

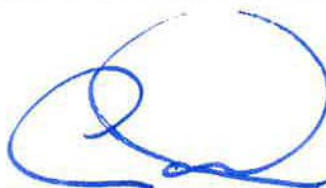
# Development Consent

## 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 5.

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.



Chris Wilson  
Executive Director  
Development Assessment Systems and Approvals

Sydney

6 JUNE

2014

### SCHEDULE 1

<b>Application Number:</b>	SSD_5012
<b>Applicant:</b>	Cristal Mining Australia Limited
<b>Consent Authority:</b>	Minister for Planning
<b>Land:</b>	See Appendix 1
<b>Development:</b>	Atlas-Campaspe Mineral Sands Project

December 2019 modification (MOD 1) in red type

## TABLE OF CONTENTS

<b>DEFINITIONS</b>	<b>3</b>
<b>ADMINISTRATIVE CONDITIONS</b>	<b>5</b>
Obligation to Minimise Harm to the Environment	5
Terms of Consent	5
Limits on Consent	5
Development Limits	5
Structural Adequacy	6
Demolition	6
Protection of Public Infrastructure	6
Operation of Plant and Equipment	6
Stage Submission of any Strategy, Plan or Programs	6
<b>ENVIRONMENTAL PERFORMANCE CONDITIONS</b>	<b>7</b>
Transport	7
Biodiversity	9
Noise	11
Air Quality	12
Meteorological Monitoring	13
Water	13
Heritage	15
Radiation Management	15
Dangerous Goods	16
Waste	16
Rehabilitation	16
Visual	17
Bushfire Management	17
<b>ADDITIONAL PROCEDURES</b>	<b>18</b>
Notification of Landowners/Tenants	18
Independent Review	18
<b>ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING</b>	<b>19</b>
Environmental Management	19
Reporting	20
Auditing	20
Access to Information	21
<b>APPENDIX 1: SCHEDULE OF LAND</b>	
<b>APPENDIX 2: DEVELOPMENT LAYOUT</b>	
<b>APPENDIX 3: HAULAGE ROUTE</b>	
<b>APPENDIX 3A: LIGHT VEHICLE ACCESS ROUTE</b>	
<b>APPENDIX 4: BIODIVERSITY OFFSET STRATEGY AND VEGETATION MANAGEMENT AREAS</b>	
<b>APPENDIX 5: CONCEPTUAL REHABILITATION STRATEGY</b>	
<b>APPENDIX 6: THREATENED SPECIES LIST</b>	
<b>APPENDIX 7: ROAD MAINTENANCE CONTRIBUTIONS – BALRANALD SHIRE COUNCIL</b>	
<b>APPENDIX 8: ROAD MAINTENANCE CONTRIBUTIONS – CENTRAL DARLING SHIRE COUNCIL</b>	
<b>APPENDIX 9: NOISE COMPLIANCE ASSESSMENT</b>	
<b>APPENDIX 10: ABORIGINAL CULTURAL HERITAGE SITES</b>	

## DEFINITIONS

Annual Review	The review required by condition 4 of schedule 5
Applicant	Tronox Mining Australia Limited, or any other person or persons who rely on this consent to carry out the development that is subject to this consent
ARTC	Australian Rail Track Corporation
BC Act	NSW Biodiversity Conservation Act 2016
BCA	Building Code of Australia
BCD	Biodiversity and Conservation Division, within the Department
BSC	Balranald Shire Council
Biodiversity offset strategy	The conservation and enhancement program described in the EIS and shown in Appendix 4
CDSC	Central Darling Shire Council
Conditions of this consent	Conditions contained in schedules 1 to 5 inclusive
Construction	The demolition of buildings or works, carrying out of works and erection of buildings covered by this consent
Councils	Balranald Shire Council and Central Darling Shire Council
CPI	Australian Bureau of Statistics Consumer Price Index
Department	Department of Planning, Industry & Environment
Development	The development described in the EIS
DoEE	Commonwealth Department of the Environment and Energy
DPIE Water	Water Group, within the Department
EEC	Endangered Ecological Community as defined under the NSW Threatened Species Conservation Act 1995
EIS	Environmental Impact Statement for the development titled <i>Atlas-Campaspe Mineral Sands Project, Environmental Impact Statement (Volumes 1-4)</i> dated May 2013, prepared by Resource Strategies; and <i>Atlas-Campaspe Mineral Sands Project Responses to Submissions</i> dated September 2013, prepared by Resource Strategies, as modified by: <ul style="list-style-type: none"> <li>MOD 1 – Modification Report titled '<i>Atlas-Campaspe Mineral Sands Project – Optimisation Modification</i>' dated July 2019 and Submissions Report dated October 2019</li> </ul>
EPA	NSW 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 under the POEO Act
Feasible	Feasible relates to engineering considerations and what is practical to build or implement
Ginkgo Mine	The mineral sands mine the subject of Development Consent 251-09-01 (as modified)
GPS	Global Positioning System
Haulage route	The route identified in Appendix 3
Heavy vehicle	A vehicle that is prescribed as 'heavy' in the <i>Austroads Vehicle Classification System</i>
Heritage item	An item as defined under the <i>Heritage Act 1977</i> , and/or an Aboriginal object or Aboriginal place as defined under the <i>National Parks and Wildlife Act 1974</i>
Incident	A set of circumstances that causes or threatens to cause material harm to the environment
Ivanhoe Rail Facility	The rail loading facility described in the EIS and shown in Appendix 2
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in schedules 3 and 4 of this consent where it is defined to mean the whole of a lot, or contiguous lots, owned or leased by the same landowner or leaseholder, in a current plan registered at the Land Titles Office or with the Crown Lands Directorate at the date of this consent
Light vehicle	A vehicle that is prescribed as 'light' in the <i>Austroads Vehicle Classification System</i>
Light vehicle access route	The route identified in Appendix 3A
LGA	Local Government Area
Material harm	Is harm that: <ul style="list-style-type: none"> <li>involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; or</li> <li>results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment)</li> </ul>

Mine	The Atlas-Campaspe Mineral Sands Mine described in the EIS and shown in Appendix 2
Minimise	Implement all reasonable and feasible mitigation measures to reduce the impacts of the development
Mining operations	The extraction and processing of ore on site, including overburden removal, mineral sands extraction and vegetation removal and soil stripping
Minister	Minister for Planning and Public Spaces, or delegate
Minor	Not very large, important or serious
Mitigation	Activities associated with reducing the impacts of the development prior to or during those impacts occurring
MSP	The mineral separation plant in Broken Hill the subject of Development Consent 345-11-01 (as modified)
Negligible	Small and unimportant, such as to be not worth considering
Non-compliance	An occurrence, set of circumstances or development that is a breach of this consent but is not an incident
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Privately-owned land	Land that is not owned or leased by a public agency or the Applicant (or its subsidiary)
Public infrastructure	Linear and related infrastructure that provides services to the general public, such as roads, railways, water supply, drainage, sewerage, gas supply, electricity, telephone, telecommunications etc.
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 restoration of land disturbed by the development to a good condition, ensuring that it is safe, stable and non-polluting and appropriately revegetated
Resources Regulator	Resources Regulator, within the Department
RFS	Rural Fire Service
RMS	Roads and Maritime Services
Road haulage route	The route identified in Appendix 3
Road Safety Audit	<i>Atlas-Campaspe Mineral Sands Project, Mineral Concentrate Transport Route Stage 5 (Existing Conditions) – Road Safety Audit (GTA Consultants, 2012).</i>
Secretary	Secretary of the Department, or nominee
Site	The land listed under “Land” in schedule 1
Snapper Mine	The mineral sands mine the subject of project approval 06_0168 (as modified)
Vegetation management areas	The vegetation management areas described in the EIS and shown in Appendix 4

## 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 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 development.

### TERMS OF CONSENT

2. The Applicant shall 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 above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.
4. The Applicant 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 this consent;
  - (b) any reports, reviews or audits 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 until 30 June 2034.

*Note: Under this consent, the Applicant is required to rehabilitate the site and carry out additional undertakings to the satisfaction of the Secretary and the Resources Regulator. 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 undertakings have been carried out satisfactorily.*

#### Ore Extraction

6. The Applicant shall not extract more than 7.2 million tonnes of ore from the site in any calendar year.

#### Transportation Limits

7. The Applicant shall not transport more than 665,000 tonnes of mineral concentrate from the site in any calendar year.
8. The Applicant shall ensure that all mineral concentrate and MSP waste is transported in RMS approved vehicles via the road haulage route (as shown in Appendix 3).
9. The Applicant shall ensure that no more than 35 haulage vehicle trips (70 vehicle movements) of mineral concentrate are dispatched from the site in any 24 hour period.
10. The Applicant shall restrict train movements to and from the Ivanhoe rail facility to:
  - (a) a maximum of 8 train movements per week; and
  - (b) a maximum of 2 train movements in any 24 hour period.

#### Hours of Operation

11. The Applicant may operate the site 24 hours a day, 7 days per week.

### DEVELOPMENT LIMITS

12. Prior to commencement of construction, unless the Secretary agrees otherwise, the Applicant must provide to the Department a survey plan of the approved surface development area (including surface infrastructure and extraction limits).
13. The Applicant shall ensure that these boundaries are clearly marked for the life of the development.

*Notes:*

- The *approved surface development* area is shown in the figures in Appendix 2.
- The *survey plan and associated boundary marking* may be undertaken in stages (in accordance with condition 18 of this Schedule) commensurate with the progress of the mine plan.

## **STRUCTURAL ADEQUACY**

14. The Applicant shall ensure that any 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**

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

## **PROTECTION OF PUBLIC INFRASTRUCTURE**

16. Unless the Applicant and the applicable authority agree otherwise, the Applicant shall:
- (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and
  - (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

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

## **OPERATION OF PLANT AND EQUIPMENT**

17. The Applicant shall ensure that all plant and equipment used at the site, or any monitoring equipment used for monitoring the performance of the development is:
- (a) maintained in a proper and efficient condition; and
  - (b) operated in a proper and efficient manner.

## **STAGED SUBMISSION OF ANY STRATEGY, PLAN OR PROGRAMS**

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

*Notes:*

- While any strategy, plan or program may be submitted on a progressive basis, the Applicant will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and
- 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.

### SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

#### TRANSPORT

##### Road Upgrade Works

1. Within 12 months of commencing construction on the site and prior to the haulage of mineral concentrate, unless otherwise agreed with the Secretary, the Applicant shall implement the road upgrade, realignment and intersections works detailed in Table 1 to an acceptable standard for Type 1 Road Trains, to the satisfaction of the applicable roads authority.

