

Development Consent

Section 89E of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning, I approve the development 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 development.

Red type represents the September 2018 Modification (Mod 1)

SIGNED 22 DECEMBER 2017

David Kitto
Executive Director
Resource Assessments & Business Systems

Sydney

SCHEDULE 1

Application Number:	SSD 7538
Applicant:	Perilya Broken Hill Limited
Consent Authority:	Minister for Planning
Land:	See Appendix 1
Development:	Broken Hill North Mine Project

TABLE OF CONTENTS

DEFINITIONS	3
ADMINISTRATIVE CONDITIONS	5
Obligation to Minimise Harm to the Environment	5
Terms of Consent	5
Limits on Consent	5
Notification of Commencement	6
Structural Adequacy	6
Demolition	6
Protection of Public Infrastructure	6
Operation of Plant and Equipment	6
Planning Agreement	6
ENVIRONMENTAL PERFORMANCE CONDITIONS	7
Air Quality	7
Health	8
Independent Audit of Air Quality and Health Management	9
Meteorological Monitoring	9
Noise	9
Blasting and Vibration	10
Transport	11
Water	12
Heritage	14
Visual	14
Bushfire Management	15
Dangerous Goods Storage	15
Waste	15
Rehabilitation	15
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING	17
Environmental Management	17
Reporting	19
Non-Compliance Notification	19
Independent Environmental Audit	19
Access to Information	20
APPENDIX 1: SCHEDULE OF LAND	21
APPENDIX 2: GENERAL LAYOUT OF DEVELOPMENT	23
APPENDIX 3: GENERAL TERMS OF VPA	26
APPENDIX 4: RECEIVER LOCATION PLAN	27
APPENDIX 5: NOISE COMPLIANCE ASSESSMENT	29
APPENDIX 6: HAULAGE ROUTE	30

DEFINITIONS

Applicant	Perilya Broken Hill Limited, or any person who carries out the development approved under this consent
BCA	Building Code of Australia
CBH	CBH Resources Limited
CCC	Community Consultative Committee
CL&W	Crown Lands and Water Division within the Department of Primary Industry
Conditions of this consent	Conditions contained in schedules 1 to 4 inclusive
Construction	Construction of the internal haul roads, amenity bund, ROM pad and crushing facility, evaporation pond and pastefill plant; and remediation or re-establishment of surface infrastructure, including tailings harvesting area, office, workshop, fuel store, change house, car park, services (power, water, air and communications), surface magazine and ancillary infrastructure (excludes underground exploration)
Council	Broken Hill City Council
CPI	Consumer Price Index
Day	The period from 7 am to 6 pm on Monday to Saturday, and 8 am to 6 pm on Sundays and public holidays
Department	Department of Planning and Environment
Development	The development as described in the EIS
DRG	Division of Resources and Geoscience within the Department
EIS	The EIS titled <i>Recommendation of Mining Operations at the Broken Hill North Mine</i> dated February 2017, as amended by the: • Response to Submissions titled <i>Recommendation of Mining Operations at the Broken Hill North Mine</i> dated September 2017; • supplementary information titled <i>Consolidated Response to Agency Submissions</i> dated 9 November 2017; and • supplementary information titled <i>Revised Air Quality Assessment and Human Health Risk Assessment</i> dated 4 December 2017; and • Modification application SSD 7538 Mod 1 and accompanying Statement of Environmental Effects titled: Broken Hill North Mine Recommendation Project, Haulage Route and Evaporation Pond Modification (SSD 7538 Mod 1)
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence issued under the POEO Act
Evening	The period from 6 pm to 10 pm
Feasible	Feasible relates to engineering considerations and what is practical to build or implement
Heritage Division	Heritage Division of OEH
Incident	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
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Mine water	Water that accumulates within, or drains from, active mining and infrastructure areas
Minimise	Implement all reasonable and feasible measures to mitigate the impacts of the development
Mining operations	Includes the removal of waste rock and extracting, crushing, transporting, handling and storage of ore material on site
Minister	Minister for Planning, or delegate
Minor	Not very large, important or serious
Mitigation	Activities associated with reducing the impacts of the development
MOP	Mine Operations Plan
Negligible	Small and unimportant, such as to be not worth considering
Night	The period from 10 pm to 7 am on Monday to Saturday, and 10 pm to 8 am on Sundays and public holidays
NSW Health	Far West NSW Local Health District
OEH	Office of Environment and Heritage
POEO Act	<i>Protection of the Environment Operations Act 1997</i>

Potosi Mine	The mining operation located within Consolidated Mining Lease 5 and approved under Development Consent DA448/2004 granted by Broken Hill City Council, as modified
Production blast	Long hole open stope blast
Privately-owned land	Land that is not owned or leased by a public agency or a mining company (or its subsidiary)
Public infrastructure	Infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications
RAPs	Registered Aboriginal Parties
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 development for the purpose of establishing a safe, stable and non-polluting environment
RFS	Rural Fire Service
RMS	Roads and Maritime Services
ROM	Run-of-Mine
Secretary	Secretary of the Department, or nominee and/or delegate
Site	The land listed in Appendix 1
South Mine	The mining operation located within Consolidated Mining Leases 8, 9, 10 and 11 and shown on Figures 1.1 and 1.4 of the EIS
Underground exploration	Underground exploration activities permitted under the MOP titled <i>Broken Hill North Mine</i> dated March 2016, excluding production blasts and any haulage of ore beyond the open cut pit
VPA	Voluntary Planning Agreement that is made under Division 6 of Part 4 of the EP&A Act

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this consent, the Applicant must 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 development.

TERMS OF CONSENT

2. The Applicant must carry out the development:
 - (a) generally in accordance with the EIS; and
 - (b) in accordance with the conditions of this consent.

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

3. If there is any inconsistency between the documents referred to in condition 2 above, the most recent document must prevail to the extent of the inconsistency. However, the conditions of this consent must prevail to the extent of any inconsistency.
4. The Applicant must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:
 - (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent (including any stages of these documents);
 - (b) any reports, reviews or audits undertaken or commissioned by the Department regarding compliance with this consent; and
 - (c) the implementation of any actions or measures contained in these documents.

LIMITS ON CONSENT

Mining Operations

5. The Applicant may carry out mining operations on the site for 25 years from the date of commencement of construction.

Note: Under this consent, the Applicant is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Secretary. 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.

Ore Extraction and Transport

6. The Applicant must not extract more than 4.2 million tonnes of ore over the life of the development.
7. In any calendar year, the Applicant must not extract, crush or transport more than 300,000 tonnes of ore.
8. The Applicant must ensure that the development does not generate more than:
 - (a) 32 ore laden truck movements per day;
 - (b) 4 ore laden truck movements per hour; and
 - (c) 16 ore laden truck movements per day when averaged over a calendar quarter.

Hours of Operation

9. Unless the Secretary agrees otherwise, the Applicant must comply with the operating hours in Table 1.

Table 1: Operating hours

Activity	Hours
Construction	7 am to 6 pm, Monday to Friday 8 am to 1 pm, Saturday No activities on Sundays or public holidays
Crushing, tailings harvesting, waste rock harvesting, ore transportation (ROM pad to South Mine)	8 am to 6 pm, 7 days a week
Ore transportation (mine portal to ROM pad)	7 am to 6 pm and 7 pm to 6 am, 7 days a week
Production blasting, rehabilitation	6:45 am to 7:15 pm, 7 days a week
All other activities	24 hours a day, 7 days a week

NOTIFICATION OF COMMENCEMENT

10. The Applicant must notify the Department in writing of the date on which it will commence:
- (a) construction; and
 - (b) mining operations.

STRUCTURAL ADEQUACY

11. The Applicant must 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:

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

DEMOLITION

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

PROTECTION OF PUBLIC INFRASTRUCTURE

13. Unless the Applicant and the applicable authority agree otherwise, the Applicant must:
- (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.

