

# APPENDIX I

## Water licensing strategy



# **Cowal Gold Operations Open Pit Continuation Project**

## **Water Licensing Strategy**

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Prepared for Evolution Mining (Cowal) Pty Ltd

May 2023

# Cowal Gold Operations Open Pit Continuation Project

## Water Licensing Strategy

Evolution Mining (Cowal) Pty Ltd

J190417 RP48

May 2023

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Approved by



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26 May 2023

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# 1 Introduction

## 1.1 Introduction

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, in the central west region of New South Wales (NSW).

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. The existing CGO mine is shown at a regional scale and local scale in Figure 1.1 and Figure 1.2, respectively.

CGO was first approved in 1999, and open pit mining operations commenced in 2005. Underground mining operations were approved in 2021 and development works to enable underground mining are underway.

Evolution is seeking 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.

Prior to being granted approval for the Project under the *Environmental Planning and Assessment Act 1979* (EP&A Act), Evolution must demonstrate to the satisfaction of the relevant regulators that it can obtain the necessary surface water and groundwater entitlements and/or allocation under the *Water Management Act 2000* (WM Act) to account for all water ‘take’ associated with the Project. Water licensing will be a critical aspect of the Project’s planning, design, approval and operational phases.

The purpose of this report is to document the outcomes of a review of water licensing requirements under the NSW water regulatory framework for Project construction and operation. The review has considered both surface water and groundwater licensing requirements under the WM Act, the Water Management (General) Regulation 2018 (WM Regulation), the relevant statutory water sharing plans (WSPs) and the NSW Aquifer Interference Policy (AIP) (DPI 2012).

## 1.2 Project overview and local context

The Project will involve further development of the existing E42 Pit and the development of open pit mining in three adjacent orebodies, known as the ‘E46’, ‘GR’ and ‘E41’ pits. It is noted that the three adjacent ore bodies are within the existing mining lease (ML 1535). No change to the approved ore processing rate of 9.8 Mt per annum is proposed.

The Project comprises the following key components:

- the continued operation of activities as approved under DA14/98 and SSD 10367, including operation of the Bland Creek Palaeochannel (BCP) Borefield
- development of three new open satellite pits within the current approved mining lease (the ‘E46’, ‘GR’ and ‘E41’ pits) to the north and south of the existing open pit
- extending the existing open pit to the east and south via a ‘cutback’ within the current approved mine lease
- extending open pit mining operations by approximately 10 years to 2036 and total mine life by approximately 2 years to 2042
- expansion of the integrated waste landform (IWL) to accommodate life of mine tailings

- extension of the lake protection bund (LPB) system to provide continued separation and mutual protection between Lake Cowal and the mine
- backfilling of one of the new open satellite pits (E46) with waste rock and establishment of a new waste rock emplacement (WRE) on the backfilled pit to minimise the additional area required for waste rock disposal
- expansion of the footprint of the existing WRE areas to accommodate additional waste rock
- development of additional topsoil and subsoil stockpiles to accommodate materials from pre-stripping, with materials to be reused during progressive mine rehabilitation
- upgrades to existing surface water drainage system, to assist with on-site water management and maximise on-site water conservation
- modification of internal site access and haul roads
- development of new dirty water storages and relocation of some components of the surface water drainage system
- modification and relocation of some existing ancillary mining infrastructure.

An overview of the Project is provided in Figure 1.3. A detailed description of the Project is contained in Chapter 4 of the EIS.

Other than the changes to existing approved activities as set out above, all activities that are currently approved under the existing Ministerial development consents are intended to continue. The existing activities approved under the consents are described in Chapter 3 of the EIS.

The Project will not change existing ore processing rates or methods, tailings disposal methods, main site access, water supply sources or hours of operation. The Project will also retain the existing open pit mining workforce.

### 1.3 Lake Cowal background

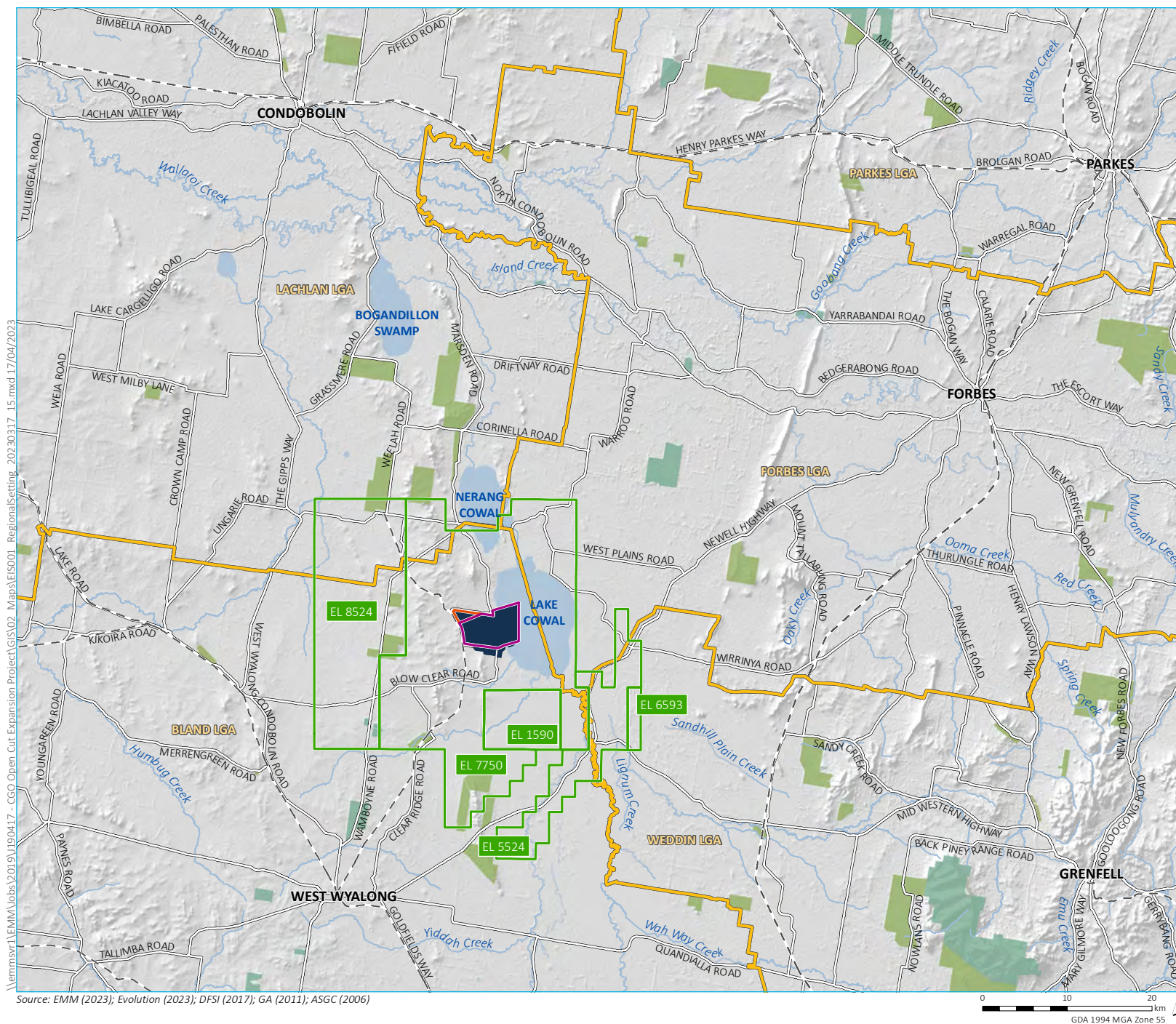
Lake Cowal forms part of the nationally important wetland, Lake Cowal/Wilbertroy Wetlands (DAWE 2019). The lake system also includes Nerang Cowal and Bogandillon Swamp and covers around 25,000 hectares (ha); it is the largest natural lake in the Lachlan Valley. Lake Cowal/Wilbertroy Wetlands also form the terminal drainage of Bland Creek catchment, which has an area upstream of the lake of around 400,000 ha.

Lake Cowal is filled predominantly by Bland Creek from the south; however, it is also fed by the Lachlan River during major flood events. Historically, Lake Cowal contains some water around half of the time; however, prolonged dry periods of up to 30 years have occurred since the early 20<sup>th</sup> century. In more recent years, Lake Cowal has experienced a prolonged dry period. The lake was completely dry from 2001 to 2010, and again in December 2014. Lake Cowal partially filled in July to December 2015, until rainfall across the region in June, July and September 2016 saw its capacity reach and exceed 100% later in 2016. Rainfall in December 2017 saw the lake retain water into 2018, but with the return of drought conditions across 2018 and 2019, the lake became dry again in 2019. More recently, rain events in October 2020 through to March 2021 and during late 2021 saw the lake inundated with water.







When inundated, the Lake Cowal system supports large numbers of waterbirds including breeding colonies of up to 79 different species. Fourteen bird species are listed as threatened in NSW and eleven internationally listed migratory species use the lake system as part of their migratory pathway.

