



ABN: 67 118 684 576

COBAR CONSOLIDATED RESOURCES LIMITED

Response to a Request of NSW
Industry & Investment for Additional
Information
Issued on 7 February 2011

for the

WONAWINTA SILVER PROJECT

February 2011

Prepared by:





ABN: 67 118 684 576

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Response to a Request of NSW Industry & Investment for Additional Information Issued on 7 February 2011

For the

WONAWINTA SILVER PROJECT

Prepared for:

Cobar Consolidated Resources Limited
ABN: 67 118 684 576
Level 4, 448 St Kilda Road
MELBOURNE VIC 3004

Telephone: (03) 9866 8613
Facsimile: (03) 9820 2586
Email: tshard@cclimited.com.au

Prepared by:

R.W. Corkery & Co. Pty. Limited
Geological & Environmental Consultants
ABN: 31 002 033 712

Brooklyn Office:

1st Floor, 12 Dangar Road
PO Box 239
BROOKLYN NSW 2083

Orange Office:

62 Hill Street
ORANGE NSW 2800

Brisbane Office:

Level 19, 1 Eagle Street
BRISBANE QLD 4000

Telephone: (02) 9985 8511
Facsimile: (02) 9985 8208
Email: brooklyn@rwcorkery.com

Telephone: (02) 6362 5411
Facsimile: (02) 6361 3622
Email: orange@rwcorkery.com

Telephone: (07) 3360 0217
Facsimile: (07) 3360 0222
Email: brisbane@rwcorkery.com

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R. W. CORKERY & CO. PTY. LIMITED

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1. INTRODUCTION

A development application for the development and operation of the Wonawinta Silver Project ("the Project") was lodged with Cobar Shire Council (Council) by Cobar Consolidated Resources Limited (CCR) on 22 December 2010. Accompanying the development application was an Environmental Impact Statement (EIS) prepared by R.W. Corkery & Co. Pty Limited (RWC).

On 7 February 2011, Industry & Investment NSW (I&I NSW) issued a letter to Council noting general satisfaction with the information supplied in the EIS but requesting further information on several aspects of the proposed rehabilitation. Provision of the information requested is provided in Section 2.

I&I NSW also recommended a condition of approval related to the preparation of a Rehabilitation Plan for the Project. Section 3 considers this recommended condition.

2. ADDITIONAL INFORMATION ON PROJECT REHABILITATION

I&I NSW wrote:

"I&I NSW require the following issues to be addressed by Cobar Consolidated prior to the granting of any planning approval.

- *Describe how each rehabilitation objective complies with relevant Government legislation or policies, research or industry leading practice.*
- *Describe any post rehabilitation maintenance requirements for the project site and how these will be managed."*

Response

Rehabilitation Objectives

At the request of I&I NSW, the rehabilitation objectives nominated in Section 2.15.2.1 of the EIS have been reviewed against relevant Government legislation or policies, research or industry leading practice, namely:

1. *Mining Act 1992;*
2. *Guidelines to the Mining, Rehabilitation and Environmental Management Process, Version 3, January 2006 (DPI, 2006) (MREMP);*
3. *Rehabilitation and Environmental Management Plan (REMP) Guidelines Consultation Draft V3.10, 6 August 2010" (I&I NSW, 2010) (REMP);*
4. *Strategic Framework for Mine Closure (ANZMEC, 2000);*
5. *Best Practice Environmental Management in Mining: Overview of Best Practice Environmental Management in Mining (EA, 2002);*
6. *Best Practice Environmental Management in Mining: Landform Design for Rehabilitation (EA, 1998); and*



7. *Best Practice Environmental Management in Mining: Rehabilitation and Revegetation* (EPA, undated).

1. **Mining Act 1992**

The short term objectives will allow for the proposed rehabilitation to meet the *Mining Act 1992* ("the Act") Dictionary definition of rehabilitation, i.e. "the treatment or management of disturbed land or water for the purpose of establishing a safe and stable environment".