OPERATION OF PLANT AND EQUIPMENT

14. The Applicant must ensure that all plant and equipment used on site or to monitor the performance of the development is:
- (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

PLANNING AGREEMENT

15. Prior to commencing mining operations, unless the Secretary agrees otherwise, the Applicant must enter into a VPA with Council in accordance with the terms detailed in Appendix 3.
-

SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

AIR QUALITY

Odour

1. The Applicant must ensure that no offensive odours are emitted from the site, as defined under the POEO Act.

Air Quality Criteria

2. The Applicant must 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 Table 2 at any residence on privately owned land.

Table 2: Air quality criteria

Pollutant	Averaging period	^dCriterion	
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 25 µg/m ³	
	24 hour	^a 50 µg/m ³	
Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month
Lead	Annual	^a 0.5 µg/m ³	

Notes:

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

^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own).

^c 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 or any other activity agreed with the Secretary.

Operating Conditions

3. Prior to commencing mining operations, the Applicant must:
 - (a) install wheel washing stations at all access and egress points;
 - (b) seal the haul road between the entrance to the mine portal and the ROM pad, and ensure that the width of the sealed road permits trucks to pass, or includes sealed passing lanes;
 - (c) install a water spray system alongside the haul road from the tailings harvesting area to the pastefill plant, and operate this system when the road is used by trucks transporting tailings;
 - (d) ensure that trucks transporting tailings cover their loads at all times;
 - (e) apply a chemical dust suppressant (in accordance with an approved program) to all 'free areas' identified in the figure in Appendix 2 to achieve an emission control factor of 99.3% or better;
 - (f) enclose the crusher and ROM pad (including all stockpile areas) within a building equipped with a negative pressure dust extraction and collection system, and ensure that ore crushing, stockpiling and the unloading/loading of trucks only occurs within the enclosed building; and
 - (g) install a variable speed drive fan within the No. 3 vent rise with a maximum ventilation flow rate of 235 m³/second, and ensure that the fan is operated at the minimum rate required to ensure safe operation.
4. The Applicant must:
 - (a) minimise the off-site odour, fume, diesel particulate, stack and dust emissions of the development;
 - (b) minimise the release of greenhouse gas emissions from the site;
 - (c) minimise any visible air pollution generated by the development;
 - (d) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this consent;
 - (e) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see Note d to Table 2);
 - (f) carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent; and
 - (g) adjust the scale of operations and relocate, modify and/or suspend operations to ensure compliance with the relevant conditions of this consent.

Air Quality Management Plan

5. Prior to commencing construction, unless the Secretary agrees otherwise, the Applicant must prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:
 - (a) be prepared in consultation with the EPA and NSW Health;
 - (b) be prepared by a suitably-qualified expert whose appointment has been endorsed by the Secretary;
 - (c) describe the measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;
 - (d) describe the air quality management system in detail;
 - (e) include an air quality monitoring program that:
 - adequately supports the air quality management system;
 - uses monitors to evaluate the performance of the development against the air quality criteria in the consent and relevant NSW criteria;
 - includes a combination of fixed and real-time air quality monitoring instruments to guide the implementation of air quality mitigation measures to ensure compliance with the relevant conditions of this consent;
 - includes a program to monitor all stack and vent shaft emissions;
 - validates nickel and mercury emissions through post commissioning monitoring, and proposes additional mitigation measures if elevated mercury or nickel occur;
 - evaluates and reports annually on:
 - the effectiveness of the air quality management system; and
 - compliance with the air quality criteria and operating conditions in this consent;
 - 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; and
 - outlines procedures to manage responses to any complaints or issues raised by the owners of affected residences.
6. The Applicant must implement the approved Air Quality Management Plan for the development.

HEALTH

Lead Monitoring and Education Contribution

7. The Applicant must contribute \$50,000 per year (indexed to CPI) to NSW Health to fund public health monitoring and education campaigns with the aim of reducing blood lead levels in Broken Hill.

Lead Monitoring and Education Program

8. Prior to commencing mining operations, unless the Secretary agrees otherwise, the Applicant must prepare a Lead Monitoring and Education Program for the development to the satisfaction of the Secretary. This plan must:
 - (a) be prepared in consultation with Council, the EPA, NSW Health and the other members of the Broken Hill Lead Reference Group;
 - (b) include a monitoring program for blood lead levels in relevant districts surrounding the mine;
 - (c) include a communication strategy that:
 - outlines procedures to notify and inform community members about blood lead level monitoring; and
 - includes options for community members to seek assistance with reducing elevated blood lead levels; and
 - (d) identify and describe potential options to educate the community on measures that can be implemented to reduce blood lead levels.

Note: Conditions 8(b-d) only apply at the request of a resident located in District 5a (see Appendix 4).

9. The Applicant must implement the approved Lead Monitoring and Education Program for the development.

Updated Health Risk Assessment

10. Within 6 months of the independent audit required by condition 12 of schedule 3 of this consent, and every five years thereafter, unless otherwise agreed with the Secretary, the Applicant must update the Health Risk Assessment presented in the EIS to the satisfaction of the Secretary. The updated risk assessment must:
 - (a) be prepared in consultation with the EPA and NSW Health;
 - (b) be prepared by a suitably-qualified expert whose appointment has been endorsed by the Secretary; and
 - (c) use the air quality monitoring data collected under this consent, and such other information as may be relevant to the assessment (including revised policies and guidelines).

11. The updated Health Risk Assessment must inform the revision of the Air Quality Management Plan and the Lead Monitoring and Education Program required under this consent if monitoring data shows that the development is contributing to increased blood lead levels.

INDEPENDENT AUDIT OF AIR QUALITY AND HEALTH MANAGEMENT

12. Within 1 month of commencing mining operations, and every 2 years thereafter, unless the Secretary agrees otherwise, the Applicant must undertake an audit of the air quality and health management measures required under this consent. This audit must:
 - (a) be conducted by a suitably qualified, experienced and independent expert whose appointment has been endorsed by the Secretary;
 - (b) assess the proposed and/or implemented management measures with respect to dust and lead management in accordance with conditions 3, 4, 5 and 8 of schedule 3 of this consent, and best practice; and
 - (c) recommend actions to improve these measures if required.
13. Within 3 months of undertaking this audit, unless otherwise agreed with the Secretary, the Applicant must submit a copy of the audit report to the Secretary, together with a response to any recommendations contained in the audit report.

The Applicant must implement the audit recommendations, to the satisfaction of the Secretary.

METEOROLOGICAL MONITORING

14. Prior to commencing construction, and for the life of the development, the Applicant must ensure that there is an on-site meteorological station that:
 - (a) complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
 - (b) is capable of continuous real-time measurement of temperature inversions in accordance with the *NSW Industrial Noise Policy*, unless a suitable alternative is approved by the Secretary following consultation with the EPA.

NOISE

Noise Criteria

15. The Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 3.

Table 3: Noise criteria dB(A)

Location	Day	Evening	Night	
	L _{Aeq} (15min)	L _{Aeq} (15min)	L _{Aeq} (15min)	L _{A1} (1min)
NC1, NC2,	38	38	35	45
NC3, NC4, NC5	36	36	35	45
All other residential receivers	35	35	35	45

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

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

Note: To interpret the locations referred to in Table 3, see the figure in Appendix 4.

Operating Conditions

16. The Applicant must:
 - (a) minimise the construction, operational and road noise of the development;
 - (b) minimise the noise impacts of the development during meteorological conditions when the noise criteria in this consent do not apply (see Appendix 5);
 - (c) carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent; and

- (d) regularly assess noise monitoring data and modify and/or stop operations on site to ensure compliance with the relevant conditions of this consent.

