

# Cowal Gold Operations

## Environmental Management Strategy



COWAL GOLD OPERATIONS  
ENVIRONMENTAL MANAGEMENT STRATEGY



**Revision Status Register**

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## 1 INTRODUCTION

The Cowal Gold Operations (CGO) is located approximately 38 kilometres (km) north-east of West Wyalong in New South Wales (NSW) (Figure 1). Evolution Mining (Cowal) Pty Limited (Evolution) is the owner and operator of the CGO. Evolution acquired the CGO from Barrick (Cowal) Pty Limited in July 2015.

Development Consent (DA 14/98) for the CGO (including the Bland Creek Palaeochannel Borefield water supply pipeline) was granted by the NSW Minister for Urban Affairs and Planning under Part 4 of the NSW *Environmental Planning and Assessment Act, 1979* (EP&A Act) on 26 February 1999. Development Consent (DA 2011/64) for the operation of the Eastern Saline Borefield (ESB) was granted by the Forbes Shire Council on 20 December 2010.

The NSW Minister for Planning granted approval to modify Development Consent (DA 14/98) for the *Cowel Gold Mine Extension Modification* under Section 75W of the EP&A Act on 22 July 2014. The *Cowel Gold Mine Extension Modification* involves the continuation and extension of open pit mining and processing operations for an additional operational life of approximately 5 years (i.e. to 2024).

On 7 February 2017, Development Consent (DA 14/98) was again modified by the NSW Minister for Planning under Section 75W of the EP&A Act to allow continued operations at the existing CGO for an additional 8 years (i.e. to 2032) to allow an additional 1.7 million ounces of gold production.

A copy of the Development Consent (DA 14/98) for the CGO (as modified on 7 February 2017) is available on Evolution's website ([www.evolutionmining.com.au](http://www.evolutionmining.com.au)) and reproduced in Appendix A.

The CGO's Environmental Management Strategy (EMS) was originally approved in November 2014, with a subsequent revision dated November 2016 prepared and submitted to the NSW Department of Planning and Environment (DP&E). This revised EMS has been prepared to reflect the Development Consent (DA 14/98) as modified 7 February 2017 and supersedes all former revisions of the EMS.

The current general arrangement of the approved CGO is presented in Figure 2.

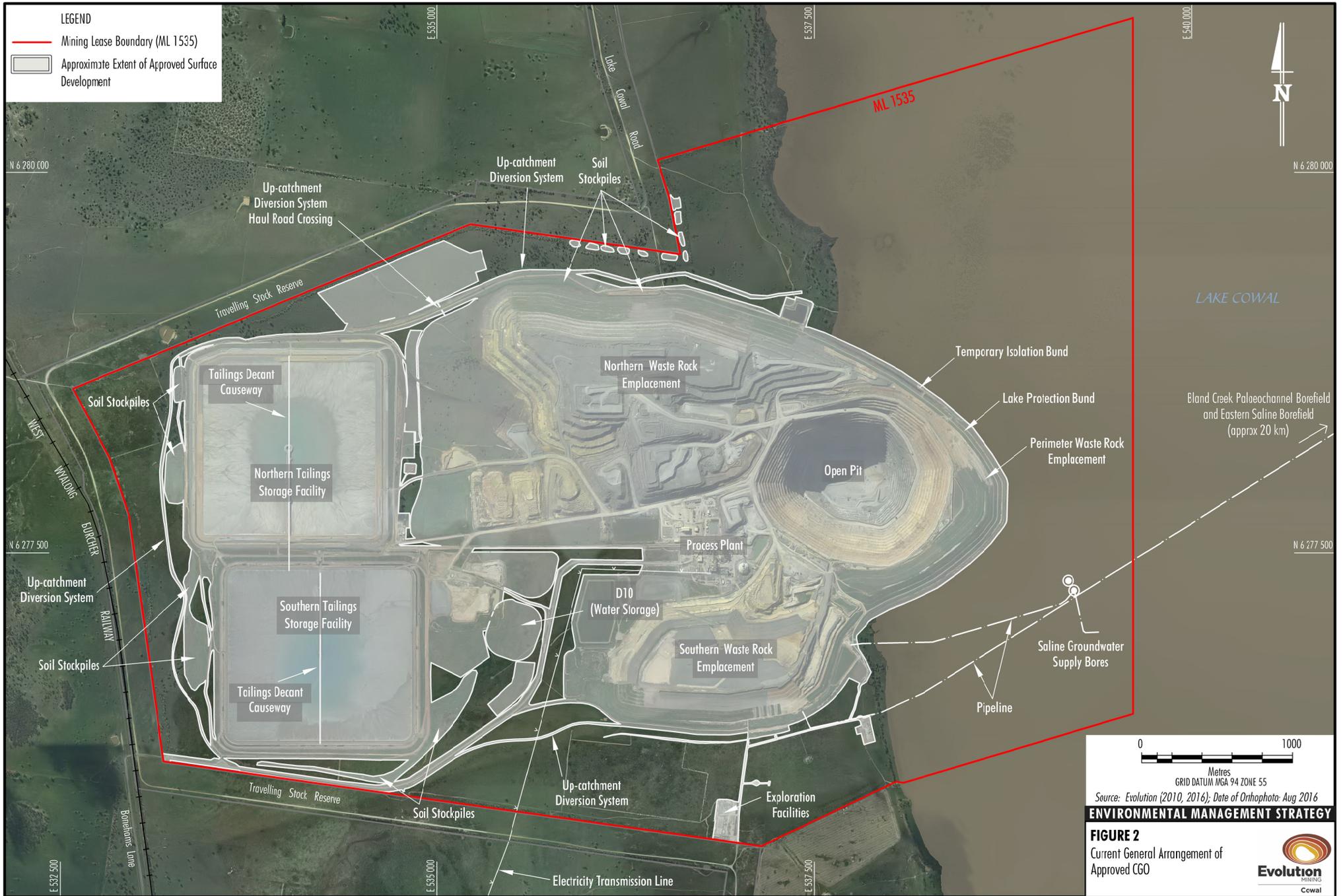
### 1.1 PURPOSE AND SCOPE OF THIS EMS

**Purpose:** This EMS has been prepared in accordance with the requirements of Condition 9.1(a) of the Development Consent (DA 14/98).

**Scope:** This EMS is relevant to all activities associated with operation of the CGO within Mining Lease (ML) 1535 and including operation of the Bland Creek Palaeochannel Borefield and Eastern Saline Borefield (and Eastern Pump Station) (Figure 1).

The objectives of this EMS are to fulfil the relevant requirements of Condition 9.1(a) of the Development Consent (DA 14/98) by providing a strategic framework for environmental management at the CGO including all relevant approvals and environmental management plans (EMPs), strategies, and programs prepared for the CGO. An overview and clear plan of the CGO's EMPs, strategies and programs required under the Development Consent (DA 14/98) is provided in Section 5.





**ENVIRONMENTAL MANAGEMENT STRATEGY**

**FIGURE 2**  
 Current General Arrangement of Approved CGO



## 2 STATUTORY REQUIREMENTS

Evolution's statutory obligations for the CGO are contained in:

- the conditions of Development Consent (DA 14/98) (herein referred to as the Development Consent);
- the conditions of Development Consent (DA 2011/64) (herein referred to as the ESB Development Consent);
- relevant licences and permits and the Conditions of Authority for ML 1535; and
- other relevant legislation.

Details of the statutory obligations relevant to this EMS are described below.

### 2.1 DEVELOPMENT CONSENT CONDITIONS

Condition 9.1(a) of the Development Consent details the requirements for this EMS.

Table 1 presents Condition 9.1(a) of the Development Consent and indicates where the requirements are addressed within this EMS. The Development Consent is provided in Appendix A of this EMS.

**Table 1  
Requirements of Development Consent Condition 9.1(a)**

Development Consent Condition 9.1(a)	EMS Section
<p><b>9.1. Environmental Management</b></p> <p>(a) <u>Environmental Management Strategy</u></p> <p><i>The Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:</i></p> <p>(i) <i>be submitted to the Secretary for approval by the end of October 2014, unless the Secretary agrees otherwise;</i></p> <p>(ii) <i>provide the strategic framework for environmental management of the development;</i></p> <p>(iii) <i>identify the statutory approvals that apply to the development;</i></p> <p>(iv) <i>describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;</i></p> <p>(v) <i>describe the procedures that would be implemented to:</i></p> <ul style="list-style-type: none"> <li>• <i>keep the local community and relevant agencies informed about the operation and environmental performance of the development;</i></li> <li>• <i>receive, handle, respond to, and record complaints;</i></li> <li>• <i>resolve any disputes that may arise;</i></li> <li>• <i>respond to any non-compliance;</i></li> <li>• <i>respond to emergencies; and</i></li> </ul> <p>(vi) <i>include:</i></p> <ul style="list-style-type: none"> <li>• <i>copies of any strategies, plans and programs approved under the conditions of this consent; and</i></li> <li>• <i>a clear plan depicting all the monitoring to be carried out in relation to the development.</i></li> </ul>	<p>Full Document</p> <p>Section 2</p> <p>Section 3</p> <p>Sections 6 and 7</p> <p>Section 8</p> <p>Section 8</p> <p>Section 9</p> <p>Section 10</p> <p>Appendix C</p> <p>Section 5 and Appendix C</p>

The ESB Development Consent (granted by the Forbes Shire Council on 20 December 2010 for the operation of the Eastern Saline Borefield) is provided in Appendix B.

## 2.2 LICENCES, PERMITS AND LEASES

In addition to the Development Consents, all activities at the CGO will be conducted in accordance with a number of licences, permits and leases which have been issued for the CGO. Details of the key licences, permits and leases relevant to the CGO are provided in Table 2 below.

**Table 2**  
**Key Licences, Permits and Leases**

Instrument	Relevant Authority	Date of Grant	Duration of Approval
ML 1535	DRG	13/06/2003	21 years (i.e. 13 June 2024).
Environment Protection Licence (EPL) No. 11912	EPA	23/12/2003	Until the licence is surrendered, suspended or revoked. The licence is subject to review every three years.
Permit #1361 under section 87(1) of the <i>National Parks and Wildlife Act 1974</i> (NPW Act)	OEH	23/05/2002	Valid for period of exploration drilling on the lots covered by the permit.
Consent #1467 under section 90 of the NPW Act	OEH	27/11/2002	The approval lapses when the Minister for Resources and Energy acknowledges that satisfactory rehabilitation work has been completed under ML1535 or 18 years after completion of constructions works, whichever occurs first (i.e. 2022).
Permit #1468 under section 87(1) of the NPW Act	OEH	27/10/2003	Same as Consent #1467.
Consent #1680 under section 90 of the NPW Act	OEH	28/07/2003	The approval lapses when the Minister for Resources and Energy acknowledges that satisfactory rehabilitation work has been completed under ML1535 or 18 years after completion of construction works, whichever occurs first (i.e. 2022).
Permit #1681 under section 87(1) of the NPW Act	OEH	28/07/2003	Same as Consent #1680.
Production bore licence (Bland Creek Palaeochannel Borefield) WAL 31864	DPI-Water	14/09/2012	13 September 2025.
Production bore licences (Eastern Saline Borefield) WAL 36569	DPI-Water	14/09/2014	9 June 2026.
Production bore licences (saline groundwater supply borefield within ML 1535) WAL 36615	DPI-Water	21/03/2014	13 September 2025. Upper 10 percent (%) (366 units. Lachlan Alluvial Zone 7). Valid for the operation of three lake floor saline production bores when not inundated by Lake Cowal.
Pit dewatering licences (70BL230233, 70WA614090 and 70AL615006) WAL 36615	DPI-Water	21/03/2014	13 September 2025. Upper 10% (366 units. Upper Lachlan Alluvial Zone 7). Replacement de-watering bore licenses as exchanged for decommissioned bores.
Pit dewatering licences (70BL230233, 70WA614090 and 70AL615007) WAL 36617	DPI-Water	21/03/2014	13 September 2025. Lower 90% (3,294 units. Upper Lachlan Fold Murray Darling Basin). Replacement de-watering bore licenses as exchanged for decommissioned bores.
Monitoring and test bore licences	DPI-Water	Various	Various.

**Table 2 (continued)**  
**Key Licences, Permits and Leases**

Instrument	Relevant Authority	Date of Grant	Duration of Approval
High Security WAL 13749	DPI-Water	21/12/2006	Life of ML. Title for allocation from Regulated River Source.
High Security WAL 14981	DPI-Water	15/9/2011	Life of ML. Title for allocation from Lachlan Regulated River Source – Water Sharing Plan.
General Security WAL 13748	DPI-Water	21/12/2006	Life of ML. Title for allocation from Regulated River Source.
Water Supply Works Approval 614805	DPI-Water	12/01/2010	13 September 2025. Approval for Temporary Isolation Bund, Lake Protection Bund and buried Lake Cowal pipeline structures.

DRG: Division of Resources and Geoscience within the DP&E.

EPA: NSW Environment Protection Authority.

OEH: NSW Office of Environment and Heritage.

DPI-Water: NSW Department of Primary Industries - Water

WAL: Water Access Licence.

## 2.3 OTHER LEGISLATION AND GUIDELINES

Evolution will conduct operations at the CGO consistent with the relevant Development Consents, leases, licences, and permits and any other legislation that is applicable to the CGO.

The key NSW and Commonwealth legislation that may be applicable to the CGO include (but is not limited to):

- *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries), 2007.*
- *Bland Local Environmental Plan 2011.*
- *Forbes Local Environmental Plan 2013.*
- *Mining Act, 1992.*
- *Protection of the Environment Operations Act, 1997.*
- *National Parks and Wildlife Act, 1974.*
- *Biodiversity Conservation Act, 2016.*
- *Contaminated Land Management Act, 1997.*
- *Noxious Weeds Act, 1993.*
- *Dangerous Goods (Road and Rail Transport) Act, 2008.*
- *Water Act, 1912.*
- *Water Management Act, 2000.*
- *Environment Protection and Biodiversity Conservation Act, 1999 (Commonwealth).*
- *National Greenhouse and Energy Reporting Act, 2007 (Commonwealth).*

Guidelines applicable to the CGO are detailed in the CGO's EMPs, programs and strategies (Appendix C).

### 3 SITE ENVIRONMENTAL MANAGEMENT STRUCTURE

Table 3 presents the roles and responsibilities of key members of the site environmental management team, and other key CGO personnel.