The short term objectives also comply with the rehabilitation related objects of the Act, namely: "to encourage and facilitate the discovery and development of mineral resources in New South Wales, having regard to the need to encourage ecologically sustainable development, and in particular:

- *** **
- e) to require the payment of security to provide for the rehabilitation of mine sites, and
 - f) to ensure effective rehabilitation of disturbed land and water"

2/3. **MREMP and REMP**

As required by the MREMP and REMP guidelines, the nominated rehabilitation objectives "Establish a set of rehabilitation objectives for the site that clearly describe the environmental outcomes required to achieve the post-mining land use." (see p. 29 of I&I NSW, 2010).

4. **Strategic Framework for Mine Closure**

Table A consider the closure criteria of ANZMEC (2000) and whether the rehabilitation objectives provide for compliance with these.

5/6/7. **Best Practice Environmental Management in Mining**

Overview of Best Practice Environmental Management in Mining (EA, 2002) identifies that "The challenge for government and the mining industry stated in the national strategy for ESD is 'to develop further the mining industry and efficiently manage the renewable and non-renewable resources on which it depends, in accordance with the principles of ESD'". Notably, the long term objective nominates that rehabilitation of the Project Site will "Provide a low maintenance, geotechnically stable and safe, non-polluting landform which blends with surrounding landforms and provides land suitable for the proposed final land use". Section 5.2.2 of the EIS considers how the proposed approach to rehabilitation and land use meets the four principles of ESD.



Table A
ANZMEC (2000) Closure Criteria

Closure Criteria	Yes / No	Comment
Rehabilitation and rehabilitation outcomes consistent with the Environmental Impact Statement which formed the basis of approval	Yes	The noted long term objective summarises the nominated outcome based on the proposed rehabilitation of described throughout <i>Section 2.15</i> .
Based on mine closure criteria and rehabilitation outcomes developed through stakeholder consultation	Yes	The land owner of the "Manuka" property was consulted.
Integrates rehabilitated native vegetation with undisturbed native vegetation to provide larger areas and wildlife corridors	Yes	<i>Section 2.15.2.2</i> of the EIS provides an overview of the proposed final land use (and an assessment of alternative land uses). <i>Section 2.15.2.3</i> (and Figures 2.13 and 2.14) of the EIS describes the proposed final landform and illustrates the integration with the surrounding landform.
Suitable for an agreed subsequent land use as far as possible compatible with the surrounding land fabric and land use requirements	Yes	See <i>Sections 2.15.2.2, 2.15.2.3</i> and Table 2.14 of the EIS.
Addresses limitations on the use of rehabilitated land	Yes	<i>Section 2.15.2.2</i> of the EIS provides an overview of the proposed final land use (and an assessment of alternative land uses).
Sustainable in terms of that land use		
Stable and permanent landforms, with soils, hydrology, and ecosystems with maintenance needs no greater than those of surrounding land. (may include waste emplacements, voids, pits and water-bodies providing that they are part of the accepted final outcome)	Yes	Table 2.14 of the EIS provides for completion criteria and performance indicators related to landform, soils, hydrology and ecosystem establishment.
Securely and safely contain waste substances that have the potential to affect land use or result in pollution	Yes	The long term objective specifies the creation of a "non-polluting landform". <i>Sections 2.15.3.3</i> and <i>2.15.3.4</i> provide overview of the rehabilitation of structures containing waste materials with the potential to impact on the surrounding environment. Further detail on the management of these structures will be provided in the MOP or REMP.
Not present a hazard to persons, stock or native fauna	Yes	The objectives clearly provide for the creation of a safe and stable landform. <i>Section 2.14</i> of the EIS also provides for the preparation of a Mine Safety Management Plan in accordance with the requirements of the <i>Mines Health and Safety Act 2004</i> .
Addresses threatened species issues;	Yes	The long term objective specifies the creation of a "non-polluting landform which blends with surrounding landforms and provides land suitable for the proposed final land use". <ul style="list-style-type: none"> The proposed final land use provides for the establishment and management of habitat for native (including threatened) flora and fauna. Threatened species considerations are further documented in <i>Sections 4.4.5</i> and <i>4.4.6</i> of the EIS. The proposed final land use provides for the protection of identified Aboriginal sites. Cultural heritage management is further discussed in <i>Sections 4.5.8</i> and <i>4.5.9</i> of the EIS Decommissioning and remediation is provided for in <i>Section 2.15.2.4</i> of the EIS.
Addresses heritage issues	Yes	
Clean and tidy, and free of rubbish, metal and derelict equipment/structures, except for heritage and other agreed features	Yes	
Freedom from unacceptable air and water pollution, and other environmental effect outside the disturbed area	Yes	Both short term and long term objectives provide for minimising adverse environmental impacts, both on and off the Project Site.