Table 1: Road Upgrade Works

Measures	Applicable Roads Authority
Upgrade existing Balranald-Ivanhoe Road and Hatfield-The Vale Road intersection	RMS, BSC
Road widening and associated drainage works along: <ul style="list-style-type: none"> <li>• Hatfield-The Vale Road (14.5km section);</li> <li>• Magenta Road (3km section);</li> <li>• Boree Plains-Gol Gol Road (5.5km section);</li> <li>• Link Road (8km section)</li> </ul>	BSC
Construction of unsealed two lane road between: <ul style="list-style-type: none"> <li>• Hatfield-The Vale Road and Boree Plains-Gol Gol Road intersections (2km section);</li> <li>• Magenta Road and Boree Plains-Gol Gol Road intersections (2km section) liaised</li> </ul>	BSC
Construction of new intersections at: <ul style="list-style-type: none"> <li>• Hatfield-The Vale Road and Magenta Road;</li> <li>• Magenta Road and Boree Plains-Gol Gol Road;</li> <li>• Link Road and Atlas-Campaspe site access road</li> </ul>	BSC
Construction of a new intersection at Balranald-Ivanhoe Road and Ivanhoe rail facility access road. <b>The Ivanhoe Rail Facility access road must be sealed for at least the first 100 m from the intersection.</b>	RMS, CDSC
Seal and undertake drainage works along Magenta Road (2km section)	BSC
High risk safety deficiencies along Balranald-Ivanhoe Road as identified in the Road Safety Audit	BSC, CDSC

*Notes:*

- Under the Roads Act 1993, the Applicant may require separate approvals from RMS and/or the Councils as the appropriate roads authority prior to construction or closure of public roads.
- For road and intersection upgrades where the RMS is the appropriate roads authority, the Applicant will need to enter into a Works Authorisation Deed prior to commencing works, including the design, construction, alteration, maintenance, demolition and/or removal of these works.
- In the event that there is a dispute between the Applicant and either of the Councils about the implementation of this condition, then either party may refer the matter to the Secretary for resolution.

- 1A. The road improvement and intersection works detailed in Table 1A must be completed to an acceptable standard, to the satisfaction of the applicable roads authority, before project-related light vehicle traffic may use the light vehicle access route. The Applicant must pay BSC for completing these works within 3 months of completion of construction, unless otherwise agreed with BSC.

Table 1A: Road upgrade works – light vehicle access route

Measures	Applicable Roads Authority
Widen Link Road (between the Atlas-Campaspe Mine access road and Marma Box Creek Road)	BSC
Seal at least the first 100 m of the surface of Boree Plains-Gol Gol Road from its intersection with Balranald-Ivanhoe Road	BSC, RMS

2. Prior to commencing construction on the site, unless otherwise agreed with the Secretary, the Applicant shall prepare a detailed program of works for the upgrades listed in Table 1 by a suitably qualified expert, to the satisfaction of the applicable roads authority.

## Road Maintenance Contributions

3. The Applicant shall pay BSC annual contributions for the maintenance of Balranald-Ivanhoe Road (Main Road 67) and other local roads along the haulage route in accordance with the terms specified in Appendix 7.
- 3A. The Applicant must pay BSC annual contributions for the maintenance of local roads along the light vehicle access route, generally in accordance with the terms specified in Appendix 7.
4. The Applicant shall pay CDSC annual contributions for the maintenance of Balranald-Ivanhoe Road (Main Road 67) and other local roads along the haulage route in accordance with the terms specified in Appendix 8.
5. The Applicant shall pay CDSC and BSC one third of the total costs to rectify the “high risk” road safety deficiencies along Balranald-Ivanhoe Road (Main Road 67), as identified in the Road Safety Audit. The Applicant shall pay Councils within 3 months of the road works being completed on a quarterly basis, unless otherwise agreed with the applicable Council.

### Notes:

- The proportion of costs to be paid to the individual Councils to rectify the road safety deficits will depend on the extent of works required within each local government area.
- With the exception of condition 3A of this schedule, in the event that there is a dispute between the Applicant and either of the Councils about the implementation of these conditions, then either party may refer the matter to the Secretary for resolution.

## Local Roads

6. The Applicant shall ensure that light vehicles use only the following local roads to access the site:
  - (a) those local roads that form part of the road haulage route shown in Appendix 3;
  - (b) those local roads that form part of the light vehicle access route shown in Appendix 3A, if conditions 1A and 3A of this schedule have been met; or
  - (c) any local road during an emergency to avoid the loss of life, property and/or to prevent environmental harm.

*Note: This condition does not apply to any employees that may reside on a local road that does not form part of the haulage route or the light vehicle access route (in the vicinity of the development), or the infrequent use of the roads for consultation, environmental monitoring and inspection and maintenance of nearby infrastructure.*

## Stock Losses

7. The Applicant shall consult with relevant leaseholders and negotiate appropriate reimbursement at current market values for stock losses attributable to traffic associated with the development or other project-related activities.

## Monitoring of Mineral Concentrate Transport

8. The Applicant shall keep accurate records of:
  - (a) the amount of mineral concentrate transported from the site (on a monthly basis); and
  - (b) the amount of MSP process waste transported to the site for disposal.

These records must be made publicly available on the Applicant's website at the end of each calendar year.

## Transport Management Plan

9. The Applicant shall prepare and implement a Transport Management Plan for the development to the satisfaction of the Secretary. This plan must:
  - (a) be prepared in consultation with the RMS, BSC and CDSC;
  - (b) be submitted to the Secretary for approval prior to carrying out any construction on site;
  - (c) include a program to monitor and report on the:
    - amount of mineral concentrate transported from the site;
    - amount of MSP process waste returned to the site; and
    - date and time of each train movement generated by the development;
  - (d) include the measures that would be implemented to address the relevant requirements in the *Code of Practice for the Safe Transport of Radioactive Materials* (ARPANSA, 2001, or its latest version);
  - (e) focus on traffic management along the haulage route and light vehicle access route;
  - (f) include a Road Transport Protocol for all drivers transporting materials to and from the site with measures to ensure:
    - heavy vehicles adhere to the designated haulage route;
    - all vehicles transporting mineral concentrate are completely covered whilst in transit;



- the staggering of heavy vehicle departures to minimise impacts on the road network, where practicable;
- no disruption to school bus timetables;
- the management of worker fatigue during trips to and from the site;
- appropriate driver behaviour including adherence to speed limits, safe overtaking and maintaining appropriate distances between vehicles (i.e. a Driver Code of Conduct);
- adherence to drug and alcohol policies;
- appropriate vehicle maintenance and safety;
- contingency plans when the haulage route is disrupted due to low visibility or closed due to wet weather;
- emergency response plans;
- the safe transportation MSP process wastes; and
- compliance with and enforcement of the protocol.

## BIODIVERSITY

### Biodiversity Offset Strategy

10. The Applicant shall implement the biodiversity offset strategy summarised in Table 2 and shown conceptually in Appendix 4 to the satisfaction of the Secretary.

*Table 2: Biodiversity Offset Strategy*

<b>Offset Type</b>	<b>Minimum Size (hectares)</b>
Existing Native Vegetation	16,270
Re-vegetated cleared land	270
<b>Total</b>	<b>16,540</b>

11. The Applicant shall ensure that the biodiversity offset strategy provides suitable habitat for the threatened fauna species, and includes the threatened flora species and EECs, confirmed and identified as being present on the site.

*Note: The threatened flora and fauna species and EECs confirmed and identified as being present on the site are listed in Appendix 6.*

### Security of Offset

12. Within 12 months of commencing construction on the site, unless the Secretary agrees otherwise, the Applicant shall make suitable arrangements for the long term protection of the biodiversity offsets listed in Table 2 in consultation with BCD and to the satisfaction of the Secretary.

*Note: In order of preference, mechanisms to provide appropriate long term security to the land within the Biodiversity Offset Strategy include incorporation into National Park Estate, change of lease purpose to 'conservation' under the NSW Western Lands Act 1901, Voluntary Conservation Agreement, or restrictive covenant on land titles.*

### Vegetation Management Areas

13. The Applicant shall manage and enhance the remnant vegetation in the vegetation management areas summarised in Table 3 below, and shown conceptually in the figure Appendix 4, for the life of the development, to the satisfaction of the Secretary.

Table 3: Vegetation Management Areas

Area	Minimum Size (hectares)
Atlas-Campaspe Mine	1,380
Ivanhoe Rail Facility	15
<b>Total</b>	<b>1,395</b>

### Biodiversity Management Plan

14. The Applicant shall prepare and implement a Biodiversity Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be prepared by a suitably qualified person approved by the Secretary;
  - be prepared in consultation with BCD, National Parks and Wildlife Service, DoEE and the RFS, and submitted to the Secretary for approval prior to the commencing vegetation clearing on the site;
  - describe the short, medium and long term measures implemented to:
    - manage the remnant vegetation and habitat in the biodiversity offset and vegetation management areas; and
    - implement the biodiversity offset strategy, including detailed performance and completion criteria for evaluating the performance of the strategy and triggering remedial action (if necessary);
  - include detailed baseline data and vegetation condition mapping for the biodiversity offset and vegetation management areas;
  - describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site;
  - include a detailed description of the procedures to be implemented for:
    - enhancing the quality of existing vegetation and fauna habitat in the biodiversity offset and vegetation management areas;
    - restoring native vegetation and fauna habitat in the biodiversity offset through focusing on assisted natural regeneration, targeted vegetation establishment and the introduction of natural scarce fauna habitat features;
    - minimising edge effects in the biodiversity offset area;
    - revegetating the Yarran Shrubland EEC in the biodiversity offset area;
    - introducing nest boxes in the revegetated areas of the biodiversity offset area for the Corben's Long eared Bat and Western Pygmy-possum;
    - establishing a monitoring site in the Deep Sand Mallee community;
    - clearly delineating the biodiversity offset strategy and vegetation management areas;
    - providing suitable habitat for threatened species;
    - excluding livestock grazing;
    - controlling vehicular access;
    - controlling weeds and feral pests;
    - controlling erosion;
    - collecting and propagating seed;
    - complete closure of artificial water points;
    - revegetation of cleared land;
    - bushfire management including consideration of strip burns;
  - include a Vegetation Clearance Protocol for the site, which includes procedures for:
    - training of employees and contractors;
    - ensuring a suitably qualified person is present during clearing of habitat trees;
    - undertaking pre-clearance surveys for fauna and their habitat, in particular for threatened species listed in Appendix 6;
    - the management of habitat trees and Malleefowl mounds;
    - undertaking call play-back for the Bush Stone-crlew prior to clearing;
    - restricting clearing to the minimum area necessary;
    - restricting the clearing of trees and shrubs in the vicinity of Malleefowl mounds to late summer and early autumn; and
    - notifying BCD of any clearing activities in the vicinity of Malleefowl mounds outside of this period, including details of why clearing is required and additional mitigation measures to be implemented.
  - include a Threatened Species Management Protocol for the site, which includes procedures for:
    - managing and monitoring the threatened species present on the site (refer to Appendix 6), with particular focus on the Cobar Greenhood Orchid, Winged Peppergrass, Mossgiel Daisy, Malleefowl, Western Pygmy-Possum and South-eastern long-eared Bat;

- implementing a management and monitoring program for the Malleefowl in accordance with the 'National Manual for the Malleefowl Monitoring System';
- (h) include a seasonally-based program to monitor and report on the effectiveness of these measures, and progress against the detailed performance and completion criteria;
- (i) identify the potential risks to the successful implementation of the biodiversity offset strategy, and include a description of the contingency measures that would be implemented to mitigate against these risks;
- (j) annually monitor the effectiveness of the management measures in the biodiversity offset and vegetation management areas using BioMetric data collection methodology, or other methodology agree with BCD; and
- (k) include details of who would be responsible for monitoring, reviewing and implementing the plan.

