?
- What are the cultural, social and public values associated with the cultural materials in the area? Does the excavations support or require modification of the significance and values previously assigned to Aboriginal sites, places and/or locales within the project area?
- How should the cultural materials be conserved and managed in future?

## **F.2 Excavation Methods**

### **F.2.1 Investigative Phase**

The following methods will be adopted to investigate the cultural materials.

- Excavation

- For LC2 (#43-3-0022), Lake Cowal 2017-023 (#39-4-0313) – a grid of 1 m<sup>2</sup> test pits would be established at 20 m spacing across the identified site's cultural deposits curtilage + 20 m buffer (Figure 13) using a hand-held Leica RTK CS10/GS08 survey grade Differential GPS device (or equivalent).
- For CGO LEZ (#43-4-0189) – a grid of 1 m<sup>2</sup> test pits would be established at 50-100 m spacing across the identified curtilage + 20 m buffer (Figure 14) using a hand-held Leica RTK CS10/GS08 survey grade Differential GPS device (or equivalent).
- For any unexpected cultural materials– a grid of 1 m<sup>2</sup> test pits would be established at 10-50 m spacing (to be determined by the heritage consultant in discussion with Aboriginal participants) across the identified sites curtilage + 20 m buffer using a hand-held Leica RTK CS10/GS08 survey grade Differential GPS device (or equivalent).
  - All test pits would be dug manually using shovels, mattocks, trowels and other hand tools as required. Excavation would be undertaken as 1 m<sup>2</sup> units. Each square would be given an alpha-numeric label for identification purposes.
- All excavation would be undertaken in 10 cm spits to culturally sterile depths or 1.5 m below current surface (the deepest depth that can be reached without shoring systems and/or benching).
- All sediment would be placed in buckets, labelled according to its assigned test pit number and spit, and recorded and documented. All sediment would then be wet-sieved through a 5 mm wire aperture mesh, and any historic and/or Aboriginal cultural material recovered, labelled and bagged for subsequent analysis and curation.
- Field Documentation
  - All test pits would be documented using photographic records, written descriptions and scaled drawings.
  - Soil profiles would be recorded in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010), including scaled drawings, photographs, and written descriptions.
  - Soil samples may be collected for description, sedimentological and chronological analysis where such analysis is considered likely to contribute significant information. Optically Stimulated Luminescence (OSL) samples would be taken in areas where Aboriginal objects are found, and generally try to bracket the deposit (to provide a maximum and minimum age). Material for radiocarbon analysis may also be undertaken opportunistically if archaeological features containing charcoal or other dateable material are evident.
  - Reduced levels of the top and bottom of the test pit would be documented using a dumpy level against a known elevation. Other levels may be taken as required.
- Excavation procedures and protocols may be modified at the discretion of the Excavation Director, in consultation with the Wiradjuri Condobolin Corporation and proponent as the conditions in the field and nature of the excavations develop. This includes the movement/discontinuance of test pits to avoid existing obstacles, buried services and disturbances.

At the completion of the Phase 1 test pits, consideration of the Phase 2 thresholds (Section F.2.2) will be considered as to whether further excavations are required.

## **F.2.2 Thresholds for Further Excavation**

The initiation of Phase 2 – salvage excavation – would only be undertaken in areas where the thresholds outlined below are met. The location of salvage excavations would be determined at the completion of the Phase 1 and at those locations where the greatest potential for answering the research questions (Section D.1.1) is identified.



The thresholds for expansion would include:

- Stone artefact densities greater than 40/m<sup>2</sup> and therefore indicative of past occupation based on our broader understanding of the Project area (EMM 2023). Values of several hundreds and even thousands are known regionally, and as such higher values would be considered more favourably.
- Where evidence of multiple phases of past activity is identified through changing raw material types and/or distinct technological attributes at different depths within the soil profile. Currently two phases of past activity have been documented, preference would be given to locations that demonstrate this pattern and/or where greater number of phases is identified.
- Where dense concentrations of cultural materials are discovered at depths that may be considered of Pleistocene age and/or at depths that may be of this time period.
- Where Quandong processing implements and/or fragments are encountered, and which may improve our understanding of the timing, production, and use of these rare tool types.
- Where rare or unique stone artefacts and/or other archaeological material is recovered.
- Where unique and/or rare stratified archaeological features (e.g. hearths, cooking pits, etc.) are identified.
- Where identified cultural deposits have the ability to inform the research questions in Section F.1.2.
- Other conditions that are considered by the Excavation Director to inform the research questions and/or broader aims of the Project.