When dry, the lakebed vegetation is dominated by native and exotic grasses and is used for agriculture. Grazing and opportunistic cropping within Lake Cowal occurs when the lake has receded, and moisture and market conditions are suitable. Occasional commercial fishing operations are undertaken in Lake Cowal when the lake is inundated.





KEY

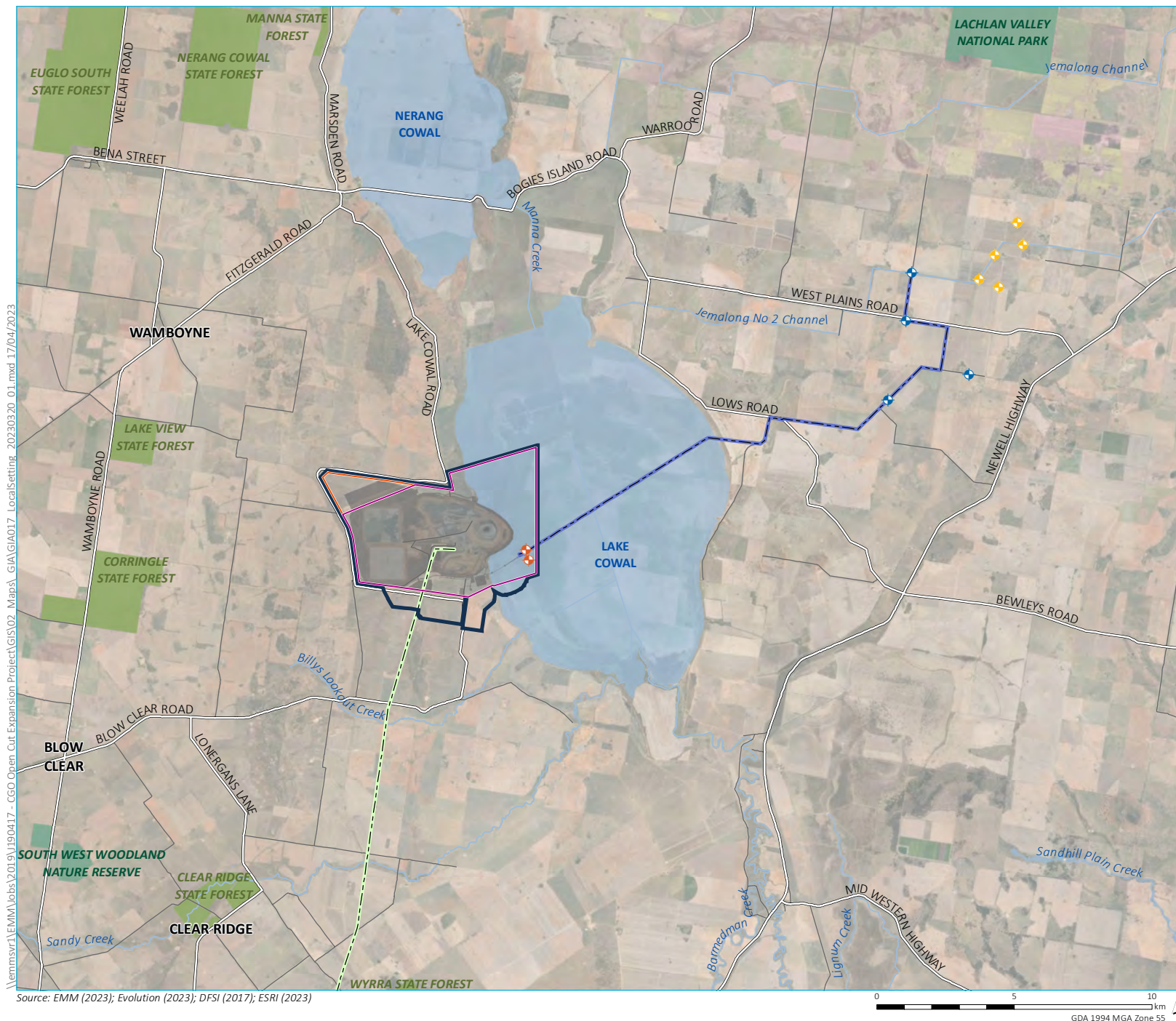
-  Project area
-  Mining lease (ML1535)
-  Mining lease (ML1791)
-  Exploration licence (EL)
-  -- Rail line
-  Main road
-  Named watercourse
-  Named waterbody
-  Local government area
-  NPWS reserve
-  State forest

## Regional context

Evolution Mining  
Cowal Gold Operations  
Open Pit Continuation Project  
Water Licensing Strategy  
Figure 1.1







# KEY

- Project area
- DA14/98 approved surface disturbance
- Mining lease (ML1535)
- Mining lease (ML1791)
- Water supply pipeline
- Electricity transmission line
- Major road
- Minor road
- Named watercourse
- Named waterbody
- NPWS reserve
- State forest
- Pumping bores
  - Bland Creek Palaeochannel Borefield (BCPB)
  - Eastern Saline Borefield (ESB)
  - Saline Borefield

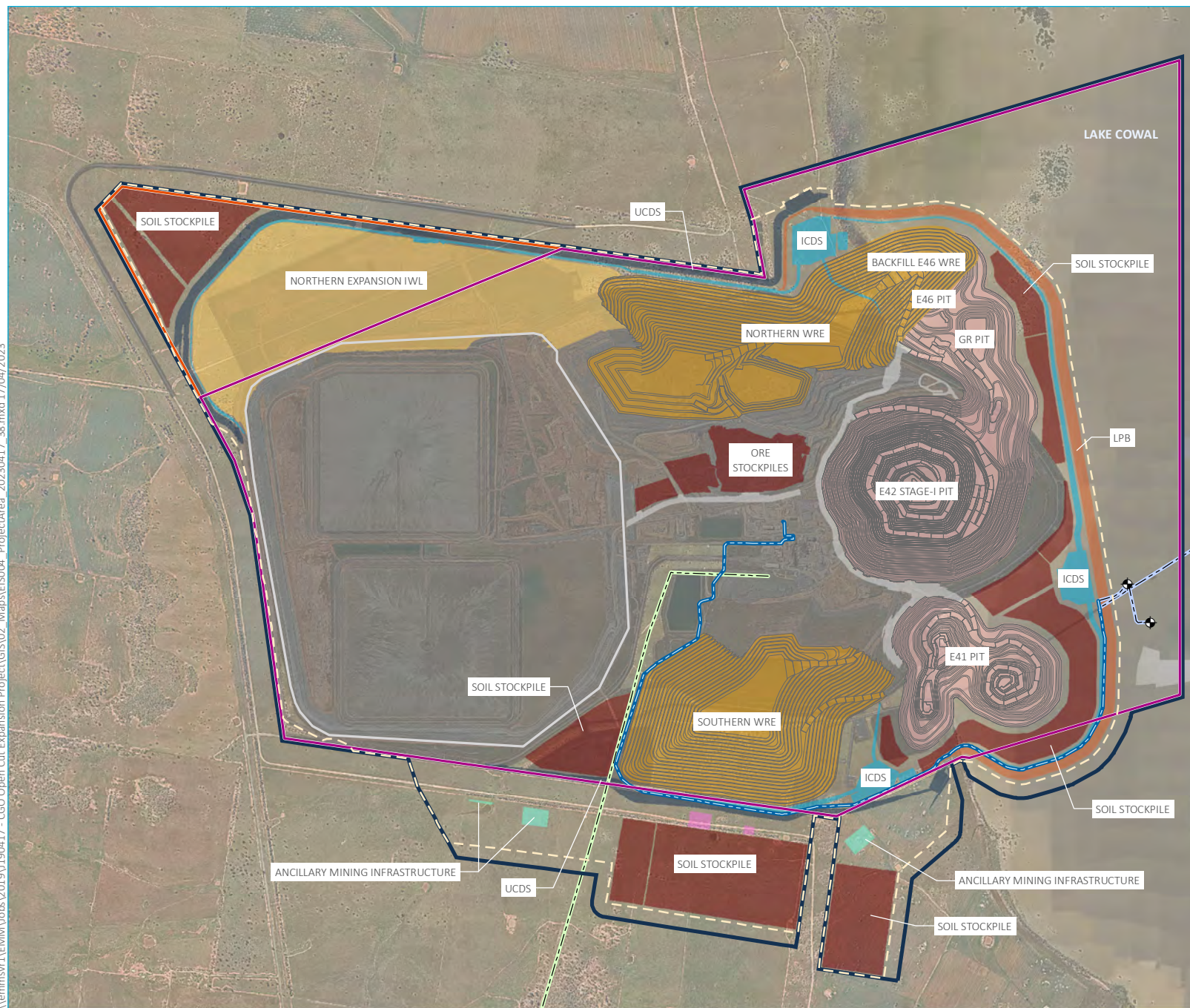
Local setting

Evolution Mining  
Cowl Gold Operations  
Open Pit Continuation Project  
Water Licensing Strategy  
Figure 1.2





\\lemmsvr1\EMM\Jobs\2013\190417 - CGO Open Cut Expansion Project\GIS\02\_Maps\EI5004\_ProjectArea\_20230417\_38.mxd 17/04/2023