Noise Management Plan

17. Prior to commencing construction, unless the Secretary agrees otherwise, the Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with EPA;
 - (b) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions of this consent;
 - (c) describe the proposed noise management system in detail;
 - (d) include a noise monitoring program that:
 - uses a combination of:
 - attended and unattended noise monitoring measures; and
 - reactive and proactive mitigation measures;
 - monitors noise at the nearest and/or most affected receptors;
 - evaluates and reports annually on:
 - the effectiveness of the noise management system; and
 - compliance with the noise criteria and operating conditions in this consent;
 - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents; and
 - outlines procedures to manage responses to any complaints or issues raised by the owners of affected residences.
18. The Applicant must implement the approved Noise Management Plan for the development.

BLASTING AND VIBRATION

Blasting Criteria

19. The Applicant must ensure that blasting on the site does not cause exceedances of the criteria in Table 4.

Table 4: Blasting Criteria

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

These criteria do not apply if the Applicant 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 Table 4:

^a The monitoring of airblast overpressure is only required until such time that the EPA is satisfied that it is no longer required.

^b The allowable exceedance must be calculated separately for production blasts, development blasts and cut and fill blasts.

Blast Frequency

20. The Applicant must not carry out more than:
- (a) 1 production blast per day; and
 - (b) 6 production blasts per week, averaged over a calendar year.

This condition does not apply to blasts that generate ground vibration of 0.75mm/s or less at any residence on privately-owned land, blast misfires or blasts required to ensure the safety of the mine or its workers.

Notes:

- 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.
- For the avoidance of doubt, should an additional blast be required after a blast misfire, this additional blast and the blast misfire are counted as a single blast.

Operating Conditions

21. The Applicant must:
- implement best management practice to protect:
 - the amenity and safety of people in the surrounding area; and
 - public or private infrastructure/property and heritage items on, or surrounding the site from any damage;
 - operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site; and
 - use reasonable endeavours to co-ordinate blasting at the site to minimise cumulative blasting impacts associated with the operation of nearby mines.

Blast Management Plan

22. Prior to commencing mining operations, unless the Secretary agrees otherwise, the Applicant must prepare a Blast Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with EPA;
 - describe the blast management measures that would be implemented to ensure compliance with the blast criteria and operating conditions of this consent;
 - include a blast monitoring program that:
 - monitors vibration and overpressure at the nearest and/or most affected receptors;
 - evaluates the performance of the development, including compliance with the applicable criteria;
 - uses a combination of roving and fixed blast monitors; and
 - defines what constitutes a blasting incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any incidents;
 - includes a review mechanism and contingency measures if production blasting causes amenity impacts at levels below the relevant criteria; and
 - outlines procedures to manage responses to any complaints or issues raised by the owners of affected residences.
23. The Applicant must implement the approved Blast Management Plan for the development.

TRANSPORT

Haulage Route

24. The Applicant must ensure that ore laden trucks use the designated haulage route from the site to South Mine, and the same route for the return trip from South Mine to the site (shown in Appendix 6), unless in exceptional circumstances as agreed with the applicable roads authority and approved by the Secretary.

Road Upgrades

25. Prior to commencing ore haulage, the Applicant shall implement the road upgrade works detailed in Table 5, unless the Secretary agrees otherwise, to the satisfaction of the applicable roads authority.

Table 5: Road upgrades to accommodate 30 metre A-Double vehicles

Intersection	Upgrade requirements	Roads Authority	Funding
Potosi-North Mine haulage road and the Barrier Highway (HW5)	- A Basic Right (BAR) turn treatment as shown in Figure A 28 Part 4A of <i>Austroads Guide to Road Design</i> and relevant RMS supplements. - A Basic Left (BAL) turn treatment as shown in Figure 8.2 Part 4A of <i>Austroads Guide to Road Design</i> and relevant RMS supplements. - Safe Intersection Sight Distance (SISD) requirements outlined in the Part 4A of <i>Austroads Guide to Road Design</i> and relevant RMS supplements in both directions. - Designed and constructed for a 110 km/h zone.	RMS	Applicant
Argent Street and Iodide Street	To the satisfaction of RMS.	RMS	RMS and Applicant on a pro-rata basis
Iodide Street and Crystal Street		RMS	

South Road and Gypsum Street	• Widen the formation and seal of the left-turn lane by 0.5 metres to accommodate a left turn onto South Road. • Modify the right turn island to accommodate a right turn onto Gypsum Street.	RMS and Council	In accordance with the terms of the VPA detailed in Appendix 3.
------------------------------	--	-----------------	---

Operating Conditions

26. The Applicant must:
- ensure that:
 - ore laden trucks do not exceed 30 metres in length;
 - ore laden trucks are covered at all times;
 - all trucks leaving the site pass through an effective wheel cleaning facility; and
 - trucks used for ore haulage pass through an effective truck washing facility at least once a week;
 - ensure the following speed limits are enforced:
 - 20km/h on unsealed roads; and
 - 40km/h on sealed roads;
 - minimise the traffic impacts of the development on public roads;
 - minimise haulage during school bus times;
 - schedule haulage movements to minimise convoy length or platoons;
 - ensure there is sufficient parking on site for all development related traffic; and
 - keep records of the amount of ore transported from the mine site and the number of daily ore truck movements and publish these records annually on the Applicant's website for the development.
 -

Transport Management Plan

27. Prior to commencing mining operations, unless the Secretary agrees otherwise, the Applicant must prepare a Transport Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared in consultation with RMS and Council;
 - include a:
 - driver's code of conduct for the development; and
 - traffic management system for managing over-dimensional vehicles;
 - describe the measures that would be implemented to ensure:
 - compliance with the operating conditions in this consent;
 - drivers are aware of potential safety issues along the haulage route; and
 - drivers of development-related vehicles comply with the driver's code of conduct;
 - include detailed plans and implementation schedules for the road upgrades specified in Table 5, including funding arrangements for the upgrade of the Argent Street/Iodide Street and Iodide Street/Crystal Street intersections;
 - include a protocol for undertaking road maintenance of the relevant section of Gypsum Street (identified in the terms of the VPA detailed in Appendix 3);
 - include a program to monitor and report on the Applicant's cumulative ore laden truck movements from the site and Potosi Mine to South Mine; and
 - include a program to monitor and report on the effectiveness of the implementation of the measures in this plan and compliance with the operating conditions.
28. The Applicant must implement the approved Transport Management Plan for the development.

WATER

Water Supply

29. The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of mining operations 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 necessary water licences for the development.

Water Pollution

30. Unless an EPL authorises otherwise, the Applicant must comply with Section 120 of the POEO Act.

Compensatory Water Supply

31. The Applicant must provide a compensatory water supply to anyone whose basic landholder water rights (as defined in the *Water Management Act 2000*) are adversely and directly impacted as a result of the

development. This supply must be provided in consultation with CL&W, and to the satisfaction of the Secretary.

The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributable to the development. Equivalent water supply must be provided (at least on an interim basis) as soon as practicable after the loss was identified, unless otherwise agreed with the relevant landholder.

If the Applicant and the landholder 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.

If the Applicant is unable to provide an alternative long-term supply of water, then the Applicant must provide alternative compensation to the satisfaction of the Secretary.

Note: The Water Management Plan (see condition 33 of schedule 3 of this consent) is required to include trigger levels for investigating potentially adverse impacts on water supplies.