### **F.2.3 Salvage Excavations**

Where thresholds are met (Section F.2.2), additional archaeological excavations would be undertaken in these identified locations. These works are proposed to consist of contiguous open area salvage excavation using higher resolution recovery techniques. It is considered that each open area salvage excavation would be a maximum of 25 m<sup>2</sup> (5 x 5 m), and up to six would be applied across the Project area where thresholds are met. Whether salvage excavations exceed six locations would also be determined based on the findings of the investigative program and to answer the research questions and/or recover significant cultural materials. The number, size, extent and location of open area excavations, and whether they continue beyond the 150 m<sup>2</sup> provided here would be developed based on thresholds, significance of the findings, and in discussion with the Excavation Director, proponent and Aboriginal participants.

The following methods would be adopted for all salvage excavations:

- Excavation:
  - Establishment of open area excavation area/s using a using a hand-held Leica RTK CS10/GS08 survey grade Differential GPS device (or equivalent).
  - All test pits would be dug manually using shovels, mattocks, trowels and other hand tools as required. Excavation would be undertaken as 1 m<sup>2</sup>. Each square would be given an alpha-numeric label for identification purposes.
  - All excavation would be undertaken in 5 cm spits to the depth of culturally sterile deposits as identified by previous phases of excavation. Depths of excavation would be adjusted as necessary based on the findings of the investigative phase.
  - All sediment would be placed in buckets, labelled according to its assigned test pit number and spit, and recorded and documented. All sediment would then be wet-sieved through a 5 mm wire aperture mesh, and any historic and/or Aboriginal cultural material recovered, labelled and bagged for subsequent analysis and curation.
- Field Documentation:
  - All excavations would be documented using photographic records, written descriptions and scaled drawings.

- Soil profiles would be recorded in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010), including scaled drawings, photographs, and written descriptions.
- Soil samples would be collected for description, sedimentological and chronological analysis where such analysis is considered likely to contribute significant information. Optically Stimulated Luminescence (OSL) samples would be taken in areas where Aboriginal objects are found, and generally try to bracket the deposit (to provide a maximum and minimum age). Material for radiocarbon analysis may also be undertaken opportunistically if archaeological features containing charcoal or other dateable material are evident.
- Reduced levels of the top and bottom of the test pit, and at the top of each fourth spit would be documented using a dumpy level against a known elevation. Other levels may be taken as required.
- Excavation procedures and protocols may be modified at the discretion of the Excavation Director, in consultation with the Wiradjuri Condobolin Corporation and proponent as the conditions in the field and nature of the excavations develop. This includes the movement/discontinuance of test pits to avoid existing obstacles, buried services and disturbances.

### **F.3 Post Excavation Analysis and Reporting**

The post-excavation analysis (incorporating data from the excavations) would be designed to address the research objectives and aims, along with other relevant questions that may arise based on the results of the excavation. These would include, but not be necessarily limited to:

- Stone artefact analysis, including descriptive and functional recording of the assemblage, as well as interpretation of past activities, post-depositional change and comparison with other nearby data. Conjoining may also be attempted where sufficient cultural materials have been recovered. Geochemical analysis of stone artefacts for provenance and other material source research questions using X-Ray Fluorescence, Inductively Coupled Plasma Mass Spectrometry and/or Thermal Ionisation Mass Spectrometry may also be undertaken. These samples would be processed either at Australia's Nuclear Science and Technology Organisation (ANTSO), University of Wollongong and/or University of New South Wales.
- Other human indicators, including the consideration of sediment DNA and/or faecal biomarkers. While of limited commercially available, Consiglio Nazionale delle Ricerche (National Research Council of Italy) Institute of Polar Sciences (CNR-ISP), Venice, Italy and the Australian Centre for Ancient DNA, University of Adelaide would be contacted to explore the interest and feasibility to undertake these types of analyses. These are both cutting edge techniques that can further inform the presence of past human activity, but their application in cultural heritage management has not been explored to date in Australia.
- Geochronology, including the processing and analysis of samples to inform the absolute age of the soil profile and/or cultural assemblage recovered. This would include Optically Stimulated Luminescence ages, as well as radiocarbon samples were recovered. While large number of these samples are likely to be collected, given the prohibitive cost of processing, it is probable that a small number of ages would be obtained in a small number of master-sequences to inform the broader archaeological program. The samples would be processed by either University of Gloucestershire and/or University of Wollongong.
- Geochemistry and soil analysis that would be used to further inform and interpret the formation history of the soil profile from which cultural materials are recovered. This would include the use of Itrax X-ray Fluorescence (XRF) core scanning methods at Australia's Nuclear Science and Technology Organisation (ANTSO), as well as particle size analysis to explore changes in the alluvial and colluvial history of the river corridor.
- Palaeo-environmental analysis, including palynology, phytolith analysis and/or charcoal analysis to explore the past vegetation and fire regimes that may have influenced and/or modified by past human activity. These would utilise the same samples collected for geochemistry and/or sampling and sent to a range of university specialists in these fields to process and interpret the results.
- Reporting that would provide information on the field investigations, compilation and synthesis of the postexcavation analyses, and interpretation of the results to inform the past activity and use of the region.

**Table 14: Complaints register**[illegible]

## Table 15: Document revisions

[illegible]