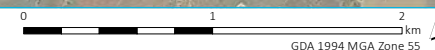
- KEY**
- Project area
  - Additional disturbance area
  - Approved disturbance area
  - Approved IWL footprint
  - Mining lease (ML1535) (offset for clarity)
  - Mining lease (ML1791) (offset for clarity)
  - Saline groundwater supply bore
  - Water supply pipeline
  - Electricity transmission line
  - Conceptual project infrastructure**
  - Open cut pit footprint
  - Northern expansion IWL
  - Waste rock emplacement (WRE)
  - Lake protection bund (LPB)
  - Stockpile
  - Up catchment diversion system (UCDS)
  - Internal Catchment Drainage System (ICDS)
  - Ancillary mining infrastructure
  - Magazine
  - Road
  - Water supply pipeline realignment

## Project overview

Evolution Mining  
Cowal Gold Operations  
Open Pit Continuation Project  
Water Licensing Strategy  
Figure 1.3



Source: EMM (2023); Evolution (2023); DFSI (2017); Nearmap (2021)



## 2 Regulatory framework

### 2.1 *Water Management Act 2000*

The WM Act is based on the principles of ecologically sustainable development and the need to share and manage water resources for future generations. The WM Act recognises that water management decisions must consider economic, environmental, social, cultural and heritage factors. It recognises that sustainable and efficient use of water delivers economic and social benefits to the state of NSW. The WM Act provides for water sharing between different water users, including environmental, basic landholder rights and licence holders. The licensing provisions of the WM Act apply to areas where a statutory WSP has commenced, with WSPs in force in all but a very few small coastal areas of the state.

WSPs are statutory documents that apply to one or more water sources, which may also be sub-divided into management zones. They define the rules for sharing and managing water resources within water source areas. WSPs describe the basis for water sharing and document the water available and how it is shared between environmental, extractive and other uses. The WSPs establish environmental water rules, the long term average annual limits on water extraction from each water source, and how water is made available for different categories of extractive uses such as local water utilities, domestic and stock, basic landholder rights, irrigation and industrial uses. WSPs also establish trading rules and mandatory conditions that apply to licences and approvals.

The key regulation made under the WM Act is the Water Management (General) Regulation 2018 (WM Regulation). The regulation specifies important procedural and technical matters related to the administration of the WM Act and also specifies exemptions from licence and approval requirements under the WM Act.

### 2.2 *Aquifer interference policy*

The NSW Aquifer Interference Policy (AIP) (DPI 2012) sets out the role and requirements of the Minister administering the WM Act in the water licensing and assessment processes for aquifer interference activities. The WM Act defines an aquifer interference activity as an activity involving any of the following:

- penetration of an aquifer
- interference with water in an aquifer
- obstruction of the flow of water in an aquifer
- taking of water from an aquifer in the course of carrying out mining, or any other activity prescribed by the regulations, or
- disposal of water taken from an aquifer in the course of carrying out mining, or any other activity prescribed by the regulations.

The AIP (DPI 2012) specifically refers to 'take' that is 'required to allow for the effective and safe operation of an activity, for example dewatering to allow mining', regardless of whether the take will be used. The take, use and incidental interception of groundwater must be licensed. The AIP states that, unless specifically exempt, a water access licence (WAL) is required under the WM Act where any act by a person carrying out an aquifer interference activity causes:

- the removal of water from a water source
- the movement of water from one part of an aquifer to another part of an aquifer
- the movement of water from one water source to another water source, such as:

- from an aquifer to an adjacent aquifer
- from an aquifer to a river/lake, or
- from a river/lake to an aquifer.

The AIP specifies that the Project licensing requirement should consider adjacent and overlying water sources. Should the Project cause water to inflow and subsequently take from an adjacent water source, a licence for that volume is required from that adjacent water source.

## 2.3 Basic landholder rights

There are three types of basic landholder rights in NSW under the WM Act:

- Domestic and stock rights
- Harvestable rights
- Native title rights.

### 2.3.1 Domestic and stock rights

Owners or occupiers of a landholding are entitled to take water from a river, estuary or lake which fronts their land or from an aquifer which is underlying their land for domestic consumption and stock watering, without the need for a licence. However, a water supply work approval is required to construct a dam or a groundwater bore.

Domestic and stock rights is not applicable to the Project.

### 2.3.2 Harvestable rights

Owners or occupiers of a landholding are entitled to collect a proportion of the runoff from their property in one or more dams located on a minor non-permanent stream or unmapped stream and use the water without the need for a licence or water supply work or water use approvals. A minor stream is a first or second order stream defined using the Strahler system of stream ordering with reference to topographic maps specified in the Harvestable Rights Orders. Harvestable Rights Orders are published in the NSW Government Gazette and specify the rules relating to harvestable rights.

The Project is located within the central inland-draining catchments harvestable rights area. In this harvestable rights area, landholders may capture, store and use up to 10% of the average regional runoff for their property. The total capacity of all dams on a property allowed under the harvestable right is called the maximum harvestable right dam capacity (MHRDC). An MHRDC calculator is available on the WaterNSW website, which considers location, rainfall and variations in rainfall patterns.

If the total capacity of applicable dams on a property exceeds the maximum harvestable right volume, a licence and water use approval is required to authorise the take and use of water for the volume in excess of the maximum harvestable right volume. In addition, a water supply work approval is required for dams that exceed the maximum harvestable right volume.

When calculating the MHRDC, the following types of dams are not included:

- dams solely for the control or prevention of soil erosion, provided no water is reticulated or pumped from such dams and the size of the structure is the minimum necessary to fulfil the erosion control function
- dams solely for flood detention and mitigation, provided no water is reticulated or pumped from such dams



- dams solely for the capture, containment and recirculation of drainage and/or effluent, consistent with best management practice or required by a government agency or local government council to prevent the contamination of a water source
- dams approved in writing for specific environmental management purposes
- dams without a catchment, such as ‘turkey’s nest’ dams and ring tanks, provided no water from harvestable right works is diverted into them.

### 2.3.3 Native title rights

Anyone who holds native title with respect to water, as determined under the Commonwealth *Native Title Act 1993*, can take and use water without a licence, water supply work approval (unless the work is a dam or bore) or water use approval. The native title to water and any purpose for which it can be used - such as for personal, domestic and non-commercial communal purposes – is outlined in the specific native title determination.

Native title rights are not applicable to the Project as there is no Native Title determination in respect of water in the Project area.

## 2.4 Water sharing plans

The following WSPs and water sources are relevant to the Project.

- *Water Sharing Plan for the Lachlan Unregulated River Water Sources 2012:*
  - Bogandillon and Manna Creeks Water Source – contains the rules relating to surface water extraction at the Project site.
- *Water Sharing Plan for the Lachlan Regulated River Water Source 2016* contains the rules relating to water extraction from the Lachlan Regulated River from the upper limits of Wyangala Dam water storage downstream to the junction of the Lachlan River with the Murrumbidgee River.
- *Water Sharing Plan for the NSW Murray Darling Basin Fractured Rock Groundwater Sources 2020:*
  - Lachlan Fold Belt MDB Groundwater Source (Lachlan Fold Belt MDB (Other) Management Zone) – contains the rules relating to groundwater extraction from the fractured rock aquifer at the Project site.
- *Water Sharing Plan for the Lachlan Alluvial Groundwater Sources 2020:*
  - Upper Lachlan Alluvial Groundwater Source (Upper Lachlan Alluvial Zone 7 Management Zone) – contains the rules relating to alluvial groundwater extraction at the Project site and extracted at borefields to supply the Project site.

The Lachlan Unregulated River Water Sources WSP is due for extension or replacement between June 2023 and June 2025 and the Lachlan Regulated River Water Source WSP between June 2026 and June 2028. Under the WM Act, the Minister may extend the WSP for a further 10 years without change or may replace the plan. Before extension or replacement, WSPs must be reviewed by, or in consultation with, the independent Natural Resources Commission.

The salient rules for the water sources relevant to the Project are summarised in Table 2.1.



### 2.4.1 Licences

A WAL entitles its holders to take water from a specified water source in accordance with the licence. A WAL entitle its holders to:

- a specified volume or shares in the available water within a particular water source (share component of WAL)
- to the take of water at specified times, rates or circumstances from specified areas or locations.

WAL categories define the priorities between different WALs, applicable conditions and, in the case of specific purpose WALs, how water may be used. Categories include regulated river (high security, general security, conveyance and supplementary), unregulated river, aquifer, estuarine water, coastal water, local and major water utilities and domestic and stock.

The tenure of a WAL may be:

- a continuing WAL, which is granted in perpetuity and does not need to be renewed, or
- a specific purpose WAL (or SPAL), which must be cancelled when the purpose for which the WAL was issued ceases.

At the start of each water year (1 July), 'available water determinations' (AWDs) are made by NSW Department of Planning and Environment – Water (DPE Water). These specify the 'water allocation' credited to each category of WAL. Available water determinations are dependent on water availability (e.g. dam levels, river flows, catchment and aquifer conditions) and are not guaranteed. Further AWDs can be made in regulated rivers throughout the water year if dam inflows increase<sup>1</sup>.

