# **Project Approval**

## Section 75J of the Environmental Planning and Assessment Act 1979

I, as delegate for the Minister for Planning, approve the project application referred to in Schedule 1, subject to the conditions in Schedules 2 to 4.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

Sam Haddad

Director-General

Sydney

**SCHEDULE 1** 

**Application Numbers:** 07\_0018

**Proponent:** Broken Hill Operations Pty Ltd

Approval Authority: Minister for Planning

Land: See Appendix 1

**Project:** Rasp Project

Red type represents the March 2012 Modification (Mod 1 - Ventilation Shaft)
Blue Type represents the August 2014 Modification (Mod 2 – 24 Hour Primary Crusher)
Green Type represents the March 2015 Modification (Mod 3 – Block 7 Extension)

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#### **DEFINITIONS**

Annual review The review required by Condition 3 of Schedule 4

**BCA** Building Code of Australia

Conditions of this approval Conditions contained in Schedules 2 to 4 inclusive

Broken Hill City Council Council

Department Department of Planning and Environment

Rasp Mine Zinc-Lead-Silver Project: Environmental Assessment Report, EΑ

prepared by Broken Hill Operations Pty Ltd and dated July 2010

EP&A Act Environmental Planning and Assessment Act 1979 **EP&A** Regulation Environmental Planning and Assessment Regulation 2000

**Environment Protection Authority** 

**EPL** Environment Protection Licence issued under the POEO Act

Feasible Feasible relates to engineering considerations and what is practical to build

or carry out

A set of circumstances that causes or threatens to cause material harm to Incident

the environment, and/or breaches or exceeds the limits or performance

measures/criteria in this approval

Material harm to the environment Actual or potential harm to the health or safety of human beings or to

ecosystems that is not trivial

Minister Minister for Planning, or delegate

Mitigation Activities associated with reducing the impacts of the project

Modification 1 Modification application 07 0018 Mod 1 and accompanying Environmental

Assessment titled: Rasp Mine, Zinc-Lead-Silver Project, Variation to Project,

Relocation of Ventilation Shaft, dated November 2011

Modification 2 Modification application 07\_0018 Mod 2 and accompanying Environmental

Assessment titled: Rasp Mine Zinc-Lead-Silver Project Modification 2 and Response to Submissions letter from the Proponent dated May 2014

Modification 3 Modification application 07\_0018 Mod 3 and accompanying Environmental

Assessment titled: Rasp Mine Zinc-Lead-Silver Project Environmental Assessment Modification 3 Mining Extension and Response to Submissions

dated January 2015

NSW Office of Water **NOW** 

**NSW Trade & Investment** NSW Department of Trade and Investment, Regional Infrastructure and

Office of Environment and Heritage

POEO Act Protection of the Environment Operations Act 1997

PPR Rasp Mine Zinc-Lead-Silver Project: Preferred Project Report, prepared by

Broken Hill Operations Pty Ltd and dated September 2010

Project The development to which this approval applies

Proponent Broken Hill Operations Ptv Ltd

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

Rehabilitation The treatment or management of land disturbed by the project for the

purpose of establishing a safe, stable and non-polluting environment, and

includes remediation

Rasp Mine Zinc-Lead-Silver Project: Response to Submissions Report, Response to Submissions

prepared by Broken Hill Operations Pty Ltd and dated July 2010

Roads and Maritime Services **RMS** 

Secretary Secretary of the Department, or nominee

Site The land listed in Appendix 1

Statement of Commitments The Statement of Commitments reproduced in Appendix 5, and updated by

Modification 3

**NSW Government** Department of Planning & Environment

## SCHEDULE 2 ADMINISTRATIVE CONDITIONS

## **OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT**

1. The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation or rehabilitation of the project.

#### **TERMS OF APPROVAL**

- 2. The Proponent shall carry out the project generally in accordance with the:
  - (a) EA
  - (b) Response to Submissions and PPR;
  - (c) Statement of Commitments;
  - (d) Modification 1:
  - (e) Modification 2;
  - (f) Modification 3; and
  - (g) conditions of this approval.

Note: The general layout of the project is shown in Appendix 2.

- 3. If there is any inconsistency between the documents listed in condition 2 above, the most recent document in the relevant condition shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.
- 4. The Proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
  - (a) any reports, strategies, plans, programs, reviews, audits, or correspondence that are submitted in accordance with the conditions of this approval; and
  - (b) the implementation of any actions or measures contained in these documents.

#### **LIMITS ON APPROVAL**

## **Mining Operations**

5. The Proponent may carry out mining operations on site until 31 December 2026.

Note to Condition 5: Under this approval, the Proponent is required to rehabilitate the site and carry out additional undertakings to the satisfaction of both the Secretary and NSW Trade & Investment. Consequently, this approval will continue to apply in all respects - other than the right to conduct mining operations - until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.