### Conservation Bond

15. Within 6 months of approval of the Biodiversity Management Plan for the development, the Applicant shall lodge a conservation bond with the Department to ensure that the biodiversity offset strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan. The sum on the bond must be determined by:
- (a) calculating the full cost of implementing the biodiversity offset strategy (other than land acquisition costs); and
  - (b) employing a suitably qualified quantity surveyor to verify the calculated costs, to the satisfaction of the Secretary.

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

#### Notes:

- Alternative funding arrangement for long term management of the Biodiversity Offset Strategy, such as the provision of capital and management funding as agreed by BCD as part of a transfer to a conservation reserve, can be used to reduce the liability of the conservation and biodiversity bond; and
- The sum of the bond may be reviewed in conjunction with any revision to the Biodiversity Management Plan.

## NOISE

### Noise Criteria

16. The Applicant shall ensure that the noise generated by the development does not exceed the noise criteria in Table 4 at any residence on privately-owned land or the other specified locations.

Table 4: Noise criteria dB(A)

Location	Day	Evening	Night	
	$L_{Aeq}(15min)$	$L_{Aeq}(15min)$	$L_{Aeq}(15min)$	$L_{A1}(1min)$
All privately-owned land	35	35	35	45
Mungo National Park and Mungo State Conservation Area	50	50	50	-

Noise generated by the development is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy* (as may be updated from time to time). Appendix 9 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.

### Operating Conditions

17. The Applicant shall:
- (a) implement all reasonable and feasible measures to minimise the construction, operational, road and rail noise of the development;
  - (b) undertake attended monitoring and implement noise mitigation measures to ensure the compliance of the development against the noise criteria of this consent;
  - (c) minimise noise impacts of the development during meteorological conditions when noise limits in this consent do not apply (see Appendix 9);

- (d) only use locomotives and rolling stock that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL;
  - (e) carry out regular monitoring to determine whether the development is complying with the relevant conditions of this consent;
- to the satisfaction of the Secretary.

### Noise Management Plan

18. The Applicant shall prepare and implement a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the EPA, and submitted to the Secretary for approval prior to commencing construction on the site;
  - (b) describe the measures that would be implemented to ensure compliance with the noise criteria and operating conditions in this consent; and
  - (c) include a monitoring program that:
    - uses attended noise monitoring to evaluate compliance of the development against the noise criteria in this consent;
    - evaluates and reports on:
      - the effectiveness of the noise management system;
      - compliance against noise criteria in this consent; and
      - compliance against the noise operating conditions; and
    - defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents.

## AIR QUALITY

### Air Quality Criteria

19. The Applicant shall ensure that all reasonable and feasible avoidance and mitigation measures are employed to ensure particulate matter emissions generated by the development do not exceed the criteria in Tables 5, 6 and 7 at any residence on privately-owned land.

Table 5: Long term impact assessment criteria for particulate matter

Pollutant	Averaging period	<sup>d</sup> Criterion
Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM <sub>10</sub> )	Annual	<sup>a</sup> <b>25</b> µg/m <sup>3</sup>

Table 6: Short term impact assessment 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 7: Long term impact assessment criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	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 5-7:

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

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

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

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

### Operating Conditions

20. The Applicant shall:

- (a) implement all reasonable and feasible measures to minimise off-site odour, fume, dust and greenhouse gas emissions of the development;
- (b) minimise any visible off-site air pollution generated by the development;
- (c) minimise the surface disturbance of the site;
- (d) operate an air quality management system that uses dust deposition gauges to monitor the performance of the development and implement air quality mitigation measures to ensure compliance with the relevant condition of this consent; and
- (e) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note d under Table 7),  
to the satisfaction of the Secretary.

#### **Air Quality Management Plan**

21. The Applicant shall prepare and implement 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 submitted to the Secretary for approval prior to commencing construction on the site;
  - (b) describe measures that would be implemented to ensure compliance with the relevant air quality criteria and operating conditions of this consent;
  - (c) describe the air quality management system;
  - (d) include an air quality monitoring program that:
    - adequately supports the air quality management system;
    - evaluates and reports on:
      - the effectiveness of the air quality management system;
      - compliance with air quality criteria; and
      - compliance against the air quality operating conditions;
    - 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.

#### **METEOROLOGICAL MONITORING**

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

#### **WATER**

##### **Water Pollution**

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

##### **Water Supply**

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

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

##### **Compensatory Water Supply**

25. The Applicant shall provide a compensatory water supply to any landowner or leaseholder of privately-owned land whose water supply is adversely and directly impacted (other than an impact that is negligible) as a result of the development, in consultation with **DPiE Water** and 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 attributed to the development.

The extent of adverse impact on water supply must be investigated in accordance with the procedures outlined in Condition 4 of Schedule 5. The compensatory water supply measures must provide an alternative long term supply of water that is equivalent to the loss attributable to the project. Equivalent water supply should be provided (at least on an interim basis) within 24 hours of the loss being identified, unless otherwise agreed with the landowner/leaseholder.

If the Applicant and landowner/leaseholder 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 shall provide alternative compensation to the satisfaction of the Secretary.

### Water Management Plan

26. The Proponent shall prepare and implement a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with **DPiE Water** and the EPA, by suitably qualified and experienced persons whose appointment has been approved by the Secretary;
  - (b) submitted to the Secretary for approval prior to commencing construction on the site;
  - (c) in addition to the standard requirements for management plans (see Condition 3 of schedule 6), this plan must include a:
    - (d) 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 the operating rules and emergency procedures for water management;
      - reporting procedures including the preparation of a site water balance for each calendar year of the development life; and
      - a program to validate the site water balance, including water storage levels at the site and comparison of monitoring results with predictions;
    - (e) Surface Water Management Plan, that includes:
      - baseline data on water levels and quality in the water bodies that could be affected by the development;
      - a detailed description of the water management system on site, including the:
        - clean water diversion systems;
        - erosion and sediment controls;
        - water storages (including off-path sand residue dams, process water storages and water disposal dams); and
        - final voids;
      - design objectives and performance criteria for the clean water diversion systems and water storages (including off-path sand residue dams, process water storages and water disposal dams) and final voids;
      - performance criteria, including trigger values for investigating any potential adverse impacts associated with the development, on any nearby water bodies;
      - salinity management measures including design measures to minimise any lateral seepage of brackish water from the sediment dams, off-path residue dams, process water storages, and/or emplacement areas;
      - contingency plans to deal with any lateral salt water seepage or breakdown in dam linings;
      - a program to monitor and report on:
        - effectiveness of the water management system;
        - potential leakage or spillage from water storage facilities;
        - post-closure water quality;
      - reporting procedures for the results of the monitoring program; and
      - a plan to respond to any exceedances of the performance criteria, and mitigate any adverse surface water impacts of the development;
    - (f) Groundwater Management Plan, that includes:
      - detailed baseline data on groundwater levels, yield and quality in the region and 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;
      - a program to monitor and report on:
        - impacts on the groundwater supply of potentially affected landowners/leaseholders;
        - groundwater inflows to the mining operations;
        - the seepage/leachate from water storages, emplacements, backfilled voids and final voids;
        - background changes in groundwater yield/quality against mine-induced changes;
        - the impacts of the development on the regional and local (including alluvial) aquifers;
        - groundwater dependent ecosystems;
      - a program to validate the groundwater model for the development, and compare the monitoring results with modelled predictions; and
      - a plan to respond to any exceedances of the groundwater assessment criteria.



## HERITAGE

### Protection of Aboriginal Heritage Items

27. Unless otherwise authorised under the NP&W Act, the Applicant shall ensure that the development does not cause any direct or indirect impact on the identified Aboriginal heritage items located outside the approved disturbance area on site.

### Heritage Management Plan

28. The Applicant shall prepare and implement a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;
  - (b) be prepared in consultation with BCD and Aboriginal stakeholders (in relation to the management of Aboriginal heritage values), and submitted to the Secretary for approval prior to commencing construction on the site;
  - (c) include a protocol for responding to the discovery of any human remains on site;
  - (d) a description of the measures that would be implemented for:
    - protecting, monitoring and/or managing the heritage sites/items identified in Appendix 10;
    - managing the discover of any human remains or previously unidentified Aboriginal objects on site;
    - maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on site;
    - ongoing consultation with the Aboriginal stakeholders in the conservation and management of Aboriginal cultural heritage on site;
    - ensuring any workers on site receive suitable heritage inductions prior to carrying out any development on site, and that suitable records are kept of these inductions
    - notifying the NSW Heritage Council upon discovery of any intact archaeological deposits or state significant relics;
  - (e) include a detailed plan for the implementation of the mitigation and management measures outlined for the specified heritage items in the EIS, including archival recording, historical research and archaeological assessment prior to any disturbance.

## RADIATION MANAGEMENT

### Radioactive Waste Management Plan

29. The Applicant shall prepare and implement a Radioactive Waste Management Plan for the development to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with the EPA by a suitably qualified expert/s whose appointment has been approved by the Secretary;
  - (b) be submitted for approval 6 months prior to the commencement of the transport of MSP process waste to the site for disposal;
  - (c) generally meet the environmental goals listed in *Environmental Guidelines: Solid Waste Landfills* (DEC, 1996 or its latest version);
  - (d) be consistent with the *Code of Practice and Safety Guide for Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing* (ARPANSA, 2005);
  - (e) include:
    - a description of potential sources of dose delivery pathways and potential doses;
    - a description of operation and control measures;
    - design and operation details of waste disposal areas;
    - a management program for backloaded MSP process waste;
    - a system to monitor the movement of backloaded MSP waste;
    - a description of waste generating processes and waste;
    - demonstration of access to professional expertise in radiation protection;
    - details of radiation monitoring;
    - details of appropriate equipment, staff, facilities and operational procedures;
    - a description of induction and training courses;
    - reporting and periodic review procedures;
    - emergency plans;
    - baseline radiological information;
    - description of the waste management system;
    - radioactive waste monitoring; and
    - a conceptual decommissioning plan; and
  - (f) ensure wastes are landfilled in a manner to ensure:
    - the average concentration of radioactive material in landfill at the site would not exceed the average concentration of radioactive material in the original orebody;

- the radiation level of any material deposited to land is no greater than 0.7 microGray per hour measures 1 metre vertically above the surface of the material being deposited; and
- there is no detectable change from the original natural background radiation level measures at the ground surface.