Water Management Performance Measures

32. The Applicant must comply with the performance measures in Table 6.

Table 6: Water management performance measures

Feature	Performance Measure
General	• Maintain separation between clean, dirty and mine water management systems • Minimise the use of clean water on site • Design, install, operate and maintain water management systems in a proper and efficient manner
Clean water diversion infrastructure	• Maximise the diversion of clean water around disturbed areas on site
Sediment dams	• Design, install and/or maintain sediment dams to ensure no discharges to surface waters, except in accordance with an EPL or in accordance with Section 120 of the POEO Act
Mine water storages	• Design, install and/or maintain mine water storage infrastructure to ensure no unlicensed or uncontrolled discharge of mine water off-site
Evaporation pond	• Design, install and maintain the facility to ensure that a minimum freeboard of 500 mm is maintained at all times, and that any leakage is prevented • Facility must be lined with a welded High-Density Polyethylene liner, or equivalent
Chemical and hydrocarbon storage	• Chemical and hydrocarbon products to be stored in bunded areas or structures in accordance with relevant Australian Standards

Water Management Plan

33. Prior to commencing construction, unless the Secretary agrees otherwise, the Applicant must prepare a Water Management Plan for the development **by a suitably-qualified expert whose appointment has been endorsed by the Secretary**, in consultation with CL&W and the EPA, and to the satisfaction of the Secretary. This plan must include a:

(a) Site Water Balance, that:

- includes details of:
 - sources and security of water supply, including contingency planning for future reporting periods;
 - water use and management on-site, including:
 - prioritisation of on-site water sources over raw water supplies, where practicable; and
 - details of water sharing between the Applicant's other mining operations in Broken Hill;
 - any off-site water transfers and discharges;
 - a program to monitor and report on the split of water between the site and South Mine, and the associated treatment requirements to minimise raw water use at South Mine;
 - reporting procedures, including the preparation of a site water balance for each calendar year;
 - **water balance monitoring of inputs and outputs of the evaporation pond**; and
- describes the measures that would be implemented to minimise water use on-site;

(b) Surface Water Management Plan, that includes:

- baseline data on water flows and quality in the watercourses that could be affected by the development (if available);

- a detailed description of the water management system on-site, including the:
 - clean water diversion systems, and measures to ensure these are maintained;
 - erosion and sediment controls; and
 - mine water management system, including detailed design and quality assurance procedures for the evaporation pond;
 - objectives and performance criteria, including trigger levels for investigating any potential or actual adverse impacts associated with the development, including the:
 - surface water flows and quality;
 - downstream surface water quality; and
 - McCulloch Stormwater Drain and Creek A;
 - a program to monitor and report on:
 - the effectiveness of the mine water management system;
 - surface water flows and quality;
 - McCulloch Stormwater Drain and Creek A;
 - the performance measures listed in Table 6;
 - potential leakage from the evaporation pond; and
 - a plan to respond to any exceedances of the trigger levels and/or performance criteria, and minimise and/or offset any adverse surface water impacts of the development;
- (c) Groundwater Management Plan, that includes:
- baseline data on groundwater levels and quality in the region, and any privately-owned groundwater bores that could be affected by the development;
 - groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts associated with the development, including perching of water within voids and backfilled stopes;
 - a program to monitor and report on:
 - groundwater take (reported against water entitlement across all relevant operations);
 - perching of water within voids and backfilled stopes;
 - the seepage/leachate from mine water storages;
 - if applicable, the impacts of the development on groundwater supply of any potentially affected landholders and aquifers;
 - a plan to respond to any exceedances of the trigger levels and/or performance criteria, and minimise and/or offset any adverse groundwater impacts of the development; and
 - shallow monitoring bores around the pond perimeter to monitor potential leakage.

34. The Applicant must implement the approved Water Management Plan for the development.

HERITAGE

Aboriginal Cultural Heritage Chance Finds Protocol

35. Prior to commencing construction, the Applicant must prepare a Chance Finds Protocol to manage any unexpected Aboriginal cultural heritage items for the development, to the satisfaction of OEH and RAPs.

36. The Applicant must implement the approved Chance Finds Protocol for the development.

Historic Heritage Management Plan

37. Prior to commencing construction, unless the Secretary agrees otherwise, the Applicant must prepare a Historic Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:

- (a) be prepared in consultation with the Heritage Division and Council;
- (b) describe the measures that would be implemented for the protection, monitoring and management of all historic heritage items on site;
- (c) include a Chance Finds Protocol; and
- (d) include an action plan for the implementation of the key measures proposed under the plan.

38. The Applicant must implement the approved Heritage Management Plan for the development.

39. Within 3 months of the approval of the Rehabilitation Strategy required by condition 45 of schedule 3 of this consent, unless otherwise agreed with the Secretary, the Applicant must update the Historic Heritage Management Plan required by condition 37 of schedule 3 of this consent, to the satisfaction of the Secretary. The updated plan must:

- (a) be prepared in consultation with the Heritage Division and Council; and
- (b) include the addition of a long-term strategy for all heritage items on the site that is consistent with the rehabilitation objectives defined under the approved Rehabilitation Strategy.

VISUAL

40. The Applicant must:
- (a) minimise the visual and off-site lighting impacts of the development;
 - (b) ensure no fixed outdoor lights shine above the horizontal or above the building line or any illuminated structure; and
 - (c) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*, or its latest version.

BUSHFIRE MANAGEMENT

41. The Applicant must:
- (a) ensure that the development is suitably equipped to respond to any fires on site; and
 - (b) assist the RFS and emergency services as much as practicable in response to fires in the vicinity of the site.

DANGEROUS GOODS STORAGE

42. The Applicant must ensure that all dangerous goods on site are stored and handled in accordance with the relevant Australian Standard, particularly *Australian Standard AS1940 2004 – The Storage and Handling of Flammable and Combustible Liquids*.

WASTE

43. The Applicant must:
- (a) minimise the waste generated by the development;
 - (b) classify all waste on site in accordance with the EPA's *Waste Classification Guidelines*;
 - (c) appropriately store and handle all waste on site in accordance with its classification;
 - (d) remove all waste from the site as soon as practicable, and ensure it is sent to appropriately licensed waste facilities for disposal, unless an EPL authorises otherwise; and
 - (e) monitor and report on the effectiveness of the waste minimisation and management measures implemented on site in the Annual Review.

REHABILITATION

Progressive Rehabilitation

44. The Applicant must rehabilitate the site progressively, that is, as soon as is practicable following disturbance, to the satisfaction of the Secretary.

Rehabilitation Strategy

45. Within one year of commencing mining operations, unless the Secretary agrees otherwise, the Applicant must prepare a Rehabilitation Strategy for the site to the satisfaction of the Secretary. This strategy must:
- (a) be prepared in consultation with members of the Broken Hill Rehabilitation Steering Committee;
 - (b) define the rehabilitation objectives for the mine site, with consideration of heritage values, dust management, water and leachate management, final voids, surface infrastructure, visual impacts and the community; and
 - (c) include a final landform plan which builds on the rehabilitation objectives.
46. The Applicant must implement the approved Rehabilitation Strategy for the development.

Rehabilitation Management Plan

47. Within 6 months of approval of the Rehabilitation Strategy required by condition 45 of schedule 3 of this consent, the Applicant must prepare a Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with DRG, EPA, CL&W, the Heritage Division, NSW Health, Council and CBH;
 - (b) be consistent with the rehabilitation objectives defined under the Rehabilitation Strategy required by condition 45(b) of schedule 3 of this consent;
 - (c) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, and triggering remedial action (if necessary);
 - (d) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including timeframes for achieving specified rehabilitation objectives;
 - (e) include interim rehabilitation where necessary to minimise the area exposed for dust generation;

- (f) include measures to ensure all mine shafts, vents and accesses be appropriately sealed with the surrounding area rehabilitated;
- (g) include a mine closure strategy, that details measures to minimise the long-term impacts associated with mine closure, including final landform and the final void, final land use and socio-economic issues; and
- (h) include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria.

Note: The MOP may be used to address the requirements of the Rehabilitation Management Plan required under this condition. However, the MOP must clearly document how the requirements of this condition have been met

48. The Applicant must implement the approved Rehabilitation Management Plan for the development.
-

SCHEDULE 4 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. Prior to commencing construction, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. The strategy must:
 - (a) provide the strategic framework for environmental management of the development;
 - (b) identify the statutory approvals that apply to the development;
 - (c) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
 - (d) 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
 - (e) include:
 - references to any plans approved under the conditions of this consent; and
 - a clear plan depicting all the monitoring to be carried out in relation to the development.
2. The Applicant must implement the approved Environmental Management Strategy for the development.