## **Production**

6. The Proponent shall not extract more than 750,000 tonnes of ore per annum, or more than 8,450,000 tonnes of ore over the life of the project.

## **Transport**

7. Until ore processing facilities have been constructed and commissioned on the site, the Proponent is permitted to transport crushed ore by road to the Endeavour Mine, or such other location approved by the Secretary, for processing. Following commissioning of the ore processing facilities, the Proponent shall only transport zinc and lead concentrates from the site by rail, except in an emergency situation and with the prior written approval of the Secretary.

## STRUCTURAL ADEQUACY

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

Notes to Condition 8:

- Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works; and
- Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.

## **DEMOLITION**

9. The Proponent shall ensure that all demolition work is carried out in accordance with *Australian Standard AS 2601-2001: The Demolition of Structures*, or its latest version.

## **OPERATION OF PLANT AND EQUIPMENT**

- 10. The Proponent shall ensure that all the plant and equipment used on site, or to transport materials to and from the site, is:
  - (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient manner.

## STAGED SUBMISSION OF ANY STRATEGY, PLAN AND PROGRAM

11. With the approval of the Secretary, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis.

## SURRENDER OF DEVELOPMENT CONSENTS

12. Within six months of the commencement of works the subject of this approval, the Proponent shall surrender all existing development consents applying to the site in accordance with sections 75YA and 104A of the EP&A Act.

NSW Government Department of Planning & Environment

# SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

#### AIR QUALITY AND GREENHOUSE GAS

#### Odour

 The Proponent shall ensure that no offensive odours are emitted from the site, as defined under the POEO Act.

## **Greenhouse Gas Emissions**

2. The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Secretary.

## **Air Quality Criteria**

3. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not cause an exceedance of the criteria listed in Tables 1, 2 or 3 at any residence on privately-owned land.

Table 1: Long Term Criteria for Particulate Matter

Pollutant	Averaging Period	<sup>d</sup> Criterion
Total solid particles (TSP)	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 2: Short Term Criterion for Particulate Matter

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

Table 3: Long Term Criteria for Deposited Dust

Pollutant	Averaging Period Maximum Project Contribution		Maximum Total Deposited Dust Level	
<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 1-3:

- <sup>a</sup> Total impact (i.e. incremental increase in concentrations due to the project plus background concentrations due to all other sources);
- b Incremental impact (i.e. incremental increase in concentrations due to the project 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;
- d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents, illegal activities
  or any other activity agreed by the Secretary in consultation with EPA.
- 4. The Proponent shall ensure that the project is operated in a manner that does not exceed the criteria listed in Tables 4 and 5.

Table 4: Discharge Criteria for Point 1 and Point 6 - Ventilation Shafts

Pollutant	Units of Measure	Concentration Limit
Oxides of nitrogen (as NO <sub>2</sub> )	Milligrams per cubic metre	350
Total solid particles (TSP)	Milligrams per cubic metre	20
<sup>a</sup> Type 1 and Type 2 substances	Milligrams per cubic metre	1
Volatile organic compounds (as n-propane)	Milligrams per cubic metre	40

Table 5: Discharge Criteria for Point 2 - Process Enclosure/ Baghouse Stack

Pollutant	Units of Measure	Concentration Limit
Total solid particles (TSP)	Milligrams per cubic metre	<sup>b</sup> TBD
<sup>a</sup> Type 1 and Type 2 substances	Milligrams per cubic metre	<sup>b</sup> TBD

#### Notes to Tables 4-5:

- a Total of Sb, As, Cd, Pb, Hg, Be, Cr, Co, Mn, Ni, Se, Sn and V;
- b TBD means that the limit must be proposed by the Proponent and agreed by the Secretary in consultation with EPA and be based on the results of post-commissioning test results. The limit must be proposed prior to the second sampling occurrence at Point 2; and
- reference conditions for the limits in Tables 4 and 5 are: dry, 273K and 101.3 kPa.

## **Operating Conditions**

- 5. The Proponent shall:
  - (a) implement best practice dust management, including all reasonable and feasible measures to minimise dust emissions, including point source and fugitive emissions;
  - (b) minimise any visible off-site dust generated by the project or the site; and
  - (c) regularly assess real-time air quality monitoring and meteorological forecasting data and relocate, modify and/ or suspend operations to ensure compliance with the relevant conditions of this approval,

to the satisfaction of the Secretary.

6. The Proponent shall seal and maintain the roads listed in Table 6 to the satisfaction of the Secretary. The roads shall be sealed prior to the commencement of ore extraction, unless otherwise agreed by the Secretary.