**Table 3  
Site Environmental Management – Roles and Responsibilities**

Environmental Management Role	Responsibility
Sustainability Manager	<ul style="list-style-type: none"> <li>• Act as the appointed “Environmental Officer” on behalf of the operation.</li> <li>• Oversee the development and implementation of Environment and Social Responsibility (ESR) management systems and governance programs to ensure the operation maintains compliance with applicable environmental and social obligations (internal and external).</li> <li>• Promote and enhance Evolution’s reputation and relationship with the broader community and stakeholders through positive consultation, proactive engagement and compliance with relevant legislation and permitting conditions.</li> <li>• Manage stakeholder engagement for the CGO through community meetings, media, publications and site visits.</li> <li>• Work with relevant Government Agencies and consultants to ensure necessary project approvals are achieved.</li> <li>• Oversee the implementation of organisational policies, standards, plans and procedures.</li> <li>• Oversee the environmental monitoring program to meet the environmental obligations.</li> <li>• Oversee the development and management of ESR risks.</li> <li>• Manage the ongoing implementation and compliance of the Wiradjuri Native Title Agreement.</li> <li>• Coordinate cultural heritage matters ensuring compliance with relevant NSW legislation and Indigenous Archaeology and Cultural Heritage Management Plans.</li> <li>• Lead, coach and mentor a dynamic team to provide high quality ESR service and support to the CGO.</li> <li>• Establish training and awareness programs for employees, contractors and visitors to site in relation to the ESR management plans developed to comply with ESR obligations and Evolution’s policies in relation to ESR management and performance.</li> <li>• Oversee the governance programme to monitor compliance and performance of department managers, supervisors, employees, and contractors against the ESR management programmes.</li> <li>• Oversee the establishment of environmental monitoring objectives to meet the requirements of environmental obligations and stakeholder expectations.</li> <li>• Act as the spokesperson for all ESR matters related to the operations.</li> <li>• Oversee the preparation and delivery of internal and external reports as per ESR obligations.</li> <li>• Promote Evolution’s ESR strategy by educating staff and contractors.</li> <li>• Oversee the development and implementation of Cultural heritage and European heritage awareness program for all employees, contractors and visitors to the operation.</li> <li>• Responsible for the development of the rehabilitation, biodiversity offsets, mine closure and land strategies, and oversees the implementation of associated programs and activities.</li> <li>• Responsible for the annual strategic planning for the environmental function, facilitating the development and implementation of performance metrics, work programs, and operating and capital budgets.</li> </ul>

**Table 3 (continued)**  
**Site Environmental Management – Roles and Responsibilities**

Environmental Management Role	Responsibility
ESR Superintendent	<ul style="list-style-type: none"> <li>• Maintain project approvals, ensuring approval obligations are suitable for the continued operation of the CGO.</li> <li>• Ensure all CGO approval documents are submitted as required by licences, Development Consent and ML 1535 conditions and other permits.</li> <li>• Manage consultants involved in CGO approvals processes.</li> <li>• Work with relevant Government Agencies and consultants to ensure necessary project approvals are achieved.</li> <li>• Promotes and enhances Evolution's reputation and relationship with the Government regulators, local landholders and other stakeholders.</li> <li>• Maintains the implementation of the environment management system and governance programs to ensure the CGO maintains compliance with applicable environmental obligations and minimises environmental harm and risk.</li> <li>• Oversees the environmental monitoring and reporting program.</li> <li>• Coordinates external environmental audits and site visits, acting as primary contact on environmental matters.</li> <li>• Support for Environmental Manager's responsibilities.</li> <li>• Responsible for site environmental monitoring, including external consultant monitoring and reporting.</li> <li>• Implementation and compliance with EMPs, environmental approvals, licensing and permits.</li> <li>• Annual internal auditing and reporting (Annual Review).</li> <li>• Public monthly reporting of environmental monitoring data.</li> <li>• Closure rehabilitation.</li> <li>• ChemAlert updating.</li> <li>• Pest and weed control works coordination.</li> <li>• Equipment management.</li> <li>• Environmental Management System implementation and optimisation.</li> <li>• Scheduling of Corrective Action Preventative Action (CAPA) follow up for Audits.</li> <li>• Significant Environmental Aspects and Formal Risk Assessments and Management of Change program supervision.</li> <li>• Objectives, Targets and CAPA tracking.</li> <li>• Workplace Interactions, Planned General Inspections and internal audit scheduling.</li> <li>• Pre-starts, awareness packs and training days input.</li> </ul>
General Manager	<ul style="list-style-type: none"> <li>• Provide adequate resourcing to support site environmental management and implementation of the Mining Operations Plan (MOP).</li> <li>• Provide strategic direction.</li> <li>• Responsible for management of Evolution staff and all contractors.</li> </ul>
Mining Manager	<ul style="list-style-type: none"> <li>• Responsible for ensuring all mining works are carried out in accordance with the MOP and other relevant approvals and legislation.</li> <li>• Provide strategic direction.</li> </ul>
General Staff and Contractors	<ul style="list-style-type: none"> <li>• All general staff members trained in environmental procedures and protocols as part of the induction process and regular site meetings.</li> <li>• All general staff members responsible for immediately reporting environmental incidents.</li> <li>• All general staff members responsible for undertaking works in an environmentally sound manner and in accordance with EMPs and site commitments.</li> </ul>

## 4 ENVIRONMENTAL POLICY AND REHABILITATION PRINCIPLES AND OBJECTIVES

Evolution will honour its environmental responsibilities through good engineering practice, fulfilment of statutory responsibilities, regular community consultation and consideration of those impacted by operations.

Evolution's Environment and Sustainability Policy states that:

*Evolution Mining Limited ("Evolution Mining" or the "Company") is committed to attaining an outstanding level of environmental performance in all of our workplaces.*

*Our environmental care and culture will be formed on the basis of:*

- *Commitment to this Policy, with supportive funding and a belief that the majority of environmental incidents are preventable and controllable with foresight, relevant training, purposeful attitude and appropriate equipment;*
- *Accountability of Management with the support of all Personnel to ensure that the Workplace and the practices comply with statutory and license conditions;*
- *The company will strive to implement leading industry practices and environmental management systems at all levels; including exploration, development, operations, decommissioning, closure and rehabilitation;*
- *Regular assessment of the environmental performance of the Company's activities will be undertaken to comply with the Company's commitments and conditions and to report findings to stakeholders, the community and regulatory authorities;*
- *Continually striving to identify opportunities to effectively manage energy and water whilst minimising waste and reducing our environmental footprint;*
- *Increasing awareness of Personnel on the potential environment impacts of activities in which we are involved, and how those impacts can be minimised;*
- *We undertake to maintain appropriate emergency and response programs and to notify the relevant authority in the event of any reportable environmental incident; and*
- *Contribute to conservation of biodiversity and integrated approaches to land use.*

### **Rehabilitation Principles**

The CGO rehabilitation philosophy is to operate as a non-intrusive land user and to create stable rehabilitated landforms that increase the areas of endemic vegetation in the mine area and the status of land-lake habitats (Evolution, 2016).

The above philosophy has led to the rehabilitation principles and objectives described below.

The CGO's rehabilitation programme includes the following general principles (Evolution, 2016):

- The rehabilitation of landforms is to be progressive and conducted in accordance with approved, verified plans.
- Final landforms are to be stable in the long-term and include native and/or endemic vegetation characteristic of remnant vegetation within the surrounding landscape.
- Endemic groundcover, understorey, tree seeds and seedlings are to be cultivated and used in the rehabilitation programme.

- Rehabilitation concepts are to be flexible to allow for adjustments, based on investigations, to improve the rehabilitation programme.
- The annual rehabilitation programme and budget is to be prepared by a site team incorporating senior management representatives.

### **Rehabilitation Objectives**

The rehabilitation objectives for the CGO's rehabilitation programme include (Evolution, 2016):

- The water quality of Lake Cowal is not detrimentally affected by CGO landforms.
- Revegetating CGO landforms with selected native and/or endemic vegetation that is suited to the physiographic and hydrological features of each landform, and which expand on the areas of remnant endemic vegetation in the surrounding landscape.
- Designing final landforms so that they are stable and include revegetation growth materials that are suited to the landform and support self-sustaining vegetation.
- The placement (wherever possible) of soils on final landforms to enable the progressive establishment of vegetation.
- The expansion of habitat opportunities for wetland and terrestrial fauna species. This includes the design and implementation of rehabilitation works at the New Lake Foreshore in a manner consistent with the *NSW Wetlands Policy* (Department of Environment, Climate Change and Water, 2010).
- The selection of revegetation species in accordance with accepted principles of long-term sustainability (e.g. genotypic variation, vegetation succession, water/drought tolerances).
- Grazing of land within ML 1535 to be excluded during operations and during rehabilitation of the site. At lease relinquishment, rehabilitated final landforms are excluded from grazing, with some areas suitable for grazing surrounding the rehabilitated final landforms.

The CGO's Rehabilitation Management Plan provides a detailed description of the CGO's rehabilitation and landscape management strategy.

## 5 ENVIRONMENTAL MANAGEMENT PLANS, STRATEGIES AND MONITORING PROGRAMS

The following plans, strategies and programs required under the Development Consent are used to guide environmental management at the CGO:

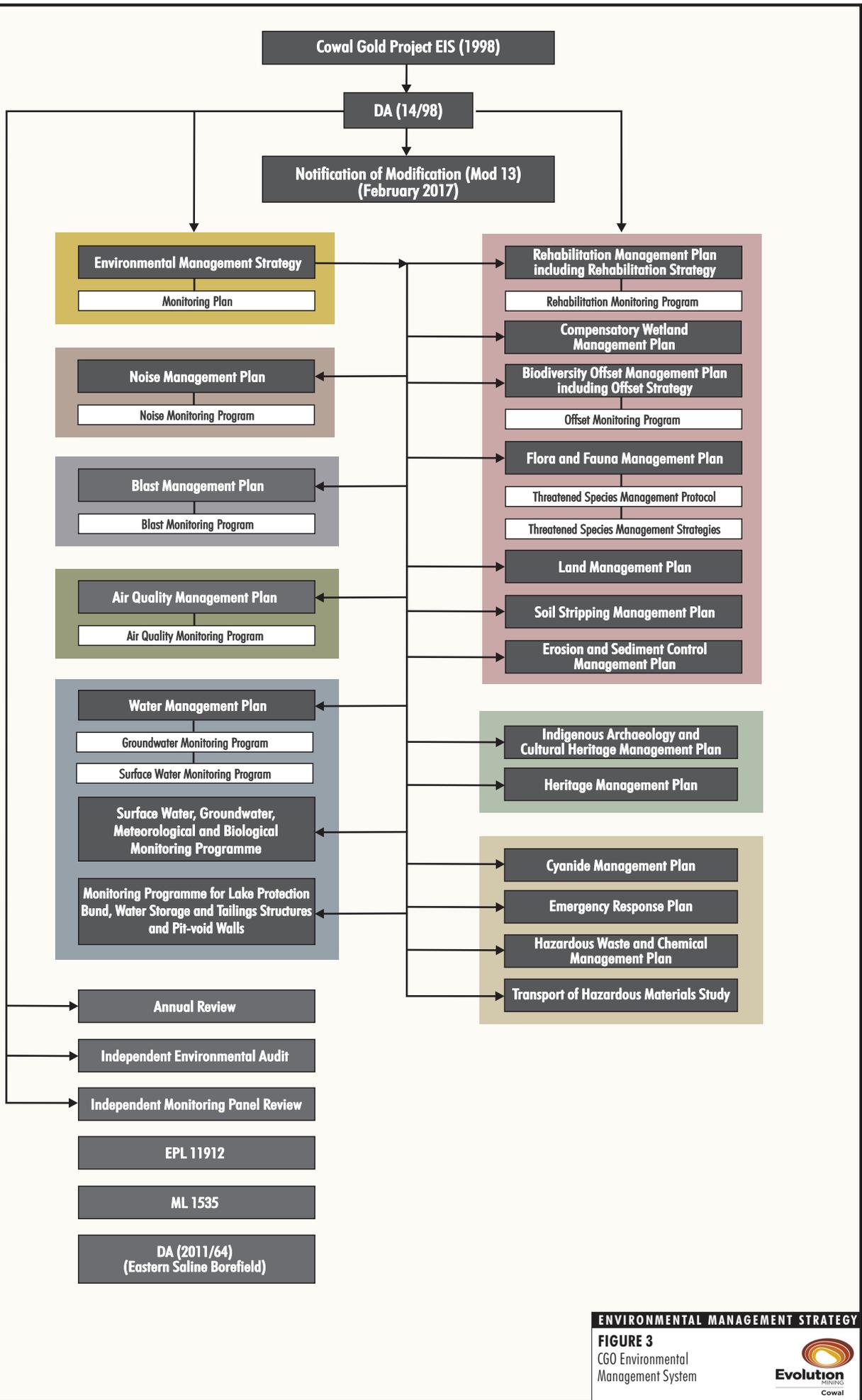
- this EMS;
- Noise Management Plan (NMP) (incorporating a noise monitoring program);
- Blast Management Plan (BLMP) (including a blast monitoring program);
- Air Quality Management Plan (AQMP) (incorporating an air quality monitoring program);
- Rehabilitation Management Plan (RMP) (including Rehabilitation Strategy);
- Biodiversity Offset Management Plan (BOMP) (including Offset Strategy);
- Water Management Plan (WMP) (including Strategy for the Decommissioning of Water Management Structures and Long-term Management of the Final Void and Lake Protection Bund);
- Surface Water, Groundwater, Meteorological and Biological Monitoring Programme (SWGMBMP);
- Monitoring Programme for Lake Protection Bund, Water Storages and Tailings Structures and Pit-void Walls;
- Soil Stripping Management Plan (SSMP);
- Erosion and Sediment Control Management Plan (ESCMP);
- Land Management Plan (LMP);
- Flora and Fauna Management Plan (FFMP) (including Threatened Species Management Protocol [TSMP] and Threatened Species Management Strategies [TSMS]);
- Compensatory Wetland Management Plan (CWMP);
- Hazardous Waste and Chemical Management Plan (HWCMP);
- Transport of Hazardous Materials Study (THMS);
- Cyanide Management Plan (CMP);
- Emergency Response Plan (ERP);
- Heritage Management Plan (HMP); and
- Indigenous Archaeology and Cultural Heritage Management Plan (IACHMP).

A copy of each of these plans, strategies and programs is provided in a CD-ROM in Appendix C of this EMS, and on Evolution's website. These plans will be reviewed on an annual basis to identify the need for any revisions as required by Development Consent Condition 9.1(c).

Finalisation of the individual plans, strategies and programs is subject to consultation with relevant regulatory authorities and approval by the DP&E and/or the DRG. The requirements for each strategy, plan and program are detailed in the Development Consent which is provided in Appendix A.

The CGO's environmental monitoring programs are comprehensively addressed within the management plans and have been developed to manage each key environmental aspect (e.g. surface water, groundwater, air quality) relevant to the CGO.

A clear plan showing the CGO's environmental management system of management plans, monitoring programmes and strategies is provided in Figure 3.



**ENVIRONMENTAL MANAGEMENT STRATEGY**

**FIGURE 3**  
CGO Environmental Management System

## **6 REVIEW AND IMPROVEMENT OF ENVIRONMENTAL PERFORMANCE**

### **6.1 ANNUAL REVIEW**

In accordance with Condition 9.1(b) of the Development Consent, Evolution will prepare an Annual Review which reports on the environmental performance of the CGO by the end of July each year, or other timing as may be agreed by the Secretary of the DP&E. The Annual Review will be made publicly available on Evolution's website (Section 7), in accordance with Development Consent Condition 9.4(a)(vii). The Annual Review will also address the Annual Environmental Management Report requirements of ML 1535 Condition of Authority 28.

The Annual Review will specifically address the following aspects of Condition 9.1(b) which are directly relevant to this EMS:

- identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; and
- describe what measures will be implemented over the next year to improve the environmental performance of the CGO.

This EMS is required to be reviewed within three months of the submission of an Annual Review, and revised if necessary, as described in Section 6.2 below.

### **6.2 EMS REVIEW AND UPDATE**

In accordance with Condition 9.1(c) of the Development Consent, this EMS (and any strategy, plan or program required under the Development Consent) will be reviewed to the satisfaction of the Secretary of the DP&E within three months of the submission of:

- an Annual Review under Condition 9.1(b);
- an incident report under Condition 9.3(a);
- an audit under Condition 9.2(a);
- an Annual State of the Environment Report under Condition 9.2(b);
- the approval of any modification to the conditions of the Development Consent; or
- any direction of the Secretary under Condition 1.1(c).

Where this review leads to revisions of the EMS (or any other document), then within 4 weeks of the review, the revised EMS (or document) will be submitted for the approval of the Secretary of the DP&E (unless otherwise agreed by the Secretary). The revision status of this EMS is indicated on the title page of this document.

This EMS will be made publicly available on Evolution's website (Section 7), in accordance with Condition 9.4(a)(iii) of the Development Consent. A hard copy of the EMS will also be kept at the CGO.

## 6.3 AUDITING AND REVIEW

### 6.3.1 Independent Environmental Audit

An Independent Environmental Audit of the CGO will be conducted in accordance with Condition 9.2(a) of the Development Consent. This condition is reproduced below:

#### 9.2 *Independent Auditing and Review*

##### (a) Independent Environmental Audit

- (i) *By the end of July 2016, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:*
- *be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;*
  - *include consultation with relevant agencies, BSC and the CEMCC;*
  - *assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any other relevant approvals (such as environment protection licences and/or mining lease (including any assessment, plan or program required under this consent));*
  - *review the adequacy of any approved strategy, plan or program required under this consent or the abovementioned approvals; and*
  - *recommend measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under this consent.*

*Note: This audit team must be led by a suitably qualified auditor, and include ecology and rehabilitation experts, and any other fields specified by the Secretary.*

- (ii) *Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of these recommendations as required. The applicant must implement these recommendations, to the satisfaction of the Secretary.*

In accordance with the recommendations from the Independent Monitoring Panel's (IMP's) Third Annual Report of the Independent Monitoring Panel for the Cowal Gold Project (October 2007), Evolution will continue to conduct Independent Environmental Audits annually, instead of triennially as defined in Condition 9.2(a)(i).

Within three months of commissioning the Independent Environmental Audit (or as otherwise agreed by the Secretary), Evolution will submit a copy of the audit report to the Secretary, together with a response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. All Independent Environmental Audits and Evolution's response to the recommendations of the audit will be made publicly available on Evolution's website (Section 7), in accordance with Development Consent Condition 9.4(viii).