## DANGEROUS GOODS

30. The Applicant shall ensure that the storage, handling, and transport of dangerous goods is done in accordance with the relevant *Australian Standards*, particularly AS1940 and AS1596, and the *Australian Code for the Transport of Dangerous Goods by Road and Rail*.

## WASTE

31. The Applicant shall:
- implement all reasonable and feasible measures to minimise the waste generated by the development;
  - ensure that the waste generated by the development is appropriately stored, handled and disposed of;
  - manage on-site sewage treatment and disposal in accordance with the requirements of BSC; and
  - monitor and report on the effectiveness of waste minimisation and management measures in the Annual Review.

*Note: The waste minimisation measures are not relevant to the backloaded MSP process waste, overburden or sand residues.*

## REHABILITATION

### Rehabilitation Objectives

32. The Applicant shall rehabilitate the site to the satisfaction of **the Resources Regulator**. This rehabilitation must be generally consistent with the proposed rehabilitation described in the EIS (and depicted conceptually in Appendix 5), and comply with the objectives in Table 8.

*Table 8: Rehabilitation Objectives*

<b>Feature</b>	<b>Objective</b>
Mine site (as a whole)	<ul style="list-style-type: none"> <li>• Safe, stable and non-polluting</li> <li>• Progressive rehabilitation of disturbance areas</li> <li>• Final land use to be returned to a self-sustaining ecosystem that is characteristic of vegetation communities cleared by the development and suitable for either light intensity grazing or for nature conservation</li> </ul>
Final landforms	<ul style="list-style-type: none"> <li>• Minimise the visual impact of final landforms, and ensure they are consistent with the landforms in the surrounding landscape</li> <li>• The final surface water drainage network is stable and there is minimal risk of ongoing active scouring and erosion or dryland salinity</li> <li>• Maintain overland flow to local close depressions to minimise disturbance to Black Box Woodland in the vicinity of the development</li> </ul>
Surface infrastructure	<ul style="list-style-type: none"> <li>• To be decommissioned and removed in accordance with the procedures in the EIS</li> <li>• Where infrastructure is to remain as part of the final land use, it is to be safe and not pose a hazard to the community</li> </ul>
Final void	<ul style="list-style-type: none"> <li>• Minimise the size and depth of the final voids as far as is reasonable and feasible</li> <li>• Depth of the final voids to remain above the groundwater table</li> </ul>
Biodiversity	<ul style="list-style-type: none"> <li>• Establishing permanent self-propagating vegetation cover including native species characteristic of vegetation communities cleared</li> <li>• Exclusion of livestock from rehabilitation areas during operations and revegetation development</li> <li>• Size, location and species of native tree lots and corridors are established to sustain biodiversity habitats</li> </ul>
Community	<ul style="list-style-type: none"> <li>• Ensure public safety</li> <li>• Minimise the adverse socio-economic effects associated with mine closure</li> </ul>
Water Quality	<ul style="list-style-type: none"> <li>• Water retained on site is fit for the intended land use for post-mining domains</li> <li>• Water discharged from site is consistent with the baseline ecological, hydrological and geomorphic conditions of the creeks prior to mining disturbance</li> </ul>



## Progressive Rehabilitation

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

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

## Rehabilitation Management Plan

34. The Applicant shall prepare and implement a Rehabilitation Management Plan for the development to the satisfaction of **the Resources Regulator**. This plan must:
- (a) be prepared in consultation with the Department, **BCD**, **DRG**, **DPIE Water**, BSC and CDSC;
  - (b) be submitted to **the Resources Regulator** for approval prior to commencing mining operations on the site;
  - (c) be prepared in accordance with any relevant NSW **Government** guideline;
  - (d) describe how the rehabilitation of the site would be integrated with the implementation of the biodiversity offset strategy and the vegetation management areas;
  - (e) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the site, including triggering remedial action (if necessary), including for radiation affected soils;
  - (f) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including mine closure, final landform, and final land use;
  - (g) include interim rehabilitation were necessary to minimise the area expose for dust generation;
  - (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; and
  - (i) build to the maximum extent practicable on the other management plans required under this consent;
  - (j) provide details of the hydrological design of the backfilled mine paths, including how the backfilled mine path to the Black Box Woodland in the disturbance area would be reinstated;
  - (k) provide details on a monitoring program for the reinstatement of surface water flows to the Black Box Woodland (see (j) above) and provide a report to **BCD** detailing data collected following rehabilitation;
  - (l) demonstrate the complete closure of artificial water points to reduce water sources for feral animals;
  - (m) include details of radiation monitoring following rehabilitation to determine if radiation levels equivalent to the natural background radiation level are being achieved; and
  - (n) include details on how materials are characterised (including topsoils, substrates and seeds of disturbed areas), recovered (where viable), appropriately managed and used effectively as resources in the rehabilitation.

## VISUAL

### Operating Conditions

35. The Applicant shall:
- (a) implement all reasonable and feasible measures to minimise the visual impacts and off-site lighting impacts of the development;
  - (b) ensure no fixed outdoor lights shine above the horizontal;
  - (c) ensure no in-pit mobile lighting rigs shine above the pit wall and other mobile lighting rigs do not shine above the horizontal; and
  - (d) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting* or its latest version,
- to the satisfaction of the Secretary.

## BUSHFIRE MANAGEMENT

36. The Applicant shall:
- (a) ensure that the development is suitably equipped to respond to any fires on site; and
  - (b) assist the RFS, emergency services and National Parks and Wildlife Service as much as practicable if there is a fire in the vicinity of the site.

## **SCHEDULE 4 ADDITIONAL PROCEDURES**

### **NOTIFICATION OF LANDOWNERS/TENANTS**

1. As soon as practicable after obtaining monitoring results showing an exceedance of any relevant criteria in schedule 3, the Applicant shall notify affected landowners/leaseholders in writing of the exceedance, and provide regular monitoring results to each affected landowner/leaseholders until the development is again complying with the relevant criteria.

### **INDEPENDENT REVIEW**

2. If an owner or leaseholder of privately-owned land considers the development to be exceeding the criteria in schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land.

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

- (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Secretary, to:
    - consult with the landowner/leaseholder 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:
      - determine if more than one mine is responsible for the exceedance, and if so the relative share of each mine regarding the impact on the land;
      - identify the measures that could be implemented to ensure compliance with the relevant criteria; and
  - (b) give the Secretary and landowner/leaseholder a copy of the independent review.
-

## **SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING**

### **ENVIRONMENTAL MANAGEMENT**

#### **Environmental Management Strategy**

1. The Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
  - (a) be submitted to the Secretary for approval prior to the commencement of any development on the site;
  - (b) provide the strategic framework for environmental management of the development;
  - (c) identify the statutory approvals that apply to the development;
  - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
  - (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 development;
    - receive, handle, respond to, and record complaints;
    - resolve any disputes that may arise;
    - respond to any non-compliance;
    - 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 to be carried out in relation to the development.

#### **Adaptive Management**

2. The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedules 3 and 4. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval 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, to the satisfaction of the Secretary.

#### **Management Plan Requirements**

3. The Applicant shall ensure that the management plans required under this approval 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;
  - (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**

4. By the end of March each year (following the commencement of construction on the site), unless otherwise agreed with the Secretary, the **Applicant** shall review the environmental performance of the development to the satisfaction of the Secretary. This review must:
  - (a) describe the development that was carried out in the previous calendar year, and the development that is proposed to be carried out over the next year;
  - (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the
    - the relevant statutory requirements, limits or performance measures/criteria;
    - the monitoring results of previous years; and
    - the relevant predictions in the EIS;
  - (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.

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

5. Within 3 months of the submission of:
  - (a) the submission of annual review under condition 4 above;
  - (b) the submission of an incident report under condition 6 below;
  - (c) the submission of an audit under condition 8 below; or
  - (d) any modification to the conditions of this approval or MP 05\_0117 (unless the conditions require otherwise),

the Applicant shall review and, if necessary, revise the strategies, plans, and programs required under this approval 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.

*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.*

### **COMPLIANCE**

#### **Incident Notification**

- 6A. The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing and identify the development (including the development application number and name) and set out the location and nature of the incident.

#### **Non-Compliance Notification**

- 6B. Within seven days of becoming aware of a non-compliance, the Proponent must notify the Department of the non-compliance. The notification must be in writing and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply

and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.

**Note:** A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.

### Compliance Reporting

7. The Applicant must provide regular compliance reporting to the Department on the development in accordance with the relevant *Compliance Reporting* requirements (DPE 2018).

### AUDITING

8. Within 18 months of the commencement of construction, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
  - (a) be prepared in accordance with the relevant Independent Audit Post Approval requirements (DPE 2018);
  - (b) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
  - (c) be carried out in consultation with the relevant agencies;
  - (d) assess whether the development complies with the relevant requirements in this consent, and any strategy, plan or program required under this consent; and
  - (e) recommend appropriate measures or actions to improve the environmental performance of the development and any strategy, plan or program required under this consent.
9. Within 3 months of commencing an Independent Environmental Audit, or unless otherwise agreed by the Secretary, a copy of the audit report must be submitted to the Secretary, and any other NSW agency that requests it, together with a response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations.

The recommendations of the Independent Environmental Audit must be implemented to the satisfaction of the Secretary.