Table 6 Roads to be Sealed and Maintained

Road Status	Road	Approximate Length (m)
	Front gate to truck wash	292
Existing	'Diamond' intersection to core shed	360
	Front gate road to car park	132
	Truck wash to haul road connection from Kintore Pit	690
	Kintore Pit intersection (truck wash and haul roads) to ROM pad (haul road for ore mine trucks)	1,186
New	ROM pad to and through mill	354
INGW	Mill to rail load out (concentrate trucks)	910
	Truck wash road to workshop	190
	Haul road to backfill plant	400

- 7. Ore crushing shall only be undertaken in a fully-enclosed structure that is designed, operated and maintained to ensure internal negative internal air pressure relative to ambient (external) conditions. The enclosure and associated emissions controls must be designed, constructed, operated and maintained to ensure that visible fugitive emissions from the enclosure are minimised.
- 8. A chemical dust suppressant shall be applied as per the manufacturer's specification, or more often as required, to all 'free areas' identified in the figure in Appendix 4.
- All aboveground conveyors and transfer points prior to the grinding circuit (SAG and ball mills) shall be enclosed.
- 10. Video recording equipment shall be installed to assist in the active management of emissions from the tailings storage facility.

#### Air Quality Management Plan

- 11. The Proponent shall prepare and implement a detailed Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with EPA and submitted to the Secretary for approval prior to the commencement of construction on the site;
  - (b) identify all major sources of particulates and other air pollutants that may be emitted from the project, being both point source and diffuse emissions, including identification of the potential for lead contamination to be carried by these particulates;
  - (c) include an air quality monitoring program that:
    - provides for periodic point source monitoring at Point 1 (Ventilation Shaft) and Point 2 (Process Enclosure/ Baghouse Stack);
    - provides for continuous ambient monitoring across an ambient air quality and dust monitoring network comprising no fewer than ten monitoring locations (Points 3 to 12) for total suspended particulates, PM<sub>10</sub>, lead and dust deposition. Monitoring locations shall be informed by the outcomes of the air quality assessments presented in the EA and PPR and identified in consultation with EPA; and
    - provides for continuous meteorological monitoring using a meteorological monitoring station located on the site;
    - is consistent with the requirements of Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DECC, 2007), the Protection of the Environment Operations Act 1997 and the Protection of the Environment (Clean Air) Regulation 2010.
  - (d) pro-active and reactive management and response mechanisms for particulates with specific reference to measures to be implemented and actions to be taken to minimise and prevent potential elevated air quality impacts (including ambient air and deposited dust impacts) on surrounding land uses as a consequence of meteorological conditions, upsets within the project, or the mode of operation of the project at any time;
  - (e) procedures and processes for monitoring ambient dust and deposited dust impacts;
  - (f) provision for regular review of dust monitoring data, with comparison of monitoring data with that assumed and predicted in the documents referred to under Condition 2 of Schedule 2;
  - (g) details of measures to be implemented to address any situation in which monitored dust impacts exceed those assumed and predicted in the documents referred to under Condition 2 of Schedule 2:
  - specific complaints management procedures in the event that dust monitoring indicates elevated off-site impacts;
  - (i) procedures for the minimisation of dust generation on the site;
  - protocols for regular maintenance of plant and equipment to minimise the potential for elevated dust generation, leaks and fugitive emissions; and
  - (k) a contingency plan should an incident, upset or other initiating factor lead to elevated dust impacts, whether above normal operating conditions or above environmental performance goals/ limits.

### LEAD AWARENESS AND PUBLIC HEALTH

## Contribution to Public Blood lead Monitoring & Public Education

- 12. During the implementation of the project, the Proponent shall make a reasonable contribution towards the cost of:
  - (a) public health monitoring, particularly in relation to child blood lead levels; and
  - (b) public education campaigns about the health risks associated with lead,

to the satisfaction of the Secretary.

Note: The Secretary will consult with the Director-General of the NSW Department of Health on the reasonableness of the proposed contribution prior to making any decisions under this condition, and determine the date upon which the contributions shall commence.

## Lead Management Plan

- 13. The Proponent shall prepare and implement a Lead Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with the Lead Reference Group, including the NSW Department of Health (Western Area Health Service) and Council;
  - (b) be submitted to the Secretary for approval by 30 June 2011;
  - (c) outline the proposed commitment towards the cost of:
    - public health monitoring, particularly in relation to child blood lead levels, and tracking of this data over time; and
    - public education campaigns about the health risks associated with lead, including lead hygiene, lead and children, tank water lead risks and soil lead contamination risks.
  - (d) identify additional reasonable and feasible measures that could be implemented either on site or in the areas adjoining the site to minimise the potential lead impacts of the project and "free areas";

- (e) include a program for the staged implementation of the measures identified in (d) above in the event that dust emissions are higher than predicted or the public health monitoring suggests further action is required to reduce blood lead levels in the environment surrounding the site; and
- (f) include a detailed communication strategy, that outlines how the relevant dust and blood level monitoring data would be reported on the Proponent's website along with any relevant public education material.