As described in Section 6.2, within three months of the submission of an Independent Environmental Audit, Evolution will also review this EMS (and any strategy, plan or program required under the Development Consent) to confirm whether any revision to the EMS (or any other document) is required as a result of the outcomes or recommendations of the Independent Environmental Audit.

### 6.3.2 Hazard Audit

In accordance with Development Consent Condition 5.4(c), a comprehensive hazard audit of the proposed development was conducted (by a duly qualified independent person or team approved by the then NSW Department of Planning) 12 months after the commencement of operations, and an audit report submitted to the then Director-General for Planning. The hazard audit was undertaken by Pinnacle Risk Management Pty Ltd.

As required by Development Consent Condition 5.4(c), further audits will continue to be carried out every 3 years, or as determined by the Secretary of the DP&E, and a report of each audit will be submitted to the Secretary within a month of the audit. Hazard audits will be carried out in accordance with the DP&E's Hazardous Industry Planning Advisory Paper No. 5, "*Hazard Audit Guidelines*".

### 6.3.3 Independent Monitoring Panel

An Independent Monitoring Panel (IMP) has been established in accordance with Development Consent Condition 9.2(b) to review the Independent Environmental Audits (Section 6.3.1), Annual Reviews and all environmental monitoring procedures (among other things). Development Consent Condition 9.2(b) provides:

#### 9.2 *Independent Auditing and Review*

##### (b) *Independent Monitoring Panel*

- (i) *The Applicant shall at its own cost establish an Independent Monitoring Panel prior to commencement of construction. The Applicant shall contribute \$30,000 per annum for the functioning of the Panel, unless otherwise agreed by the Secretary. The annual payment shall be indexed according to the Consumer Price Index at the time of payment. The first payment shall be paid by the date of commencement of construction and annually thereafter. Selection of the Panel representatives shall be agreed by the Secretary in consultation with relevant government agencies and the CEMCC. The Panel shall at least comprise two duly qualified independent environmental scientists and a representative of the Secretary.*
- (ii) *The panel shall:*
  - *provide an overview of the annual reviews and independent audits required by conditions 9.1(b) and 9.2(a) above;*
  - *regularly review all environmental monitoring procedures undertaken by the Applicant, and monitoring results; and*
  - *provide an Annual State of the Environment Report for Lake Cowal with particular reference to the on-going interaction between the mine and the Lake and any requirements of the Secretary. The first report shall be prepared one year after commencement of construction. The report shall be prepared annually thereafter unless otherwise directed by the Secretary and made publicly available on the Applicant's website for the development within two weeks of the report's completion.*

As required by Development Consent Condition 9.1(c)(iv), within three months of the submission of an Annual State of the Environment Report prepared by the IMP, Evolution will review this EMS (and any strategies, plans and programs required under the Development Consent) to confirm whether any revision to the EMS (or any other document) is required as a result of the recommendations of the IMP's annual report.

## 7 INFORMATION DISSEMINATION

Evolution is committed to a policy of regular liaison with the local community and regulatory agencies and strives to maintain positive relationships with stakeholders.

Dissemination of information to the local community and relevant agencies regarding operation of the CGO and its environmental management performance will be achieved via the following key communication and reporting mechanisms.

### ***Community Environmental Monitoring and Consultative Committee***

The Community Environmental Monitoring and Consultative Committee (CEMCC) was established prior to the commencement of construction works in accordance with Development Consent Condition 9.1(d)(i) to monitor the compliance with conditions of the Development Consent and any other relevant matters to the operation of the CGO. The CEMCC currently consists of:

- four community representatives (including one member of the Lake Cowal Landholders Association);
- one representative of the Lake Cowal Environmental Trust;
- one representative of each of the Bland Shire Council, Forbes Shire Council and Lachlan Shire Council;
- one representative of the Wiradjuri Condobolin Corporation;
- an independent chairperson; and
- two representatives of Evolution.

The CEMCC provides an opportunity for members of the community to attend CEMCC meetings to discuss specific issues relevant to them. This will be achieved by landholders making a request to the CEMCC regarding a particular issue, or the landowner can register a complaint in the complaints register. Landowners who register complaints may be invited to join in discussion of the issue at the next CEMCC meeting.

The CEMCC is operated in general accordance with the *Community Consultative Committee Guidelines, State Significant Projects* (DP&E, 2016) (or its latest version) as required by Condition 9.1(d)(i).

### ***Annual Review***

As described in Section 6.1, information relevant to the environmental performance of the CGO will be made publicly available via the Annual Review. In accordance with Development Consent Condition 9.4(a)(vii), the Annual Review will be made available on Evolution's website.

### ***Evolution's Website and Community Call Line***

As required by Development Consent Condition 9.4, the following information will be available on Evolution's website ([www.evolutionmining.com.au](http://www.evolutionmining.com.au)) and updated regularly:

- the *Cowel Gold Project Environmental Impact Statement* (North Limited, 1998);
- current statutory approvals;
- approved strategies, plans and programs required by the Development Consent;

- a comprehensive summary of monitoring results required by the various plans and programs approved under the Development Consent;
- a complaints register (which is updated on a monthly basis);
- minutes of CEMCC meetings;
- the last five Annual Reviews;
- any Independent Environmental Audit, and Evolution's response to the recommendations of the audit; and
- any other matter required by the Secretary of the DP&E.

Evolution has also established a dedicated Community Complaints Line (Telephone: (02) 6975 3454) that is available 24 hours, seven days a week for community members who have enquiries or who wish to lodge complaints in relation to Evolution's activities at the CGO. Further detail regarding the CGO's complaint and dispute resolution procedures is provided in Section 8.

### ***Community Initiatives and Involvement***

Evolution has established a number of community initiatives and consultation programmes which are ongoing at the CGO and are described below. Evolution's ongoing community involvement is documented each year in the Annual Review.

#### *CGO Site Visits and Community Open Days*

Evolution will continue to regularly extend invitations to the following (and other) stakeholders to visit the CGO:

- neighbouring landholders;
- representatives from relevant regulatory agencies and local shire councils;
- interested Aboriginal stakeholders;
- representatives from local water user groups and farmers;
- various community and charity groups; and
- various primary and secondary schools.

Community open days and family visit days will continue to be conducted on an annual basis.

#### *Wiradjuri Condobolin Corporation*

The Wiradjuri people are recognised as the Traditional Owners of the Lake Cowal area. Evolution has worked collaboratively with the Wiradjuri Council of Elders and the Registered Native Title applicants to negotiate an equitable Native Title Agreement (the Agreement) and the CGO's IACHMP.

Under the terms of the Agreement, signed in 2004, Evolution has agreed to support the Wiradjuri community in the areas of environmental and cultural heritage, employment, training and education and business development. This includes annual contributions to the Wiradjuri Study Centre located in Condobolin.

As a result of the Agreement, the Wiradjuri Condobolin Corporation (WCC) was established to facilitate business, education and employment opportunities for the Wiradjuri people. The WCC, operated by the Wiradjuri people themselves, was created as the legal entity to support the development and implementation of the provisions within the Agreement. It also established the Wiradjuri Condobolin Cultural Heritage Company (WCCHC) that Evolution has engaged to manage Wiradjuri heritage protection activities during the mine's development and ongoing operation. Evolution will continue to facilitate the Agreement and support the WCC and WCCHC.

#### *Lake Cowal Foundation*

The Lake Cowal Foundation (LCF) was established as a non-profit, independent Environmental Trust in June 2000 and continues to be supported both financially and in-kind by the CGO. The Lake Cowal Conservation Centre (LCCC) was established in 2006 and operates under a licence agreement between the LCF, the NSW Department of Education, the Central West Local Land Services and Evolution.

The LCCC is located on an Evolution-owned property immediately south of ML 1535 and provides a community learning centre for school students, landholders and community members to learn about and experience issues associated with landscape management.

#### *Media*

Media releases will continue to be regularly provided to local media outlets through local newspapers including the "West Wyalong Advocate".

## 8 COMPLAINTS AND DISPUTE RESOLUTION

### *Complaints Management*

The CGO's Environment & Social Responsibility (ESR) Manager is responsible for maintaining a system for recording and reporting complaints.

As required by EPL Condition M6.1, Evolution operates a Community Complaints Line 24 hours per day, seven days a week on which complaints regarding CGO activities can be made. Complaints and/or concerns can be made by dialling (02) 6975 3454 where an operator advises the caller that they have reached the CGO Complaints Line. The operator requests the caller's name, the nature of their complaint/concern, and a return phone number. The information is logged along with the date and time that the call was made. Complaints may also be made using the following email address: [community.cowal@evolutionmining.com.au](mailto:community.cowal@evolutionmining.com.au). A record of each call/email is immediately forwarded to the CGO's ESR Manager.

For immediate notification of complaints logged outside of regular business hours, the ESR Manager receives a copy to their mobile phone. Upon receiving an enquiry, the ESR Manager conducts necessary investigations and prepares a response. The complainant is contacted within 24 hours of the complaint, and notified of any action taken or proposed by Evolution.

Evolution will maintain public advertising of the Community Complaints Line telephone number in the local Telstra Directory, White Pages online, West Wyalong Visitors Directory, Forbes Visitors Directory and the Condobolin Business Directory.

Complaints do not have to be received via the Community Complaints Line and may be received in any other form. Any complaint or enquiry relating to environmental management or performance is to be relayed to the ESR Manager as soon as practicable. All employees are responsible for ensuring the prompt relaying of complaints.

In accordance with EPL Condition M5.1 of the EPL, Evolution maintains a complaints register (or complaints record) for the CGO.

For each complaint, the following information will be recorded in the complaints register:

- date and time of complaint;
- method by which the complaint was made;
- any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that fact;
- nature of the complaint;
- the action(s) taken by Evolution in relation to the complaint, including any follow-up contact with the complainant; and
- if no action was taken by Evolution, the reasons why no action was taken.

In accordance with Condition 9.4(a)(v) of the Development Consent, the complaints register is made publicly available on Evolution's website ([www.evolutionmining.com.au](http://www.evolutionmining.com.au)) and is updated on a monthly basis.

A report of the complaints received during the previous calendar year will be included in the Annual Review. Details of complaints received and Evolution's response will be provided to the CEMCC and recorded within CEMCC meeting minutes, which will be published on Evolution's website in accordance with Development Consent Condition 9.4(a)(vii).

### **Dispute Resolution**

As provided by various Conditions of the Development Consent, the Secretary of the DP&E can provide dispute resolution in the following situations:

#### **Condition 1.8 Dispute Resolution**

*In the event that the Applicant and the BSC or any Government agency, other than the Department, cannot agree on the specification or requirements applicable under this consent, the matter shall be referred by either party to the Secretary for resolution. The Secretary's determination on the dispute shall be final and binding on the parties.*

#### **Condition 6.3(c) Blast Management (Property Investigations)**

*If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.*

#### **Condition 6.4(b) Noise Management (Additional Noise Mitigation)**

*If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.*

#### **Condition 6.5(a) Visual Management (Additional Visual Impact Mitigation)**

*If within 3 months of receiving this request, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.*

#### **Condition 8.3(a) Land Acquisition**

*However, if at the end of this period, the Applicant and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.*

*Upon receiving such a request, the Secretary shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:*

- (1) consider submissions from both parties;*
- (2) determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (i)-(iii) above;*
- (3) prepare a detailed report setting out the reasons for any determination; and*
- (4) provide a copy of the report to both parties..*

*Within 14 days of receiving the independent valuer's report, the Applicant shall then make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.*

*However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary shall determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (i)-(iii) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.*

*Within 14 days of this determination, the Applicant shall make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.*

*If the landowner refuses to accept the Applicant's binding written offer under this condition within 6 months of the offer being made, then the Applicant's obligations to acquire the land shall cease, unless the Secretary determines otherwise.*

**Condition 8.2     Independent Review**

*If an owner of privately owned land considers the development to be exceeding the criteria in this consent, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land.*

## **9 NON-COMPLIANCES WITH STATUTORY REQUIREMENTS**

Compliance with all approvals, strategies, plans and programs will be the responsibility of all personnel (staff and contractors) employed by, or in association with, the CGO.

The ESR Manager will undertake regular inspections, internal audits and initiate directions identifying any remediation/rectification work required, and areas of actual or potential non-compliance.

As described in Section 6.3.1, an Independent Environmental Audit will be conducted annually to assess whether the CGO is complying with the requirements of the Development Consent and all other relevant approvals. In addition, the IMP will review the results of the Independent Environmental Audits and document any concerns in their Annual State of the Environment Reports for Lake Cowal.

As required by Development Consent Condition 9.2(a)(ii) (Section 6.3.1), within three months of commissioning the Independent Environmental Audit (or as otherwise agreed by the Secretary), Evolution will submit a copy of the audit report to the Secretary of the DP&E, together with a response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations.

In addition to the above, an Annual Return will also be prepared comprising of a 'Statement of Compliance' and a 'Monitoring and Complaints Summary' at the end of each annual EPL reporting period, in accordance with Condition R1 of the EPL.

The Annual Review (Section 6.1) will identify any non-compliance with the conditions of the Development Consent, EPL, ML 1535 and any other relevant approvals for the previous reporting period, which will be made publicly available on Evolution's website.

## 10 EMERGENCY OR INCIDENT RESPONSE

An environmental emergency or incident will be addressed through the implementation of procedures within the CGO's Emergency Response Plan (ERP) and as required by Condition 9.3(a) of the Development Consent (DA 14/98), which requires:

### 9.3 Reporting

#### (a) Incident Reporting

*The Applicant shall immediately notify the Secretary and any other relevant agencies of any incident related to the development. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.*

Incidents are defined in the Development Consent as a set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this consent.

The ERP describes the appropriate emergency response actions should an emergency situation or incident occur at the CGO. Designated environmental emergencies such as flooding, bushfire, chemical spills or releases and serious vehicle incidents are identified within the ERP. Emergencies or incidents will be classified into one of three levels depending on the severity of the emergency or the potential of the incident to become more serious:

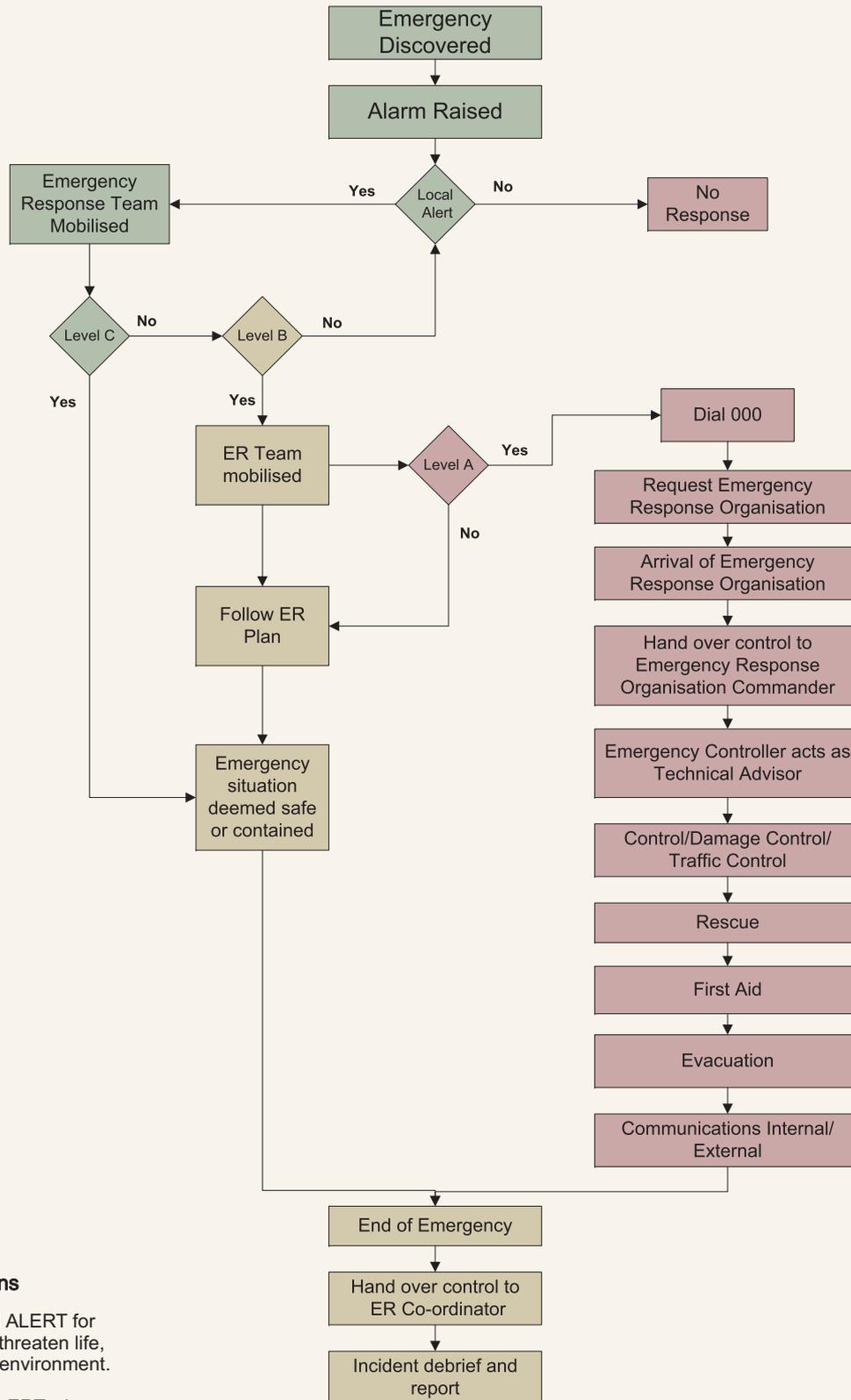
- Level A – External Alert where effects may spread and impact on the people, property or the environment outside the site or cannot be contained by site resources.
- Level B – Site Alert where the effects may spread to other areas on the site.
- Level C – Local Alert for any situation which threatens life, property or the environment.