EA (2002) also identifies that the “*potential for these impacts (land use conflicts) to occur can be minimised by improving environmental planning, management and rehabilitation knowledge and techniques. Some land use conflicts can be managed by recognising that mining and energy extraction are temporary land uses that can be integrated with a current or future land use. Initiating community consultation programs and taking account of community needs can improve relationships with neighbours and local communities.*” Critically, it is a central objective of rehabilitation for the Wonawinta Silver Project that an appropriate and suitable final land use is identified and provided for.

Central to the best practice management discussed in *Landform Design for Rehabilitation* (EA, 1998) identifies is that “*designing the eventual landform and progressively and efficiently managing the mine, rock dumps and tailings facilities to achieve it, must be part of the mine planning process*” and “*planning and the physical processes revolve around the final land use for the site*”. The objectives nominated for the rehabilitation of the Project clearly identify the creation of a final landform that blends with the surrounding landscape and provides for a pre-determined final land use.

Rehabilitation and Revegetation (EPA, undated) acknowledges that the long-term objectives of rehabilitation may vary but ought to be categorised as follows.

1. *Restoration of the area so that the pre-mining conditions are replicated as closely as possible with all the area's environmental values intact. This term generally applies to the restoration of native ecosystems.*
2. *Reclamation of the area so that the pre-mining land use can be re-established under similar conditions. Reclamation can refer to returning to low maintenance native vegetation or restoring a land use such as agriculture or forestry.*
3. *Developing the area for a land use significantly different to that which existed before mining. This type of rehabilitation aims to achieve new landform's and land uses which bring about a greater overall community benefit than would occur if the former land use was restored. For example mined land could be developed for wetlands, recreational areas, urban development, forestry agriculture or numerous other uses.*
4. *Converting low conservation value areas in regions with intrinsically low productivity to a safe and stable condition.*

Notably, the long term objective of the rehabilitation proposed for the Project provides for a combination of nature conservation and a continuation of agriculture on the Project Site. The Project rehabilitation objective therefore complies with best practice rehabilitation objective Categories 1 and 2 of EPA (undated).

The proposed rehabilitation described in *Section 2.15* of the EIS also provides for compliance with the basic principles of rehabilitation nominated in *Section 1* of EPA (undated).

Post Rehabilitation Maintenance

It is noted that *Section 2.15.4* of the EIS provides for post-mining rehabilitation remediation and enhancement activities (see pp. 2-65 & 2-66).



“Post-mining rehabilitation remediation and enhancement activities would include but not be limited to the following.

- Where rehabilitation success appears limited, maintenance activities would be initiated. These may include re-seeding and where necessary, re-topsoiling and/or the application of specialised treatments.*
- If drainage controls are found to be inadequate for their intended purpose, or compromised by wildlife or native vegetation, these would be replaced.*
- Temporary fences would be installed to exclude native fauna, if grazing appears to be excessive.*
- In the event areas of excessive erosion and sedimentation are identified, remedial works such as importation of additional fill, subsoil or topsoil material, or redesigning of water management structures would be undertaken.*
- Appropriate noxious weed control or eradication methods and programs would be undertaken in consultation with Industry and Investment NSW - Agriculture and / or the local Noxious Weeds Inspector.*

No time limit has been placed on post-mining rehabilitation monitoring and maintenance. Rather, maintenance would continue until such time as the objectives outlined in Section 2.15.2 are achieved to the satisfaction of the relevant government agencies.”