#### **Updated Human Health Risk Assessment**

- 14. Within one year of the commencement of operation of the project, and every five years thereafter, unless otherwise agreed by the Secretary, the Proponent shall update the human health risk assessment prepared for the project and presented in the EA to the satisfaction of the Secretary. The updated risk assessment shall:
  - (a) be prepared by a suitably-qualified expert whose appointment has been endorsed by the Secretary;
  - (b) take into account monitoring data collected under this approval, and such other information as may be relevant to the assessment; and
  - (c) be submitted to the Secretary, EPA and the Western Area Health Service within one month of its completion.

## **NOISE AND VIBRATION**

## **Construction Noise Restrictions**

15. Construction activities associated with the project shall only be undertaken between 7:00am and 7:00pm on any day.

Note to Condition 15:

Construction activities include, but are not limited to, all construction work, front-end loader on the ROM pad, rock
breaking and primary crushing in the process area, conveyors in the process area, flat-bed road truck haulage from
the process area to the rail load-out area, locomotives at the rail load-out area and forklift at the rail load-out area.

#### **Operational Noise Restrictions**

- 16. Operational activities associated with the project are permitted to occur at any time, subject to compliance with the noise limits specified in this approval, and subject to the following restrictions:
  - (a) deleted
  - (b) shunting of concentrate wagons shall only occur between 7:00am and 6:00pm on any day; and
  - (c) production rock blasting shall only occur between 6:45am and 7:15pm on any day.

#### **Noise Limits**

17. The Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 7.

Table 7: Operational Noise Criteria

Location	<sup>a</sup> Day (dB(A))	<sup>b</sup> Evening (dB(A))	<sup>c</sup> Night (dB(A))
A1 – Piper Street North	38	37	35
A2 – Piper Street Central	38	37	35
A3 – Eyre Street North	44	41	39
A4 – Eyre Street Central	44	41	39
A5 – Eyre Street South	44	41	39
A6 – Bonanza and Gypsum Streets	48	41	39
A7 – Carbon Street	35	35	35
A8 – South Road	48	39	39
A9 – Crystal Street	46	39	39
A10 – Barnet and Blende Streets	42	41	35
A11 – Crystal Street	46	39	39
A12 – Crystal Street	46	39	39
A13 – Eyre Street North 2	38	35	35
A14 – Piper Street North	35	35	35

Notes to Condition 17:

- Receiver locations are as identified in the noise assessments presented in the EA and PPR;
- Noise limits are to be measured in accordance with the NSW Industrial Noise Policy (EPA, 2000);
- <sup>a</sup> Day is defined as 7:00am to 6:00pm Mondays to Saturdays and 8:00am to 6:00pm on Sundays and public holidays;
- Evening is defined as 6:00pm to 10:00pm on any day; and
- <sup>c</sup> Night is defined as 10:00pm to 7:00 am Mondays to Saturdays and 10:00pm to 8:00am on Sundays and public holidays.

## **Blasting Limits**

18. The Proponent shall ensure that basting on the site does not cause exceedances of the criteria in Tables 8 and 9.

Table 8: Blasting Criteria (excluding Block 7)

Location	Airblast Overpressure (dB(Lin Peak))	Ground Vibration (mm/s)	<sup>a</sup> Allowable Exceedance
Residence on privately owned land	115	5	b 5% of the total number of blasts over a 12-month period
ownou land	120	10	0%
Public Infrastructure	-	100	0%

Table 9: Blasting Criteria (Block 7)

Location	Airblast Overpressure (dB(Lin Peak))	Ground Vibration (mm/s)	<sup>a</sup> Allowable Exceedance
Residence on privately owned land	115	° 3 (interim)	b 5% of the total number of blasts over a 12-month period
	120	10	0%
Broken Hill Bowling Club, Italio (Bocce) Club, Heritage Items within CML7	-	50	0%
Perilya Southern Operations	-	100	0%
<sup>d</sup> Public Infrastructure	-	100	0%

These criteria do not apply if the Proponent has a written agreement with the relevant owner to exceed these criteria, and has advised the Department in writing of the terms of this agreement.

Notes to Tables 8 and 9:

- <sup>a</sup> The allowable exceedance must be calculated separately for development blasts and production blasts;
- <sup>b</sup> The 5% allowable exceedance does not apply to production blasts until the Proponent has successfully completed a Pollution Reduction Program aimed at achieving this goal, as required by the EPA under the Proponent's EPL (No. 12559), or as otherwise agreed with the EPA;
- The interim criteria applies unless and until such time that the Proponent has written consent from the Secretary to apply site specific criteria in accordance with condition 19 of this approval; and
- d The Proponent must close South Road to pedestrians if blasts are expected to exceed a peak particle velocity ground vibration of 65 mm/s at the road reserve surface, while the blast firing occurs.
- 19. The Proponent may establish site specific ground vibration criteria for residential receivers that may be affected by blasting operations in Block 7, to the satisfaction of the Secretary. These criteria must:
  - (a) be prepared by a suitably qualified mining engineer;
  - (b) be prepared in consultation with the EPA;
  - (c) protect the amenity of all residences on privately owned land; and
  - (d) be based on blast monitoring data for the Block 7 mining area.