Any emergency situations or incidents which do or could potentially cause environmental harm will be reported to the EPA and the DP&E (and other relevant authorities) in accordance with Condition R2 of the EPL and Condition 9.3(a) of the Development Consent.

The ERP details personnel responsibility, emergency or incident significance ranking, reporting and notification requirements. The Emergency Response Flowchart within the ERP outlines the key processes for how CGO personnel must respond to the various emergency or incident levels. The Emergency Response Flowchart is provided in Figure 4.

All site personnel will receive an appropriate level of emergency preparedness and response training, with regular updates through tool box sessions. Any changes to these emergency procedures will be documented and communicated to all personnel.

All site visitors and contractors will also receive emergency response procedure information during the induction process for the CGO.



**Definitions**

Level C-Local ALERT for situations that threaten life, property or the environment.

Level-B Site ALERT where effects may spread to other areas of the site.

Level-A External ALERT where effects may spread and impact on the people, property or the environment outside the site or cannot be contained by site resources.

**FIGURE 4**  
Emergency Response Flowchart



## 11 REFERENCES

Department of Environment, Climate Change and Water (2010) *NSW Wetlands Policy*.

Department of Planning (2007) *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects*.

Evolution Mining (Cowal) Pty Limited (2016) *Cowal Gold Operations Mine Life Modification Environmental Assessment*.

North Limited (1998) *Cowal Gold Project Environmental Impact Statement*.

APPENDIX A  
DEVELOPMENT CONSENT (DA 14/98)

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Light blue type represents April 2016 modification – MOD 12

Green type represents January 2017 modification – MOD 13

**DEFINITIONS**

Annual review	The review referred to in condition 9.1(b)
Applicant	Evolution Mining (Cowal) Pty Limited, or any other person or persons who rely on this consent to carry out the development that is subject to this consent
BCA	Building Code of Australia
Biodiversity offset strategy	The conservation and enhancement strategy described in the EIS, summarised in Table 2, and depicted conceptually in the figure in Appendix 4
BSC	Bland Shire Council
CEMCC	Community Environmental Monitoring and Consultative Committee
DA	Development Application
DA area	Development Application area which includes the mine site and associated water pipeline route and Bland Creek Palaeochannel Borefield
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
Department	Department of Planning and Environment
Development	The development described in the EIS
DPI (Agriculture)	Office of Agricultural Sustainability & Food Security, within the Department of Primary Industries
DPI (Fisheries)	Fisheries NSW, within the Department of Primary Industries
DPI (Water)	Division of Water within the Department of Primary Industries
DRE	Division of Resources and Energy within the Department of Industry
DSC	NSW Dams Safety Committee
EIS	The Environmental Impact Statement prepared by Resource Strategies and dated 13 March 1998, including the Statement of Intent by North Gold (WA) Ltd, as amended by the: <ul style="list-style-type: none"> <li>• Applicant's primary submission, and submission in reply to the Commission of Inquiry;</li> <li>• modification application submitted by Barrick Australia Limited, dated 20 June 2003;</li> <li>• modification application and supporting information submitted by Barrick Australia Limited, dated 13 November 2003;</li> <li>• modification application and supporting information submitted by Barrick Australia Limited, dated 22 June 2004;</li> <li>• modification application and supporting documentation submitted by Barrick Australia Limited, dated 15 August 2006;</li> <li>• modification application and supporting documentation submitted by</li> </ul>

	<ul style="list-style-type: none"> <li>Barrick Australia Limited, dated 24 December 2007;</li> <li>• modification application and supporting documentation submitted by Barrick Australia Limited, dated 30 January 2009;</li> <li>• modification application and supporting documentation submitted by Barrick (Cowal) Limited, dated 23 June 2009;</li> <li>• modification application dated 25 March 2008 and supporting EA submitted by Barrick Australia Limited;</li> <li>• modification application dated 22 November 2010 and supporting letter submitted by Barrick (Cowal) Limited;</li> <li>• modification application dated 16 December 2010 (Mod 10) and supporting Environmental Assessment titled Cowal Gold Mine Water Supply Modification (Section 75W Modification) and dated December 2010, submitted by Barrick (Cowal) Limited;</li> <li>• modification application and supporting Environmental Assessment (Mod 11) titled Cowal Gold Mine Extension Modification and dated 12 September 2013, submitted by Barrick (Cowal) Limited;</li> <li>• modification application (Mod 12) dated 24 March 2016, submitted by Evolution Mining (Cowal) Pty Limited; and</li> <li>• modification application (Mod 13) dated 11 November 2016, submitted by Evolution Mining (Cowal) Pty Limited.</li> </ul>
EPA	NSW Environment Protection Authority
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build
Incident	A set of circumstances that: <ul style="list-style-type: none"> <li>• causes or threatens to cause material harm to the environment; and/or</li> <li>• breaches or exceeds the limits or performance measures/criteria in <a href="#">this consent</a></li> </ul>
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions 6.1 and 6.4 of <a href="#">this consent</a> where it is defined to mean the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of <a href="#">this consent</a>
m AHD	metres Australian Height Datum
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Mining operations	Includes the removal and emplacement of waste rock; the processing, handling and storage of ore on site; and the transport of ore concentrate offsite
Mitigation	Activities associated with reducing the impacts of the development
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
OEH	Office of Environment and Heritage
Rehabilitation	The restoration of land disturbed by the development to a good condition, to ensure it is safe, stable and non-polluting
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements.
RMS	Roads and Maritime Services
Secretary	Secretary of the Department, or nominee
Site	The land the subject of DA

## 1. GENERAL

### 1.1 Adherence to terms of DA, EIS, SIS, etc.

- (a) The development is to be carried out generally in accordance with the:
- (i) EIS; and
  - (ii) conditions of this consent.

*Note: The general layout of the development is shown in Appendix 1.*

- (b) If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.
- (c) The Applicant shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
- (i) any strategies, plans, programs, reviews, reports, audits or correspondence that are submitted in accordance with this consent (including any stages of these documents);
  - (ii) any reviews, reports or audits commissioned by the Department regarding compliance with this consent; and
  - (iii) the implementation of any actions or measures contained in these documents.

### 1.2 Limits on Consent

- (a) The Applicant may only carry out mining operations until 31 December 2032.

*Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Secretary and DRE. Consequently, this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.*

- (b) The Applicant shall not process more than 7.5 million tonnes of ore on site in any calendar year.
- (c) The Applicant shall comply with the following maximum heights:
- (i) Northern Rock Emplacement - 308 m AHD;
  - (ii) Southern Rock Emplacement - 283 m AHD;
  - (iii) Southern Tailings Storage Facility - 272 m AHD;
  - (iv) Northern Tailings Storage Facility - 264 m AHD;
  - (v) Perimeter Rock Emplacement - 233 m AHD; and
  - (vi) Mineralised Material Stockpile - 288 m AHD.
- (d) The Applicant shall not carry out any construction work on the Tailings Storage Facility embankments or rock buttress outside of the hours of 7 am to 6 pm.

### 1.3 Structural Adequacy

The Applicant shall ensure that all new buildings and structures on site, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

*Note: Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates (where applicable) for the proposed building works. Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.*

### 1.4 Demolition

The Applicant shall ensure that all demolition work undertaken on site is carried out in accordance with AS 2601-2001: *The Demolition of Structures*, or its latest version.

### 1.5 Protection of Public Infrastructure

Unless the Applicant and the applicable authority agree otherwise, the Applicant shall:

- (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and
- (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

*Note: This condition does not apply to any damage to roads caused as a result of general road usage.*

## **1.6 Operation of Plant and Equipment**

The Applicant shall ensure that all plant and equipment used on site, or to monitor the performance of the development, is maintained and operated in a proper and efficient manner.

## **1.7 Staging and Updating Strategies, Plans or Programs**

To ensure the strategies, plans and programs under this consent are updated on a regular basis, and that they incorporate any appropriate additional measures to improve the environmental performance of the development, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis.

The Secretary may approve a revised strategy, plan or program required under **this consent**, or the staged submission of any of these documents, at any time. With the agreement of the Secretary, the Applicant may prepare a revision of or a stage of a strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this consent.

*Note: While any strategy, plan or program may be submitted on a staged basis, the Applicant will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times. If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.*

## **1.8 Dispute Resolution**

In the event that the Applicant and the BSC or any Government agency, other than the Department, cannot agree on the specification or requirements applicable under this consent, the matter shall be referred by either party to the Secretary for resolution. The Secretary's determination on the dispute shall be final and binding on the parties.

## **2. MINE MANAGEMENT**

### **2.1 Mine Management Plan, Operations and Methods**

The Applicant shall prepare and implement a Mining Operations Plan for the development to the satisfaction of DRE. This plan must be prepared in accordance with any current guidelines issued for such plans by DRE, and should include a geotechnical analysis and review of ongoing open pit development, the management of waste rock emplacements, and continued monitoring of the lake protection bund.

### **2.2 Ore, Waste and Concentrate Production**

The Applicant shall not transport ore or other excavated materials not required for either construction or maintenance works from other mines or locations to the mine site without the written approval of the relevant councils.

### **2.3 Mine and Public Safety**

The Applicant shall secure the mine site as described in the EIS. The fence for the mining lease boundary shall be designed to minimise the impact on water birds and aquatic species.

### **2.4 Rehabilitation**

#### **(a) Rehabilitation Objectives**

The Applicant shall rehabilitate the site to the satisfaction of DRE. This rehabilitation must be generally consistent with the proposed rehabilitation in the EIS (which is depicted in the Figure in Appendix 2) as amended by the approved rehabilitation strategy (see condition 3.8), and comply with the objectives in Table 1.

Table 1: Rehabilitation objectives

<b>Feature</b>	<b>Objective</b>
Mine site (as a whole)	<ul style="list-style-type: none"> <li>• Safe, stable and non-polluting</li> <li>• Final landforms designed to incorporate micro-relief and integrate with surrounding natural landforms</li> <li>• Constructed landforms are to generally drain to the final void</li> <li>• Minimise long term groundwater seepage zones</li> <li>• Minimise visual impact of final landforms as far as is reasonable and feasible</li> </ul>
Final void	<ul style="list-style-type: none"> <li>• Minimise to the greatest extent practicable: <ul style="list-style-type: none"> <li>– the size and depth of final void</li> <li>– the drainage catchment of final void</li> <li>– risk of flood interaction for all flood events up to and including the Probable Maximum Flood</li> </ul> </li> <li>• To be permanently separated from Lake Cowal by the Lake Protection Bund</li> <li>• Highwall to be long-term stable</li> </ul>
Surface infrastructure	<ul style="list-style-type: none"> <li>• To be decommissioned and removed, unless DRE agrees otherwise</li> </ul>
Agriculture	<ul style="list-style-type: none"> <li>• Restore or maintain land capability generally as described in the EIS</li> </ul>
Rehabilitation areas and other vegetated land	<ul style="list-style-type: none"> <li>• Restore ecosystem function, including maintaining or establishing self-sustaining ecosystems</li> </ul>
Community	<ul style="list-style-type: none"> <li>• Ensure public safety</li> <li>• Minimise adverse socio-economic effects associated with mine closure</li> </ul>

(b) Progressive Rehabilitation

The Applicant shall rehabilitate the site progressively as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim stabilization and rehabilitation strategies shall be employed when areas prone to dust generation cannot be permanently rehabilitated.

*Note: It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage of the development.*

(c) Rehabilitation Management Plan

The Applicant shall prepare and implement a Rehabilitation Management Plan for the development to the satisfaction of DRE. This plan must:

- (i) be prepared in consultation with the Department, DPI (Water), OEH, DPI, BSC and the CEMCC;
- (ii) be prepared in accordance with any relevant DRE guideline;
- (iii) describe how the rehabilitation of the site would be integrated with the biodiversity offset strategy for the development;
- (iv) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
- (v) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including mine closure, final landform (including final voids) and final land use;
- (vi) include interim rehabilitation where necessary to minimise the area exposed for dust generation;
- (vii) include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and
- (viii) build to the maximum extent practicable on the other management plans required under this consent.

**2.5 Security Deposits and Bonds**

Security deposits and bonds will be paid as required by DRE under mining lease approval conditions.

### **3. HERITAGE, FLORA AND FAUNA AND LAND MANAGEMENT**

#### **3.1 Heritage Management**

- (a) The Applicant shall:
- (i) prepare and implement a Heritage Management Plan for the development to the satisfaction of the Secretary. The plan shall be prepared in consultation with Bland District Historical Society, BSC, and Lake Cowal landholders/residents and address non-indigenous cultural heritage issues associated with the development;
  - (ii) prepare and implement an Indigenous Archaeology and Cultural Management Plan for the development to the satisfaction of the Secretary. The plan shall be prepared in consultation with NPWS, the Local Aboriginal Land Council, a consultant archaeologist, any other stakeholders identified by NPWS; and identify future salvage, excavation and monitoring of any archaeological sites within the DA area prior to and during development, and to address Aboriginal cultural heritage issues; and
  - (iii) retain a Cultural Heritage Officer approved by the West Wyalong Local Aboriginal Land Council who is to be available on site during construction earthworks.
- (b) The Applicant shall monitor the effectiveness of measures outlined in the Heritage Management Plan and Indigenous Archaeology and Cultural Management Plan to the satisfaction of the Secretary. A summary of the monitoring results is to be published annually on the Applicant's website for the development.