Water allocations may be between zero and 100% of the full entitlement specified on a WAL. Full entitlement is equivalent to 1 ML/unit share. For most licence categories, once 100% of entitlement is allocated, then there is no further increase for that licence category for the remainder of the water year. Depending on the WSP rules and the licence category, unused water allocations in WAL accounts may be carried over from one water year to the next (see Table 2.1).

**Table 2.1** Summary of water sharing plan rules

Rules	Bogandillon and Manna Creeks Water Source	Lachlan Regulated River Water Source	Lachlan Fold Belt MDB Groundwater Source <sup>2</sup>	Upper Lachlan Alluvial Groundwater Source
Limits on the availability of water (average)	• (In effect) 2,832 ML/year.	• 270,000 ML/year (approximate) <sup>3</sup> .	• 253,788 ML/year.	• 94,168 ML/year (all management zones).

<sup>1</sup> For further information on how is allocated, see <https://www.industry.nsw.gov.au/water/allocations-availability/allocations/how-water-is-allocated>.

For detailed information on the allocation method in the Lachlan regulated river water source see [https://www.industry.nsw.gov.au/\\_data/assets/pdf\\_file/0006/502791/wam-lachlan-regulated-river.pdf](https://www.industry.nsw.gov.au/_data/assets/pdf_file/0006/502791/wam-lachlan-regulated-river.pdf).

<sup>2</sup> The vast majority of these licences are in the Lachlan Fold Belt MDB (other) Management Zone

<sup>3</sup> See [https://www.industry.nsw.gov.au/\\_data/assets/pdf\\_file/0019/516601/LTAAEL-Lachlan-compliance-assessment-2022.pdf](https://www.industry.nsw.gov.au/_data/assets/pdf_file/0019/516601/LTAAEL-Lachlan-compliance-assessment-2022.pdf)

**Table 2.1 Summary of water sharing plan rules**

Rules	Bogandillon and Manna Creeks Water Source	Lachlan Regulated River Water Source	Lachlan Fold Belt MDB Groundwater Source <sup>2</sup>	Upper Lachlan Alluvial Groundwater Source
Current WALs	<ul style="list-style-type: none"> <li>2,754 unit shares (unregulated river WALs).</li> <li>16 ML/year (domestic and stock WALs).</li> </ul>	<ul style="list-style-type: none"> <li>592,801 unit shares (general security WALs).</li> <li>27,680 unit shares (high security WALs).</li> <li>17,911 ML/year (conveyance WALs).</li> <li>12,502 ML/year (domestic and stock WALs).</li> <li>15,545 ML/year (local water utility WALs).</li> </ul>	<ul style="list-style-type: none"> <li>74,175 units shares (aquifer access licences (AALs) all management zones).</li> <li>3,903 ML/year (local water utility WALs all management zones).</li> </ul>	<ul style="list-style-type: none"> <li>166,516.5 unit shares (AALs all management zones).</li> <li>13,838 units shares (AALs management zone 7 only).</li> <li>9,921 ML/year (local water utility WALs all management zones).</li> <li>316 ML/year (local water utility WALs management zone 7 only).</li> </ul>
Rules for managing licences	<p>Unregulated river WALs:</p> <ul style="list-style-type: none"> <li>Carryover unused water allocations up to 1 ML per unit share of WAL, plus or minus any water allocations traded in or out.</li> <li>Take of not more than 3 ML per unit share of WAL over any 3 year period.</li> </ul>	<p>For general security WALs:</p> <ul style="list-style-type: none"> <li>Allocations in a water allocation account not to exceed the 2 ML per unit share of the WAL.</li> </ul> <p>For high security WALs:</p> <ul style="list-style-type: none"> <li>No carryover of unused allocation between water years.</li> </ul>	<p>For AALs:</p> <ul style="list-style-type: none"> <li>Carryover unused water allocation up to a maximum of 0.1 ML per share of the WAL.</li> <li>Maximum annual take of 1.1 ML per unit share of WAL, plus or minus any water allocations traded in or out.</li> </ul>	<p>For AALs:</p> <ul style="list-style-type: none"> <li>Carryover unused water allocation up to a maximum of 0.2 ML per share of the WAL.</li> <li>Maximum annual take of 1.2 ML per unit share of WAL, plus or minus any water allocations traded in or out.</li> </ul>
Trading rules	<ul style="list-style-type: none"> <li>Not permitted into water source.</li> <li>Permitted within water source, subject to assessment, except onto Lake Cowal (refer to below).</li> <li>No new take of water from Lake Cowal as defined in clauses 53(2(a), 63(1)(b), 66(1)(b) and 68(1)(d).</li> </ul>	Refer to Part 9 of the WSP.	<ul style="list-style-type: none"> <li>Not permitted from or to another groundwater source.</li> <li>Permitted within groundwater source, subject to assessment.</li> </ul>	<ul style="list-style-type: none"> <li>Not permitted from or to another groundwater source.</li> <li>Not permitted between management zones.</li> <li>Permitted within management zones, subject to assessment.</li> </ul>

## 2.4.2 Approvals

An approval granted under the WM Act authorises the holder to carry out an activity at a specific location on a property. A water supply work approval authorises the holder to construct and use a water supply work at a specified location to take water from a river, lake or aquifer. Water supply works generally refer to infrastructure that has the capacity to extract, store or convey water (e.g. pumps, bores, dams, etc).

A water use approval authorises the holder to use water for a specified purpose at a specified location. Examples of water use include town water supply, power generation, irrigation, mining and industrial.

Approved state significant development (SSD) projects do not require water supply work, water use or controlled activity approvals under the WM Act, in accordance with clause 4.41(g) of the EP&A Act. The intent of these exemptions is for the proponent to avoid the need to seek duplicate assessment and approvals. However, there is still a requirement that all activities be adequately assessed to DPE Water's satisfaction as part of the project impact assessment process. The assessment process is used to ensure the construction and use of works do not cause more than 'minimal harm' to water sources and dependent ecosystems or significantly affect access to water by other authorised water users.

## 2.5 Metering & compliance

Water metering requirements are prescribed in the WM Act and WM Regulation and are set out in the NSW Non-Urban Water Metering Policy (DPIE 2020). Metering requirements apply to works taking water from regulated rivers, unregulated rivers and groundwater systems under a licence, where the take can be measured with a meter, for example pumped transfers from a borefield supplying groundwater.

Some water take associated with the Project will occur passively and cannot be metered, for example catchment runoff into reservoirs or groundwater inflows into underground infrastructure. In these cases, an exemption under clause 233 of the WM Regulation from the metering requirements can apply as it is not physically possible to measure the water take by metering equipment. Exemptions are granted by DPE Water under Ministerial delegation.

An application for an exemption from the metering requirements will likely need to document alternative methods for measuring or estimating water take such as the use of monitoring data to calibrate or validate a model used to predict and report annual water take.

### 3 Existing licences and approvals

A summary of the existing water access licences (WALs) held for CGO is provided in Table 3.1 and the associated approvals are provided in Table 3.2. Information was compiled from the pre-feasibility study for the Project (Evolution 2021), water management plan (Evolution 2022a) and the 2021 annual review (Evolution 2022b). Additional information was obtained from the NSW Water Register (WaterNSW 2023).

**Table 3.1**      **Summary of existing water access licences**

Licence number	Category	Entitlement <sup>1</sup>	Tenure type	Water sharing plan	Water source	Management Zone	Nominated works	Comments/purpose
WAL 36569	Aquifer	300 units	Continuing	Lachlan Alluvial Groundwater Sources 2020	Upper Lachlan Alluvial Groundwater Source	Upper Lachlan Alluvial Zone 7 Management Zone	70WA614933	Eastern Saline Borefield
WAL 31864	Aquifer	3,350 units	Continuing	Lachlan Alluvial Groundwater Sources 2020	Upper Lachlan Alluvial Groundwater Source	Upper Lachlan Alluvial Zone 7 Management Zone	70WA614076	Bland Creek Palaeochannel borefield
WAL 36615	Aquifer	366 units	Continuing	Lachlan Alluvial Groundwater Sources 2020	Upper Lachlan Alluvial Groundwater Source	Upper Lachlan Alluvial Zone 7 Management Zone	70WA614090	Saline groundwater supply borefield within ML 1535 Pit dewatering
WAL 36617	Aquifer	3,294 units	Continuing	NSW Murray Darling Basin Fractured Rock Groundwater Sources 2020	Lachlan Fold Belt MDB Groundwater Source	Lachlan Fold Belt MDB (Other) Management Zone	70WA614090	Pit dewatering
WAL 13749	Regulated river (high security)	0 units	Continuing	Lachlan Regulated River Water Source 2016	Lachlan Regulated River Water Source	That Part of the Water Source Upstream of Lake Cargelligo Weir	70CA601244	Lachlan River additional water supply
WAL 14981	Regulated river (high security)	80 units	Continuing	Lachlan Regulated River Water Source 2016	Lachlan Regulated River Water Source	That Part of the Water Source Downstream of Lake Cargelligo Weir	70WA603145	Lachlan River additional water supply
WAL 13748	Regulated river (general security)	30 units	Continuing	Lachlan Regulated River Water Source 2016	Lachlan Regulated River Water Source	That Part of the Water Source Upstream of Lake Cargelligo Weir	70CA601244	Lachlan River additional water supply
WAL 1990	Regulated river (general security)	123 units	Continuing	Lachlan Regulated River Water Source 2016	Lachlan Regulated River Water Source	That Part of the Water Source Upstream of Lake Cargelligo Weir		Lachlan River additional water supply
WAL 42993	Regulated river (general security)	1,400 units	Continuing	Lachlan Regulated River Water Source 2016	Lachlan Regulated River Water Source	That Part of the Water Source Downstream of Lake Cargelligo Weir		Lachlan River water supply