The above information is considered sufficiently instructive as to the approach to be taken by the Applicant in managing the rehabilitated landform post-mining for the purpose of assessing the Project. Further detail on proposed monitoring and maintenance programs to be employed would be included within the MOP submitted to I&I NSW (in accordance with the requirements of DPI (2006) or I&I NSW (2010)), i.e. *“Provide details of any ongoing maintenance and monitoring activities required for these areas including the duration and relevant responsibilities”*. These details would also be included in the Rehabilitation Plan, accepted by the Applicant as a reasonable condition of consent (subject to minor revisions – see Section 3), to be submitted to Council.

3. RECOMMENDED CONDITION OF APPROVAL

I&I NSW wrote:

“Subject to Cobar Consolidated addressing the above rehabilitation requirements, I&I NSW recommend that the following conditions be incorporated into any planning approval that may be granted:

Rehabilitation Plan

- 1. The Proponent must prepare and implement a Rehabilitation Plan to the satisfaction of the DG of I&I NSW. The Rehabilitation Plan must:*
 - a. be prepared in accordance with any relevant I&I NSW guidelines and in consultation with relevant agencies and stakeholders;*
 - b. be submitted and approved by the DG of I&I NSW prior to the commencement of construction;*



- c. *address all aspects of rehabilitation and mine closure, including final land use assessment, rehabilitation objectives, domain objectives, completion criteria and rehabilitation monitoring, in particular;*
 - i. *include an evaluation of end land use options for final void/s; and*
 - ii. *include life of mine tailings management strategy, including an environmental risk assessment in order to demonstrate that the emplacements can be designed, managed and rehabilitated appropriately.*

Any planning approval should not include requirements for the preparation of separate plans such as Mine Closure Plans, Landscape Management Plans and Rehabilitation Management Plans, but rather be replaced by a single plan called Rehabilitation Plan."

Response

The only suggested revision to this condition proposed would be to modify (b) to read "be submitted and approved by the DG of I&I NSW prior to the commencement of mining".

4. REFERENCES

- Australian and New Zealand Minerals and Energy Council (ANZMEC), 2000. *Strategic Framework for Mine Closure*.
- Department of Primary Industries (DPI), 2006. *Guidelines to the Mining, Rehabilitation and Environmental Management Process, Version 3, January 2006*.
- Environment Australia (EA), 1998. *Best Practice Environmental Management in Mining: Landform Design for Rehabilitation*. Commonwealth of Australia.
- Environment Australia (EA), 2002. *Best Practice Environmental Management in Mining: Overview of Best Practice Environmental Management in Mining*. Commonwealth of Australia.
- Environment Protection Agency (EPA), 1995. *Best Practice Environmental Management in Mining: Rehabilitation and Revegetation*. Commonwealth of Australia.
- Industry & Investment NSW (I&I NSW), 2010. *Rehabilitation and Environmental Management Plan (REMP) Guidelines Consultation Draft V3.10, 6 August 2010*.
- R.W. Corkery & Co. Pty Limited, 2010. *Wonawinta Silver Project Environmental Impact Statement*. Prepared on behalf of Cobar Consolidated Resources Limited.





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1 March 2011

Mr Garry Ryman
Director of Planning and Environmental Services
Cobar Shire Council
PO Box 223
COBAR NSW 2835

Original sent by email to: garry.ryman@cobar.nsw.gov.au

Dear Garry

Re: Additional Information Supplied in Response to DECCW Initiated 'Stop the Clock'

On 23 February 2011, a meeting was convened at the Dubbo office of the Department of Environment, Climate Change and Water (DECCW) to discuss the supplementary information provided to Council and DECCW by Cobar Consolidated Resources Limited (CCR) in response to the 'stop the clock' requested by DECCW on 24 January 2011. Attendees at the meeting were as follows.

- Ms Carmen Dwyer: Head Pesticides Operations and Planning (DECCW).
- Mr Brad Tanswell: Regional Operations Officer (DECCW).
- Mr Trevor Shard: Company Secretary (CCR).
- Mr Brian Micke: Wonawinta Silver Project Manager (CCR).
- Mr Alex Irwin: Senior Environmental Consultant (R.W. Corkery & Co. Pty Limited).
- Mr Phil Cameron: Senior Ecologist (OzArk Environment and Heritage Management).