### ACCESS TO INFORMATION

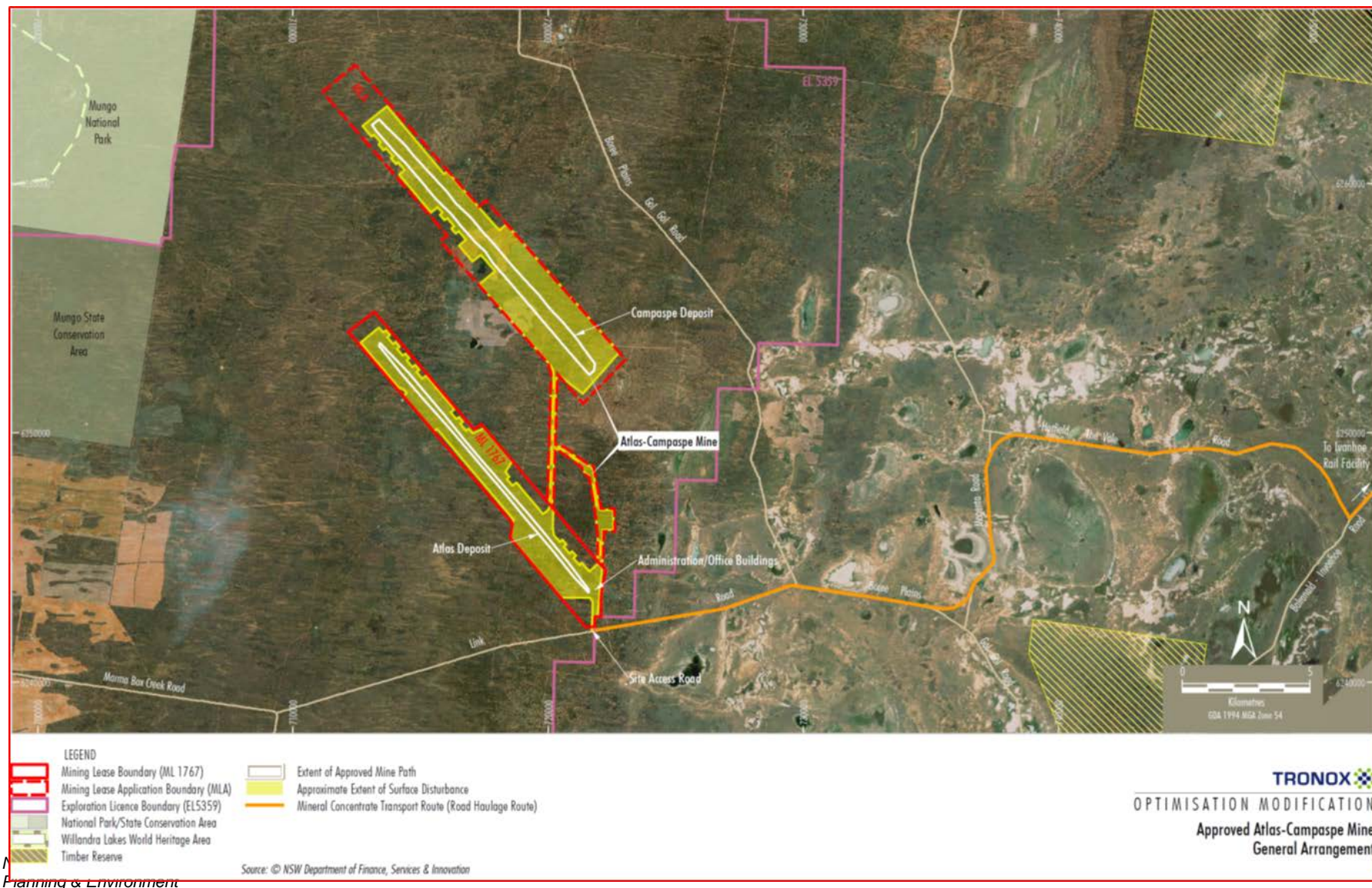
10. The Applicant shall:
  - (a) make the following information publicly available on its website:
    - the EIS;
    - current statutory approvals for the development;
    - approved strategies, plans or programs required under the conditions of this consent;
    - a comprehensive summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent;
    - a complaints register, which is to be updated on a monthly basis;
    - 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
  - (b) keep this information up to date, to the satisfaction of the Secretary.

**APPENDIX 1  
SCHEDULE OF LAND**

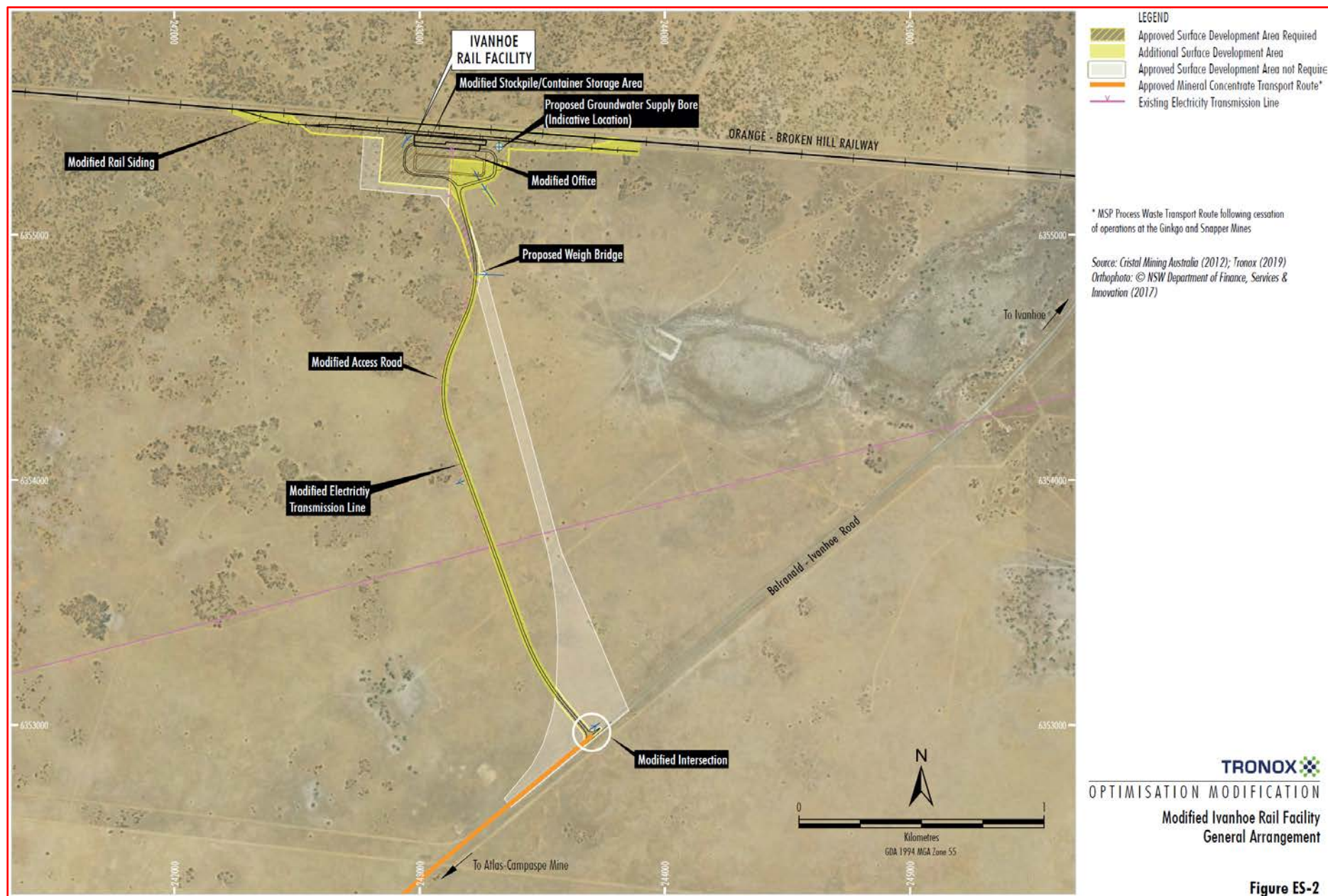
Tenure Type	Leaseholder/Landholder	Lot Number	Deposited Plan Number
Atlas-Campaspe Mine			
Leasehold	Alan John Miles	Part of 616	761603
Leasehold	Anthony Michael and Trudi Lyn Curran	Part of 4727	767893
Leasehold	Minto Glen Pastoral Co Pty Ltd	Part of 613	761600
Leasehold	Minto Glen Pastoral Co Pty Ltd	Part of 614	761601
Leasehold	Back Country Grazing Pty Ltd	Part of 4733	762575
Freehold	Back Country Grazing Pty Ltd	Part of 2	754040
Freehold	Back Country Grazing Pty Ltd	Part of 8	754040
Freehold	Back Country Grazing Pty Ltd	Part of 9	754040
Leasehold	Minto Glen Pastoral Co Pty Ltd	Part of 5792	768691
Leasehold	Minto Glen Pastoral Co Pty Ltd	Part of 1944	763848
Leasehold	Terry Neil Gillbee	Part of 1942	763846
Leasehold	Back Country Grazing Pty Ltd	Part of 3254	765480
Leasehold	Terry Neil Gillbee	Part of 3256	765482
Leasehold	Michael Patrick, Dwaine Damien and Nigel Timothy Scott	Part of 2	793395
Balranald Shire Council or Crown	NA	Other roads located within, between or adjacent to the above parcels of land.	
Ivanhoe Rail Facility			
Leasehold	Richard Darel & Joanne Dee Gates	Part of 931	761988
Crown	Rail Infrastructure Corporation	Part of 4	1145130