Adaptive Management

3. The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:

- (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;
- (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- (c) implement remediation measures as directed by the Secretary.

Management Plan Requirements

4. The Applicant must ensure that the management plans required under this consent are prepared in accordance with any 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;
 - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development 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 development;
 - effectiveness of any management measures (see c above);
 - (e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;
 - (f) a program to investigate and implement ways to improve the environmental performance of the development over time;
 - (g) a protocol for managing and reporting any:
 - incidents;
 - complaints;
 - non-compliances with statutory requirements; and

- exceedances of the impact assessment criteria and/or performance criteria; and
- (h) a protocol for periodic review of the plan.

Annual Review

5. By the end of March each year, unless the Secretary agrees otherwise, the Applicant must review the environmental performance of the development for the previous calendar year to the satisfaction of the Secretary. This review must:
 - (a) describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the current calendar year;
 - (b) include a comprehensive review of the monitoring results and complaints records of the development 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 EIS;
 - (c) identify any non-compliance over the last 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 development;
 - (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and
 - (f) describe what measures will be implemented over the next year to improve the environmental performance of the development.

Note: The "Post Approval Requirements for State Significant Developments - Annual Review Guideline 2015, NSW Government, October 2015" (or its latest version) provides a reporting framework to integrate the reporting requirements of the Annual Review required by the Department under the development consent and the Annual Environment Management Report (AEMR) required under the Mining Lease.

Revision of Strategies, Plans and Programs

6. Within 3 months, unless otherwise agreed with the Secretary, of:
 - (a) the submission of an annual review under condition 5 above;
 - (b) the submission of an incident report under condition 9 below;
 - (c) the submission of an audit under condition 12 below; and
 - (d) any modification to the conditions of this consent, (unless the conditions require otherwise);
 the Applicant must 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.

Updating and Staging of Strategies, Plans or Programs

7. 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, the Applicant may submit revised strategies, plans or programs required under this consent at any time. 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 the revised or staged strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this consent.

Notes:

- While any strategy, plan or program may be submitted on a progressive basis, the Applicant must ensure that all development being carried out on site is 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.

Community Consultative Committee

8. Prior to commencing construction, the Applicant must establish and operate a CCC for the Development to the satisfaction of the Secretary. This CCC must be operated in general accordance with the *Community Consultative Committee Guidelines for State Significant Project* (Department of Planning and Environment, 2016, or its latest version).

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.*
- *In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Applicant, Council, and the local community.*

REPORTING

Incident Reporting

9. The Department must be notified in writing to compliance@planning.nsw.gov.au immediately after the Applicant becomes aware of the incident. The notification must identify the development (including the development application number and the name of the development if it has one), and set out the location and nature of the incident.

Regular Reporting

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

NON-COMPLIANCE NOTIFICATION

11. The Department must be notified in writing to compliance@planning.nsw.gov.au within 7 days after the Applicant becomes aware of any non-compliance.

The notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been done, or will be, undertaken to address the non-compliance.

INDEPENDENT ENVIRONMENTAL AUDIT

12. Within 1 year of starting the development of the mine, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
- (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - (b) include consultation with the relevant agencies;
 - (c) 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 EPL/s and/or mining lease/s);
 - (d) review the adequacy of any approved strategy, plan or program required under the abovementioned approvals; and
 - (e) recommend measures or actions to improve the environmental performance of the development, and/or any strategy, plan or program required under these approvals.

Note: The "Post Approval Requirements for State Significant Developments - Independent Audit Guideline, NSW Government, October 2015" (or its latest version) provides an audit and reporting framework for the independent audit that will guide compliance with this condition.

13. Within 3 months of commissioning this audit, or as otherwise agreed with the Secretary, the Applicant must submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report. The Applicant must implement these recommendations, to the satisfaction of the Secretary.

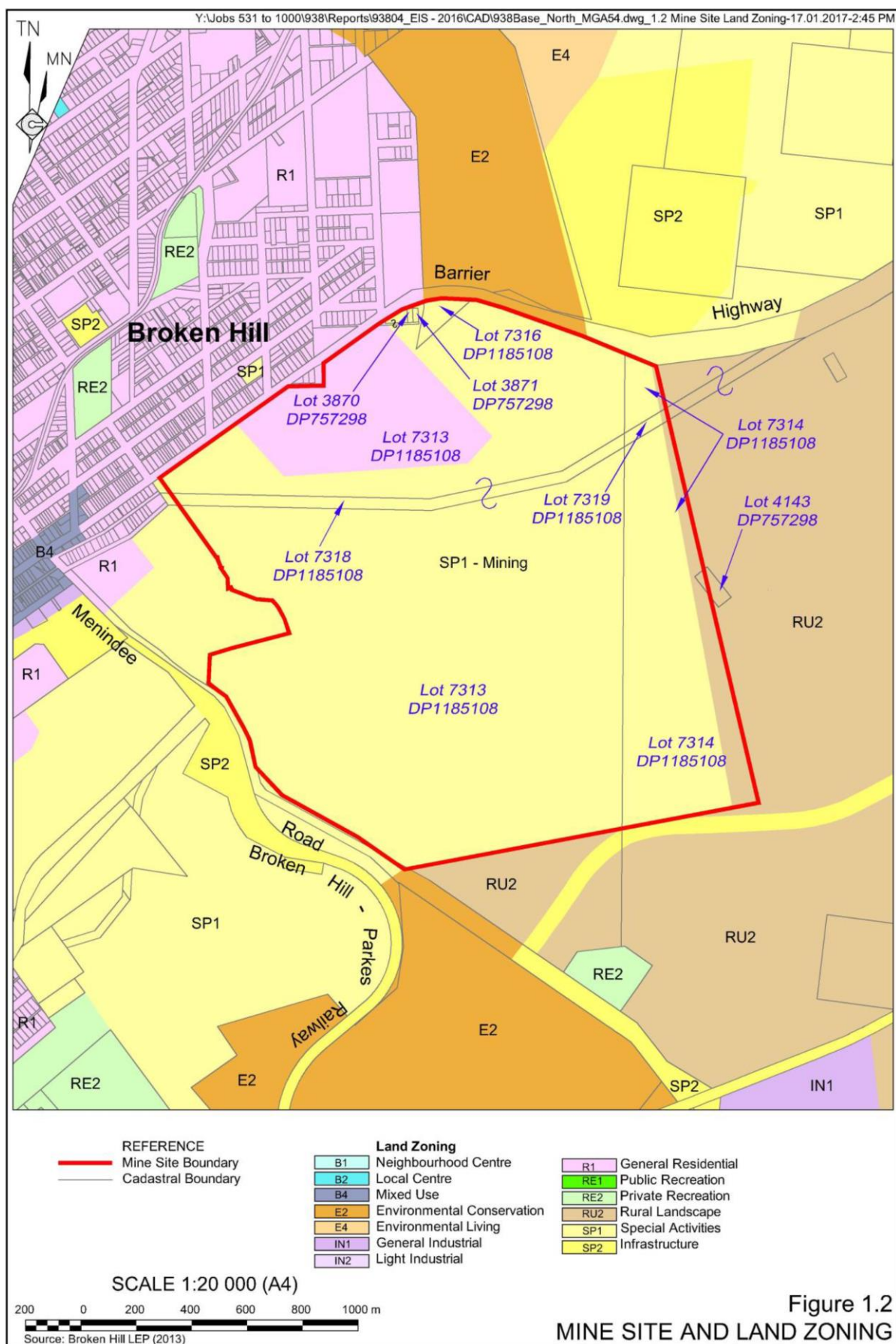
ACCESS TO INFORMATION

14. From the commencement of development under this consent, the Applicant must:
- make copies of the following information publicly available on its website as relevant to the stage of the development:
 - the EIS;
 - current statutory approvals for the development;
 - approved strategies, plans or programs required under the conditions of this consent;
 - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;
 - a summary of complaints, which is to be updated monthly;
 - the last five annual reviews;
 - any independent environmental audit, and the Applicant's response to the recommendations in any audit;
 - any other matter required by the Secretary; and
 - keep this information up to date.
-