As indicated in the letter from DECCW to Council dated 23 February 2011, the information supplied to Council and DECCW in response to the 'stop the clock' satisfied the request for further information in the areas of:

- Noise (subject to exclusion of blasting from the Project);
- Biodiversity (subject to the development of a Property Vegetation Plan as a condition of development consent);
- Aboriginal cultural heritage;
- groundwater; and
- surface water.

Brooklyn Office:

First Floor, 12 Dangar Road, PO Box 239 BROOKLYN NSW 2083
Telephone: (02) 9985 8511 Facsimile: (02) 9985 8208 Email: brooklyn@rwcorkery.com

Orange Office:

62 Hill Street, ORANGE NSW 2800
Telephone: (02) 6362 5411 Facsimile: (02) 6361 3622 Email: orange@rwcorkery.com

Brisbane Office:

Level 19, 1 Eagle Street, BRISBANE QLD 4000
Telephone: (07) 3360 0217 Facsimile: (07) 3360 0222 Email: brisbane@rwcorkery.com



The following outstanding issues are identified in the DECCW letter of 23 February and were discussed at the meeting. The following provides supplementary information to either respond to the DECCW position, or provide the requested information.

Bedooba State Conservation Area

As noted in the DECCW letter of 23 February 2011, concurrence for the alignment of the Mirrabooka Water Pipeline through Bedooba State Conservation Area (SCA) could not be provided given a Plan of Management for Bedooba SCA has yet to be prepared. CCR accepts this position of DECCW, however, requests that inclusion of the Mirrabooka Water Pipeline Route be retained within limits of the development consent (if granted) with operation subject to attainment of:

- appropriate licence and licence allocation for the extraction of water from the proposed Mirrabooka borefield from NSW Office of Water (NOW); and
- concurrence from the Parks and Wildlife Group (PWG) of DECCW for construction and operation of the Mirrabooka Water Pipeline as nominated.

In the event that appropriate licence and licence allocation was obtained from NOW, but concurrence was not granted by the PWG of DECCW, CCR would apply for modification to the development consent to realign the Mirrabooka Water Pipeline around Bedooba SCA.

Hazardous Material Management

The additional requests for information, and provision of this information, is as follows.

- 1) Additional information is required to clarify if the site is sensitive in terms of wildlife protection. This must consider the presence of threatened fauna or significant fauna populations (in terms of diversity or numbers) and presence of suitable habitat in the vicinity of the TSF.*

The sensitivity of the site in terms of wildlife protection was discussed at the meeting and further considered by R.W. Corkery & Co. Pty Limited and OzArk. The following considers each of the threatened fauna identified on or surrounding the Project Site.

- Kultarr. Advice from OzArk is that the population of this species known from the location occurs away from the site of the TSF in the cleared grassy areas surrounding the homesteads on the "Manuka" and "Wirlong" properties. However, the assessment of significance for this species notes that all native vegetation provides important habitat and on the basis of this assessment (and following the application of the Precautionary Principle), the site of the TSF is considered potentially sensitive in terms of protection of Kultarr.
- Threatened bird species (Major Mitchell Cockatoo, Superb Parrot, Halls Babbler, Grey-crowned Babbler). Advice from OzArk is that there are sufficient water sources in the local area (including Manuka Tank less than 1km to the northwest) which will preclude the TSF from attracting individuals to this 'water source'. However, the occurrence of threatened birds on the TSF cannot be categorically excluded and on this basis (and following the application of the Precautionary Principle), the site of the TSF is considered potentially sensitive in terms of protection of threatened bird species.
- Threatened microbat species (Little Pied Bat, Yellow-bellied Sheathtail Bat). These bat species could be potentially affected by the TSF as a consequence of drinking the contaminated decant water of the TSF (unlikely due to the presence of higher quality water sources nearby, e.g. Manuka Tank) or consuming insects which utilise the TSF (possible). On this basis (and following the application of the Precautionary Principle), the site of the TSF is considered potentially sensitive in terms of protection of threatened bat species.