## APPENDIX 2 DEVELOPMENT LAYOUT









### APPENDIX 3 HAULAGE ROUTE

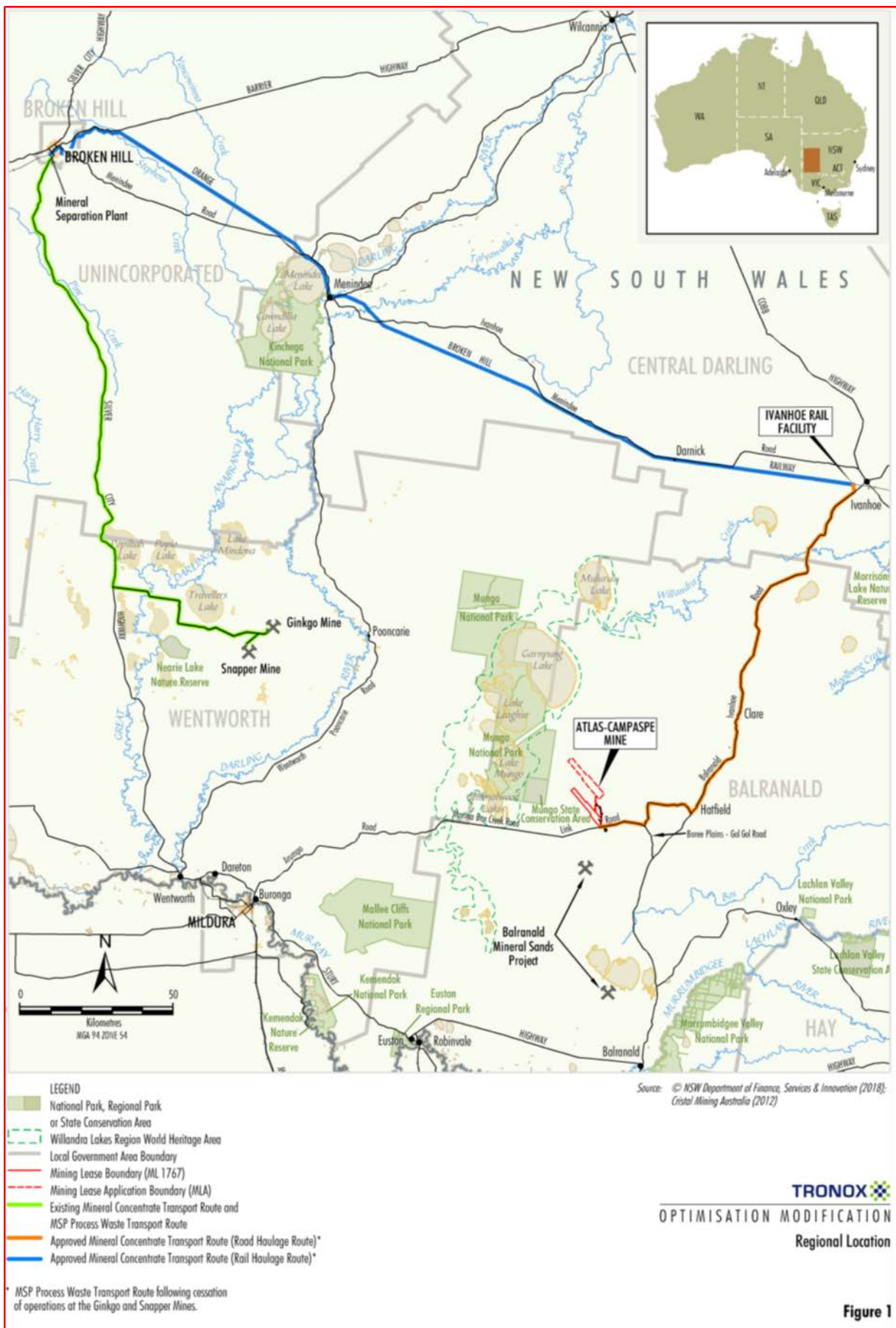
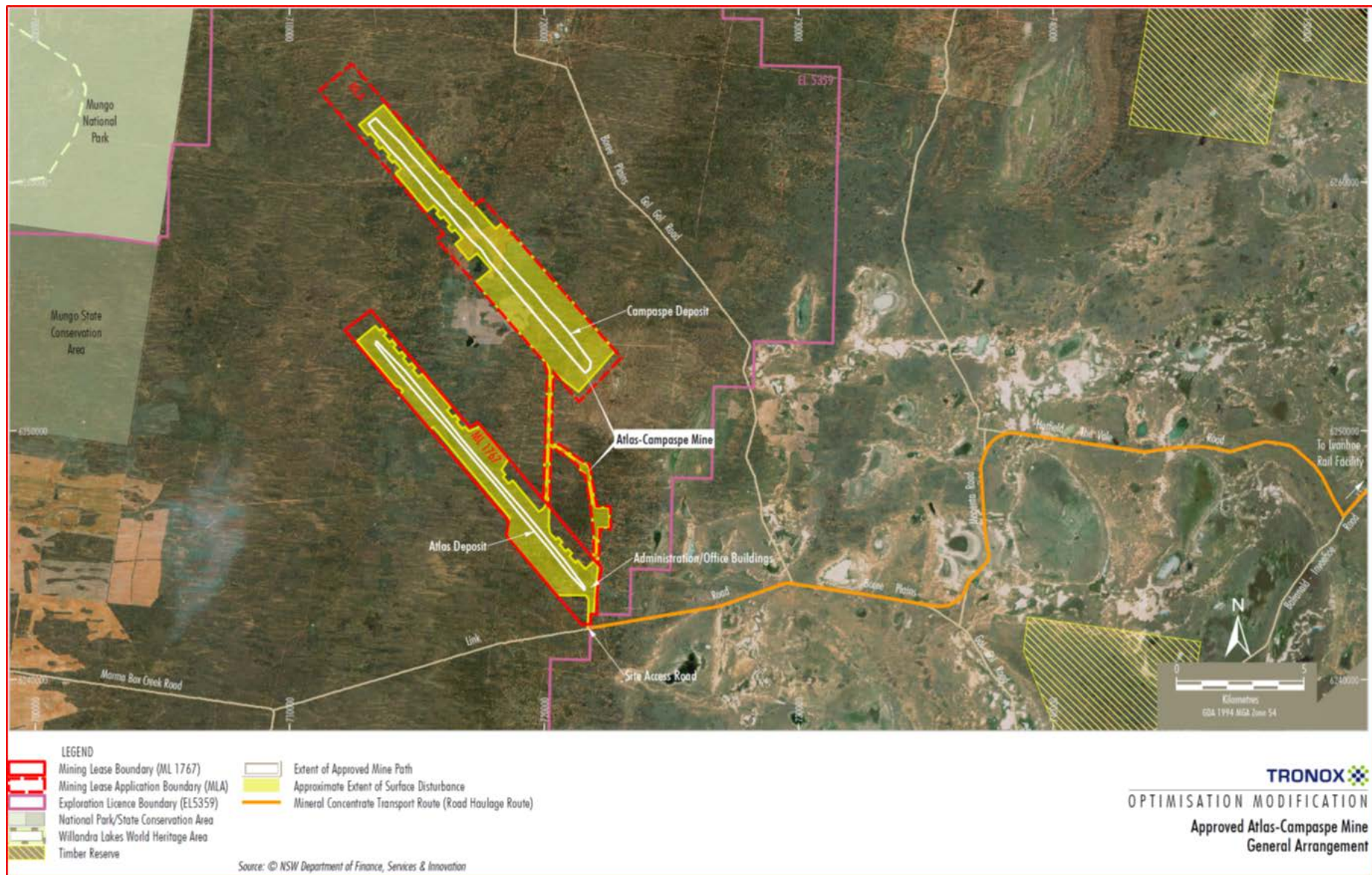
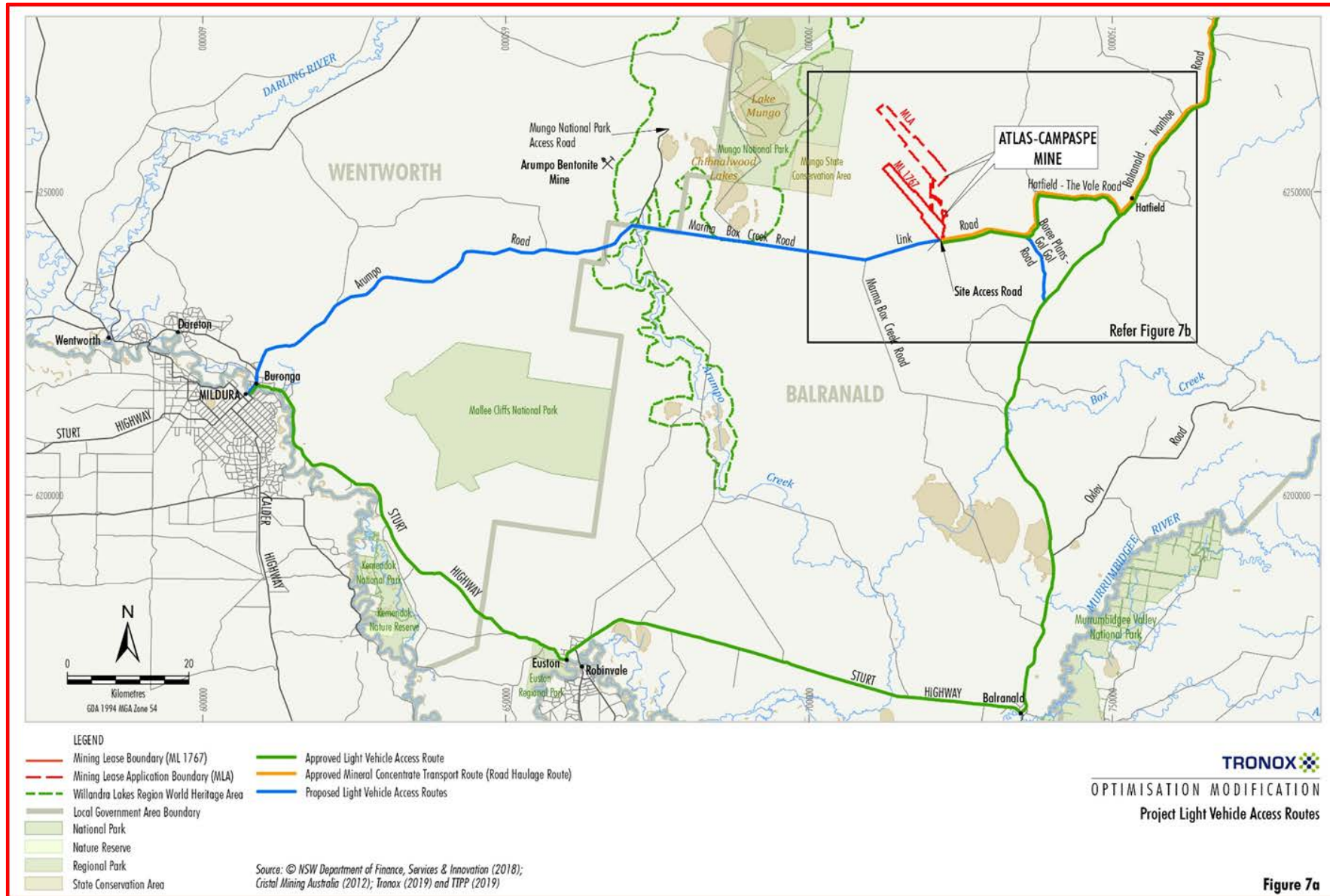