#### **3.2 Flora and Fauna Management**

- (a) The Applicant shall:
- (i) minimise the removal of trees and other vegetation from the mine site and restrict any clearance to the areas occupied by the mine activity, buildings and paved surfaces, and those areas necessary for fire control in accordance with BSC's requirements, and have regard to the draft Mid-Lachlan Regional Vegetation Management Plan (or its final version);
  - (ii) not locate topsoil stockpiles within any area of Wilga Woodland in the DA area as identified in Figure 3-13 in the 1998 EIS (Appendix 3); and
  - (iii) not disturb any area of Belah Woodland in the DA area as identified in Figure 3-13 in the 1998 EIS.
- (b) The Applicant shall prepare and implement a Flora and Fauna Management Plan for the development to the satisfaction of the Secretary. The shall be prepared in consultation with DPI (Fisheries) and OEH, and cover the mining lease area and monitoring of bird breeding areas as identified by the Applicant in consultation with OEH. The plan shall include, but not be limited to:
- (i) methods for monitoring daily and seasonal fauna usage of tailings dams (eg. species, number, location, habits), and whether deaths or other effects or incidents are occurring. Usage of the tailings dams shall be reported to the OEH on a six monthly basis, unless otherwise directed by the Secretary;
  - (ii) development of a protocol for the reporting of any native fauna deaths or other incidents involving native fauna on the mining lease to the OEH, DRE, CEMCC and in the case of fish, DPI (Fisheries). Native fauna deaths (except those attributable to physical trauma such as vehicle strike) must be reported as per this protocol within 24 hours (or next working day).The Applicant shall maintain a record of any native fauna deaths or other incidents and this record must be published annually on the Applicant's website for the development;
  - (iii) provision for fauna autopsy facilities to enable the cause of any deaths to be quickly determined. The protocol required in sub clause (ii) above shall also detail collection and autopsy of fauna. This shall include but not be limited to collection and recording procedures, autopsy procedures and laboratory tests;
  - (iv) provision of contingency measures for reducing cyanide levels in the tailings dams in the event it is established that fauna deaths are occurring from cyanide in tailings dam water;
  - (v) development of effective mechanisms to keep fauna and avifauna away from the tailings storages, which shall include, but not be limited to:
    - minimising the area of open water in the tailings dams;
    - fencing to prevent both medium and large fauna, terrestrial and amphibians, from entering the area. Mesh will have holes no greater than 5cm in diameter;
    - making the area non conducive to the establishment of wildlife habitats, as far as possible;
    - use of netting where practical; and
    - use of current best practice methods for avifauna deterrence;
  - (vi) development of plans for the rescue and rehabilitation of wildlife that may become bogged/sick/trapped in the tailings dams or elsewhere within the mining lease area;
  - (vii) methods to conserve and enhance wildlife values around Lake Cowal, within the mine lease area, including: protection and enhancement of existing retained habitats;
  - (viii) provision to continue fauna and flora, fish, and aquatic invertebrate monitoring of the Lake Cowal

- region as documented in the EIS including investigation of fauna deaths off site if requested by the Secretary where it is considered the deaths are attributable to activities on the site;
- (ix) details to relocate any threatened species and/or its habitat away from disturbed areas that are created by mine operations. This will include placement and maintenance of suitable types and numbers of artificial roosting boxes for bats such as the Greater Long-eared Bat and other animals (eg birds/possums) in undisturbed areas of the mine site; and
  - (x) details of monitoring the mine's impacts particularly on birdlife in bird breeding areas identified by the Applicant in consultation with OEH, threatened fauna and flora, and fish and aquatic invertebrates around Lake Cowal, and outline contingency measures should impacts be identified as occurring.
- (c) The Applicant shall implement a Threatened Species Management Protocol for the development to the satisfaction of the Secretary, which will include provisions for targeted searches prior to construction and proposed mitigation measures where threatened flora or fauna species are found.
  - (d) The Applicant shall monitor the effectiveness of measures outlined in the Flora and Fauna Management Plan and Threatened Species Protocol to the satisfaction of the Secretary. A summary of these monitoring results shall be published annually on the Applicant's website for the development.

### 3.3 Compensatory Wetland Management Plan

The Applicant shall prepare and implement a Compensatory Wetland Management Plan for the development to the satisfaction of the Secretary. The plan shall be prepared in consultation with OEH and DPI (Fisheries), Lake Cowal Landowners Association, and Lake Cowal Environmental Trust, and detail compensation measures for the loss of 120 hectares of wetland, through the enhancement of at least the equivalent area of existing wetland within the mine lease area during operation and following closure of the mine. The plan shall include, but not be limited to:

- (a) a definition of wetland which shall be all land up to the high water mark of Lake Cowal recognising that river red gum habitat is below high water mark;
- (b) measures to manage the enhanced wetlands without adversely impacting adjoining private properties; and
- (c) measures to improve habitats for wildlife including waterbirds, fish, aquatic organisms etc, in the wetlands covered by the plan.

### 3.4 Biodiversity Offset Strategy

- (a) The Applicant shall implement the biodiversity offset strategy summarised in Table 2, shown conceptually in Appendix 4, and described in detail in the EIS to the satisfaction of the Secretary.

*Table 2: Summary of Biodiversity Offset Strategy*

Area	Minimum Size
Northern Offset Area (Enhancement Area)	80 ha
Southern Offset Area (Enhancement Area) (including 230 ha Mod 11 extension)	260 ha
Southern Offset Area (Revegetation Area)	100 ha
<b>Total</b>	<b>440 ha</b>

- (b) By the end of July 2015, unless the Secretary agrees otherwise, the Applicant shall make suitable arrangements for the long term protection of the biodiversity offset areas in Table 2 to the satisfaction of the Secretary.
- (c) The Applicant shall prepare and implement a Biodiversity Offset Management Plan for the development to the satisfaction of the Secretary. This plan must be prepared in consultation with OEH, and include:
  - (i) a description of the short, medium, and long term measures that would be implemented to:
    - implement the biodiversity offset strategy; and
    - manage the remnant vegetation in the offset areas; and
    - integrate the implementation of the biodiversity offset strategy to the greatest extent practicable with the rehabilitation of the site.
  - (iii) detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy, and triggering remedial action (if necessary);
  - (iv) a detailed description of the measures that would be implemented for:
    - enhancing the quality of existing vegetation and fauna habitat in the biodiversity offset areas;
    - creating native vegetation and fauna habitat in the biodiversity offset areas;

- maximising the salvage of resources from the disturbance areas on site, including the vegetative and soil resources – for beneficial use in the biodiversity offset areas;
  - collecting and propagating seed;
  - controlling weeds and feral pests;
  - controlling erosion;
  - managing any grazing;
  - controlling access; and
  - bushfire management;
- (v) a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;
- (vi) a description of the potential risks to successful implementation of the biodiversity offset strategy, and the contingency measures that would be implemented to mitigate against these risks; and
- (vii) details of who would be responsible for monitoring, reviewing, and implementing the plan.
- (d) By the end of July 2015, unless otherwise agreed by the Secretary, the Applicant shall lodge a Conservation Bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria in the Biodiversity Offset Management Plan. The sum of the bond shall be determined by:
- (i) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and
  - (ii) employing a suitably qualified and experienced person to verify the calculated cost to the satisfaction of the Secretary.

The calculation of the Conservation Bond must be submitted to the Department for approval at least 1 month prior to the lodgment of the bond.

If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Offset Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.

If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Offset Management Plan, the Secretary will call in all, or part of, the conservation bond, and arrange for the completion of the relevant works.

*Note: Alternative funding arrangements for long-term management of the biodiversity offset strategy, such as provision of capital and management funding as agreed by OEH as part of a Biobanking Agreement or transfer to conservation reserve estate can be used to reduce the liability of the conservation and biodiversity bond. The sum of the bond may be reviewed in conjunction with any revision to the Biodiversity Offset Management Plan.*

### 3.5 Prevention of Soil Erosion

The Applicant shall prepare and implement the following plans to the satisfaction of the Secretary:

- (a) an erosion and sediment control management plan for the site which shall include, but not be limited to:
  - (i) details of temporary and permanent sediment and erosion control systems to be used during both mine construction and operation, including for earthworks associated with landscaping;
  - (ii) details of salinity management; and
  - (iii) a program for reporting on the effectiveness of the sediment and erosion control systems and performance against objectives contained in the approved erosion and sediment control management plan, and EIS; and
- (b) a soil stripping management plan for the site which shall include, but not be limited to:
  - (i) details of the management of soil stockpiles, soil stripping techniques and scheduling;
  - (ii) any further requirements of DRE; and
  - (iii) a program for reporting on the effectiveness of the soil stripping methods and performance against objectives contained in the soil stripping management plan, and EIS.

### 3.6 Bushfire Management

The Applicant shall:

- (a) ensure the development is suitably equipped to respond to any fires on site; and
- (b) assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site.

### 3.7 Land Management

The Applicant shall prepare and implement a Land Management Plan for all its land holdings to the satisfaction of the Secretary. The plan shall be prepared in consultation with OEH, [DPI \(Water\)](#), DPI (Agriculture) and BSC, be consistent with the Flora and Fauna Management Plan, provide for proper land management including, but not limited to:

- (a) pastures and remnant vegetation management;
- (b) control of vermin and noxious weeds as required by the Local Lands Services, BSC and other relevant authorities;
- (c) integration of the latest versions of the Jemalong Land and Water Management Plan and the Lake Cowal Land and Water Management Plan; and
- (d) feral animal control.

### 3.8 Rehabilitation Strategy

The Applicant shall develop a strategy for the long term land use of the DA area on decommissioning of the mine site. The strategy shall include, but not be limited to: appropriate landuses within the DA area, which may include areas for conservation, agriculture or recreation, long term management of the area, environmental impacts of any uses and maintenance of necessary drainage characteristics and other features provided on the site. The strategy for long term land use of the DA area shall be submitted by Year 7 of mining operations or five years before mine closure, whichever is the sooner, in consultation with DRE, DPI (Water), OEH, BSC, CEMCC, and to the satisfaction of the Secretary.

## 4. WATER MANAGEMENT

### 4.1 Water Supply

#### (a) General

The Applicant shall ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations on site to match its available water supply.

*Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain all necessary water licences for the development.*

#### (b) Bland Creek Palaeochannel Borefield

The maximum daily extraction of water from the Bland Creek Palaeochannel Borefield shall not exceed 15ML/day or 3650ML/year.

### 4.2 Pipeline & Borefield Infrastructure

- (a) All pipeline and borefield infrastructure for the development shall be:
  - (i) constructed in consultation with DPI (Fisheries), and in accordance with the requirements of NOW;
  - (ii) laid in such a way so as not to impede the passage of fish or other animals, or interfere with flood behaviour or the passage of boats and vehicles; and
  - (iii) equipped with an automatic shutdown device so water pumping is immediately stopped in the event of any pipe rupture. The water supply shall not be restarted until the rupture is located and repaired.

### 4.3 Disposal of Excess Water

There shall be no disposal of water from the internal catchment drainage system on site to Lake Cowal under any circumstances.

### 4.4 Water Management

- (a) The Applicant shall prepare a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
  - (i) be prepared in consultation with DPI (Water) and EPA;
  - (ii) include, but not be limited to, the following matters:
    - management of the quality and quantity of surface and groundwater within and around the mine site, including water in the up catchment diversion system, internal catchment drainage system, dewatering bores, Bland Creek Palaeochannel borefield and water supply pipeline from the borefield, which shall include preparation of monitoring programs (see below);
    - measures to prevent the quality of water in Lake Cowal or any surface waters being degraded below the relevant ANZECC water quality classification prior to construction due to the construction and/ or operation of the mine;
    - identification of any possible adverse effects on water supply sources of surrounding land holders, and land holders near the Bland Creek Palaeochannel Borefield as a result of the mining operations, and implementation of mitigation measures as necessary;
    - identification of changes in flood regime on productive agricultural land in Nerang Cowal as a

result of the mine perimeter bund intruding into Lake Cowal, and provision of appropriate compensation measures for affected landholders based on inundation of productive land caused by the changed flood regime;

- construction and operation of water storages D1 and D4 as first flush systems with initial captured run-off waters from the outer batters of northern and southern emplacement dumps reporting to water storage D6;
- measures to manage and dispose of water that may be captured behind the temporary perimeter bund during construction of that bund;
- integration of the latest versions of the Jemalong Land and Water Management Plan and the Lake Cowal Land and Water Management Plan;
- measures to evaluate water quality data obtained from monitoring under this consent against records of baseline monitoring undertaken prior to the consent; and
- a program for reporting on the effectiveness of the water management systems and performance against objectives contained in the approved site water management plan, and EIS.

- (b) The Applicant shall develop a strategy for the decommissioning of water management structures, including water storages both in and around the mine site, the water pipeline and borefield infrastructure associated with the development, and long term management of final void and Lake protection bund. The strategy shall include, but not be limited to, long term monitoring of the water quality in the final void and stability of Lake protection bund and void walls, and options for alternate uses of the water pipeline. The strategy for the final void shall be submitted by Year 7 of mining operations or five years before mine closure, whichever is the sooner, in consultation with [DPI \(Water\)](#), [EPA](#), DRE and CEMCC, and to the satisfaction of the Secretary.
- (c) The Applicant shall:
- (i) construct the Lake protection bund and site water and tailings storages to the requirements of [DPI \(Water\)](#), [EPA](#) and DSC; and
  - (ii) provide a geotechnical report on pit/void wall construction/stability to DRE prior to commencement of mining operations and construct pit/void in accordance with the requirements of DRE.

#### 4.5 Water Monitoring

- (a) The Applicant shall construct and locate:
- (i) surface water monitoring positions in consultation with [DPI \(Water\)](#) and [EPA](#), and to the satisfaction of the Secretary, at least three months prior to the commencement of construction works unless otherwise directed by the Secretary; and
  - (ii) groundwater monitoring positions in consultation with [DPI \(Water\)](#) and [EPA](#), and to the satisfaction of the Secretary at least six months prior to the commencement of construction works unless otherwise directed by the Secretary.
- (b) The Applicant shall prepare and implement a detailed monitoring program for the development to the satisfaction of the Secretary. This plan must be prepared in consultation with [DPI \(Water\)](#), [EPA](#), [DPI \(Fisheries\)](#), and be directed towards monitoring the potential water impacts of the mine, including water in the up catchment diversion system, internal catchment drainage system, dewatering bores, all borefields associated with the development, and water supply pipeline, pit/void, Lake Cowal, and any other waters in and around the mine site for all stages of the development.

The monitoring program will include the development of adequate chemical and biological monitoring in the waters of Lake Cowal, when water is present, by suitably qualified and experienced staff or consultants to the satisfaction of the [DPI \(Water\)](#) and [EPA](#), and in the case of biological monitoring [DPI \(Fisheries\)](#), [DPI \(Water\)](#) and [EPA](#) must be satisfied as to sampling design, including sample locations, sample frequency, sample handling, transport and analysis, sampling parameters and reporting of analysis results.

The results and interpretation of surface and ground water monitoring (including biological monitoring) are to be published on the Applicant's website for the development on a regular basis, or as directed by the Secretary.

- (c) The Applicant shall prepare and implement a monitoring program for the detection of any movement of the Lake protection bund, water storage and tailings structures and pit/void walls during the life of the mine, with particular emphasis on monitoring after any seismic events prior to commencement of construction works, in consultation with [DPI \(Water\)](#) and DRE, and to the satisfaction of the Secretary.

#### 4.6 Catchment Areas and Watercourses

The Applicant shall as a landowner have on-going regard for the provisions of the latest versions of the Jemalong Land and Water Management Plan, Lake Cowal Land and Water Management Plan, Mid-Lachlan Regional Vegetation Management Plan, and any future catchment/land and water management plans that may become relevant to the area.

### 5. HAZARDOUS MATERIALS AND TAILINGS MANAGEMENT

#### 5.1 Waste Rock Emplacement and Management

The Applicant shall construct and manage the waste rock emplacement as set out in the EIS, and to the satisfaction of DRE.

#### 5.2 Tailings Emplacement and Management

The Applicant shall:

- (a) construct the tailings dams to the requirements of DRE, EPA and DSC and in consultation with [DPI \(Water\)](#); and
- (b) construct and compact the floor of the tailings storages as required to a permeability acceptable to the DRE and EPA in consultation with [DPI \(Water\)](#).

#### 5.3 Cyanide Management

##### (a) Cyanide levels

The Applicant shall ensure that cyanide levels of the aqueous component of the tailings slurry stream do not exceed: 20mg CN<sub>WAD</sub>/L (90 percentile over six months), and 30mg CN<sub>WAD</sub>/L (maximum permissible limit at any time), at the [process plant](#).

##### (b) Cyanide Management

The Applicant shall prepare and implement a cyanide management plan for the development to the satisfaction of the Secretary. The plan is to be prepared in consultation with DRE, EPA and [DPI \(Water\)](#) and include monitoring and reporting on cyanide use on the site. The plan shall make provision for, but is not limited to:

- (i) containing cyanide contaminated waters entirely within the mine site;
- (ii) maintaining weak acid dissociable (WAD) cyanide levels at the [process plant](#) to the levels stated in condition 5.3(a);
- (iii) contingency measures for cyanide reduction.

##### (c) Wildlife Deaths

In the event of wildlife deaths occurring due to cyanide, review of cyanide levels shall occur by the EPA in consultation with the Applicant and DRE. Any decision to require cyanide reduction shall include, but not be limited to, consideration of the number of fauna deaths, the species involved, antecedent condition of species, methods employed at the time to prevent use of tailings dams by fauna, and antecedent climatic and surface water conditions of the Lake and surrounding area. The Applicant shall notify the CEMCC of any reductions in cyanide levels as soon as practicable.