**Table 3.1** Summary of existing water access licences

Licence number	Category	Entitlement <sup>1</sup>	Tenure type	Water sharing plan	Water source	Management Zone	Nominated works	Comments/purpose
WAL 40424	Regulated river (general security)	100 units	Continuing	Lachlan Regulated River Water Source 2016	Lachlan Regulated River Water Source	That Part of the Water Source Upstream of Lake Cargelligo Weir		Lachlan River additional water supply
WAL 31568	Unregulated river	729 units	Continuing	Lachlan Unregulated River Water Sources 2012	Bogandillon and Manna Creeks Water Source		70CA610746	
WAL 31563	Domestic and stock (stock)	4 ML	Specific purpose	Lachlan Unregulated River Water Sources 2012	Bogandillon and Manna Creeks Water Source		70CA610746	

**Table 3.2** Summary of existing approvals

Approval number	Approval kind	Expiry date	Associated WAL	Work description	Use purpose	Location	Comments
70WA614076	Water supply works	13/09/2025	WAL 31864	4 bores for groundwater extraction		Lot 7002, DP 1117542 Lot 91, DP 753077 Lot 55, DP 753089 Lot 105, DP 753077	Bland Creek Palaeochannel borefield.
70WA614933	Water supply works	09/06/2026	WAL 36569	5 bores for groundwater extraction		Lot 15, DP 753129 Lot 2, DP 515542	Eastern Saline Borefield.
70WA614090	Water supply works	13/09/2025	WAL 36615 WAL 36617	6 bores for groundwater extraction		Lot 23, DP 753097 Lot 24, DP 753097	Pit dewatering. Saline groundwater supply borefield within ML 1535.



**Table 3.2**      **Summary of existing approvals**

Approval number	Approval kind	Expiry date	Associated WAL	Work description	Use purpose	Location	Comments
70CA601244	Water supply works and water use	23/02/2030	WAL 7709	Diversion works	Conveyancing	Lot 68, DP 753095	Lachlan River water supply. Approval not held by Evolution.
			WAL 7711	Storages	Industrial		
			WAL 7708		Irrigation		
			WAL 13739				
			WAL 13748				
			WAL 13749				
			WAL 15132				
			WAL 36373				
70WA603145	Joint water supply works	01/03/2028	WAL 10037	Diversion works – pumps		Lot 362, DP 755189	Lachlan River water supply. Approval not held by Evolution.
			WAL 11273				
			WAL 14981				
			WAL 14982				
70CA610746	Water supply works and water use	23/06/2027	WAL 31563	Diversion works – pumps	Irrigation	Lot 1, DP 530299 (work)	Associated with property located to the north of mine site.
			WAL 31568			Lot 1, DP 753083 (water use)	
70WA610747	Water supply works	13/09/2025		Bywash dam		Lot 1, DP 753084 Lot 15, 753097	Associated with property located to the south of mine site.
70WA611192	Water supply works	13/09/2025		Bywash dam		Lot 33, DP 753097 Lot 45, DP 753100	Associated with property located to the south of mine site. Approval is held by Evolution and Leppington Pastoral Co Pty Ltd.

**Table 3.2**      **Summary of existing approvals**

Approval number	Approval kind	Expiry date	Associated WAL	Work description	Use purpose	Location	Comments
70WA614805	Water supply works	13/09/2025		Conveyancing works (pipeline)		Lot 44, DP 42918 Lot 45, DP 42918 Lot 46, DP 42918 Lot 47, DP 42918 Lot 18, DP 753097 Lot 23, DP 753097 Lot 24, DP 753097	
				Structures (two levees)		Lot 2, DP 530299 Lot 45, DP 753083 Lot 7, DP 753083 DP 753083 Lot 23, DP 753097 Lot 24, DP 753097 DP 1029713 Lot 101, DP 1059150 Lot 105, DP 1059150 Lot 1, DP 1060907 DP 1069650	

## 4 Project water requirements

Evolution is required to licence groundwater and surface water that is taken or intercepted in accordance with the WM Act and AIP. This includes water that is taken for use as well as water that is incidentally intercepted and managed as part of construction and operational activities.

Aspects of the Project that potentially require consideration under the water management regulation framework have been identified as:

- Groundwater inflows into underground and open pit mine workings.
- Captured catchment runoff within the site water management system.
- Additional water supplied for general construction and operation requirements, including water sourced from borefields and the Lachlan River via the Jemalong Irrigation Corporation.
- Dewatering of Lake Cowal to construct an expansion of the lake protection bund.

### 4.1 Groundwater inflows

Incidental groundwater inflows into underground and open pit mine workings during mining operations will need to be licensed as this is considered ‘water take’. This will be a licensable volume from the fractured rock aquifer, regulated under the Lachlan Fold Belt MDB Groundwater Source (Lachlan Fold Belt MDB (Other) Management Zone), and from the overlying sediments, regulated under the Upper Lachlan Alluvial Groundwater Source (Upper Lachlan Alluvial Zone 7 Management Zone). Groundwater flow directions, with respect to the Project, are shown conceptually in Figure 4.1.

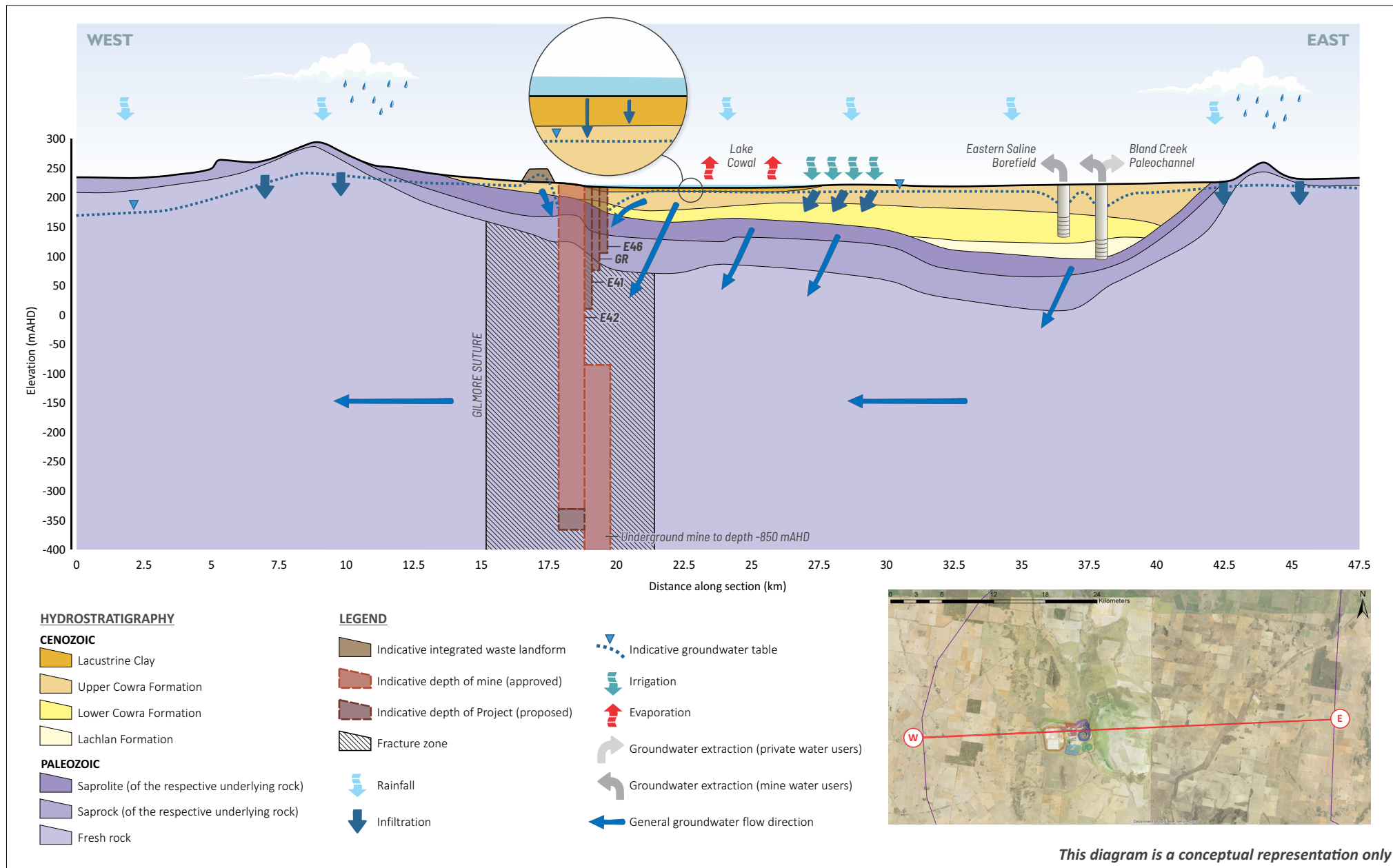
The groundwater inflow volumes associated with the Project have been informed by the hydrogeological numerical flow modelling (EMM 2023). The model predicted the following maximum inflows for the two impacted water sources:

- Upper Lachlan Alluvial Groundwater Source Management Zone 7 – 0.33 ML/day (121 ML/year) in 2026 (total inflow from model layers representing the Upper Cowra, Lower Cowra and Lachlan Formation).
- Lachlan Fold Belt MDB Groundwater Source – 4.56 ML/day (1,664 ML/year) in 2027 (total inflow from all other model layers).