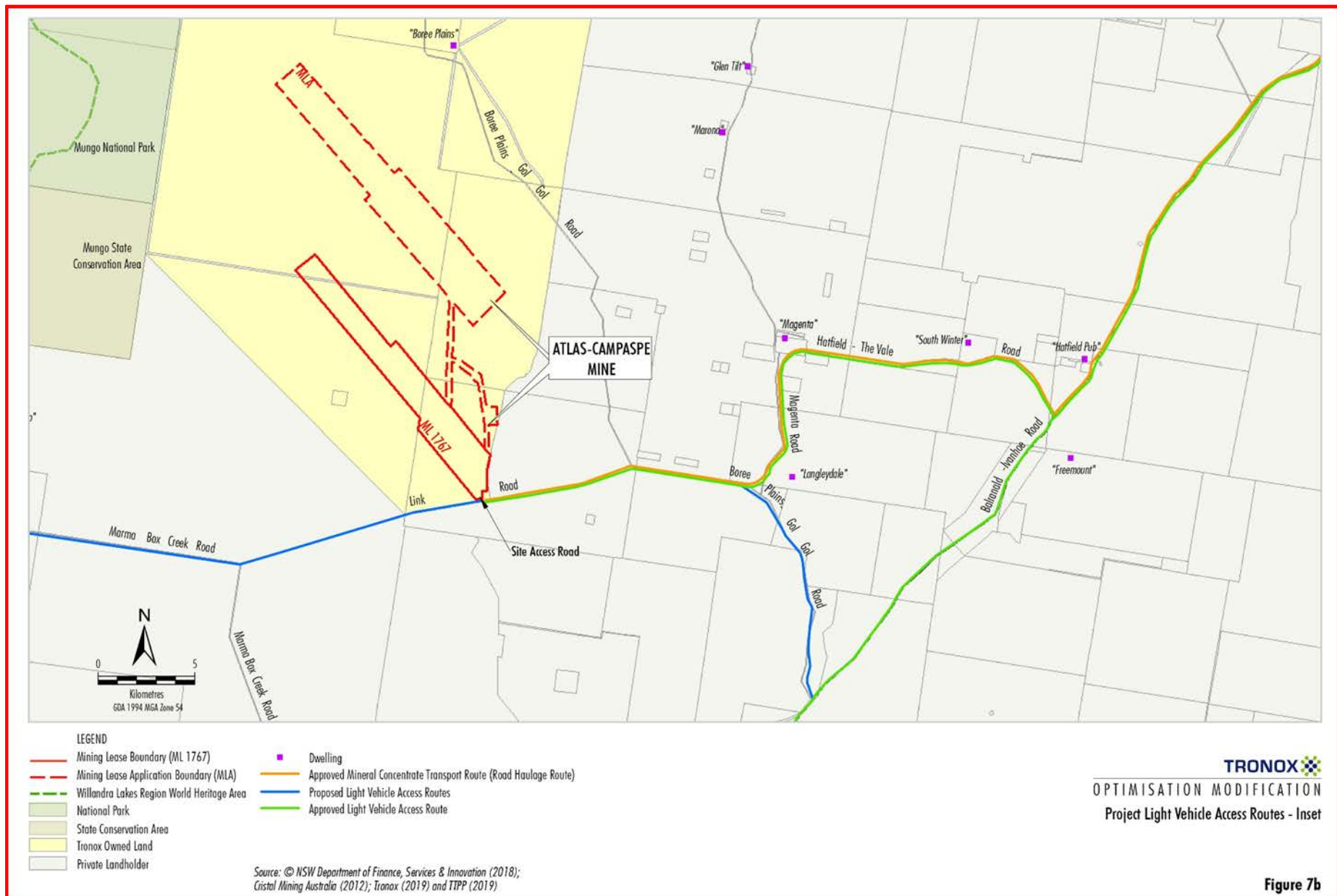
Figure 1





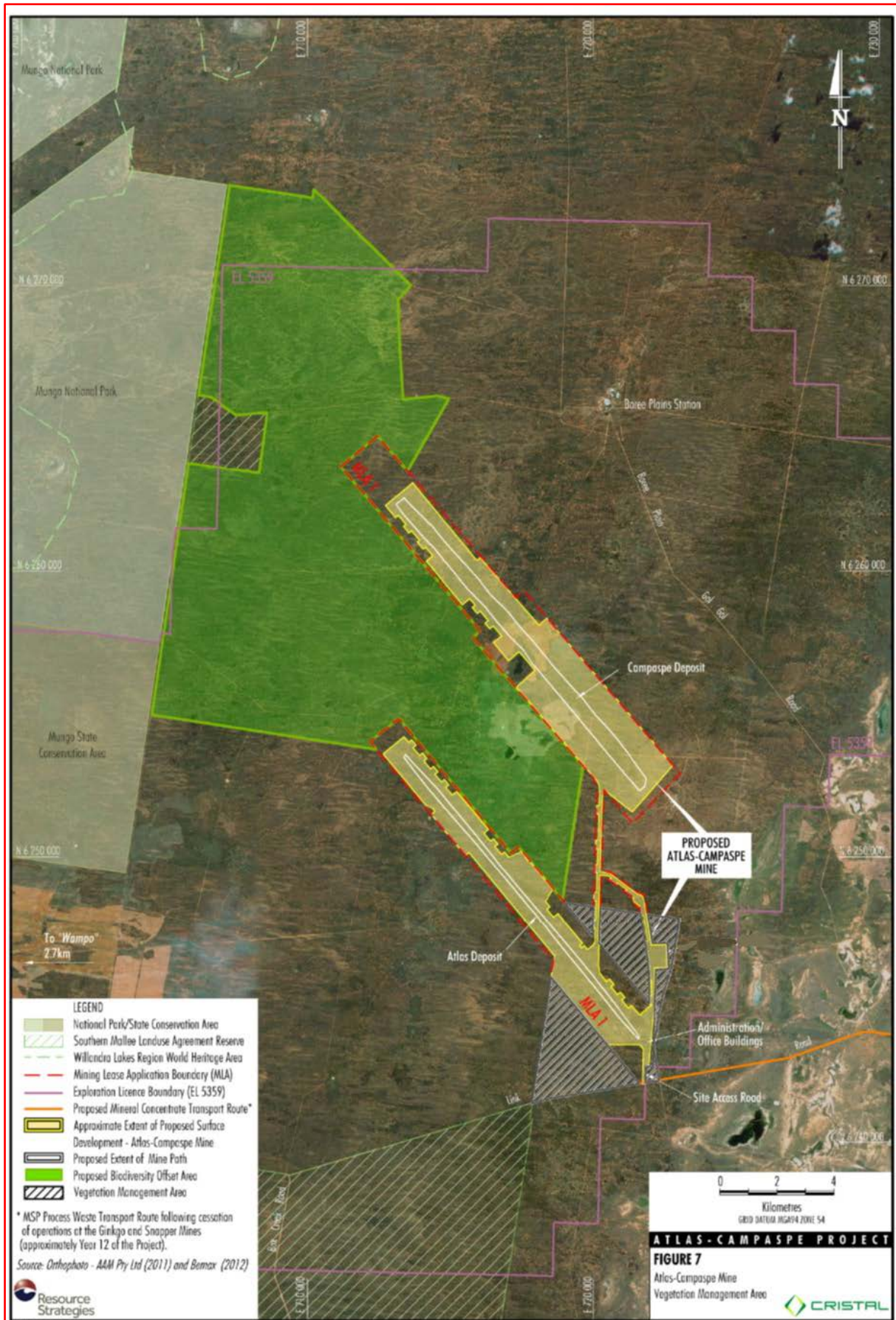
# APPENDIX 3A LIGHT VEHICLE ACCESS ROUTE