##### (d) Cyanide Monitoring

The Applicant shall prepare and implement a cyanide monitoring program for the development to the satisfaction of the Secretary. The plan must be prepared in consultation with [EPA](#) and DRE, and shall include, but not be limited to, provision for:

- (i) monitoring of CN<sub>WAD</sub> levels of the aqueous component of the tailings slurry stream at the [process plant](#) twice daily or as otherwise directed by the Secretary, with any increases above 20mg CN<sub>WAD</sub>/L to be assessed daily to ensure compliance and reported [in the Annual Review](#), unless otherwise agreed by the Secretary. If the CN<sub>WAD</sub> levels of 30mg/L are exceeded in the liquid at any time, discharge to the tailings dams shall cease until CN<sub>WAD</sub> levels can be achieved below the levels stated in condition 5.3(a) and such exceedance shall be reported to the [EPA](#) within 24 hours;
- (ii) monitoring CN<sub>WAD</sub> levels in the decant water of the tailings dams twice daily or as otherwise directed by the Secretary;
- (iii) an on site laboratory for quickly establishing CN<sub>WAD</sub> levels in the liquid at the [process plant](#) and in the decant ponds for monitoring purposes;
- (iv) on-line monitoring of CN(FREE) at locations where employees are operating;
- (v) establishing a monitoring regime for detection of cyanide movement beneath and adjacent to the

tailings impoundments.

A summary of the cyanide monitoring results shall be provided on the Applicant's website for the development on a regular basis, or as directed by the Secretary.

#### 5.4 Hazards Management

*Note: The development consent conditions under 5.4(a)-(f) are related to offsite risk to people and the biophysical environment. The safety of all persons and operations on site is the responsibility of the DRE under the Mines Inspection Act and Dangerous Goods Act.*

##### (a) Pre-Construction Studies

The Applicant shall prepare and submit for the approval of the Secretary, the studies set out under subsections 5.4(a)(i) to 5.4(a)(iii) (the pre-construction studies), at least one month prior to the commencement of construction of the proposed development, (except for construction of those preliminary works that are outside the scope of the hazard studies), or within such further period as Secretary may agree. Construction, other than of preliminary works, shall not commence until approval has been given by the Secretary and, with respect to the fire safety study, approval has also been given by the Commissioner of the NSW Fire Brigades.

##### (i) *Fire Safety Study*

This study shall cover all aspects detailed in the Department's Hazardous Industry Planning Advisory Paper No. 2, "Fire Safety Study Guidelines" and the New South Wales Government's "Best Practice Guidelines for Contaminated Water Retention and Treatment Systems". The study shall also be submitted for approval to the New South Wales Fire Brigades.

The study should, in particular, address the fire related issues associated with the storage and use of Ammonium Nitrate, Sodium Isobutyl Xanthate, and Cyanide.

##### (ii) *Hazard and Operability Study*

The study is to be chaired by an independent qualified person approved by the Director-General prior to the commencement of the study. The study shall be carried out in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 8, "HAZOP Guidelines". The HAZOP shall in particular address the monitoring, control, alarm and shutdown systems associated with xanthate and cyanide process streams.

##### (iii) *Final Hazard Analysis*

The analysis should be prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 6, "Guidelines for Hazard Analysis".

##### (b) Pre-Commissioning Studies

The Applicant shall prepare and submit for the approval of the Secretary the following studies (the pre-commissioning studies), no later than two months prior to the commencement of commissioning of the proposed development, or within such period as the Secretary may agree. Commissioning shall not commence until approval has been given by the Secretary.

##### (i) *Transport of Hazardous Materials*

The study comprises arrangements covering the transport of hazardous materials including details of routes to be used for the movement of vehicles carrying hazardous materials to or from the proposed development. The study shall be carried out in accordance with the Department's draft "Route Selection" guidelines. Suitable routes identified in the study shall be used except where departures are necessary for local deliveries or emergencies.

The study should also address (1) the issues associated with spills, cleanup procedures, training of clean-up teams, communication, and liaison with organisations such as the fire brigades, District Emergency Management Coordinator (and Committee), Local Emergency Management Committee(s), and state emergency services; (2) inspection and monitoring procedures for chemicals such as explosives, xanthates and cyanides prior to commencement of a trip, to verify the integrity of the packaging; and (3) measures to be taken to ensure that the temperature of the materials does not rise above safe levels.

(ii) *Emergency Plan*

A comprehensive emergency plan and detailed emergency procedures for the proposed development. This plan shall include detailed procedures for the safety of all people outside of the development who may be at risk from the development. The plan should be in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 1, "Industry Emergency Planning Guidelines", and include procedures for spillage, cleanup, control and protection, and rescue of wildlife during the emergency.

(iii) *Safety Management System*

A document setting out a comprehensive safety management system, covering all operations on-site and associated transport activities involving hazardous materials. The document shall clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to procedures. Records shall be kept on-site and should be available for inspection by the Secretary upon request. The safety management system should be developed in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 9, "Safety Management".

(c) Hazard Audit

Twelve months after the commencement of operations of the proposed development or within such further period as the Secretary may agree, the Applicant shall carry out a comprehensive hazard audit of the proposed development and submit a report of the audit to the Secretary.

The audit shall be carried out at the Applicant's expense by a duly qualified independent person or team approved by the Secretary prior to commencement of the audit. Further audits shall be carried out every three years or as determined by the Secretary and a report of each audit shall within a month of the audit be submitted to the Secretary. Hazard audits should be carried out in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 5, "Hazard Audit Guidelines".

## 5.5 Domestic Waste

The Applicant shall dispose of all solid waste and putrescible matter from the site to the satisfaction of BSC.

## 5.6 Sewage and Associated Waste Management

The Applicant shall install the site sewage treatment facility, and dispose of treated sewage and sullage to the satisfaction of BSC and EPA, and in accordance with the requirements of the Department of Health.

## 5.7 Asbestos and Other Hazardous or Toxic Waste Management

The Applicant shall prior to commencement of construction works prepare a Hazardous Waste and Chemical Management Plan as set out in section 6.4.1 of the EIS in consultation with EPA and BSC, and to the satisfaction of the Secretary.

## 6. AIR, BLAST, NOISE AND VISUAL IMPACT MANAGEMENT

### 6.1 Air Management

(a) Impact Assessment Criteria

The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria listed in Tables 3, 4 and 5 at any residence on privately-owned land.

Table 3: Long term impact assessment criteria for particulate matter

<b>Pollutant</b>	<b>Averaging period</b>	<b><sup>d</sup> Criterion</b>
Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>

Table 4: Short term impact assessment criterion for particulate matter

<b>Pollutant</b>	<b>Averaging period</b>	<b><sup>d</sup> Criterion</b>
Particulate matter < 10 µm (PM <sub>10</sub> )	24 hour	<sup>a</sup> 50 µg/m <sup>3</sup>

Table 5: Long term impact assessment criteria for deposited dust

<b>Pollutant</b>	<b>Averaging period</b>	<b>Maximum increase in deposited dust level</b>	<b>Maximum total deposited dust level</b>
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

Notes to Tables 3-5:

<sup>a</sup> Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources).

<sup>b</sup> Incremental impact (i.e. incremental increase in concentrations due to the development on its own).

<sup>c</sup> Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.

<sup>d</sup> Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Secretary.

(b) Operating Conditions

The Applicant shall:

- (i) implement best management practice to minimise the off-site odour, fume, spontaneous combustion and dust emissions of the development;
- (ii) implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site;
- (iii) minimise any visible off-site air pollution generated by the development;
- (iv) minimise the surface disturbance on the site;
- (v) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d above under Tables 3-5); and
- (vi) carry out regular monitoring to determine whether there is compliance with the relevant conditions of this consent,

to the satisfaction of the Secretary.

(c) Air Quality Management Plan

The Applicant shall prepare and implement an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:

- (i) be prepared in consultation with the EPA;
- (ii) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of [this consent](#);
- (iii) include an air quality monitoring program that:
  - evaluates and reports on the:
    - the effectiveness of the air quality management system;
    - compliance with the air quality criteria;
    - compliance with the air quality operating conditions; and
  - defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents.

**6.2 Meteorological Monitoring**

For the life of the development, the Applicant shall ensure that there is a meteorological station in the vicinity of the site that complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline.

**6.3 Blast Management**

(a) Impact Assessment Criteria

The Applicant shall ensure that blasting on site does not cause any exceedence of the criteria in Table 6.

Table 6: Blasting impact assessment criteria

<b>Location &amp; Time</b>	<b>Airblast overpressure (dB(Lin Peak))</b>	<b>Ground vibration (mm/s)</b>	<b>Allowable exceedence</b>
Residence on privately-owned land - Anytime	120	10	0%
Residence on privately-owned land – Monday to Saturday during day	115	5	5% of the total number of blasts over a period of 12 months
Residence on privately-owned land – Monday to Saturday during evening	105	2	5% of the total number of blasts over a period of 12 months
Residence on privately-owned land – Monday to Saturday at night, Sundays and public holidays	95	1	5% of the total number of blasts over a period of 12 months

However, these criteria do not apply if the Applicant has a written agreement with the relevant owner to exceed the limits in Table 6, and the Applicant has advised the Department in writing of the terms of this agreement.

(b) Blasting Frequency

The Applicant may carry out a maximum of 1 blast a day on site. This condition does not apply to blasts required to ensure the safety of the mine or its workers.

*Note: For the purposes of this condition a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine.*

(c) Property Investigations

If the owner of any privately-owned land claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, and the Secretary agrees an independent investigation of the claim is warranted, then within 2 months of receiving this claim the Applicant shall:

- (i) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties to investigate the claim; and
- (ii) give the landowner a copy of the property investigation report.

If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant shall repair the damage to the satisfaction of the Secretary.

If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.

(d) Operating Conditions

The Applicant shall:

- (i) implement best management practice to:
  - protect the safety of people and livestock in the areas surrounding blasting operations;
  - protect public or private infrastructure/property in the surrounding area from damage from blasting operations; and
  - minimise the dust and fume emissions of any blasting;
- (ii) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site; and
- (iii) carry out regular monitoring to determine whether the development is complying with the relevant conditions of [this consent](#), to the satisfaction of the Secretary.

(e) Blast Management Plan

The Applicant shall prepare and implement a Blast Management Plan for the development to the satisfaction of the Secretary. This plan must:

- (i) be prepared in consultation with the EPA;
- (ii) describe the measures that would be implemented to ensure compliance with the blast criteria and operating conditions of [this consent](#); and
- (iii) include a monitoring program for evaluating and reporting on compliance with the blasting criteria and operating conditions of [this consent](#).

#### 6.4 Noise Management

(a) Acquisition Upon Request

Upon receiving a written request for acquisition from the owner of any land listed in Table 7, the Applicant shall acquire the land in accordance with the procedures in condition 8.3.

*Table 7: Land subject to acquisition upon request*

<a href="#">Westella</a>
<a href="#">Westlea</a>

*Note: To interpret the location referred to Table 7, see the map in Appendix 6.*

(b) Additional Noise Mitigation

Upon receiving a written request from the owner of the residences listed in [Tables 7 and 7A](#), the Applicant shall implement additional noise mitigation measures (such as double-glazing, insulation, and/or air conditioning) at the residence in consultation with the landowner. These measures must be reasonable and feasible, and directed towards reducing the noise impacts of the development on the residence.

If within 3 months of receiving this request from the owner, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

*Table 7A: Land subject to mitigation upon request*

<a href="#">Laurel Park</a>
<a href="#">Lakeview III</a>
<a href="#">Bramboyne</a>
<a href="#">The Glen</a>
<a href="#">Caloola II</a>

*Note: To interpret the location referred to Table 7A, see the map in Appendix 6.*

(c) Impact Assessment Criteria

The Applicant shall ensure that the noise generated by the development does not exceed the noise impact assessment criteria in Table 8 at any residence on privately-owned land.

*Table 8: Noise Impact Assessment Criteria dB(A)  $L_{Aeq}$  (15min)*

<b>Land</b>	<b>Day/Evening/Night</b>
<a href="#">Laurel Park, Lakeview III</a>	<a href="#">39</a>
<a href="#">Bramboyne, The Glen, Caloola II</a>	<a href="#">38</a>
<a href="#">Lakeview, Lakeview II, Foxham Downs II</a>	<a href="#">37</a>
All other privately-owned land	35

*Note: To identify the land referred to in Table 8, see the map in Appendix 6.*

Noise generated by the development is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy* (as may be updated from time-to-time). Appendix 5 sets out the meteorological conditions under which these criteria apply, and the requirements for evaluating compliance with these criteria.

However, these criteria do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

(d) Operating Conditions

The Applicant shall:

- (i) implement best management practice, including all reasonable and feasible mitigation measures, to minimise the operational, low frequency, and road noise of the development, including mitigation measures to:
- (ii) minimise the noise impacts of the development during meteorological conditions when the noise limits in **this consent** do not apply (see Appendix 5); and
- (iii) carry out regular attended monitoring to determine whether the development is complying with the relevant conditions of **this consent**, to the satisfaction of the Secretary.

(e) Noise Management Plan

The Applicant shall prepare and implement a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:

- (i) be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to carrying out any development under **this consent**, unless the Secretary agrees otherwise;
- (ii) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in **this consent**; and
- (iii) include a monitoring program that:
  - evaluates and reports on:
    - compliance with the noise criteria in **this consent**; and
    - compliance with the noise operating conditions;
  - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

## 6.5 Visual Management

(a) Additional Visual Impact Mitigation

Upon receiving a written request from the owner of any residence on privately-owned land which has, or would have, significant direct views of the mining operations and infrastructure on-site during the development, the Applicant shall implement additional visual impact mitigation measures (such as landscaping treatments or vegetation screens) to reduce the visibility of the mining operations and infrastructure from the residences on the privately-owned land.

These mitigation measures must be reasonable and feasible, and must be implemented within a reasonable timeframe.

If the owner of the residence and the Applicant cannot agree whether there are significant direct views from the residence, then either party may refer the matter to the Secretary for resolution.

If within 3 months of receiving this request, the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.

Notes:

- *The additional visual impact mitigation measures must be aimed at reducing the visibility of the mining operations on site from affected residences, and do not require measures to reduce the visibility of the mining operations from other locations on the affected properties.*
- *The additional visual impact mitigation measures do not necessarily have to include the implementation of measures on the affected property itself (i.e. the additional measures could involve the implementation of measures outside the affected property boundary that provide an effective reduction in visual impacts).*

(b) Operating Conditions

The Applicant shall:

- (i) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development;
- (ii) ensure no fixed outdoor lights shine directly above the horizontal or above the building line or any illuminated structure;
- (iii) ensure no in-pit mobile lighting rigs shine directly above the pit wall and other mobile lighting rigs do not shine directly above the horizontal;
- (iv) ensure that all external lighting associated with the development complies with relevant Australian Standards including *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting*, or its latest version; and
- (v) take all reasonable and feasible measures to shield views of mining operations and associated equipment from users of public roads and privately-owned residences, to the satisfaction of the Secretary.

## 7. TRANSPORT MANAGEMENT

### 7.1 Road Transport

(a) Mine site access road

The Applicant shall use its best endeavours to ensure that the preferred mine access road routes as described in the EIS are the only routes used by employees and contractors travelling to and from the mine site.

## 8. ADDITIONAL PROCEDURES

### 8.1 Notification of Landowners/Tenants

- (a) By the end of September 2014, unless the Secretary agrees otherwise, the Applicant shall notify in writing the owners of:
- (i) the land listed in Table 7 that they have the right to ask the Applicant to:
    - acquire their land at any stage during the development; and
    - install additional noise mitigation measures at any residence on their land;
  - (ii) any residence on privately-owned land which has, or would have, significant direct views of the mining operations and infrastructure on-site during the development, that they have the right to ask the Applicant to implement additional visual impact mitigation measures (such as landscaping treatments or vegetation screens) to reduce the visibility of the mining operations and infrastructure from the affected residences on the land.
- (b) As soon as practicable after obtaining monitoring results showing:
- (i) an exceedance of any relevant criteria in this consent, the Applicant shall notify the affected landowners in writing of the exceedance, and provide regular monitoring results to the landowner until the development is again complying with the relevant criteria; and
  - (ii) an exceedance of the relevant air quality criteria in this consent, the Applicant shall send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land.

### 8.2 Independent Review

If an owner of privately-owned land considers the development to be exceeding the criteria in this consent, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land.