## **Blast Frequency**

- 19A. The Proponent may carry out a maximum of:
  - (a) 1 production blast a day and 6 production blasts a week, averaged over a calendar year; and
  - (b) 6 development blasts a day and 42 development blasts a week, averaged over a calendar year.

## **Operating Conditions**

## 19B. The Proponent shall:

- (a) implement best management practice to:
  - protect the safety of people in the surrounding area; and
  - protect public or private infrastructure/property in the surrounding area from any damage;
- (b) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site;
- (c) use reasonable endeavours to co-ordinate blasting at the site:
  - to minimise cumulative blasting impacts associated with the operation of nearby mines; and
  - to avoid disturbing users of nearby recreational facilities, including the Broken Hill Bowling Club and the Italio (Bocce) Club;

to the satisfaction of the Secretary.

#### **Noise and Blast Management Plan**

- 20. The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - (b) be prepared in consultation with EPA, and submitted to the Secretary for approval by the end of June 2011;
  - (c) describe the noise mitigation measures that would be implemented to ensure compliance with the relevant conditions of this approval, including a real-time noise management system that employs both reactive and proactive mitigation measures;
  - (d) include a noise monitoring program that:
    - uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the project; and
    - includes a protocol for determining exceedances of the relevant conditions of this approval;
  - (e) describe the blast management measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this approval; and
  - (f) include a blast monitoring program that:
    - evaluates the performance of the project, including compliance with the applicable criteria;
    - uses a combination of roving blast monitors (at least 1) and fixed blast monitors (at least 6);
       and
    - includes a protocol for determining and responding to exceedances of the relevant conditions of this approval.

## **UNDERGROUND MINING**

## **Performance Measures**

20A. The Proponent shall ensure that there are no measurable subsidence impacts caused by underground mining beneath South Road and other public infrastructure.

## SOIL AND WATER

21. Except as may be expressly provided by an Environment Protection Licence issued under the *Protection* of the Environment Operations Act 1997, the Proponent shall comply with section 120 of that Act, which prohibits the pollution of waters.

## **Water Supply**

22. The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of mining operations to match its water supply.

Note: The Proponent is required to obtain the necessary water licences for the project under the Water Act 1912 and/or Water Management Act 2000.

## **Water Management Plan**

- 23. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must be consistent with the Stormwater Management Plan presented as Annexure K to the EA, incorporate any changes to reflect the final detailed design of the project, and be prepared in consultation with EPA, NOW and NSW Trade & Investment. The plan must: be submitted to the Secretary for approval by the end of June 2011, and must include:
  - (a) a Site Water Balance, which must:
    - include details of:
      - sources and security of water supply;
      - water use on site;

- water management on site;
- o any off-site water transfers; and
- investigate and implement all reasonable and feasible measures to minimise water use by the project;
- (b) an Erosion and Sediment Control Plan, which must:
  - identify activities that could cause soil erosion, generate sediment or affect flooding;
  - describe measures to minimise soil erosion and the potential for transport of sediment to downstream waters, and manage flood risk;
  - describe the location, function and capacity of erosion and sediment control structures and flood management structures; and
  - describe what measures would be implemented to maintain the structures over time;
- (c) a Surface Water Management Plan, which must include:
  - detailed baseline data on surface water flows and quality in creeks and other waterbodies that could potentially be affected by the project;
  - surface water and stream health impact assessment criteria including trigger levels for investigating any potentially adverse surface water impacts;
  - a program to monitor and assess:
    - surface water flows and quality;
    - impacts on water users;
    - o stream health; and
    - channel stability.
- (d) a Groundwater Monitoring Program, which must:
  - provide a program to monitor seepage movement within and adjacent to the tailings storage facility;
  - include details of parameters and pollutants to be monitored for:
    - water from mine dewatering;
    - groundwater locations to the east of TSF1:
    - surface water represented by Horwood Dam;
    - o water captured by the toe drains of the tailings storage facility;
    - water seepage from the tailings storage facility; and
    - the background local groundwater system.
  - outline performance parameters against monitoring data will be compared to determine whether seepage is occurring, and whether an unacceptable impact on local groundwater may be occurring;
  - include details of contingency measures to be implemented in the event that an unacceptable impact is identified.