The predicted annual groundwater inflow volumes for the whole of CGO as approved and proposed, are summarised in Table 4.1.

**Table 4.1** Predicted groundwater inflows into underground and open pit mine

Water source	Groundwater inflow rate during mine life
	Maximum
Lachlan Fold Belt MDB Groundwater Source	1,664 ML/year
Upper Lachlan Alluvial Groundwater Source	121 ML/year



Conceptual hydrogeological section – east to west

## 4.2 Captured catchment runoff

The interception of overland surface water runoff within the water management systems for the Project is expected to occur during construction, mining operations and rehabilitation of the site. Generally:

- Any surface water runoff captured in a storage located on a non-minor watercourse (i.e. third order or higher stream) will require licensing.
- Dirty runoff from disturbed areas captured in a storage located on a minor watercourse (i.e. second order or lower stream) will not require licensing, provided it fulfils the definition of excluded works under Schedule 1 of the WM Regulation.
- Clean runoff from undisturbed areas captured in a storage located on minor watercourses (i.e. second order or lower stream) will not require licensing, up to the maximum harvestable right of 702 ML for the site. Harvesting of runoff in excess of this limit would require licensing.

Further discussion on specific storages and areas of the Project is provided below. The current Project layout and watercourses as defined by the WM Regulation hydroline spatial data (DPE Water 2022) are presented in Figure 4.2.

### 4.2.1 Structures on non-minor watercourses

Based on the existing site layout, there are two third-order watercourses at the site (refer Figure 4.2 ), which are diverted by a permanent up-catchment diversion system (UCDS) constructed on both the northern and southern perimeters of the site. The UCDS directs runoff from areas unaffected by mining around the perimeter of the site and into Lake Cowal.

The UCDS was a feature of the original development application DA 14/98, which was approved in 1999. Modification 14 to development consent DA 14/98, approved in 2018, included relocation of the UCDS to accommodate the Integrated Waste Landform. The system is consistent with the provisions of the blue book (Landcom 2004; DECC 2008). The new UCDS stilling basins are proposed as features designed to manage scour and erosion potential, and the system represents best practice to minimise impacts to the downstream receiving environment of Lake Cowal. No water will be captured, taken or consumed by the expansion of the UCDS system as part of the Project.

### 4.2.2 Dirty water dams

The existing mine site and proposed Project includes several dams and open pits that capture dirty water runoff from disturbed areas, mining areas, waste rock emplacements and processing areas.

Dams that are solely for the capture, containment or recirculation of drainage, consistent with best management practice to prevent the contamination of a water source, that are located on a minor stream (as defined by the hydrolines provided by the WM Regulation data published by DPE Water (2022)) are considered to be excluded works under Schedule 1, item 3 of the WM Regulation (often referred to as dirty water or contaminated water excluded works dams). The use of water from excluded works is exempt from requiring a licence under Schedule 4, item 12 of the WM Regulation.

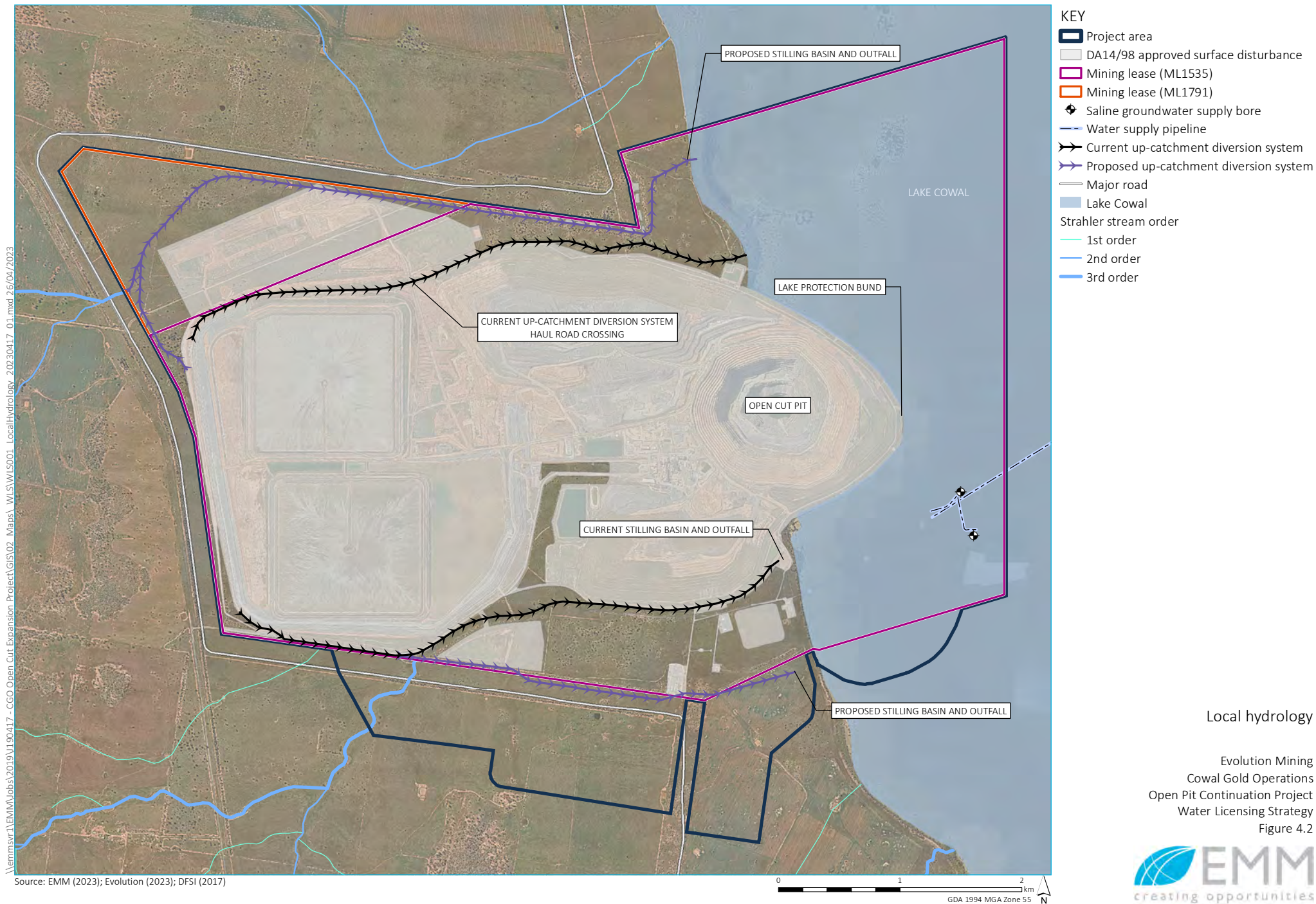
All dams within the water management system at the mine and dams proposed as part of the Project that capture dirty water runoff are considered to fulfil the requirements of the excluded works exemption and will not require licensing to account for water take.

Based on advice by DPE Water, dams relying on an excluded works exemption must not have a secondary or additional purpose, such as to store water taken under an access licence. All water that is taken under an access licence (i.e. groundwater seepage into open pits and underground workings as well as external water supply) is ultimately stored within tanks or dams D6 and D9. Site water management requirements, post approval, will confirm that existing and new storages, relying on an excluded works exemption, do not have a secondary purpose.

#### 4.2.3 Clean runoff

Under the harvestable rights regime, up to 10% of the average regional runoff for the landholding may be captured and stored in dams located on minor streams and used without the need for a licence or approval. At the Project site, Evolution currently owns landholdings with a total area of 12,764 ha. Using the online maximum harvestable right dam capacity calculator (WaterNSW 2022), the total harvestable right for the site is estimated to be 702 megalitres (ML). This equates to an average regional runoff rate of 0.55 ML/ha per year (i.e.  $702 \text{ ML} = 10\% \times 0.55 \text{ ML/ha} \times 12,764 \text{ ha}$ ). There are several dams on the landholding that fall within this total harvestable right however they are not relied on for the supply of water to the operations.





### 4.3 Additional water supply

The primary operational water demand is for ore processing, as well as dust suppression of haul roads and other potable and non-potable uses. The site water balance prepared for the Project (ATC Williams 2023) predicts a maximum water demand of 22.9 ML/day (Year 16) to accommodate processing of primary and oxide ore from underground and open cut mining operations.