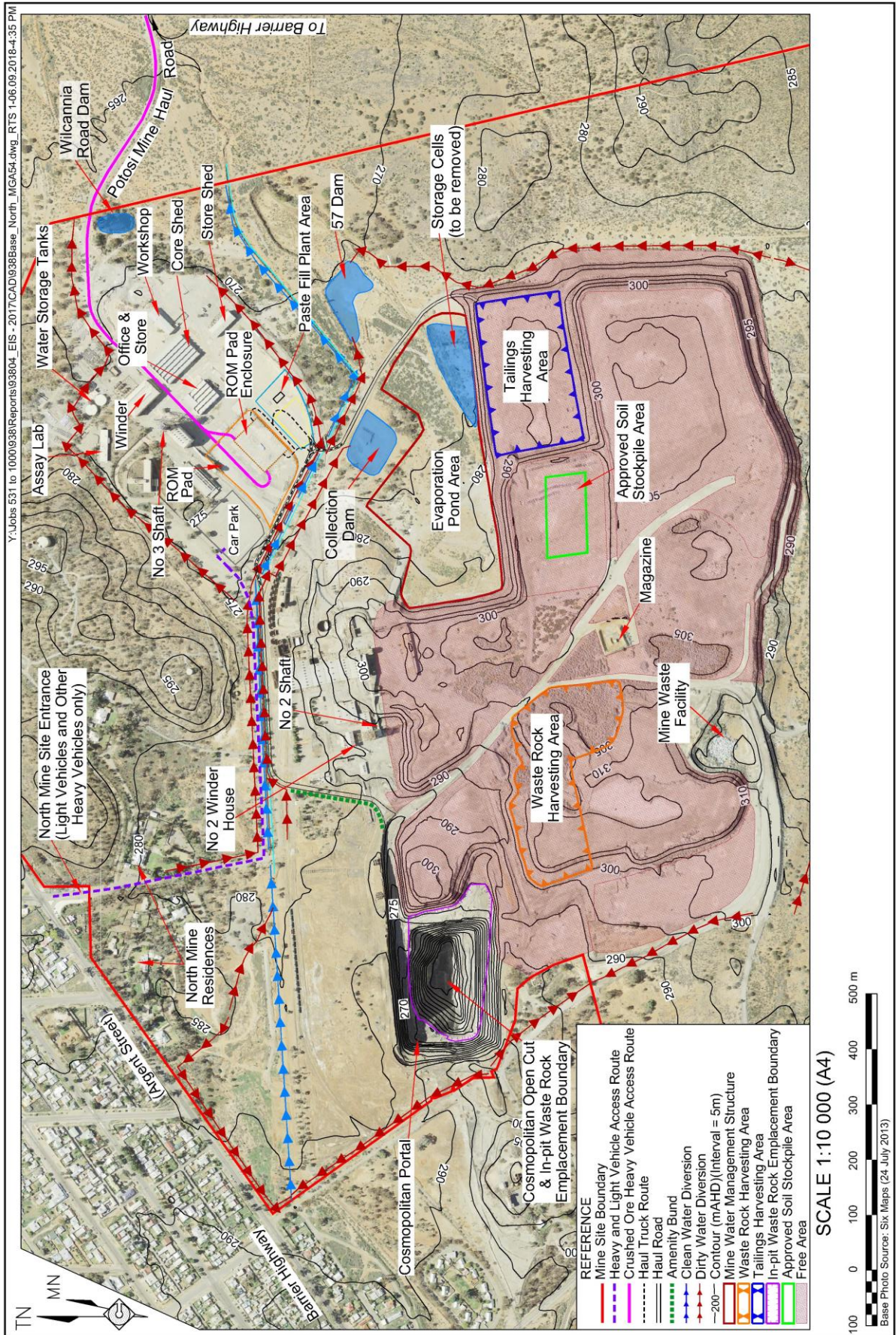
**APPENDIX 1
SCHEDULE OF LAND**

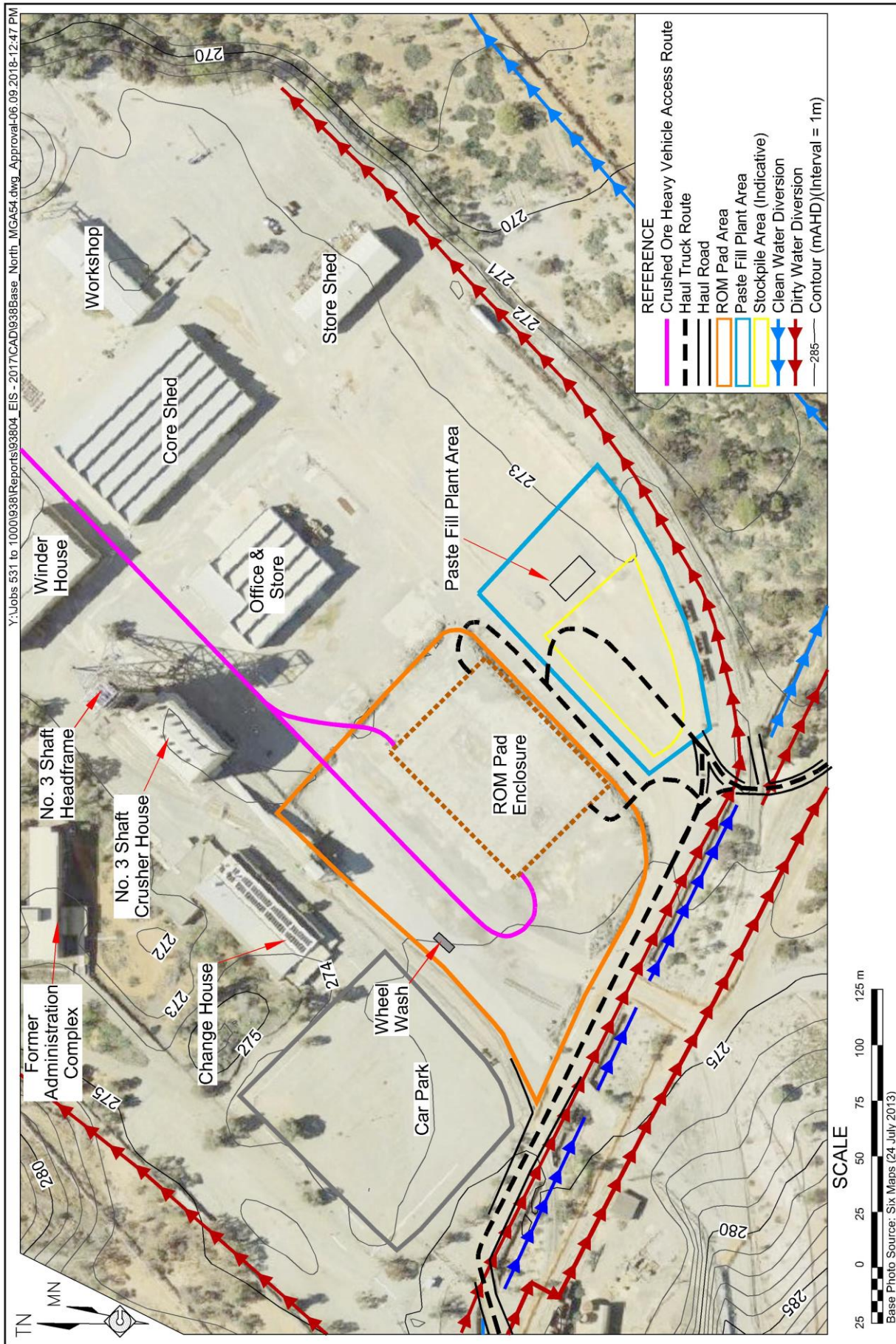
Lot Number	Deposited Plan	Registered Owner
7313 ¹	1185108	The State of NSW
7314 ¹	1185108	Willyama Common
7316	1185108	The State of NSW
7318 ¹	1185108	The State of NSW
7319 ¹	1185108	Willyama Common
3870	757298	The State of NSW
3871	757298	The State of NSW
4143 ¹	757298	Willyama Common