## **TRANSPORT**

- 24. The Proponent shall maintain the existing 66 carparking spaces, or an equivalent number elsewhere on the site, for the duration of the project.
- 25. The Proponent shall consult with the RMS and BHCC in relation to the footpath modifications required at the Eyre Street site access and shall address the design requirements of those agencies in relation to those works. All footpath works shall be completed prior to the commencement of operation of the project, and shall be undertaken at no cost to the RMS or BHCC.
- 26. A truck waiting area with capacity to accommodate at least two B-Double vehicles at any time shall be provided inside the Eyre Street site access to avoid trucks queuing into Eyre Street.
- 27. If the Holten Road site access is required during construction of the project, the Proponent shall, prior to using this access, consult with and address the requirements of the RMS and Council with respect to traffic access at this location.
- 28. The Proponent shall commission dilapidation reports for roads likely to be affected by the construction of the project, prior to the commencement of construction and immediately prior to completion of construction. The Proponent shall fund rectification of any deterioration of road pavement quality as a result of construction-related traffic.
- 28A. The Proponent must enter into a Deed of Agreement with the RMS for the protection and management of South Road, to the satisfaction of the RMS, prior to the commencement of production blasting in Block 7.

## **Traffic Management Plan**

29. The Proponent shall prepare and implement a traffic management plan to the satisfaction of the Secretary. The plan shall focus on traffic management during construction of the project, and must be developed in consultation with the RMS and Council. The plan must be submitted for the approval of the Secretary prior to the commencement of construction.

#### **HERITAGE**

30. The Proponent shall prepare and implement a Conservation Management Plan for the site to the satisfaction of the Secretary. This plan must provide a strategic framework for all heritage items located on the Lease, based on the principles of the Burra Charter, and developed in consultation with OEH and Council. The plan must be submitted for the approval of the Secretary by December 2011.

#### **VISUAL AMENITY**

- 31. The Proponent shall:
  - (a) minimise the visual impacts, and particularly the off-site lighting impacts, of the project;
  - (b) take all practicable measures to further mitigate off-site lighting impacts from the project; and
  - (c) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 Control of Obtrusive Effects of Outdoor Lighting, or its latest version,

to the satisfaction of the Secretary.

#### **WASTE**

- 32. The Proponent shall:
  - (a) minimise the waste generated by the project; and
  - (b) ensure that the waste generated by the project is appropriately stored, handled, and disposed of, to the satisfaction of the Secretary.
- 33. The Proponent shall prepare and implement a Waste Management Plan for the project to the satisfaction of the Secretary. This plan must:
  - be prepared in consultation with NSW Trade & Investment, and submitted the Secretary for approval by the end of March 2011;
  - (b) identify the various waste streams of the project;
  - (c) estimate the volumes of tailings and other waste material that would be generated by the project;
  - (d) describe and justify the proposed strategy for disposing of this waste material;
  - (e) describe what measures would be implemented to meet the requirements set out above in condition 32: and
  - (f) include a program to monitor the effectiveness of these measures.

#### **REHABILITATION**

## **Rehabilitation Objectives**

- 34. The Proponent shall:
  - (a) carry out rehabilitation progressively, that is, as soon as reasonably practicable following disturbance; and
  - (b) achieve the following rehabilitation objectives:
    - no measurable subsidence impacts from mining within Block 7;
    - sealing and/ or treating 'free areas' of the site and other potential sources of wind-blown dust to prevent the emission of dust following closure;
    - preserving the heritage value of the site; and
    - making the site suitable for commercial and/ or educational uses,

to the satisfaction of NSW Trade & Investment.

## **Rehabilitation Management Plan**

- 35. The Proponent shall prepare and implement a Rehabilitation Management Plan for the project to the satisfaction of NSW Trade & Investment. This plan must:
  - (a) be prepared in consultation with the Department, OEH, NOW, Council and NSW Trade & Investment;
  - (b) be prepared in accordance with relevant NSW Trade & Investment guidelines;
  - (c) be generally consistent with the closure concept presented in the EA;
  - (d) reflect the aims of rehabilitation and closure to:
    - retain heritage items, as agreed by relevant regulators;
    - manage stormwater to minimise erosion and restrict the potential for off-site pollution;
    - provide final landforms that are safe, stable and sympathetic to the mining heritage of Broken Hill;
    - minimise the generation of dust and adequately contain potentially hazardous materials within the landform; and
    - install barriers to restrict access to potentially hazardous locations (eg decline, shafts or open cut pits);
  - (e) build, to the maximum extent practicable, on the other management plans required under this approval; and
  - (f) be submitted to NSW Trade & Investment for approval by the end of December 2011.

# SCHEDULE 4 ENVIRONMENTAL MANAGEMENT. REPORTING AND AUDITING

#### **ENVIRONMENTAL MANAGEMENT**

## **Environmental Management Strategy**

- 1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:
  - (a) be submitted to the Secretary for approval by the end of June 2011;
  - (b) provide the strategic framework for the environmental management of the project;
  - (c) identify the statutory approvals that apply to the project;
  - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
  - (e) describe the procedures that would be implemented to:
    - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
    - · receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise during the course of the project;
    - respond to any non-compliance: and
    - respond to emergencies; and
  - (f) include:
    - copies of any strategies, plans and programs approved under the conditions of this approval;
       and
    - a clear plan depicting all the monitoring required to be carried out under the conditions of this
      approval.