By applying the Precautionary Principle, the site is considered to be sensitive in terms of wildlife protection.

- 2) Clarify the maximum expected concentrations of WAD cyanide in the tailings as discharged at the Tailings Storage Facility (TSF) discharge point and what NICNAS Category this places the site in.**

Further review of cyanide speciation confirms that WAD Cyanide concentration in the tailings discharge to TSF would be unlikely to exceed 10mg/L. CCR can confirm that the maximum WAD cyanide concentration discharged would not exceed 30mg/L. It could be argued that as all but occasional discharges would have a WAD Cyanide concentration of <10mg/L, the TSF meets the criteria as a NICNAS Category 1 facility. However, through application of the Precautionary Principle, CCR accepts categorisation as a NICNAS Category 2 facility.

- 3) Based on 1) and 2) above clearly identify the management strategies that will be employed to reduce potential for exposure of fauna to cyanide including details of control measures and monitoring programs and timing for implementation of these strategies.**

The control measures nominated by Recommendation 5a of NICNAS (2010) for Category 2 sites are identified and specific controls identified.

- *Process controls/monitoring to site specific targets for CN (potentially also other components, as in Category 3).*

WAD Cyanide concentration in the tailings discharge would be monitored daily. Monitoring would commence from the first day of discharge to the TSF.

- *Actual level of CN & statistical description, & where to sample, must be agreed on a site specific basis.*

CCR would adhere to Environment Protection Licensing requirements for the site. No discharge of tailings will occur until the Environment Protection Licence is issued and a reporting regime agreed upon.

- *Limitation/prevention of access to waters in specified areas.*

The base of the TSF would be fenced as recommended by OzArk (2010) (**Appendix 7** of the EIS), i.e. a combination of a large (tall > 1.8m) chain mesh fence (or similar) to exclude large mammals with a fine mesh skirt at its base to exclude small mammals and reptiles. The fence will be constructed prior to commencement of tailings discharge.

The decant pond surface area would be minimised through immediate return to the Process Water Pond of the Processing Plant and Office Area.

What decant pond is maintained at the base of the central decant tower would be covered with floating balls (to minimise access of birds). Floating balls would be added and removed from the TSF as required following initial discharge of tailings.

- *Habitat control/monitoring to minimise attractiveness.*

The decant pond at the base of the central decant tower would be covered with floating balls (to minimise access of birds). Floating balls would be added and removed from the TSF as required following initial discharge of tailings.

Manuka Tank would be retained providing an attractive alternative water source. Water would be provided to Manuka tank as required to ensure water is retained within this structure for the life of the Project.

- *Wildlife monitoring for visitation & mortalities 2-3 times/week while <50 mg/L, increased frequency if issues arise.*

Wildlife monitoring will be undertaken on alternate days (3-4 times per week) for the life of the Project. The specific method of monitoring remains to be developed, however, as a minimum will require inspection of the surface, perimeter and decant pond of the TSF. The inspection would be alternatively undertaken early morning, day time, later afternoon / evening and night time.

Identification of wildlife mortality, or increased visitation to the TSF will trigger contingency measures. Wildlife monitoring will commence on the first day of tailings discharge and continue for the life of the Project.

- *Response program available if impacts occur.*

A protocol for management of operations in the event of identified wildlife mortality will be developed in consultation with DECCW and implemented as required. This protocol will be developed prior to commencement of tailings discharge.

Measures for preventing access or minimising attractiveness of the TSF will be reviewed (in consultation with DECCW) should an increase in visitation to the TSF be identified.

I trust that the information provided in this letter, a copy of which has been forwarded directly to DECCW, provides the supplementary information requested by DECCW.

Please do not hesitate to contact me if you require further information related to the enclosed document.

Regards,



Alex Irwin

Senior Environmental Consultant

Copy: Department of Environment, Climate Change and Water
Cobar Consolidated Resources Limited