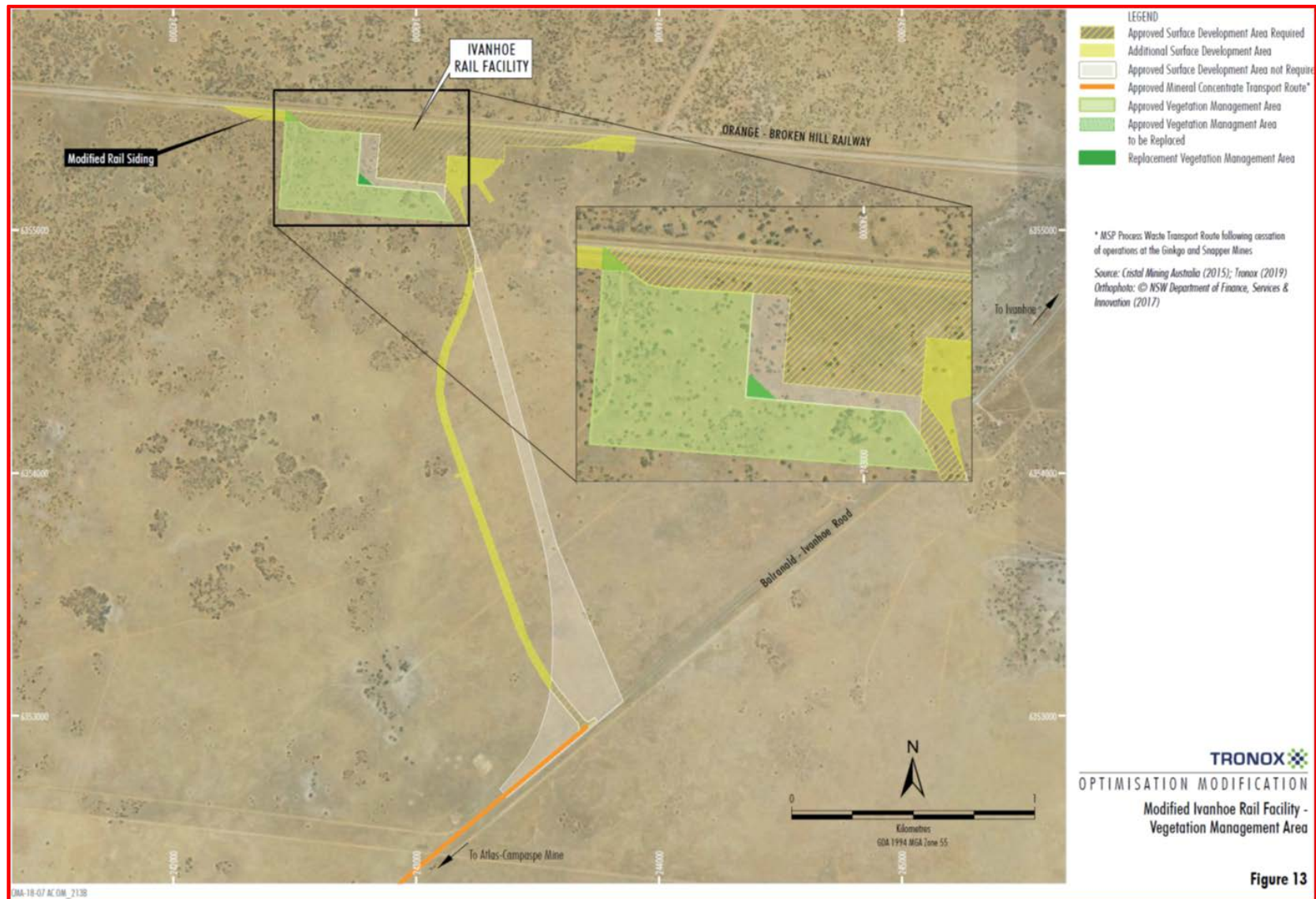




## APPENDIX 4 BIODIVERSITY OFFSET STRATEGY AND VEGETATION MANAGEMENT AREAS

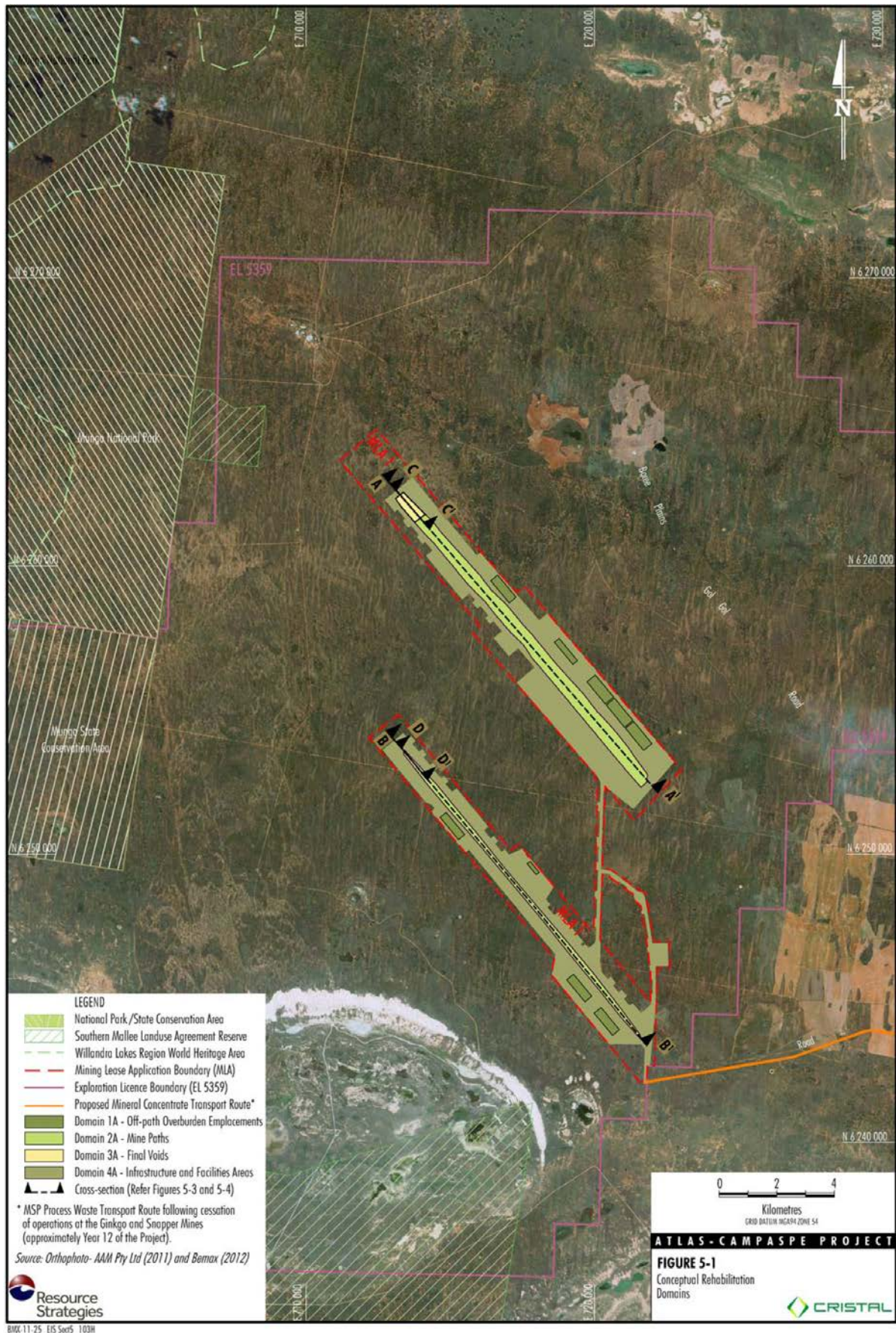








## APPENDIX 5 CONCEPTUAL REHABILITATION STRATEGY



**APPENDIX 6  
THREATENED SPECIES LIST**

<b>Common Name</b>	<b>Scientific Name</b>	<b>BC Act</b>	<b>EPBC</b>
<b>Flora species</b>			
Winged Peppergrass	<i>Lepidium monoplacoides</i>	E	E
Mossy Daisy	<i>Brachyscome papillosa</i>	V	V
Cobar Greenhood Orchid	<i>Pterostylis cobarensis</i>	V	-
<b>Fauna species</b>			
Jewelled Gecko	<i>Strophurus elderi</i>	V	-
Malleefowl	<i>Leipoa ocellata</i>	E	V
Little Eagle	<i>Hieraaetus morphnoides</i>	V	-
Bush Stone-curlew	<i>Burhinus grallarius</i>	E	-
Major Mitchell's Cockatoo	<i>Lophochroa leadbeateri</i>	V	-
Redthroat	<i>Pyrrholaemus brunneus</i>	V	-
Pied Honeyeater	<i>Certhionyx variegatus</i>	V	-
White-fronted Chat	<i>Epthianura albifrons</i>	V	-
Hooded Robin	<i>Melanodryas cucullata cucullata</i>	V	-
Chestnut-backed Quail-thrush	<i>Cinclosoma castanotum</i>	V	-
Varied Sittella	<i>Daphoenositta chrysoptera</i>	V	-
Southern Ningau	<i>Ningau yvonneae</i>	V	-
Yellow-bellied Shearwater	<i>Saccolaimus flaviventris</i>	V	-
South-eastern Long-eared Bat	<i>Nyctophilus corbeni</i>	V	V
Inland Forest Bat	<i>Vespadelus baverstocki</i>	V	-
Little Pied Bat	<i>Chalinolobus picatus</i>	V	-
<b>Endangered Ecological Community (EEC)</b>			
Yarran Shrubland EEC	<i>Acacia melvillei</i> Shrubland	T	-
Sandhill Pine Woodland EEC		T	-



## APPENDIX 7 ROAD MAINTENANCE CONTRIBUTIONS BALRANALD SHIRE COUNCIL

### Haulage route contributions

The Applicant shall make annual contributions to BSC towards the maintenance of the Balranald-Ivanhoe Road (Main Road 67) and applicable local roads on the haulage route within the Balranald LGA in accordance with the amount of material transported on the haulage route. The first annual contribution must be made within 12 months of the date of commencing transport of concentrate from the site, and additional contributions on each anniversary of that date until the cessation of mining operations on the site. Each contribution is to be calculated as follows:

***Applicant's Annual Ongoing Maintenance Contribution (\$) =***

***\$1.36 X Dry Tonne X (F / \$486,806)***

Notes:

- *Dry Tonne = the amount of mineral concentrate and MSP process waste (dry weight) transported along Main Road 67 during the preceding 12 month period.*
- *\$1.36 is a 2013 value, This value shall be indexed annually in accordance with the CPI.*
- *\$486,806 is the total annual maintenance cost for the BSC component of Main Road 67 estimated in 2013 by Tonkin Consulting (2013). This value shall be indexed in accordance with the CPI.*
- *F is the BSC's total annual road maintenance expenditure on the Main Road 67 component of the mineral concentrate transport route under this arrangement as evidenced in BSC records.*
- *The maximum value of F is either \$486,806 or the CPI adjusted equivalent.*
- *The Applicant's Annual Ongoing Maintenance Contribution shall be reviewed five years after the commencement of the transport of mineral concentrate in consultation with the BSC and to the satisfaction of the Secretary.*
- *In the event that there is a dispute between the Applicant and either of the Councils about the implementation of this condition, then either party may refer the matter to the Secretary for resolution.*

### Light vehicle access route contributions

The Applicant must make annual contributions to BSC towards the maintenance of the local roads on the light vehicle access route within the Balranald LGA, generally in accordance with the following procedure:

1. BSC and the Applicant will jointly determine and document:
  - a. the proportion of total traffic using the light vehicle access route that is Project-related; and
  - b. the required maintenance standard for the light vehicle access route.
2. As soon as practicable after the end of each financial year, BSC will provide to the Applicant:
  - a. a detailed schedule of maintenance costs incurred in achieving the agreed maintenance standard on the light vehicle access route in the prior financial year;
  - b. a statement of the amount claimed from the Applicant to contribute to these maintenance costs, including the calculation methodology; and
  - c. a schedule of anticipated maintenance works on the light vehicle access route for the following financial year, and its estimated cost.
3. In the event of any disagreement as to the scope or cost of road maintenance works, the matter shall be referred for independent determination to a suitably qualified and experienced engineer that is acceptable to both parties, whose decision shall be final and binding.
4. The Applicant will pay BSC the determined amount within 60 days of the invoice being issued.

## APPENDIX 8

### ROAD MAINTENANCE CONTRIBUTIONS - CENTRAL DARLING SHIRE COUNCIL

The Applicant shall make annual contributions to CDSC towards the maintenance of Main Road 67 in accordance with the amount of material transported, with the first annual contribution to be made within 12 months of the date of commencement of transport of concentrate, and additional contributions on each anniversary of that date until the cessation of the transport of mineral concentrate on Main Road 67. Each contribution is to be calculated as follows:

***Applicants Annual Ongoing Maintenance Contribution (\$) =***

***\$0.21 X Dry Tonne X (F / \$117,658)***

*Notes:*

- *Dry Tonne = the amount of mineral concentrate and MSP process waste (dry weight) transported along Main Road 67 during the preceding 12 month period.*
- *\$0.21 is a 2013 value. This value shall be indexed annually in accordance with the CPI.*
- *\$117,658 is the total annual maintenance cost for the CDSC component of the Main Road 67 estimated in 2013 by Tonkin Consulting (2013). This value shall be indexed in accordance with the CPI.*
- *F is the CDSC's total annual road maintenance expenditure on the Main Road 67 component of the mineral concentrate transport route under this arrangement as evidenced in CDSC records.*
- *The maximum value of F is either \$117,658 or the CPI adjusted equivalent.*
- *The Applicant's Annual Ongoing Maintenance Contribution shall be reviewed five years after the commencement of the transport of mineral concentrate in consultation with the CDSC and to the satisfaction of the Secretary.*
- *In the event that there is a dispute between the Applicant and either of the Councils about the implementation of this condition, then either party may refer the matter to the Secretary for resolution.*

## **APPENDIX 9 NOISE COMPLIANCE ASSESSMENT**

### **Applicable Meteorological Conditions**

1. The noise criteria in Table 4 of schedule 3 to the conditions are to apply under all meteorological conditions except the following:
  - (a) during periods of rain or hail;
  - (b) average wind speed at microphone height exceeds 5 m/s;
  - (c) wind speeds greater than 3 m/s measured at 10 m above ground level; or
  - (d) temperature inversion conditions greater than 3°C/100 m.

### **Determination of Meteorological Conditions**

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

### **Compliance Monitoring**

3. Unless directed otherwise by the Secretary, quarterly attended monitoring is to be used to evaluate compliance with the relevant conditions of consent.

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

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 from time to time), in particular the requirements relating to:
  - (a) monitoring locations for the collection of representative noise data;
  - (b) meteorological conditions during which collection of noise data is not appropriate;
  - (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; and
  - (d) modifications to noise data collected including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration.

## APPENDIX 10 ABORIGINAL CULTURAL HERITAGE SITES