Water supply for the Project would continue to be sourced primarily on site, with make-up supply provided from external sources. Water supply sources (in order of priority) include:

- Site water supply:
  - Incidental groundwater inflows into the underground and open cut mine workings, accounted for with entitlement in the Lachlan Fold Belt MDB Groundwater Source and Upper Lachlan Alluvial Groundwater Source (refer Section 4.1).
  - Return water from the tailings storage facilities/Integrated Waste Landform, considered to be exempt from licensing (refer Section 4.2.2).
  - Incidental runoff captured in dirty water dams from mine waste emplacements and other areas of the internal catchment drainage system, considered to be exempt from licensing (refer Section 4.2.2).
- External water supply:
  - Groundwater supplied by the eastern saline borefield, accounted for with entitlement in the Upper Lachlan Alluvial Groundwater Source.
  - Groundwater supplied by the Bland Creek Palaeochannel borefield, accounted for with entitlement in the Upper Lachlan Alluvial Groundwater Source.
  - Groundwater supplied by the saline groundwater supply borefield within ML 1535 when lake conditions allow, accounted for with entitlement in the Upper Lachlan Alluvial Groundwater Source.
  - Water extracted from the Lachlan River supplied via a pipeline from the Jemalong Irrigation Channel, accounted for with entitlement in the Lachlan Regulated River Water Source.

Water demand requirements have been predicted through water balance modelling for the operational phase of the Project. The predictions from ATC Williams (2023) are provided in Table 4.2.

**Table 4.2 Additional predicted water supply demands for the Project**

Water source	Project use	Median (ML/year) <sup>1</sup>	90th percentile (ML/year) <sup>1,2</sup>
Upper Lachlan Alluvial Groundwater Source Management Zone 7	Eastern Saline Borefield	300	300
	Bland Creek Palaeochannel borefield	1,100	1,460
	Saline groundwater supply borefield within ML 1535	0	30
Lachlan Regulated River Water Source	Lachlan River via Jemalong Irrigation Channel	940	1,965

Notes: 1. Rounded to the nearest ML

2. Based on 90th percentile demand predictions from ATC Williams (2023). The 90th percentile results for each forecast year are only exceeded in 10% of 134 modelled realizations, while the 10th percentile volumes are exceeded in 90% of modelled realizations. There is a predicted 80% chance that the forecast volumes will fall between the 10th and 90th percentile results in each year. The results here do not directly correspond to a single climatic realization. They should be considered an upper estimate from a range of values.

Currently, the mine is separated from Lake Cowal by an engineered lake protection bund, which stops water ingress into open pits. Redevelopment of the lake protection bund system is proposed as part of the Project to enable the development of new open pits and provide continued separation between Lake Cowal and the mine.

The Project includes the continuation of open cut mining and the expansion of a lake protection bund system to separate the mine and Lake Cowal. Lake Cowal is currently full, and the lake protection bund may need to be constructed in a wet/saturated environment. This may trap a significant quantity of water behind the bund, which would then be dewatered back to the lake following treatment. A water access licence will be required to account for the trapping/pumping of this water.

The preferred construction method for the preliminary water exclusion works (prior to the construction of the lake protection bund) is sheet pile groyne construction using rock material sourced from the mine. Several options are being considered for the execution of the lake protection bund, including two separate bunds (a northern and a southern bund) constructed concurrently or consecutively, as well as the full bund with construction commencing at the northern and southern sections concurrently (i.e. works progressing from the foreshore into the lake).

Based on the timeline for the Project, it is likely that Lake Cowal will still be inundated at the time of construction of the lake protection bund. It is estimated that a volume of up to 6,000 ML of water will be confined behind the lake protection bund and will require dewatering prior to mining, although detailed design of the bund and construction scheduling will seek to minimise the quantity of water confined.

#### 4.4 Required entitlement

A summary of the peak water licensing requirements and current entitlement held by Evolution is provided in Table 3.2.

Sufficient entitlement is held for the predicted water take from groundwater sources and no additional entitlement is expected to be required for the Project.

Water in excess of current entitlements and annual allocations may be required from the Lachlan River Regulated River Water Source from time to time to meet peak demand. This can be met through the water market (discussed further in Section 5.2).

Dewatering requirements for the construction of an expanded lake protection bund will require a Specific Purpose Licence (SPAL). Several clauses in the WSP for the Bogandillon and Manna Creeks Water Source prevent water supply work approvals and trading of water entitlement onto Lake Cowal, therefore preventing any new water take. This means that applying for a SPAL is the only option for the Project. Further detail and the process for securing this licence for the Project is discussed in Section 5.3.

**Table 4.3**      **Summary of water licensing requirements**

Water source	Current entitlement held	Licensing requirement
Bogandillon and Manna Creeks Water Source	729 ML	6,000 ML <sup>1</sup>
Lachlan Regulated River Water Source	80 ML (high security) 1,653 ML (general security)	1,965 ML <sup>2</sup>
Lachlan Fold Belt MDB Groundwater Source	3,294 ML	1,664 ML <sup>3</sup>
Upper Lachlan Alluvial Groundwater Source	4,016 ML	1,911 ML <sup>4</sup>

Notes:

1. Volume prediction has been based on the wettest five percent of rainfall conditions and the associated dewatering requirements for construction of the lake protection bund.
2. Based on peak (90th percentile) water balance model demand predictions, refer to Table 4.2 (ATC Williams 2023).
3. Based on maximum groundwater inflow volumes (EMM 2023).
4. Based on 0.33 ML/day maximum predicted by EMM (2023) combined with 90th percentile water balance model demand predictions for additional water supply by ATC Williams (2023).



## 5 Water access licensing opportunities

Water users are able to acquire new or additional water entitlement and/or allocation via a number of different pathways. The options available for each water source depend on existing rights and the sustainability of the water source. For the water sources specific to the Project, the options for obtaining entitlement include controlled allocation orders (CAOs), dealings (trading on the water market) and specific purpose access licences (SPALs).

The following sections detail the recommended water licensing pathway for surface water related components of the Project where licenses are required.

### 5.1 Controlled allocation orders

A controlled allocation order (CAO) is a mechanism for granting new WALs in water sources with ‘unassigned’ water. Unassigned water is the portion of the extraction limit specified by the WSP that has not already been allocated to water users by way of an entitlement or unlicensed statutory right. A controlled allocation process is competitive and is announced by Ministerial Order published in the NSW Government Gazette from time to time. Relevant information, such as applicable water sources, amounts of water made available and minimum prices, are specified in the Order.

CAOs are typically made annually around the middle of the calendar year. There is no guarantee that an offer for all (or any) of the volume tendered for by the interested party will be accepted. It is also not known how much water will be made available in future CAOs. In general, the volume released annually is approximately 10% of the remaining unassigned water for the particular water source.

There have been eight controlled allocations since 2009, with water from groundwater sources only released previously (controlled allocations have not included any surface water sources, with the exception of the 2022 controlled allocation order). No controlled allocations for the surface or alluvial water sources relevant to the Project have been made previously.

Based on the limited water sources being offered as part of the CAO process, this pathway is not of use for the Project.

### 5.2 Water trading market

Water sources are classified as “fully committed” when the sum of entitlements and the water reserved to meet basic landholder rights is equal to or above the long-term average annual extraction limit (LTAAEL). In fully committed water sources, entering the water trading market is the generally accepted pathway to securing entitlements. This market is well established in all the regulated surface water and many groundwater systems and to a lesser extent in the unregulated surface water sources. The market operates like most commodity markets with brokers or agents assisting negotiations between vendors and purchasers. Trades can be on a temporary (sale of annual allocations) or permanent (sale of ongoing entitlement) basis, with permanent trades attracting a premium price and temporary trades more responsive to seasonal variations and demand. The purchase price is a market determined one-off payment to the vendor; however, private brokerage charges may be incurred. Government dealing (or trade) application fees apply, and annual water management charges are based on entitlement volumes and water usage continue to apply.

The entitlements in the water sources relevant to the Project are shown in Table 5.1 for surface water sources (current as of April 2023). All the relevant water sources are fully committed.

**Table 5.1**      **Water source entitlements – relevant surface water sources**

Access licence category	Bogandillon and Manna Creeks Water Source <sup>1</sup>		Lachlan Regulated River Water Source <sup>1</sup>	
	Number of licences	Total share component	Number of licences	Total share component
Domestic and stock			340	10,954 ML/year
Domestic and stock (domestic)			79	177 ML/year
Domestic and stock (stock)	2	8 ML/year	171	1,599 ML/year
Local water utility			9	15,545 ML/year
Regulated river (conveyance)			1	17,911 unit shares
Regulated river (general security)			831	592,901 unit shares
Regulated river (high security)			198	27,680 unit shares
Unregulated river	7	2,754 unit shares		

1: Based on a search of the NSW Water Register (WaterNSW 2023) in April 2023 and rounded to the nearest whole number.