## **Management Plan Requirements**

- 2. The Proponent shall ensure that the management plans required under this approval are prepared in accordance with relevant guidelines, and include:
  - (a) detailed baseline data:
  - (b) a description of:
    - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
    - any relevant limits or performance measures/criteria; and
    - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;
  - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
  - (d) a program to monitor and report on the:
    - impacts and environmental performance of the project; and
    - effectiveness of any management measures (see (c) above);
  - (e) a contingency plan to manage any unpredicted impacts and their consequences;
  - (f) a program to investigate and implement ways to improve the environmental performance of the project over time:
  - (g) a protocol for managing and reporting any:
    - incidents;
    - complaints;
    - non-compliances with the conditions of this approval and statutory requirements; and
    - exceedances of the impact assessment criteria and/or performance criteria; and
  - (h) a protocol for periodic review of the plan.

Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

#### **Annual Review**

- 3. By the end of June 2012, and annually thereafter, the Proponent shall review the environmental performance of the project to the satisfaction of the Secretary. This review must:
  - (a) describe the development (including any rehabilitation) that was carried out in the past year, and the development that is proposed to be carried out over the next year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the:
    - relevant statutory requirements, limits or performance measures/criteria;
    - monitoring results of previous years; and
    - relevant predictions in the documents referred to in Conditions 2 of Schedule 2;

- (c) identify any non-compliance over the past year, and describe what actions were (or are being) taken to ensure compliance;
- (d) identify any trends in the monitoring data over the life of the project;
- (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
- (f) describe what measure will be implemented over the next year to improve the environmental performance of the project.

## **Revision of Strategies, Plans & Programs**

- 4. Within three months of:
  - (a) the submission of an annual review under Condition 3 above;
  - (b) the submission of an incident report under Condition 5 below:
  - (c) the submission of an audit report under Condition 7 below, or
  - (d) any modification of the conditions of this approval (unless the conditions require otherwise),

the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of 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 project.

#### **REPORTING**

## **Incident Reporting**

5. The Proponent shall notify the Secretary and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within seven days of the date of the incident, the Proponent shall provide the Secretary and any relevant agencies with a detailed report on the incident.

## **Regular Reporting**

6. The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any approved plans or programs of the conditions of this approval.

## INDEPENDENT ENVIRONMENTAL AUDIT

- 7. By the end of December 2011, and every three years thereafter, unless the Secretary directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
  - (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
  - (b) include consultation with the relevant agencies;
  - assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);
  - (d) review the adequacy of any approved strategies, plans or programs required under these approvals; and, if appropriate
  - (e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy, plan or program required under these approvals.

Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.

8. Within six weeks of the completing of this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

#### **ACCESS TO INFORMATION**

- 9. From the end of March 2011, the Proponent shall:
  - (a) make copies of the following publicly available on its website:
    - the documents referred to in Condition 2 of Schedule 2;
    - all current statutory approvals for the project;
    - all approved strategies, plans and programs required under the conditions of this approval;
    - the monitoring results of the project, reported in accordance with the specifications in any conditions of this approval, or any approved plans or programs;
    - a complaints register, updated on a monthly basis;

- the annual reviews of the project;
- any independent environmental audit of the project, and the Proponent's response to the recommendations in any audit; and
- any other matter required by the Secretary;
- (b) keep this information up-to-date,

to the satisfaction of the Secretary.

## **INDEPENDENT REVIEW**

10. If an owner of privately-owned land considers the development to be exceeding the criteria in schedule 3 at his/her land, 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 If the Secretary is satisfied that an independent review is warranted, then the Proponent 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 schedule 3; and
  - if the development is not complying with these criteria then 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 within 2 months of the Secretary's decision, unless the Secretary agrees otherwise.

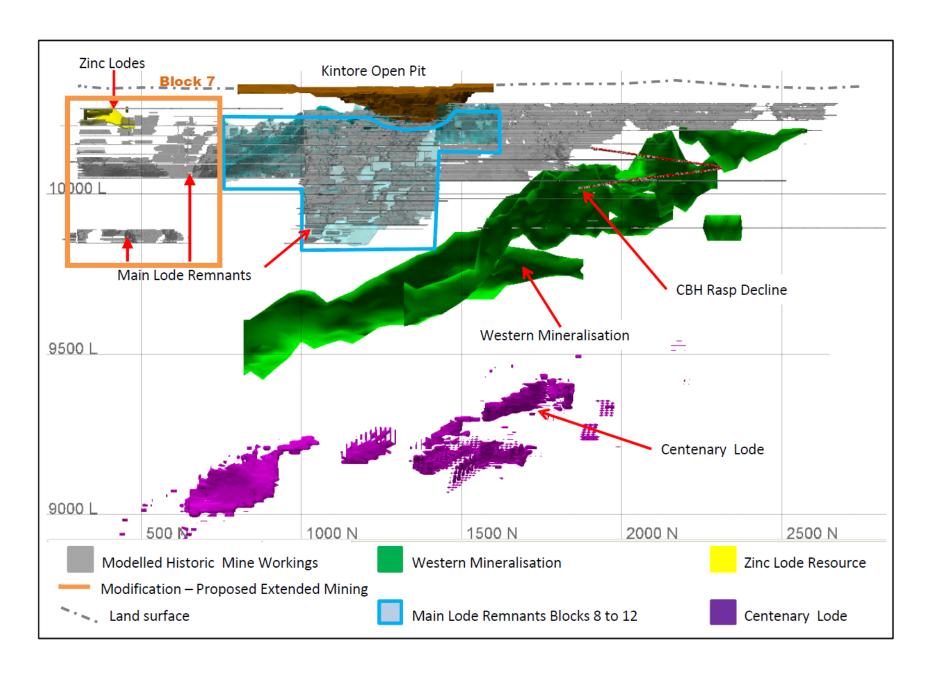
NSW Government Department of Planning & Environment