If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision, the Applicant shall:

- (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:
- consult with the landowner to determine his/her concerns;
  - conduct monitoring to determine whether the development is complying with the relevant impact assessment criteria in condition 6 of this consent; and
  - if the development is not complying with these criteria then:
    - determine if more than one mine or development is responsible for the exceedance, and if so the relative share of each mine or development regarding the impact on the land; and
    - identify the measures that could be implemented to ensure compliance with the relevant criteria; and
- (b) give the Secretary and landowner a copy of the independent review.

### 8.3 Land Acquisition

- (a) Within 6 months of receiving a written request from a landowner with acquisition rights, the Applicant shall make a binding written offer to the landowner based on:
- (i) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the development, having regard to the:
    - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
    - presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of any additional noise and/or visual mitigation measures under this consent;
  - (ii) the reasonable costs associated with:
    - relocating within the same local government area, or to any other local government area determined by the Secretary;
    - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and
  - (iii) reasonable compensation for any disturbance caused by the land acquisition process.

However, if at the end of this period, the Applicant and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.

Upon receiving such a request, the Secretary shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:

- (1) consider submissions from both parties;
- (2) determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (i)-(iii) above;
- (3) prepare a detailed report setting out the reasons for any determination; and
- (4) provide a copy of the report to both parties.

Within 14 days of receiving the independent valuer's report, the Applicant shall make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.

However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary shall determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (i)-(iii) above, the independent valuer's report, the detailed report of the party that disputes the independent valuer's determination and any other relevant submissions.

Within 14 days of this determination, the Applicant shall make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.

If the landowner refuses to accept the Applicant's binding written offer under this condition within 6 months of the offer being made, then the Applicant's obligations to acquire the land shall cease, unless the Secretary determines otherwise.

- (b) The Applicant shall pay all reasonable costs associated with the land acquisition process described in condition 8.3(a) above.
- (c) If the Applicant and landowner agree that only part of the land shall be acquired, then the Applicant shall also pay all reasonable costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.

## 9. ENVIRONMENTAL MANAGEMENT, AUDITING AND REPORTING

### 9.1 Environmental Management

- (a) Environmental Management Strategy  
The Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:

- (i) be submitted to the Secretary for approval by the end of October 2014, unless the Secretary agrees otherwise;
- (ii) provide the strategic framework for environmental management of the development;
- (iii) identify the statutory approvals that apply to the development;
- (iv) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
- (v) describe the procedures that would be implemented to:
  - keep the local community and relevant agencies informed about the operation and environmental performance of the development;
  - receive, handle, respond to, and record complaints;
  - resolve any disputes that may arise;
  - respond to any non-compliance;
  - respond to emergencies; and
- (vi) include:
  - copies of any strategies, plans and programs approved under the conditions of this consent; and
  - a clear plan depicting all the monitoring to be carried out in relation to the development.

(b) Annual Review

By the end of July each year, or as otherwise agreed with the Secretary, the Applicant shall review the environmental performance of the development to the satisfaction of the Secretary. This review must:

- (i) describe the development that was carried out in the previous calendar year, and the development that is proposed to be carried out over the next year;
- (ii) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the:
  - the relevant statutory requirements, limits or performance measures/criteria;
  - the monitoring results of previous years; and
  - the relevant predictions in the EIS;
- (iii) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
- (iv) identify any trends in the monitoring data over the life of the development;
- (v) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
- (vi) describe what measures will be implemented over the next year to improve the environmental performance of the development.

(c) Revision of Strategies, Plans and Programs

Within 3 months of:

- (i) the submission of an annual review under condition 9.1(b) above;
- (ii) the submission of an incident report under condition 9.3(a) below;
- (iii) the submission of an audit under condition 9.2 (a) below;
- (iv) the submission of an Annual State of the Environment Report under condition 9.2(b) below;
- (v) the approval of any modification to the conditions of this consent; or
- (vi) a direction of the Secretary under condition 1.1(c) of this consent;

the Applicant shall review and, if necessary, revise the strategies, plans, and programs required under this consent to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted to the Secretary for approval, unless otherwise agreed with the Secretary.

*Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.*

(d) Community Environmental Monitoring and Consultative Committee

- (i) The Applicant shall establish and operate a Community Environmental Monitoring and Consultative Committee (CEMCC) for the development to the satisfaction of the Secretary. This CEMCC must:
  - be comprised of an independent chair and at least 2 representatives of the Applicant, 1 representative of BSC, 1 representative of the Lake Cowal Environmental Trust (but not a Trust representative of the Applicant), 4 community representatives (including one member of the Lake Cowal Landholders Association);

- be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version).
- monitor compliance with conditions of this consent and other matters relevant to the operation of the mine during the term of the consent.

*Note: The CEMCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.*

- (ii) The Applicant shall establish a trust fund to be managed by the Chair of the CEMCC to facilitate the functioning of the CEMCC, and pay \$2000 per annum to the fund for the duration of gold processing operations. The annual payment shall be indexed according to the Consumer Price Index (CPI) at the time of payment. The first payment shall be made by the date of the first Committee meeting. The Applicant shall also contribute to the Trust Fund reasonable funds for payment of the independent Chairperson, to the satisfaction of the Secretary
- (iii) At least four years prior to mine closure the Applicant shall, in consultation with the CEMCC, identify and discuss post-mining issues, particularly in relation to reduced employment and consequent impacts on West Wyalong, and develop a mine workforce phase out plan. This plan shall be reviewed and updated in consultation with the CEMCC at the commencement of the final year of mining operations.
- (iv) The Applicant shall, in consultation with the CEMCC, develop appropriate strategies to support activities which promote special interest tourism related to the co-existence of mining and the Lake Cowal environment.

## **9.2 Independent Auditing and Review**

### **(a) Independent Environmental Audit**

- (i) By the end of July 2016, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
  - be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
  - include consultation with the relevant agencies, BSC and the CEMCC;
  - assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any other relevant approvals (such as environment protection licences and/or mining lease (including any assessment, plan or program required under this consent));
  - review the adequacy of any approved strategy, plan or program required under this consent or the abovementioned approvals; and
  - recommend measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under this consent.

*Note: This audit team must be led by a suitably qualified auditor, and include ecology and rehabilitation experts, and any other fields specified by the Secretary.*

- (ii) Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of these recommendations as required. The Applicant must implement these recommendations, to the satisfaction of the Secretary.

### **(b) Independent Monitoring Panel**

- (i) The Applicant shall at its own cost establish an Independent Monitoring Panel prior to commencement of construction. The Applicant shall contribute \$30,000 per annum for the functioning of the Panel, unless otherwise agreed by the Secretary. The annual payment shall be indexed according to the Consumer Price Index at the time of payment. The first payment shall be paid by the date of commencement of construction and annually thereafter. Selection of the Panel representatives shall be agreed by the Secretary in consultation with relevant government agencies and the CEMCC. The Panel shall at least comprise two duly qualified independent environmental scientists and a representative of the Secretary.

- (ii) The panel shall:
- provide an overview of the annual reviews and independent audits required by conditions 9.1(b) and 9.2(a) above;
  - regularly review all environmental monitoring procedures undertaken by the Applicant, and monitoring results; and
  - provide an Annual State of the Environment Report for Lake Cowal with particular reference to the on-going interaction between the mine and the Lake and any requirements of the Secretary. The first report shall be prepared one year after commencement of construction. The report shall be prepared annually thereafter unless otherwise directed by the Secretary and made publically available on the Applicant's website for the development within two weeks of the report's completion.

### **9.3 Reporting**

(a) Incident Reporting

The Applicant shall immediately notify the Secretary and any other relevant agencies of any incident related to the development. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

(b) Regular Reporting

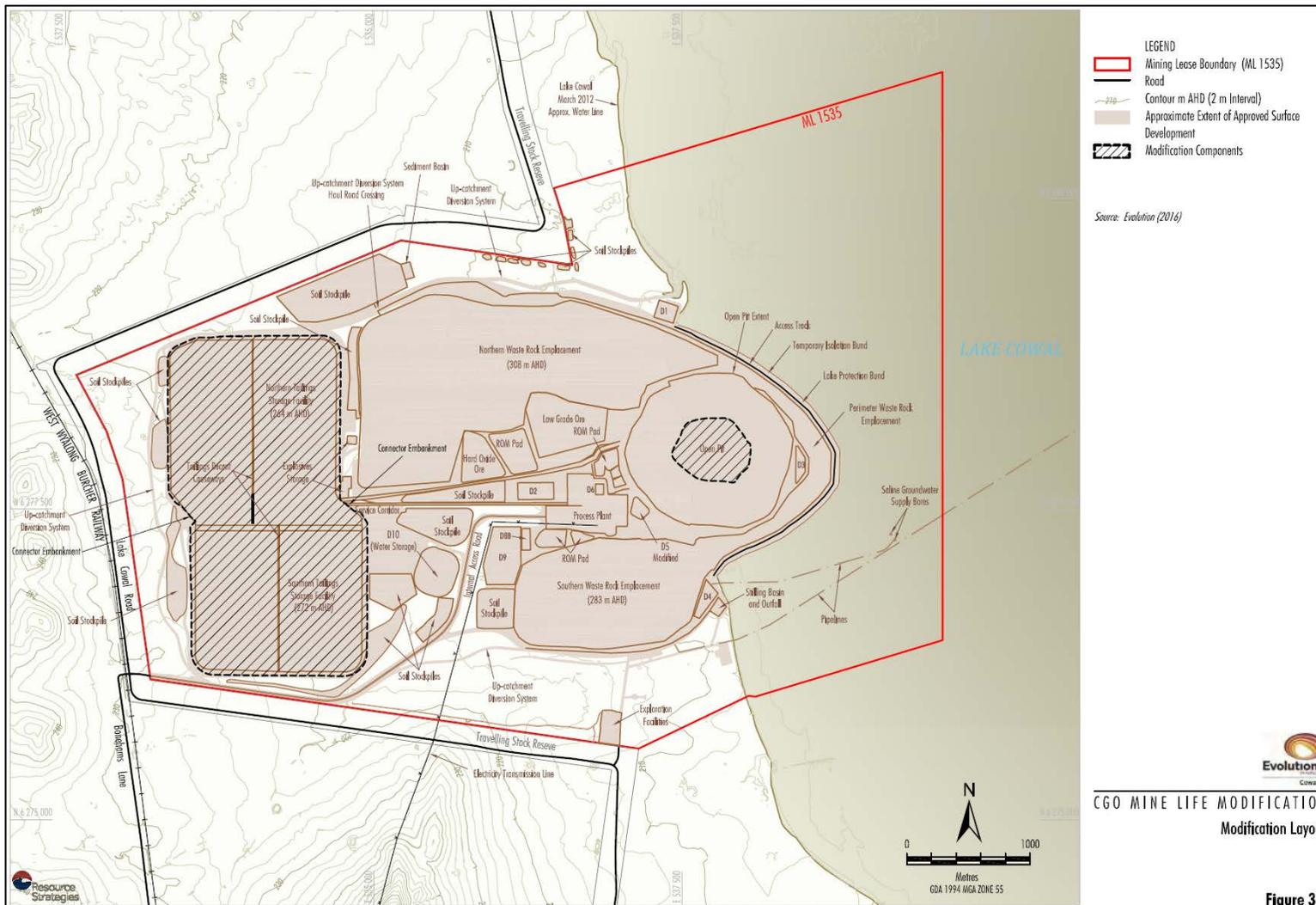
The Applicant shall provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.

### **9.4 Access to Information**

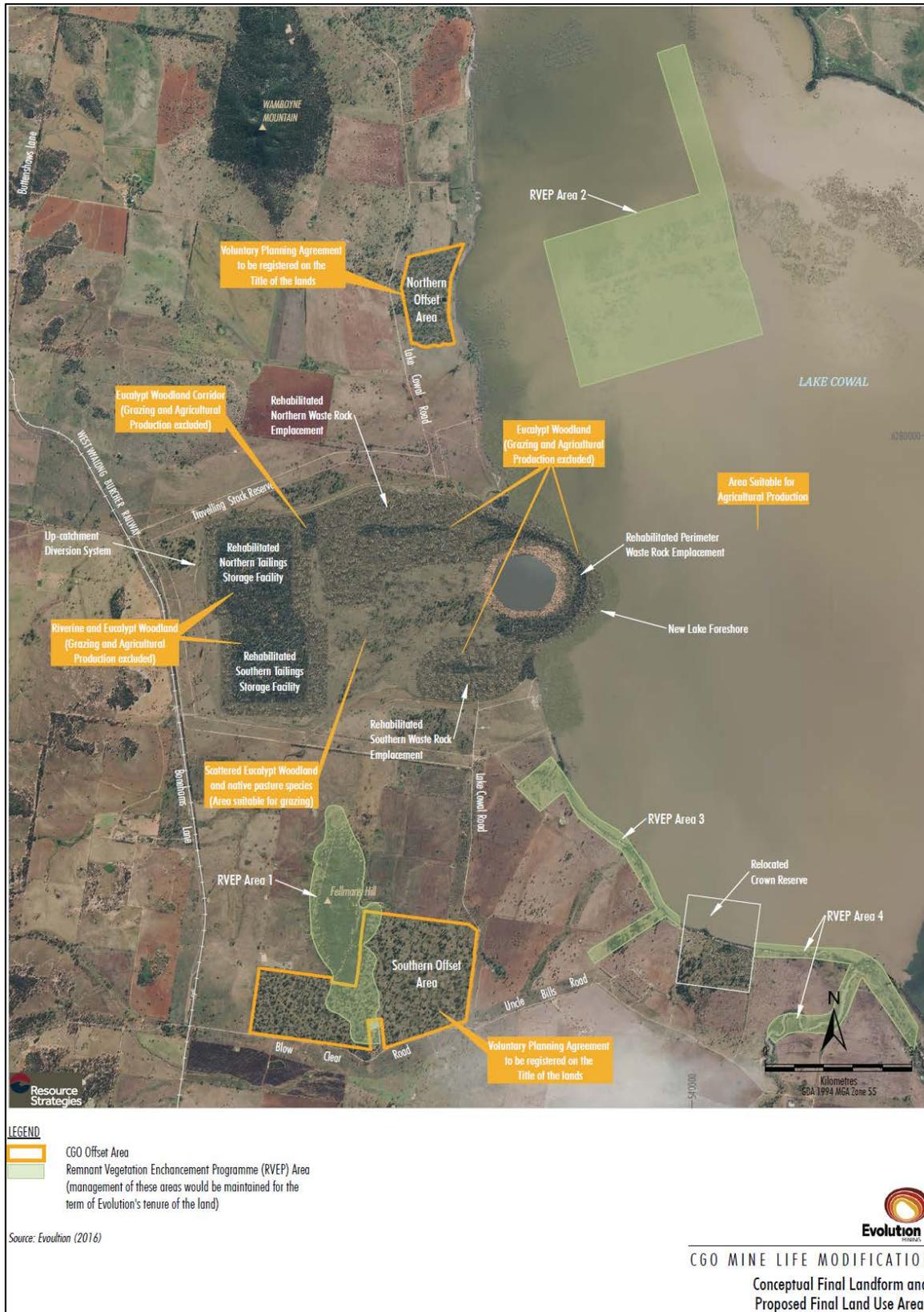
The Applicant shall:

- (a) make the following information publicly available on its website:
- (i) the EIS;
  - (ii) current statutory approvals for the development;
  - (iii) approved strategies, plans or programs required under the conditions of this consent;
  - (iv) a comprehensive summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent;
  - (v) a complaints register, which is to be updated on a monthly basis;
  - (vi) minutes of CEMCC meetings;
  - (vii) the last five annual reviews;
  - (viii) any independent environmental audit, and the Applicant's response to the recommendations in any audit; and
  - (ix) any other matter required by the Secretary; and
- (b) keep this information up to date,  
to the satisfaction of the Secretary.