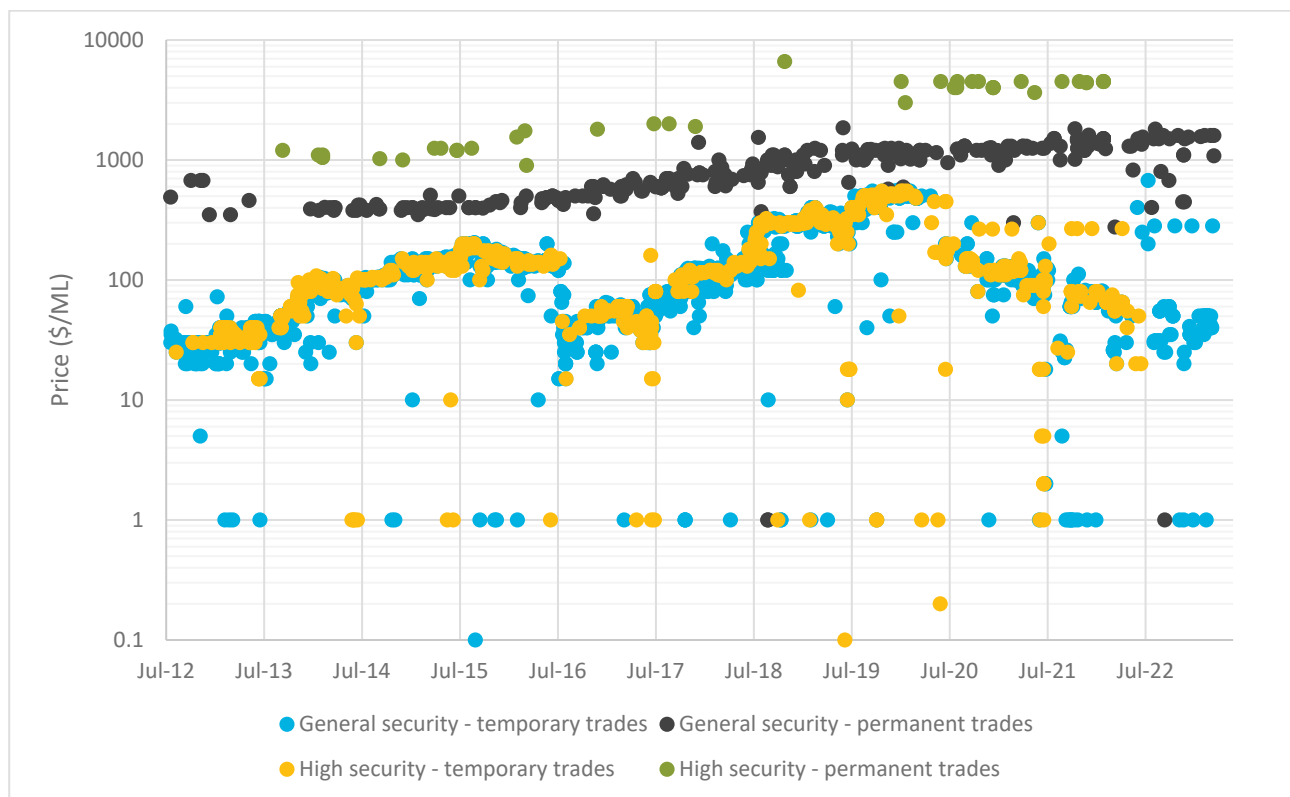
### 5.2.1 Water trading activity overview

Licence transfers and prices within the Bogandillon and Manna Creeks Water Source are recorded on the NSW Water Register (WaterNSW 2023) and shown in Table 5.2. These are generally associated with property sales (and the price embedded therein). No share assignments (i.e. permanent trade) or water allocation assignments (i.e. temporary trade) have been recorded for the water source.

**Table 5.2 Bogandillon and Manna Creeks Water Source – licence transfer history**

Date	Category	Volume (ML)	Price (\$/ML)
8 July 2014	Unregulated river	1,449	0
3 August 2016	Domestic and stock	4	0
3 August 2016	Unregulated river	88	100
3 August 2016	Unregulated river	729	0
30 August 2016	Unregulated river	729	0
30 August 2016	Domestic and stock	4	0

Water trading activity for the Lachlan Regulated River Water Source associated with general and high security regulated river entitlement over the past 10 years from July 2012 to July 2022 is presented in Figure 5.1. Temporary trades (water allocation assignment trades) and permanent trades (share assignment trades and licence transfers) recorded by the NSW Water Register (WaterNSW 2023) are presented. Note trades with no price recorded (either “null” or “\$0”) are not presented.



**Figure 5.1 Water trading activity for regulated river entitlement in the Lachlan Regulated River Water Source**

Generally, Figure 5.1 shows that temporary (allocation) trades for both general and high security entitlement have attracted a similar price over the past 10 years. The majority of recent trades were found to be around \$100/ML, peaking at about \$500/ML during the height of the drought in 2019. Permanent trades understandably attract higher prices than temporary trades, with high security entitlement attracting a higher price than general security entitlement. There has also been a steady increase in the price of permanent trades over time. Recent permanent trades have been around \$1,600 per ML for general security entitlement and around \$4,500 per ML for high security entitlement, noting that there have been fewer trades of high security entitlement.

### 5.3 Specific purpose access licence (SPAL)

A less common pathway to water access is to seek a SPAL. As indicated by the name, the use of water associated with a SPAL is for a specific period and purpose, and if granted, would extinguish at completion of the activity. SPALs are generally seen as a 'pathway of last resort' when all other avenues for access have been exhausted and/or no water entitlement or shares are available.

It has been determined through the assessment of the Project that a SPAL would be required for the once off and temporary dewatering required to construct the expanded lake protection bund. This was determined to be the preferred approach based on the assessment of a range of options.

The lake protection bund may need to be constructed in a wet/saturated environment, given the current lake levels and uncertainties surrounding inflows to the lake in the near future. Given this construction method, a SPAL is the only licensing pathway available to secure the water entitlement to construct the lake protection bund (as currently designed). The use of water associated with a SPAL is for a specific period and purpose, and if granted would be cancelled at completion of the activity.

SPALs are only considered by Government as an option of last resort – when neither engineering/design nor market (water trading) solutions can be found. They require regulatory changes and are subject to Parliamentary processes, the outcome of which is not guaranteed.

An application for the SPAL can only be made once the Project is approved under the *Environmental Planning and Assessment Act 1979*, and the necessary amendments to the Water Management (General) Regulation 2018 (WM Regulation) and (potentially) the WSP are made.

#### 5.3.1 SPAL process

The process for securing an allocation via a SPAL is outlined below:

- Further consultation with DPE Water/Minister.
- Amendment of Section 10 of the WM Regulation to include provision for an unregulated river access licence of subcategory for Cowal Gold Operations, for the purpose of enabling water to be taken for the construction of a lake protection bund from the Bogandillon and Manna Creeks Water Source. This amendment will allow a SPAL application to be made for the Project, once approved.
- Potential amendment to the WSP to include rules relating to available water determination and account management, and potentially other rules and mandatory conditions that must be imposed on the new access licence category. The WSP amendments would allow Evolution to take water under the SPAL for the construction of the lake protection bund. If required, the WSP amendments would not occur until after Project approval.
- Apply for a SPAL to DPE Water, supported by a evidence that demonstrate *no more than minimal harm will be done to the water source as a consequence of water being taken from the water source under the SPAL* (Section 63(2) of the WM Act).

## 6 Regulatory engagement

Engagement with the Minister for Lands and Water, Hospitality and Racing, and DPE Water occurred in late 2022. The engagement included background on the Project and an outline of the specific issues associated with the dewatering requirements for constructing an expanded lake protection bund.

A response was received in early February 2023 from the Minister. It was acknowledged by the Government and regulatory department that a SPAL was an appropriate option to be considered by the Project based on the information that was provided at the time. The requirement for the Project's approval prior to application of the SPAL was reiterated by the Department in the consultation.

## 7 Summary

A summary of the Project components and corresponding water licensing requirements is provided in Table 7.1.

**Table 7.1** Summary of Project components and corresponding water licensing requirements

Project component	Water licence required?	Additional entitlement or allocation required?	Additional information
Existing surface water infrastructure dams	No	N/A	Excluded works exemption under Schedule 1 of WM Regulation.
Amendments to existing dams (i.e. D5 removed and D1 and D4 replaced)	No	N/A	Excluded works exemption under Schedule 1 of WM Regulation.
Open pit dewatering	Yes	Unlikely to need additional entitlement based on Project hydrogeology model predictions (EMM 2023)	
Underground workings dewatering	Yes		
External water supply (borefields and Lachlan River supply)	Yes	Possibly (within the Lachlan Regulated River Water Source)	Trading on the open water market may be required, continuing the current approach at the site.
Lake protection bund dewatering for construction	Yes	Yes, due to water source limitations and the volume required.	SPAL required for the Project.

### 7.1 Recommendations

The following recommendations are made with respect to the ongoing water licensing requirements of the Project and operation generally:

- Further review the Project's water demand, including throughout the construction and operational phases.
- Engage with DPE Water to clarify the water licensing requirements and confirm the preferred approach to meet the requirements for the Project.
- Following Project approval, consider applying for a miscellaneous work for all works assessed under the SSD approval, which would allow redundant water supply work and water use approvals to lapse and not need to be renewed.
- Consider consolidating WALs within the same water source and category to minimise administrative burden.

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