## APPENDIX 1 SCHEDULE OF LAND

Mineral Authorities/ Lot Number	Deposited Plan Number
CML 7	-
MPL 183	-
MPL 184	•
MPL 185	-
MPL 186	•
EL 5818	-
1	26/ 758018
2	26/ 758018
3	26/ 758018
4	26/ 758018
5	26/ 758018
6	26/ 758018
7	26/ 758018
8	26/ 758018
9	26/ 758018
10	26/ 758018
17	26/ 758018
1	809279
2	809279
1	134676
2	134676
3	134676
11	725393
675	761716
1790	757298

## APPENDIX 2 PROJECT AREA



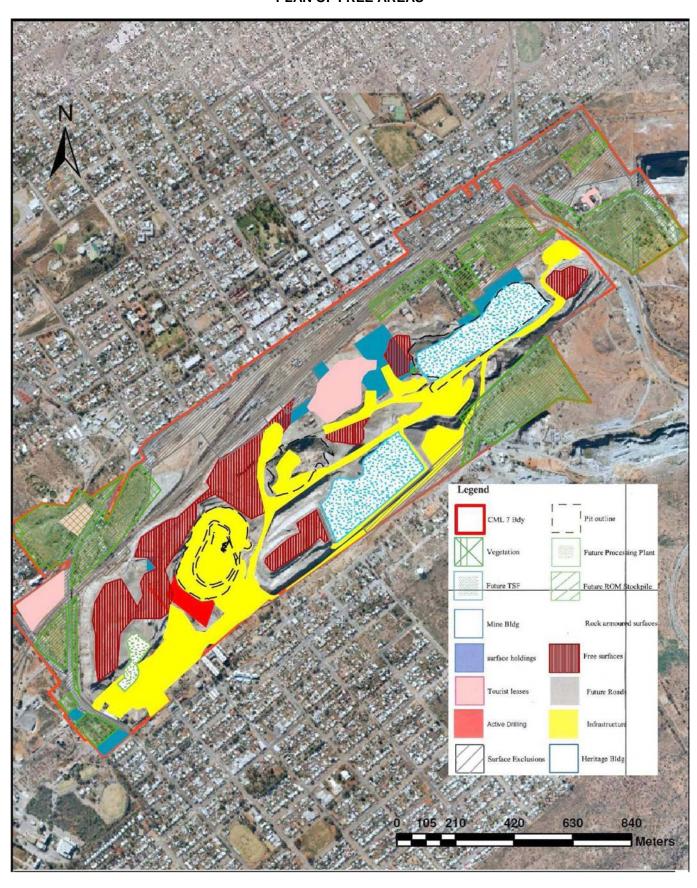


# APPENDIX 3 PROJECT LAYOUT PLANS



1 – CML 7 Boundary	2 – Haul Road	3 – ROM Pad	4 - Old Concentrator Building	5 - Old Sand Fill Plant
6 – Old No. 7 Shaft	7 – Old No. 1 Shaft	8 – Old No. 6 Shaft	9 – Electrical Workshop	10 - Maintenance Workshop
11 – Core Shed	12 - Old No. 7 Underground Offices	13 - Telecommunications Compound	14 - CBH Main Offices	15 - Radford House (additional offices)
16 – Bowling Green	17 – Access Roads	18 – Pipe Corridor	19 - Proposed Decant Pond	20 - Proposed 22kV Power Supply
21 – Current Eyre St 22kV Power Supply	22 - New Railway Siding	23 - Access Road to Broken Earth Cafe	24 – Truck Wash	25 – Surface Magazines
26 – Ventilation Exhaust Rise	27 - Temporary Change Rooms	28 - New Change Rooms	29 – Car Park	30 - Backfill Plant

# APPENDIX 4 PLAN OF FREE AREAS



# APPENDIX 5 STATEMENT OF COMMITMENTS