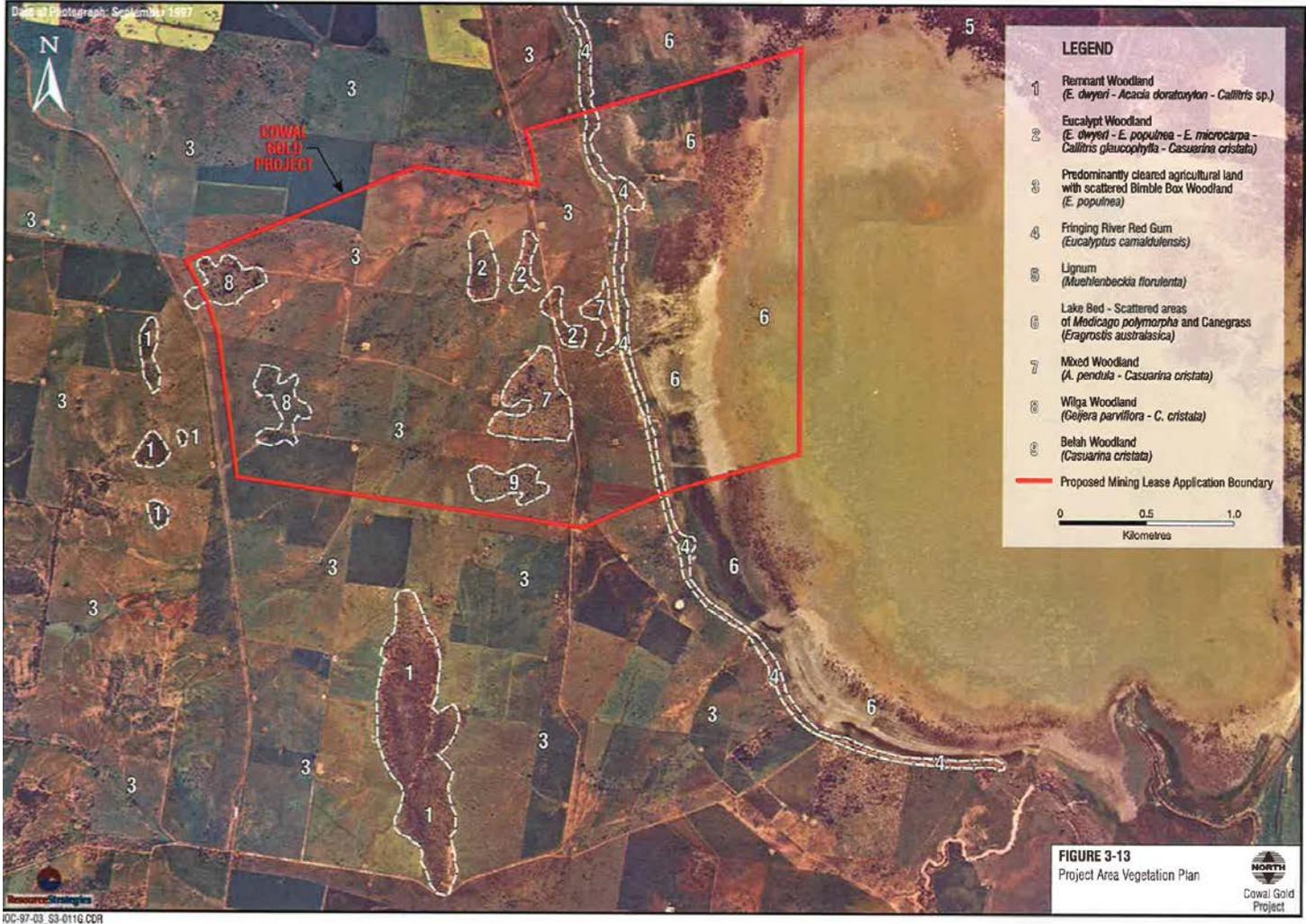
## APPENDIX 1 GENERAL LAYOUT OF THE DEVELOPMENT



## APPENDIX 2 CONCEPTUAL REHABILITATION OF THE SITE



**APPENDIX 3**  
**FIGURE 3-13 FROM THE 1998 EIS FOR THE COWAL GOLD PROJECT**



## APPENDIX 4 BIODIVERSITY OFFSET STRATEGY



## **APPENDIX 5 NOISE COMPLIANCE ASSESSMENT**

### **Applicable Meteorological Conditions**

1. The noise criteria in the conditions are to apply under all meteorological conditions except the following:
  - (a) during periods of rain or hail;
  - (b) average wind speed at microphone height exceeds 5 m/s; or
  - wind speeds greater than 3 m/s measured at 10 m above ground level.

### **Determination of Meteorological Conditions**

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station located on the site.

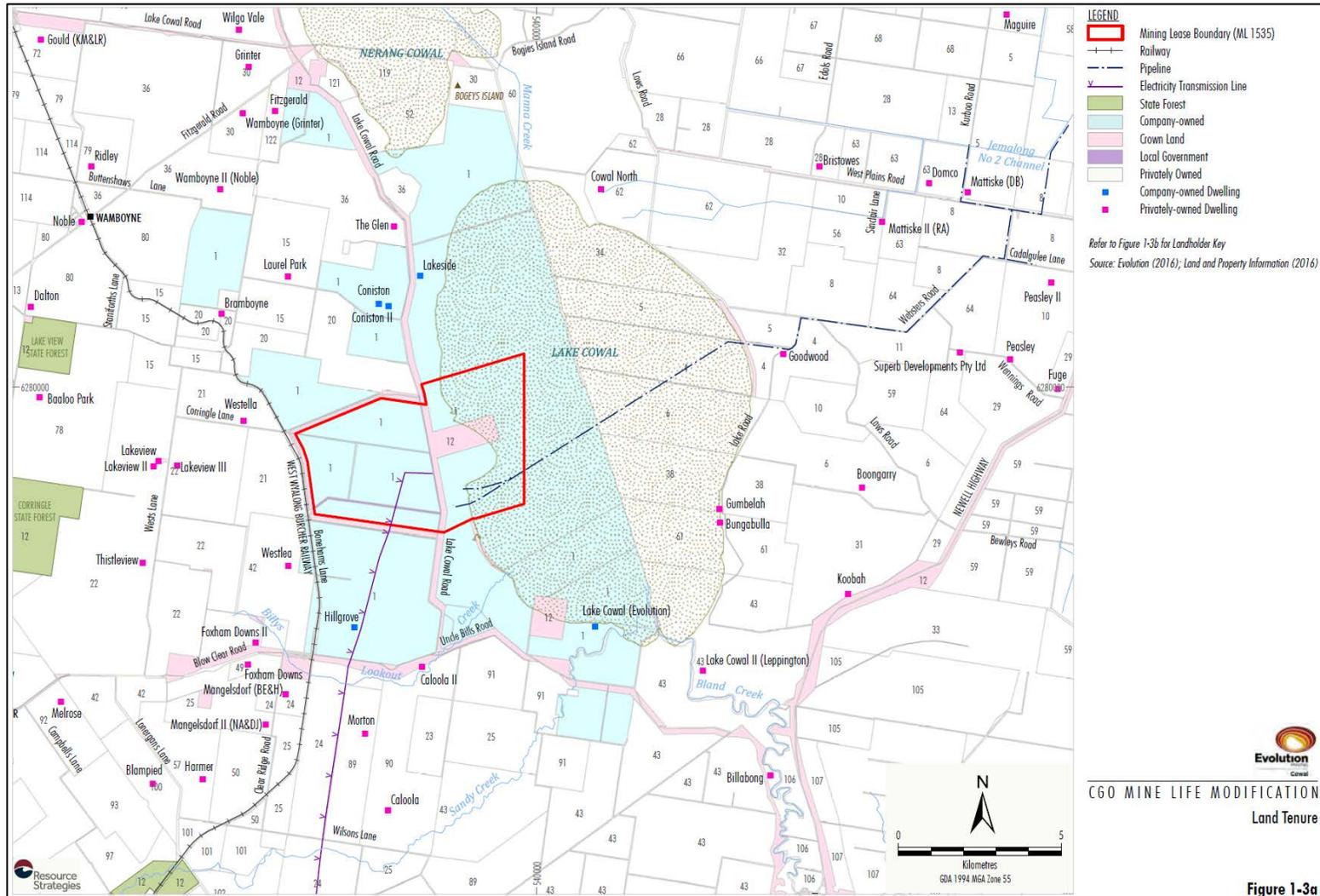
### **Compliance Monitoring**

3. Attended monitoring is to be used to evaluate compliance with the relevant conditions of this approval.
4. This monitoring must be carried out quarterly, unless the Secretary directs otherwise.

*Note: The Secretary may direct that the frequency of attended monitoring increase or decrease at any time during the life of the development.*

5. Unless the Secretary agrees otherwise, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the *NSW Industrial Noise Policy* (as amended from time to time), in particular the requirements relating to:
  - (a) monitoring locations for the collection of representative noise data;
  - (b) meteorological conditions during which collection of noise data is not appropriate;
  - (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
  - (d) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.

## APPENDIX 6 LOCATION OF RECEIVERS



APPENDIX B

EASTERN SALINE BOREFIELD DEVELOPMENT CONSENT (DA 2011/64)



# Forbes Shire Council

Administration Centre: 2 Court Street, Forbes NSW 2871  
ABN 86 023 614 567

Please Quote Ref: PRB:JKW P25/010 A/N 1791,1793

22 December 2010

Barrick (Cowal) Limited  
P O Box 210  
**WEST WYALONG NSW 2671**

***Subject: Development Application 2011/0064***

---

Dear Sir or Madam

I wish to advise that the above development application has been approved by Council subject to certain conditions. You are requested to read the conditions as several may require information to be supplied to Council

Should you wish to discuss any condition of the development consent or the terms of this contract, please contact **Mr Brendan Hayes**, Council's Manager of Development and Regulatory Control, on **6850 2344**.

Yours faithfully

**Paul Bennett**  
**Director Environmental Services**

All mail to:  
General Manager  
PO Box 333  
Forbes NSW 2871

General Enquiries:  
Ph: (02) 6850 2300  
Fx: (02) 6850 2399

Mayor &  
General Manager:  
Ph: (02) 6850 2304

Engineering Services:  
Ph: (02) 6850 2333  
Fx: (02) 6850 2398

Environmental Services:  
Ph: (02) 6850 2344

[forbes@forbes.nsw.gov.au](mailto:forbes@forbes.nsw.gov.au)



# FORBES SHIRE COUNCIL

## Notice of Determination of a Development Application

Environmental Planning and Assessment Act, 1979  
Section 81 (1) (a)

<b><u>File No.</u></b>	P25/010	<b><u>Dev App No</u></b>	2011/0064	<b><u>Ass No</u></b>	1791 & 1793
<b><u>Applicant's Name:</u></b>	Barrick (Cowal) Limited				
<b><u>Address:</u></b>	P O Box 210 WEST WYALONG NSW 2671				
<b><u>Owner/s:</u></b>	Peter Hammond, Matthew Duff & Forbes Shire Council.				
<b><u>Description of Land to be Developed:</u></b>	Lot 15 DP753129, Lot 2 DP515542 & Lot 71 DP753129				
<b><u>Description of Development:</u></b>	Eastern Saline Borefield				
<b><u>Building Code of Australia Building Classification:</u></b>	N/A				
<b><u>Site Wind Classification:</u></b>	N/A				
<b><u>Plans and Specifications:</u></b>	Statement of Environmental Effects Document No. 00371486 – October 2010				
<b><u>Determination Made On:</u></b>	20 December 2010				
<b><u>Determination:</u></b>	Consent granted subject to conditions described below				
<b><u>Consent to Operate from:</u></b>	20 December 2010				
<b><u>Consent to Lapse on:</u></b>	20 December 2015				
<b><u>Other Approvals:</u></b>	Not Applicable.				

### **CONDITIONS OF CONSENT:**

- 1). Development being undertaken in accordance with the approved proposal and conditions of consent. Any variations are to be submitted to Forbes Shire Council for consideration and consent prior to implementation.

**REASON:** Application has been considered in accordance with the application submitted (Section 79 (C)).

- 2). The development shall be carried out generally in accordance with the Statement of Environmental Effects Report prepared by Barrick (Cowal) Pty Ltd, October, 2010 and supporting documentation.

**REASON: To ensure consistency with the Statement of Environmental Effects**

- 3). The operation of the Eastern Saline Borefield shall require and comply with relevant approval from the NSW Office of Water as prescribed by the Water Act 1912.

**REASON: Separate approval is required by the NSW Office of Water in accordance with the Water Act 1912.**

- 4). The formed roadway and road reserve must be maintained in a good, safe condition and free from any obstructions, materials, soils or debris at all times. Any damage caused to the road or nature strip attributable to the operation of the Eastern Saline Borefield must be repaired immediately, to the satisfaction of Council.

**REASON: To ensure Councils land is maintained in a safe condition.**

- 5). Relevant easements shall be maintained under Section 88B of the Conveyancing Act 1948 for the location and access to relevant infrastructure i.e. pipe line and pump installations across private property.

**REASON: To maintain easements over the land.**

- 6). A Registered Surveyor's check survey certificate or compliance certificate is to be forwarded to the principal certifying authority (and a copy is to be forwarded to the Council, if the Council is not the principal certifying authority), detailing the location of relevant infrastructure.

**REASON: To ensure the infrastructure is located within the easements.**

**Note:**

A Modification to the Development Consent for the Cowal Gold Mine will be necessary to detail the modified management practices for handling/treating and disposal and/recycling of the saline water.

**NOTES:**

**Advisory note**

The application of waste-derived material to land is an activity that may require a licence under the *Protection of the Environment Operations Act 1997* (POEO Act). However a licence is not required by the occupier of land if the only material applied to land is virgin excavated natural material or waste-derived material that is the subject of a **resource recovery exemption** under Clause 51A of the *Protection of the Environment Operations (Waste) Regulation 2005*.

**Resource recovery exemptions** are available on Department of Environment and Climate Change's website at: <http://www.environment.nsw.gov.au/waste/>.

**Definition of 'virgin excavated natural material' within the meaning of the POEO Act:**

Natural material (such as clay, gravel, sand, soil or rock fines) that has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues (as a result of industrial, commercial, mining or agricultural activities), and that does not contain any sulfidic ores or soils or any other waste.

**Definition of 'waste' within the meaning of the POEO (Waste) Regulation:**

See Part 1, Clause 3B.

**Construction Certificate required**

This development consent is issued under the Environmental Planning and Assessment Act (EP&A) 1979 and does not relate to structural aspects or specifications of the building under the Building Code of Australia (BCA). All buildings and alterations require the issue of a Construction Certificate (CC) prior to works commencing.

**Principal Certifying Authority**

Work must not commence until the applicant has:

- Appointed a Principal Certifying Authority (if the Council is not the PCA); and
- Given the Council at least two days notice of the intention to commence the erection of the building. Notice must be given by using the prescribed 'Form 7'.
- Notified the Principal Certifying Authority of the Compliance with Part 6 of the Home Building Act 1989.

**Protection of the Environment Operations Act 1997**

It is an offence under the provisions of the Protection of the Environment Operations Act (PEOA) 1997 to act in a manner causing, or likely to cause, harm to the environment. Anyone allowing material to enter a waterway or leaving material where it can be washed off-site may be subject to a penalty infringement notice or prosecution.

**Penalties apply for failure to comply with development consents**

Failure to comply with conditions of development consent may lead to an on the spot fine being issued pursuant to section 127A of the Environmental Planning and Assessment Act (EP&A) 1979 or prosecution pursuant to section 125 of the Environmental Planning and Assessment Act (EP&A) 1979.

**Are you dissatisfied with conditions of consent?**

If you are unhappy with conditions of consent discuss your concerns with the officer who dealt with your application. You may submit an application to Council to modify the consent under Section 96 of the Environmental Planning & Assessment Act, 1979. You may also request Council to review its decision under Section 82A of the Environmental Planning & Assessment Act, 1979. Such a request must be made within 12 months of the date of determination.

You will need to provide reasons why the conditions should be changed or deleted. You may lodge a Section 96 application at any time after the notice of determination. If you are not happy with Council's decision on your request for modification, then you may appeal to the Land & Environment Council within 60 days of the notification by Council.

**Right of Review**

You may request Council to review its decision under Section 82A of the Environmental Planning and Assessment Act, 1979. Such a request must be made within 12 months of the date of the determination, or if there is an appeal to the Land and Environment Court up to the time when the court hands down its decision. In reviewing its decision Council is able to consider alterations to the above plans, provided that the Development Application remains substantially the same as the one for which the consent was originally sought, and the changes are publicly notified.

**Right of Appeal**

If you are dissatisfied with the decision, Section 97 of the *Environmental Planning and Assessment Act 1979* gives you the right to appeal to the Land and Environment Court within 12 months after the date on which you receive this notice.

For and on behalf of Forbes Shire Council

  
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**Paul Bennett**  
**Director Environmental Services**

23, 12, 2010  
Date

***Original plans and specifications kept on Environmental Services and Planning file.***

APPENDIX C  
CGO ENVIRONMENTAL MANAGEMENT PLANS, STRATEGIES AND PROGRAMS  
(CD-ROM)