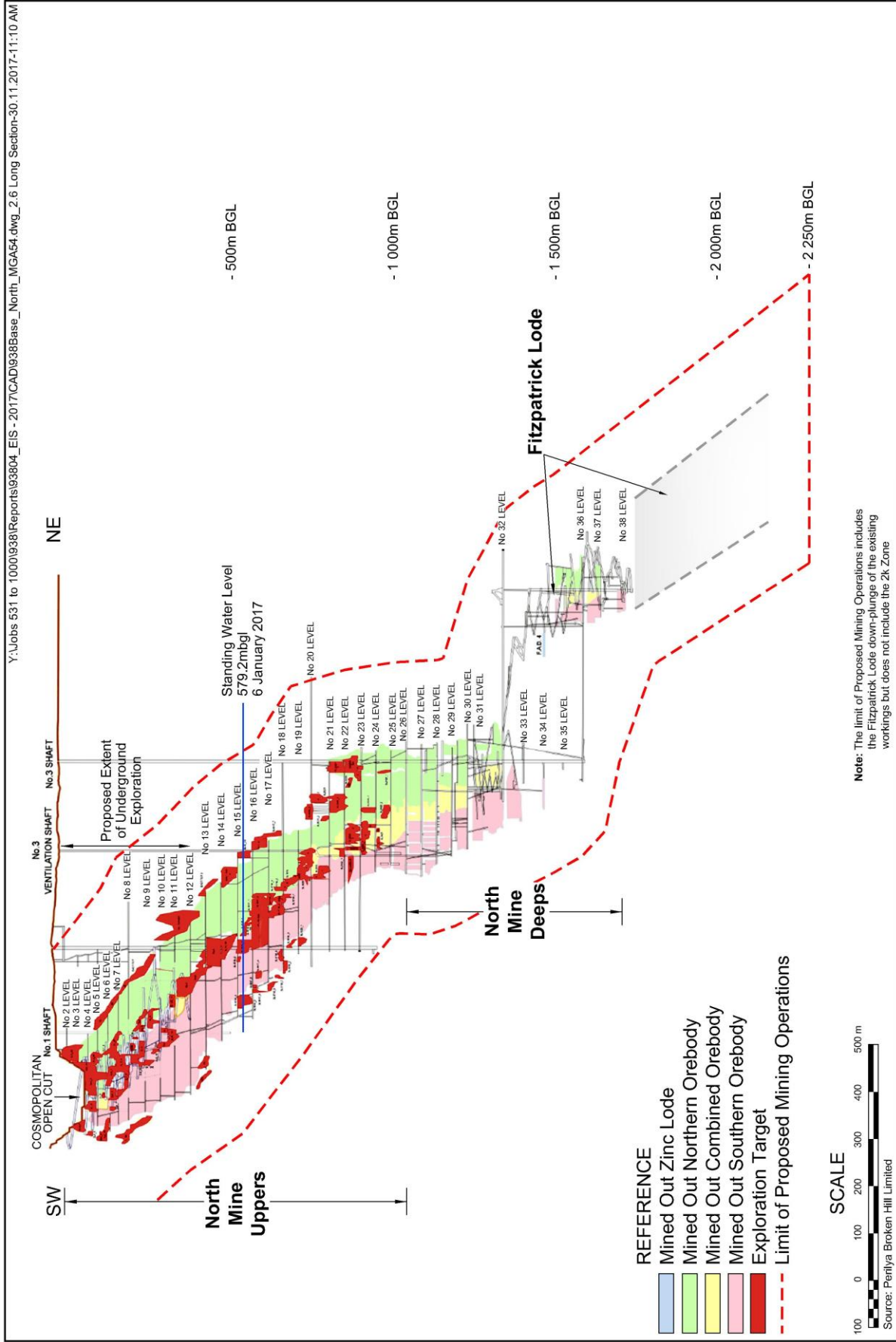
¹ part lot only



APPENDIX 2 GENERAL LAYOUT OF DEVELOPMENT







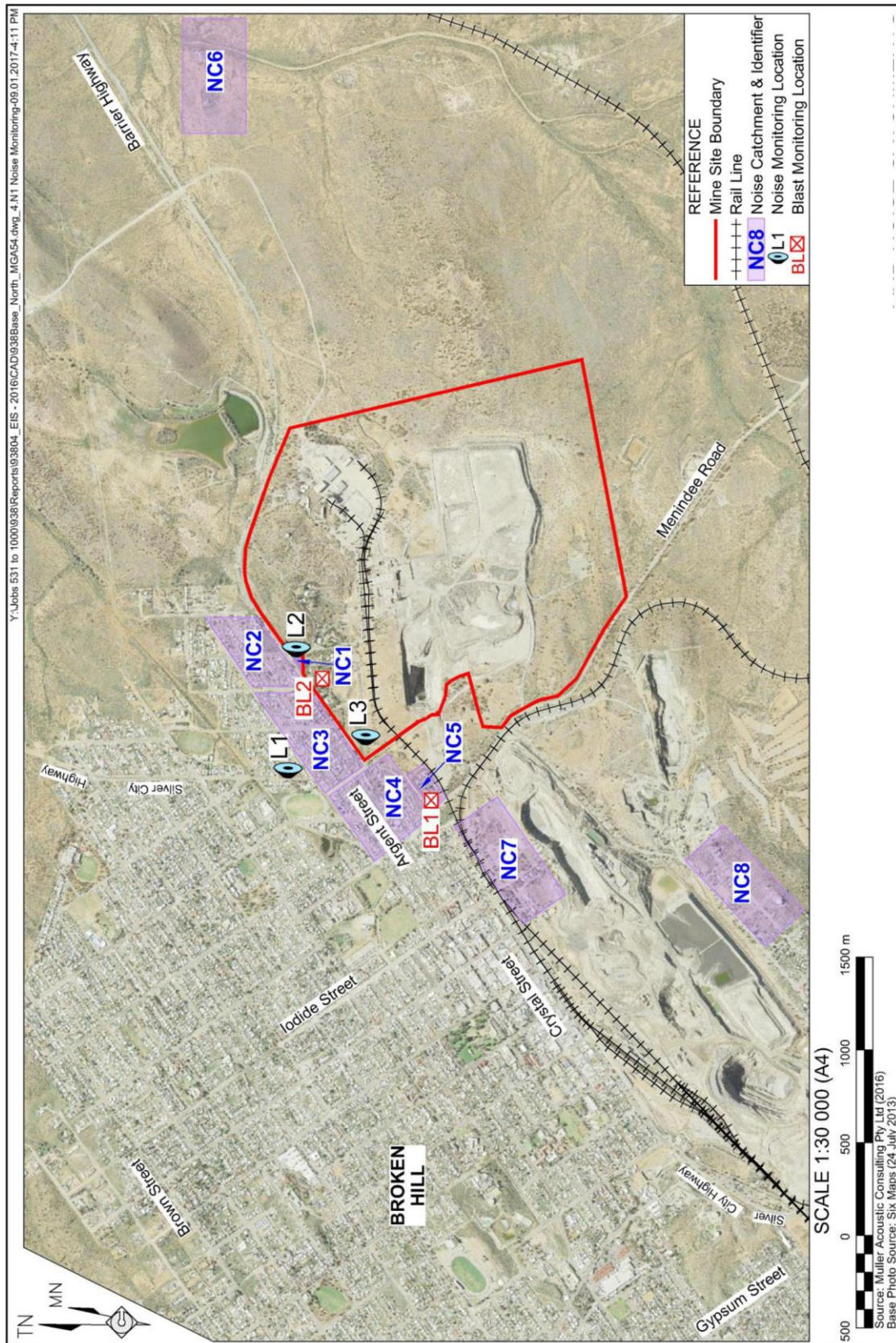
**APPENDIX 3
TERMS OF VPA**

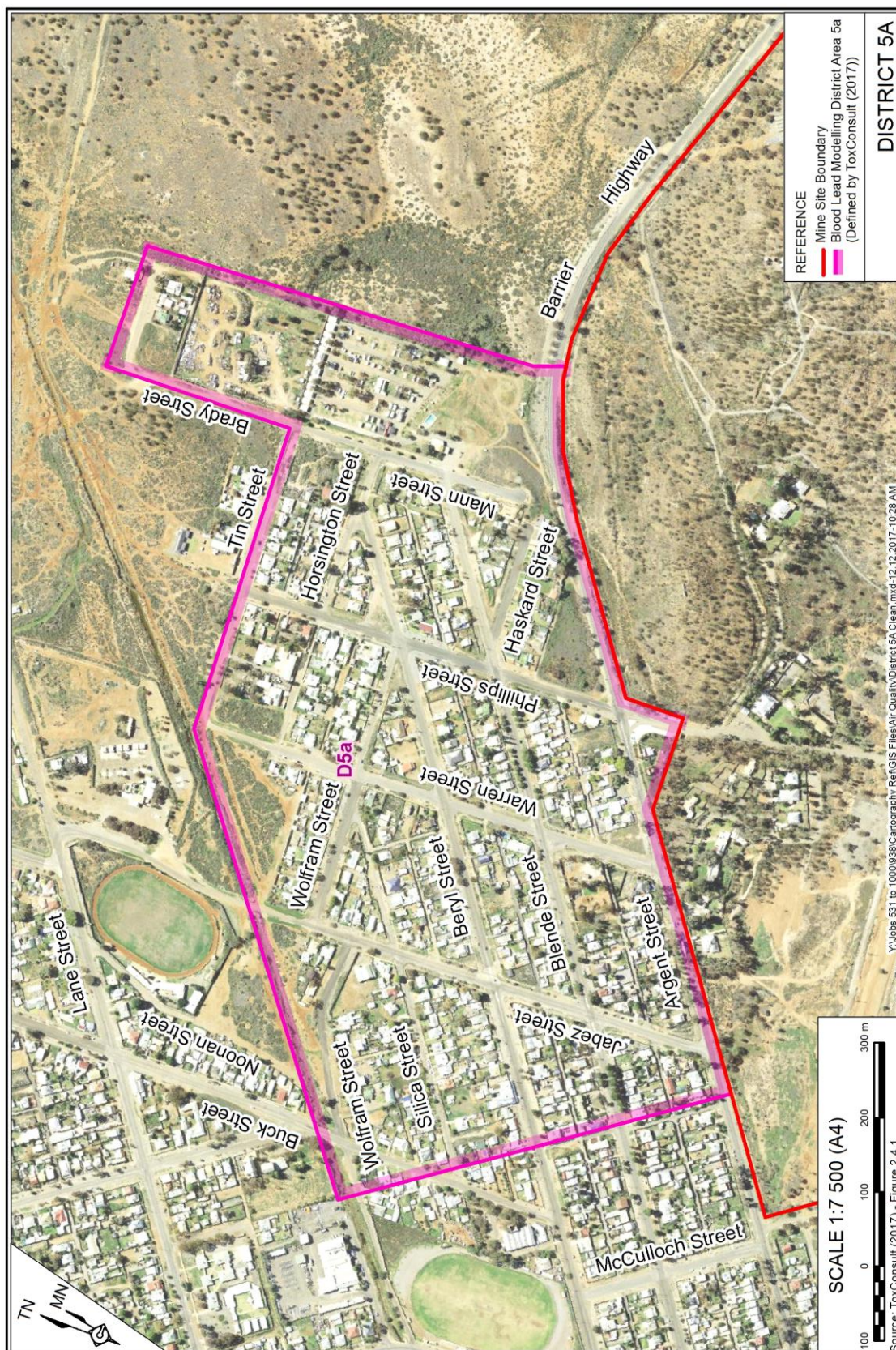
Funding Area	Contribution		Details ¹		Responsibility
	One off upfront payment	per year plus GST			
Gypsum street / South Road intersection (east bound left turn lane)	\$280,000	-	Road upgrades		Applicant and Council
	-	As required ²	Road maintenance		
Gypsum Street (westbound lane from South Road)	-	\$20,000	Road maintenance		
Community enhancement	-	\$215,670	Zinc Lakes	Gardening, slashing, garbage, maintenance, cleaning, water electricity, rates, other	Applicant
	-	\$64,295	Zinc ovals		
	-	\$10,100	Zinc Broken Hill Bowling Club		
	-	\$49,978	North Broken Hill Bowling Club		
	-	\$13,100	Pony Club		
	-	\$14,299	Rainbow Pre-school		
Total	\$280,000	\$387,442			

Notes:

- The general terms of the offer are outlined in Council's letter to the Applicant dated 6 March 2017.
- Contributions must commence upon commencement of the development, and must continue for the life of the development.
- Contributions are to be suspended when construction and/or operations cease, and the development is placed on care and maintenance.
- Contributions must be indexed to CPI.
- ¹Table 5 of Schedule 3 specifies the required upgrades.
- ² Condition 24(e) of Schedule 3 will be used to determine whether road maintenance and or repairs will be required.

APPENDIX 4 RECEIVER LOCATION PLAN





APPENDIX 5 NOISE COMPLIANCE ASSESSMENT

Applicable Meteorological Conditions

1. The noise criteria in condition 15 of Schedule 3 apply under all meteorological conditions except the following:
 - (a) wind speeds greater than 3 m/s at 10 metres above ground level; or
 - (b) stability category F temperature inversion conditions and wind speeds greater than 2 m/s at 10 m above ground level; or
 - (c) stability category G temperature inversion conditions.

Determination of Meteorological Conditions

2. Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be that recorded by the meteorological station on or in the vicinity of the site.

Compliance Monitoring

3. Unless directed otherwise by the Secretary, attended monitoring is to be used to evaluate compliance with the relevant conditions of consent.
4. Unless otherwise agreed with the Secretary, 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 or replaced 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.
5. The assessment of excessive levels of low frequency noise generated by the mine shall be as follows: Measure/assess C- and A-weighted Leq,T levels over same time period. Where the C minus A level is 15dB or more and:
 - where any of the 1/3 octave noise levels in Table 4-1 are exceeded by up to 5dB and cannot be mitigated, a 2 dB(A) positive adjustment to measured/predicted A weighted levels applies for the evening/night period.
 - where any of the 1/3 octave noise levels in Table 4-1 are exceeded by more than 5dB and cannot be mitigated, a 5 dB(A) positive adjustment to measured/predicted A weighted levels applies for the evening/night period and a 2dB positive adjustment applies for the daytime period.

Table 4-1: One-third octave low frequency noise thresholds

Hz/dB(Z)	One-third octave $L_{Zeq,15minute}$ threshold level												
Frequency (Hz)	10	12.5	16	20	25	31.5	40	50	63	80	100	125	160
dB(Z)	92	89	86	77	69	61	54	50	50	48	48	46	44

APPENDIX 6 HAULAGE ROUTE

